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## Research Article

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# A'ingae (Cofán/Kofán) Operators

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**Abstract:** The aim of this paper is to show how the TAME system of A'ingae, a language isolate spoken in Colombia and Ecuador, can be captured within the theoretical framework of Functional Discourse Grammar. An important prediction in this theory is that the surface order of TAME expressions reflects the scope relations between them in their underlying representation. An initial analysis reveals that, with three exceptions, the A'ingae TAME system confirms this prediction. Closer inspection of the three exceptions, which concern basic illocution, evidentiality, and quantificational aspect, then reveals that on the one hand, the theoretical model has to be adapted, while on the other hand some of the A'ingae facts allow for an alternative interpretation.

**Keywords:** A'ingae, TAME-systems, Functional Discourse Grammar, quantificational aspect, reportativity, basic illocution

## 1 Introduction

This paper studies the expression of aspect, tense, mood, evidentiality and related categories in A'ingae. The description is guided by the theoretical framework of Functional Discourse Grammar, especially by the hierarchical, layered approach to operators taken in this approach. The idea that operators are in scopal relationships leads to predictions concerning the combinability and ordering of operators that will turn out to be relevant to the A'ingae system as well. In what follows we will first, in Section 2, briefly introduce the A'ingae language. In Section 3 we then present the operator inventory of A'ingae in descriptive terms. Section 4 provides a brief overview of the FDG approach to operators. In Section 5 we then investigate whether the A'ingae data is consistent with the FDG approach. Several challenges that the A'ingae data poses for the current FDG approach are discussed, and solutions for these are proposed. The paper is rounded off with conclusions in Section 6.

## 2 A'ingae

A'ingae is a language isolate spoken in Colombia (provinces of Putumayo and Nariño) and Ecuador (province of Sucumbios). According to UNESCO (Moseley ed. 2010) there were 379 speakers in Colombia in 2008 and 700 speakers in Ecuador in 2002. The endonymic glottonym is *A'ingae* (a'i=ngae 'person=MANN', "in the manner of the people"), the Spanish-based *Cofán/Kofán* is the exonymic glottonym. A grammar sketch is provided in Fischer & Hengeveld (forthc.), a full grammar is in preparation (Hengeveld & Fischer in prep.).

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A few basic properties of the language are presented in this section so as to facilitate the interpretation of the data in the remainder of this article, with a special focus on the orthography and the phonological system it represents.

As far as syntax is concerned, A'ingae is a nominative-accusative language. Its constituent order is strictly SOV in subordinate clauses, but highly variable in main clauses, in which constituent order is guided by pragmatic principles. A further dominant property of A'ingae is its extensive use of cosubordination, in which strings of clauses are combined into sentential paragraphs, that are often connected through tail-head linkage.

In its morphology A'ingae shows the extensive use of clitics, more than 40 of which have been identified. These clitics can be subdivided into three groups: those that occur in the second position of the clause, those that attach to predicate phrases, and those that attach to noun phrases. Another notable property of A'ingae morphology is its regularity (see Hengeveld & Fischer 2018), with allomorphs being attested in the case of only one morpheme.

A'ingae has 27 consonants and 10 vowels, shown in Tables 1 and 2. Among the consonants are series of prenasalized stops and affricates, that denasalize in word-initial position, and series of aspirated stops and affricates. In the vowel system parallel oral and nasal series occur. Nasalization, of both vowels and consonants, is pervasive in A'ingae.

**Table 1. Consonants**

	Bilabial	Labio-dental	Alveolar	Post-alveolar	Palatal	Velar	Glottal
Plosive – voiceless	/p/		/t/			/k/	/ʔ/
Plosive – aspirated	/p <sup>h</sup> /		/t <sup>h</sup> /			/k <sup>h</sup> /	
Plosive – prenasalized	/ <sup>n</sup> mb/		/ <sup>n</sup> d/			/ <sup>n</sup> g/	
Fricative		/f/	/s/	/ʃ/			/h/
Affricate – voiceless			/ts/	/tʃ/			
Affricate – aspirated			/ts <sup>h</sup> /	/tʃ <sup>h</sup> /			
Affricate – prenasalized			/ <sup>n</sup> dʒ/	/ <sup>n</sup> dʒ/			
Nasal	/m/		/n/		/ɲ/		
Flap			/r/				
Approximant		/ʋ/			/j/	/ɥ/	

**Table 2. Vowels**

Oral	Front	Central	Back	Nasal	Front	Central	Back
Close	/i/	/ɨ/		Close	/ĩ/	/ĩ/	
Close-mid			/ʊ/	Close-mid			/õ/
Open-mid	/ɛ/			Open-mid	/ẽ/		
Open		/a/		Open		/ã/	

The orthography adopted in this paper is the one agreed upon in the A'ingae-speaking community in Ecuador, which differs slightly from the one used in Colombia. In this orthography, nasal vowels are represented by adding an <n> to the representation of the oral vowel, except when this vowel is followed by a nasal or prenasalized consonant, in which case the <n> is dropped. Furthermore, diphthongs are always completely oral or nasal, but in the last case nasalization is shown only once by adding an <n> to the diphthong as a whole. Aspiration is shown by adding an <h> to the aspirated consonant. Taking these rules as well as the nasalization processes mentioned above into account, the orthographic manifestations of the different phonemes are as shown in Tables 3 and 4.

**Table 3.** *Consonants – orthography*

/p/	<p, mb>	/ <sup>n</sup> g/	<ng>	/ <sup>n</sup> dz/	<nz, z>
/p <sup>h</sup> /	<ph>	/f/	<f>	/ <sup>n</sup> dʒ/	<ndy, dy>
/t/	<t, nd>	/s/	<s>	/m/	<m>
/t <sup>h</sup> /	<th>	/ʃ/	<sh>	/n/	<n>
/k/	<k>	/h/	<j>	/ɲ/	<ñ>
/k <sup>h</sup> /	<kh>	/ts/	<ts>	/r/	<r>
/ʔ/	<'>	/tʃ/	<ch>	/v/	<v, m>
/ <sup>m</sup> b/	<mb, b>	/ts <sup>h</sup> /	<tsh>	/j/	<y, ñ>
/ <sup>n</sup> d/	<nd, d>	/tʃ <sup>h</sup> /	<chh>	/ɥ/	<g>

**Table 4.** *Vowels – orthography*

/i/	<i, in>	/ĩ/	<in, i>
/i/	<û, ûn>	/ĩ/	<ûn, û>
/u/	<u, un>	/ũ/	<un, u>
/ɛ/	<e, en>	/ẽ/	<en, e>
/a/	<a, an>	/ã/	<an, a>

## 3 Operators in A'ingae

### 3.1 Introduction

In this section the inventory of operators in A'ingae is presented by semantic domain. We will discuss localization (3.2), aspect (3.3), tense (3.4), mood (3.5), polarity (3.6), and evidentiality (3.7). Section 3.8 then provides an overview of the system as a whole, paying special attention to co-occurrence restrictions between operators and to their ordering in A'ingae.

### 3.2 Localization

The category of localization has two subcategories: directionality and event location.

Directionality is expressed in A'ingae by the cislocative and the translocative suffixes. The cislocative suffix *-ngi* is used to indicate movement in the direction of the speaker, the translocative *-nga* to indicate movement away from the speaker. Examples (1)-(4)<sup>1 2 3</sup> illustrate the use of these suffixes.

<sup>1</sup> Most examples in this chapter are taken from the data collected by Rafael Fischer between 2001 and 2006 in the villages of Dureno, Zábalo and Sinangoe in Ecuador. These data are coded in the following way: Date of recording– Abbreviations of names of speakers involved – Topic– Time code/line number. Additional examples are taken from legends told by Enrique Criollo and presented in Borman (1990). These data are coded by the abbreviation 'BC' followed by the legend number and the line number within the legend. Some further examples are taken from the earlier publications on A'ingae by M.B. Borman mentioned above and are then referenced in the regular way. When an example was obtained in elicitation this is indicated by means of the abbreviation 'elic.'

<sup>2</sup> Note that A'ingae has two accusative markers: the second accusative (acc2) is used for undergoers that do not (yet) exist or are not (yet) present, the first accusative (acc1) is used elsewhere.

<sup>3</sup> It is important to note that in A'ingae much information can remain unexpressed when contextually given. Hence the translations in some cases have to rely on the context in which the example sentence was produced. Similarly, A'ingae does not express the opposition between past en present in its verbal system. The translations rely on the original context in this respect too.

- (1) I-**ngi**=pa ke kun'sin sanja=ma an=ja.  
 carry-CIS=SS 2.SG woolly.monkey smoke=ACC1 eat=IMP  
 'Come and get your smoked monkey meat and eat it!' (BC13.074)
- (2) I-**nga**=pa fûesû-si='u=ma=ta afe='ya.  
 carry-TRANS=SS other-SHAPESPINE=AUG=ACC1=NEW give=ASS  
 'He went and got the other clothes and handed them over.'  
 (20060119-AnC-Consiana-01-0356.152)
- (3) Jinge tû'i ju'-**ngi**-ye.  
 HORT tomorrow sow-CIS-INF  
 'Let's come to sow tomorrow.' (20060119-AnC-Consiana-02-0028.5)
- (4) Tse=tsû thûse-**nga**.  
 then=3 call-TRANS  
 'Then he went to call (her).' (20040306-AC-01-Pajiisune-0143.905)

In examples (1) and (2) the directional suffixes are combined with the same movement verb *i* 'bring/take' and specify the direction of movement. In examples (3) and (4) the verbs themselves do not express movement, but the suffixes add a movement component to their meaning.

The translocative suffix *-nga* may also be used to indicate event location. In this use it indicates that the event occurred at a place removed from the reference location. An example is given in (5).

- (5) Kathû-je-**nga**=ni=nda tise dûtshi'ye=ndekhû ichuru'chu=ma  
 clear-IPFV-TRANS=LOC=NEW REFL child=humpl gourd.bowl=ACC1  
 pûvi-a=mba khusha changu jin-'thi.  
 roll-CAUS=SS drum hole exist-LOCNR  
 'While she was away clearing the field, her children, having turned a gourd bowl upside down, were drumming on it near the hole.' (BC08.009)

A comparable event-locating of the cislocative suffix *-ngi* has not been observed.

### 3.3 Aspect

#### 3.3.1 Introduction

There are many aspectual operators in A'ingae. Some of these are qualificational in nature, and are discussed in Section 3.3.2. Others express quantification and are presented in Section 3.3.3. For the distinction between qualificational and quantificational aspect see Dik (1997).

#### 3.3.2 Qualificational aspect

In order to express qualificational aspect four suffixes are used. The first is the imperfective marker *-je(n)*, which may be used to express habitual (see Section 3.3.3) and progressive aspect. The latter use is illustrated in (6) and (7).

- (6) Tuya=tsû uya-**je** tsa='ma.  
 still=3 move-IPFV ANA=FRT  
 'But it's still moving.' (20040202-FASC-Panzaye-3-066)

- (7) Dûse-an-**je**=ni=nda      dû'shû=ndekhû athe=fa.  
hang-CAUS-IPFV=LOC=NEW child=HUMPL watch=PLS  
'When he was hanging them there, the young men saw it.' (BC02.027)

The second suffix expressing qualificational aspect is the preculminative marker *-ji(n)*. Its interpretation depends on the dynamicity of the predicate with which it combines. When combining with a dynamic predicate, it expresses the process leading up to the completion of the event (8). When it combines with a stative predicate, it expresses the process leading up to the state. In (9), for instance, it expresses the process that led up to the subject's being thin.

- (8) Pan thûthû-**ji** kuse anthe='fa.  
nearly fell-PRECUL night stop=PLS  
'When it was nearly felled, it was night, and they stopped.' (BC03.003)
- (9) Kûñu-**jin**.  
thin-PRECUL  
'She grew thin.' (BC19.092)

The third suffix expressing qualificational aspect is the *prospective* aspect marker *-yi/ñi*. This suffix is unproductive as it only combines with the verb *ja* 'go', both when used as a lexical verb, as in (10), and when used as an auxiliary, as in (11). Note that in (11) the prospective receives a purposive interpretation.

- (10) Si'tsi=ve      ja-**yi**.  
firewood=ACC2 go-PROSP  
'I'll go for firewood.' (BC24.008)
- (11) Tsun=si    sepakhue andû~:    ansûnde-ye    sefakhu=ni    ja-**yi**=ya.  
do=DS    behind    carry~DUR go.up-INF    sky=LOC    go-prosp=IRR  
'So she started carrying (her stuff) behind them to go up to the sky.'  
(001-04-03-LC-Unfendyu'ndyu-062)

Another way of expressing prospective aspect is by using an auxiliary construction that consists of the infinitival form of the main verb and the auxiliary verb *tsun* 'do', inflected for imperfective aspect. This is illustrated in (12) and (13).

- (12) Kashe'ye=ta    pa-**ye**    **tsun**-je='ya.  
old.man=NEW die-INF do-IPFV=ASS  
'The old man was about to die.' (20040215-03-LC-Unfendyu'ndyu-023)
- (13) Ku'i-**ye**    **tsun**-je.  
drink-INF do-IPFV  
'He was going to drink it.' (BC09.042)

The last suffix expressing qualificational aspect is *-tshi* 'QUAL'. This suffix derives a quality meaning from the predicate it attaches to. This may be the quality resulting from the event described by a dynamic predicate, as in (14) and (15). When attached to a stative predicate, no resultative meaning is implied, as in (16) and (17), where the clitic just supports the predicative use of the lexeme it is attached to.

- (14) Khûi=ta      mûtsinu~:-**tshi**=te    khûi='ya.  
lie.down=NEW rotate~DUR-QUAL=RPT lie.down=ASS  
'It is said that he laid down rolled over, laid down.'  
(20060104-AQ-Matachi-0166.962)

- (15) Nane phû'chu-**tshi**=a pûshesû=te nane.  
surely fatten-QUAL=ADJR woman=RPT surely  
'It is said that she surely is a chubby woman.'  
(20060119-AnC-Consiana-01-0286.702)
- (16) Tse=ni ñu-**tshi** kan'jen-ye.  
ANALOC=LOC good-QUAL live-INF  
'There it was good to live.' (BC08.065)
- (17) A'i tsu'fe thuthu-**tshi**.  
person eye white-QUAL  
'Men's eyes are white.' (BC09.031)

### 3.3.3 Quantificational aspect

A'ingae has grammatical means to express a large number of distinctions pertaining to the category of quantificational aspect.

Vowel lengthening, which isn't otherwise contrastive, is used to express durative aspect, as shown in (18) and (19).

- (18) lsû=pa si'vu~: dyai.  
take=SS twist~DUR sit  
'He sat twisting and twisting string.' (BC09.029)
- (19) Findi~: anga pa'khu ai'vu findi.  
encircle~DUR proceed all body encircle  
'Encircling and encircling, it wrapped her whole body.' (BC14.027)

Iterative aspect can be expressed in two different ways. In the first the suffix *-ñakha* is added to the verb stem, as illustrated in (20) and (21).

- (20) Tise pûshe thatha-**ñakha** ja-yi.  
3.SG woman search-ITER go-PROSP  
'His wife went searching and searching for him.' (BC19.079)
- (21) Khashi-**ñakha**=mbi=ta akhia=te setaen-**ñakha** shundûsû'chu=ma  
wash-ITER=NEG=NEW just=RPT sing-ITER penis=ACC1  
pisa-**ñakha** pisa-**ñakha** anga~:.  
press-ITER press-ITER carry  
'When they weren't washing it they'd be just singing and proceeded to pinch and pinch his penis together.' (BC15.093)

Another way of expressing iterativity is the reduplication of (part of) the verbal stem, as in (22) and (23).

- (22) Uchhi-**chhi**=pa ru'nda.  
knock~ITER=SS wait  
'He knocked and waited.' (20040215-03-LC-Unfendyu'ndyu-020)

- (23) Ingi=ma=tsû iñen=e atûi~**tûi**=’fa=ya.  
 1.PL=ACC1=3 hurt=ADVR chop~ITER=PLS=IRR  
 ‘They are going to chop us up painfully.’ (20040215-03-LC-Unfendyu’ndyu-028)

The same strategy is also used to indicate that there are multiple undergoers involved in a state of affairs, as shown in (24) and (25).

- (24) Fûefayi a’ta uma’khu=ma ankan~**ka-en**=’fa.  
 five day palm.spear=ACC1 hold.on~ITER-CAUS=PLS  
 ‘For five days they made spears.’ (BC12.045)

- (25) Kata=pa fithi~**thi**.  
 cast=SS kill~ITER  
 ‘He cast and killed them.’ (BC12.102)

Note that this strategy seems to be lexicalized to a large extent, in the sense that some verbs only occur in reduplicated form.

The imperfective suffix *-je(n)* does not only express progressive aspect, as shown in Section 3.3.2, but also expresses habituality, as exemplified in (26) and (27).

- (26) tsa=’ma=tsû a’i=ma paji=si se’je=pa khûsha-en-**jen**.  
 ANA=FRT=3 person=ACC1 ill=DS cure=SS recover-CAUS-IPFV  
 ‘But when the people are ill, he cures them.’ (20040218-EC-Interview-113)

- (27) Tsun=si=gi sarûpa=ma isû-**je**=’fa=’ya.  
 do=DS=1 clothes=ACC1 get-IPFV=PLS=ASS  
 ‘This is how we used to get clothes.’ (20040218-EC-Interview-147)

In order to indicate that an event took place during a short period of time the diminutive aspect suffix is used. This is illustrated in (28) and (29). The same form is also used as a clitic to mitigate imperatives (see Section 3.5.3).

- (28) Dyo-**kha**=pa anthe.  
 fear-DIM=SS let.go  
 ‘I was afraid for a moment and let it go.’ (20040202-FASC-Panzaye-1-036)

- (29) Jinge ru’nda-**kha**-ye.  
 HORTwait-DIM-INF  
 ‘Let’s wait a little bit.’ (20040202-FASC-Panzaye-3)

Habitual and negative habitual aspect may be expressed through periphrastic constructions based on habitual and negative habitual adjectival participles, used predicatively in a non-verbal predication. This can be inferred from the fact that the participles can be used as attributes within noun phrases, as shown in examples (30) and (31) for a headless and a headed noun phrase respectively. This shows that these forms are non-verbal in nature.<sup>4</sup>

- (30) atesian=**khesû**  
 teach=HAB  
 ‘(things) that are taught’ (20060118-LM-2-02-0204.761)

<sup>4</sup> Note that when used with transitive predicates the resulting participles are passive in nature.

- (31) atesû=**masia** a'i  
 know=NEGHAB person  
 'ignorant people' (20050701-MA-Letter-2-040)

When used predicatively, these participles behave like other non-verbal predicates in terms of the grammatical categories that they may carry, and express (negative) habituality at the clausal level, as shown in (32) and (33).

- (32) Ja'ñu in'jan-je='fa Chiga tsa='ka=en ji=**khesû**.  
 now think-IPFV=PLS God ANA=CMP=ADVR come=HAB  
 'Now they understand God comes like that.' (BC25.044)
- (33) Je'nda kûti'chu kuku=ta=ti tsa='ka=en fi'thi=**masia** tsa=ja.  
 then tree devil=NEW=INT ANA=CMP=ADVR kill=NEGHAB ANA=CONTR  
 'Then the yachapo demon is not killed like that?'  
 (20040218-EC-Interview-0429.314)

Finally, habituality can also be expressed by a same subject verb form in =*pa* followed by the auxiliary *kanse* (which in its lexical use means 'live', 34), or by an infinitive in *-ye/-ñe* followed by the auxiliary verb *atesû* (which in its lexical use means 'know', 35). The latter may also be used as an auxiliary expressing acquired ability (see Section 3.5.2).

- (34) Tsa='ka=en =tsu ji=**pa** **kanse**='fa='ya,  
 ANA=CMP=ADVR=3 come=SS live=PLS=ASS  
 'That's how they used to come here.' (20060118-MM-2-0237.799)
- (35) Je'nda pûshesû=ndekhû=khe=ti setha'pue-**ñe** **atesû**='fa.  
 then woman=humpl=ADD=INT sing-INF know=PLS  
 'So the women too used to sing?' (20060118-BM-Interview-2497.032)

### 3.4 Tense

Absolute tense distinctions are not made in the grammar of A'ingae. Rather, the language uses a realis-irrealis system that is modal in nature and will be further discussed in Section 3.5.2. Here it will suffice to mention that when reference is made to the future the irrealis mood is used (36), while when reference is made to the past and the present the (unmarked) realis is used (37). Whether reference is made to the past or the present can only be derived from the context.

- (36) Feña=mba=tsû ja-nga='fa=**ya**.  
 laugh=SS=3 go-TRANS=PLS=IRR  
 'They will leave laughing.' (20060118-LM-2-0316.279)
- (37) Indi=pa=te pisa kani-an='fa=**Ø**.  
 hold=SS=RPT press.down enter-CAUS=PLS=REAL  
 'It is said that they grabbed him and pushed him under the water.'  
 (20060104-AQ-Matachi-0076.409)

Similarly, relative tense is not expressed directly in A'ingae, though it is implied in several subordinating morphemes. The converb construction created with the clitic =*in* in (38) implies simultaneity, the infinitive (39) implies posteriority, and the same (40) and different (41) subject co-subordinators imply anteriority

with respect to the main verb.<sup>5</sup> In all cases the temporal relation holds with respect to a temporal reference point established in the context.

- (38) Paña=mba anthe=pa butho=**in** ji tsa'o=ni.  
hear=SS stop=SS run=SIM come house=LOC  
'She heard it, stopped, and came running to the house.' (BC08.023)
- (39) Sombo-en-**ñe**=tsû injenge.  
emerge-CAUS-INF=3 important  
'It's important to get it out.' (20040202-FASC-Panzaye-2 -010)
- (40) Biani ja=**pa** aña'chu san='sû ja=**pa**=te shipare=nga khûkhû-ye.  
far go=SS food dry=ATTR go=SS=RPT manta.ray=DAT sting-PASS  
'They say that having gone far, having gone for dried meat, he was stung by a manta ray.' (20060118-MM-2-0054.384)
- (41) Afe=**si** dû'shû=ja shunchhankan='fa='ya.  
give=DS child=CONTR smell=PLS=ASS  
'When it had been given to them, the children sniffed it.' (20040218-EC-Interview)

## 3.5 Mood

### 3.5.1 Introduction

The term mood covers both modal and illocutionary distinctions (see Hengeveld 2004 for an overview). In the following sections modality is discussed first, followed by illocution.

### 3.5.2 Modality

Only few modal markers can be found in A'ingae. This may be due to the fact that the irrealis clitic *-ya* (and its allophone *-ña*) mentioned above covers many different modal distinctions. The examples in (42)-(44) show some of these.

- (42) Tsa='ma=ndi=ki sumbu-e=**ña** tse='thi=ye=ja  
ANA=FRT=INT=2 emerge-CAUS=IRR ANALOC=LOCnr=ELAT=CONTR  
'Can you get it out of there?' (20040202-FASC-Panzaye-3-011)
- (43) Tsa='ka=en=ne tsandie=ve me'io=**ya**.  
ana=CMP=ADVR=ABL man=ACC2 NEGP=IRR  
'That may be the reason that there were no men.' (20040215-03-LC-Unfendyu'ndyu-005)
- (44) Me'i ña pûshe=**ya**=mbi=gi.  
no 1.SG marry=IRR=NEG=1  
'No, I can't marry.' (BC15.009)

In these examples the irrealis expresses facultative and epistemic modality. No examples have been encountered so far in which the irrealis expresses deontic modality.

<sup>5</sup> Note that in (40) the dative is used to mark the agent in the passive construction.

The irrealis clitic may have more than one state-of-affairs in its scope. This is illustrated in (45).<sup>6</sup>

- (45) Na'e=me da=ni=khe a'i akhi=pa jakan=ya.  
 river=ACC2 become=LOC=ADD person pole=SS travel=IRR  
 'If we become rivers, people will travel poling their canoes over us.' (BC08.040)

Both the event of poling and the event of travelling are situated in irrealis in this sentence.

There are two modal auxiliaries, both used to express facultative participant-oriented modality, and both combine with the infinitive, as shown in (46) and (47). *Atesû* 'know' in (46) expresses acquired ability, *usha* 'be able' in (47) intrinsic ability. As shown in Section 3.3.3, *atesû* is also used as an auxiliary expressing habitual aspect, again in combination with the infinitive.

- (46) Avûja-ye atesû='chu tayupi=sû a'i.  
 pray-INF know=SUB former=ATTR person  
 'People from the past knew how to pray.' (BC24.051)
- (47) Tsu'fe tshan=si athe-ye usha=mbi.  
 eye blind=DS see-INF can=NEG  
 'They blinded my eyes and I cannot see.' (BC02.038)

Finally, there is a periphrastic construction expressing participant-oriented deontic modality. This is a non-verbal predication in which the predicate is a headless relative clause using the subordinator =*chu*, which contains a verb marked for irrealis mood. This is illustrated in (48) and (49). In both cases the obligation involved rests on a particular participant, the parents in (48) and the man in (49).

- (48) Kitsa=ndekhû=khe=ti tisû tsa'u=ni kukama=ngae afa-je=ya='chu.  
 father=humpl=ADD=INT REFL house=LOC Spanish=MANN speak-IPFV=IRR=SUB  
 'Should the parents speak Spanish at home?' (20060118-LM-2-0246.062)  
 'Are the parents (the ones) to speak Spanish at home?'
- (49) Tsa khûsha=ya='chu.  
 ANA recover=IRR=SUB  
 'That man had to repair it.'  
 'That man was (the one) to repair it.'

### 3.5.3 Illocution

Seven different basic illocutions can be expressed in A'ingae, using a variety of expression formats. A second position clitic is used to express polar interrogatives; clitics attaching to the predicate express the imperative, prohibitive, and mitigated imperative; another predicate clitic, in a more peripheral position, expresses the assertive; in content questions there is always an ignorative word in the initial position of the sentence; and a special sentence-initial HORTative particle triggering the infinitival form of the verb marks HORTative sentences. Examples (50)-(56) illustrate these sentence types.

- (50) *Assertive*  
 Tisû tsa'u=ni anga='ya.  
 REFL house=LOCcarry=ASS  
 'He took them to his house.' (20060119-AnC-Consiana-01-0157.705)

<sup>6</sup> The locative marker =*ni* is used to indicate that the subject of the main clause is different from the one of the conditional clause.

- (51) *Imperative*  
 Ña=mbe tsa'u-en='fa=**ja**.  
 1.SG=DAT house-CAUS=PLS=IMP  
 'Make a house for me!' (20040218-EC-Interview-080)
- (52) *Prohibitive*  
 Ke'i kha=ni ja='fa=**jama**.  
 2.PL other=LOC go=PLS=PROH  
 'Don't you go anywhere!' (20040215-01-LC-Tetetene-040)
- (53) *Mitigated Imperative*  
 Injan=**kha**.  
 think=MITIMP  
 'Be careful!' (20040202-FASC-Panzaye-2-075)
- (54) *Yes/no-Interrogative*  
 Tse=ni=ngae=**ti** ja.  
 ANALOC=LOC=MANN=INT go  
 'Did it go that way?' (20040202-FASC-Panzaye-3-020)
- (55) *Content Interrogative*  
**Majan**=tsû anga.  
 IGNAN=3 carry  
 'Who carried it?'
- (56) *Adhortative*  
**Jinge** juva=nga ja=**ye**.  
 HORT DIST=DAT go-INF  
 'Let's go over there.' (20040215-03-LC-Unfendyu'ndyu-037)

### 3.6 Polarity

A'ingae uses two different strategies to express negation. The first involves a negative predicate based on the root *me'/me'i* 'no', the second the predicate clitic =*mbi* 'neg'.

Negative predicates are formed by combining the negative particle *me'/me'i* 'no' with one of the quality clitic =*tshi*, the augmentative clitic =*u(n)*, or the subordinator clitic =*chu*, thereby creating a non-verbal predicate, as can be seen from the fact that it cannot be inflected for qualitative aspect and localization. This negative predicate is then used in the expression of negative existentials, as shown in (57).

- (57) Tsa='ka=e=ne tsandie=ve **me'i='u=ña**.  
 ANA=CMP=ADVR=ABL man=ACC2 NEGP=AUG=IRR  
 'That must be why there weren't any men.' (20040215-03-LC-Unfendyu'ndyu-005)

A second use is to express negative possession as shown in (58).

- (58) Convenio=ve **me'i='chu='fa='ya**.  
 covenant=ACC2 NEGP=SUB=PLS=ASS  
 'We do not have a covenant.' (20060118-LM-2-0517965)

Negative existential clauses such as the one in (57) are pseudo-transitive in nature. There is only one argument (*tsandie=ve* ‘man-ACC2’) in this sentence which is marked for accusative case. In clauses like these the variants *metshi* and *me'i'on* are used. Negative possessive clauses such as the one in (58) are transitive in nature. In these clauses the variant *me'cho* is used.

Often negative predicates have just one State-of-Affairs in their scope. They may, however, scope over more than one State-of-Affairs, provided that the two States-of-Affairs are closely connected. The following is an example:

- (59) *jungue=sû=ve isû=pa ja-je=ya='chu=ve me'i=tshi='fa=gi.*  
 something=ATTR=ACC2 get=SS go-IPFV=IRR=SUB=ACC2 NEGP=QUAL=PLS=1  
 ‘I don’t receive money (something) and go.’ (20050701-MA-Letter-2-010)  
 “There isn’t my receiving money and going.”

But note that in this case the negative verb takes an embedded clause with the subordinator *=chu*, which itself contains a subordinate clause, so that it scopes indirectly over the two events.

In all the cases above the negative predicate is probably best interpreted as a lexical predicate meaning something like ‘non-existent’. Evidence for this comes from the fact that it takes one or more arguments, as shown in (57) and (58). Auxiliary predicates do not take arguments themselves.

In order to express non-existential negation, the clitic *=mbi* is used. It combines with verbal (60) and non-verbal (61) predicates.

- (60) *Ja'ñu=ta=gi mañan='fa=ya=mbi.*  
 now=NEW=1 free=PLS=IRR=NEG  
 ‘Now we won’t let it go.’ (20040202-FASC-Panzaye-3 -052)

- (61) *U'ma fiesta=mbi=ti.*  
 chonta party=NEG=INT  
 ‘Wasn’t it the chonta party?’ (20060118-MM-2 -0109.384)

In (60) and (61) the scope of *=mbi* is a single State-of-Affairs. One may also find examples, however, with *=mbi* having scope over closely related States-of-Affairs. This is shown in (62), in which the predicate *anchun* ‘sew’ and *tandan* ‘tie’ are both negated.

- (62) *Ke a'mbian='chu=ma=ja anchun=pa tandan=ya=mbi=gi.*  
 2.SG have=SUB=ACC1=CONTR sew=SS tie=IRR=NEG=1  
 ‘I am not going to sew and tie the one that you have.’  
 (20060119-AnC-Kunsiana-01-0490.799)

### 3.7 Evidentiality

A'ingae has two grammaticalized constructions to express *reportativity*. The first is through the use of the second position clitic *=te*. This clitic is often used in narration, to indicate that the story narrated was passed on to the current speaker by someone else. It is illustrated in (63) and (64).

- (63) *Fingi fingi=mba=te chhaje=in ja-je.*  
 flap flap=SS=RPT fly=SIM go-IPFV  
 ‘It is said that flapping and flapping she went flying away.’ (BC23.1.007)

- (64) Tsampi=ni ja=pa=**te** tise=ja sime ji='ya.  
 forest=LOC go=SS=RPT 3.SG=CONTR evening come=ASS  
 'It is said that he went to the forest and came back in the evening.'  
 (20060119-AnC-Consiana-02-0115.484)

A second construction can be seen as a grammaticalized version of the direct speech construction in A'ingae. A common way of expressing direct speech is by using a construction with the adverb *khen* 'thus', often combined with the reportative clitic =*te* (or its allomorph =*de*). This is illustrated in (65):

- (65) "Va=nga cha'ndi='sû=gi" khen=de sû='ya matachi=ja.  
 PROX=DAT cold=ATTR=1 thus=RPT say=ASS matachi.clown=CONTR  
 "'I'm cold in these (clothes)" so the Matachi said.'  
 (20060104-AQ-Matachi-0090.782)

This construction is used with verbs like *in'jan* 'think', *asi'thaen* 'think', *sû* 'say, mean, call', *kundase* 'tell', *manda* 'order', and *ina* 'cry'.

The reportative clitic may also be left out, as shown in (66):

- (66) "Pa=ya=ti=gi khen?" khen Napa asi'thaen=mba dyu=pa anthe.  
 die=IRR=INT=1 thus thus Quichua think=SS fear=SS stop  
 "'Will I die doing this?" the Quichua thought and became afraid and stopped.' (BC14.077)

There is, however, a further reduced version of this construction, in which the reporting verb is missing too. In these cases *khen* serves as a quotative marker. This is shown in (67) and (68).

- (67) Chigane afe='fa=ja **khen**.  
 please give=PLS=IMP quot  
 "'Please give it to me" (she said).' (20060119-AnC-Consiana-01-0250.03)

- (68) Kikhû=ni=ja tsa=ja ta'e='u='ya,  
 stab=LOC=CONTR ana=CONTR hard=AUG=ASS  
 va=ja tuya shu'yu=mbi=tsû **khen**.  
 prox=CONTR still sprout=NEG=3 quot  
 'When she picked it it was still hard, "this one has not sprouted yet" (she said).'  
 (20060119-AnC-Consiana-01-0107.635)

This marker is also often found accompanying non-linguistic sound strings (69).

- (69) "Tron" **khen** amphi ji.  
 tron quot fall come  
 'He came falling "tron".' (BC26.117)

### 3.8 The expression of operators in A'ingae

As shown above, operators in A'ingae may be expressed in a variety of ways: through stem modulation, suffixes, clitics, free grammatical words, and auxiliary constructions. We will discuss these here in terms of their position and interaction. All expressions of operators discussed here are represented in the overall template given in Table 5.

*Stem modulations* either reduplicate or lengthen part of the stem. Given their nature, they are the most inner type of expression of operators, as they expand on part of the stem itself. This is indicated in Table 5

in their position closest to the verbal stem.

*Suffixes* only occur with verbal stems and are limited in number. Suffixes necessarily occur further away from the verbal stem than stem modulations (70), but closer to it than clitics (71).

- (70) sharû~:-**ye**  
yawn~dur-INF  
'to yawn (intensely)' (20060104-AQ-Matachi-0284.533)
- (71) Pasia-**ngi=pa**      ja-**je='fa='ya**.  
make.a.trip-cis=SS      go-IPFV=PLS=ASS  
'They only came here to make a trip and return.' (20040218-EC-Interview-235)

In (70) the infinitive suffix follows the modulated stem. In (71) the verb *pasia* 'make a trip' is followed by the cislocative suffix, which in turn is followed by the same subject clitic, and the verb *ja* 'go' is followed by the imperfective suffix, which in turn is followed by the plural subject and assertive clitics.

Suffixes are arranged in a particular order, as indicated in Table 5. The aspectual suffixes<sup>7</sup> occur closer to the stem than the suffix expressing event location. This is illustrated in (72).

- (72) Napi-ji='fa=si      ja-ji      tayu      ru'nda-je-nga='ya      pûvi      khûi-ji.  
arrive-PRECUL=PLS=DS go-PRECUL already wait-IPFV-TRANS=ASS turn lie.down-PRECUL  
'As they were arriving he had already gone to wait elsewhere lying face down.'  
(20060119-AnC-Consiana-01-0045.338)

The *clitics* of A'ingae can be identified by the fact that, other than suffixes, they exhibit freedom of host selection. Clitics come in three groups. The first group consists of clause level clitics that occupy the second position in the clause. Examples are the interrogative clitic illustrated in (54) and the reportative clitic shown in (63) and (64). The second group concerns constituent level clitics attaching to predicate phrases. Examples from this group are the irrealis clitic shown in (42)-(45) and the negative clitic exemplified in (60)-(62). The third group contains constituent level clitics that attach to noun phrases and subordinate clauses and are not relevant to the present discussion. Example (73) illustrates all three types of clitics. The pronoun *ñã* 'I' is followed by two noun phrase clitics: the accusative 1 clitic =*ma* and the new topic clitic =*nda*; the verb *fi'thi* 'kill' is followed by three predicate phrase clitics: the plural subject clitic =*'fa*, the irrealis clitic =*ya*, and the assertive clitic =*'ya*. Finally, the clause initial constituent *ñã=ma=nda* is followed by the clause level second-position clitic =*tsû* specifying the third person subject.

- (73) Ñã=ma=nda=tsû      fi'thi='fa=ya='ya  
1.SG=ACC1=NEW=3      kill=PL=IRR=ASS  
'They will kill me.' (V104-BM-Interview-0246.473)

Within the group of predicate phrase clitics four subgroups can be distinguished, based on their position with respect to the predicate. These groups are listed in Table 5, and their positions are illustrated in (74) and (75).

- (74) Jañu=nda=gi      mañan='fa=ya=mbi.  
now=NEW=1      set.free=PLS=IRR=NEG  
'Now we won't let it go.' (20040202-FASC-Panzaye-3-052)
- (75) Tsa=ma=ta=tsû      shunchhan=ya=mbi='ya.  
ANA=acc=NEW=3      smell=IRR=NEG=ASS  
'One couldn't smell it.' (20060118-BM-Interview-0419.697)

<sup>7</sup> The directional and event location suffixes do not seem to co-occur.

In (74) the plural subject clitic occurs in the first clitic position following the predicate, the irrealis clitic in the second, and the negative clitic in the third. Example (75) shows that the negative clitic may be followed by the assertive clitic in the fourth position.

Second position clausal clitics are given in Table 5 as preceding the predicate phrase. This should not be taken too literally, as these clitics follow the predicate phrase when the latter is in the clause initial position. The interrogative and reportative second position clitics have been illustrated above. Further examples are (76) and (77).

- (76) Pûshesû=ndekhû=mbe thenangu=nga=**ti** khûi.  
 woman=HUMPL=BEN leg=DAT=INT lie.down  
 ‘Did he lie down on the women’s laps?’ (20060104-AQ-Matachi-0178.903)

- (77) Ja=si=**te** matachi=ja ja=’ya.  
 do=DS=RPT matachi.clown=CONTR go=ASS  
 ‘Reportedly after they left the Matachi left.’ (20060104-AQ-Matachi-0048.121)

In (76) the interrogative clitic =*ti* follows the clause initial nominal phrase *pûshesûndekhûmbe thenangunga* ‘on the women’s laps’. In (77) it follows the clause initial embedded clause *jasi* ‘having left’.

*Free grammatical words* may be identified by the fact that, other than clitics, they carry their own stress. They may be found in clause initial and final position. In initial position the hortative marker *jinge* is found, in final position the quotative marker *khen*. These are once more illustrated in (78) and (79).

- (78) **Jinge**kû’i-ye varapo=ma.  
 HORT drink-INF sugarcane.drink=ACC1  
 ‘Let’s drink sugarcane drink.’ (20060118-BM-Interview-2645.118)

- (79) Ña khu’pa, mama **khen**.  
 1.SG defecate mama quot  
 ‘“I am defecating, mama”.’

Finally, *auxiliary constructions* behave like non-verbal predicates, in the sense that they do not allow the attachment of verbal suffixes. An exception is the fixed combination of *tsun* ‘do’ as a prospective auxiliary, which necessarily occurs in the imperfective aspect. Otherwise, auxiliary constructions directly combine with the predicate clitics, as in (80) and (81).

- (80) Se’je-**ye** **usha**=’fa.  
 cure-INF able=PLS  
 ‘They can cure them.’ (BC15.061)

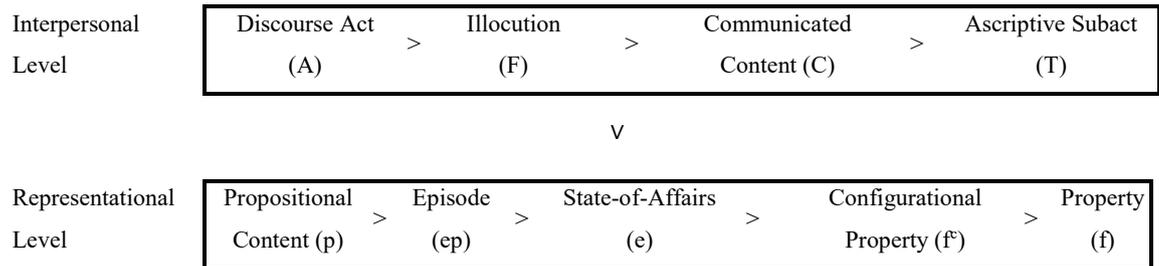
- (81) Tayupi tsa=’ka=en tise=pa ñuñña-**ye** **atesû**=’ya.  
 formerly ana=CMP=ADVR 3=ASS make-INF know=ASS  
 ‘In early times they knew how to make it.’ (20060118-MM-2-0158.794)

Auxiliary constructions, which in this respect behave in the same way as non-verbal predicates, do not combine with the imperative, prohibitive, and mitigated imperative enclitics. This restriction probably simply follows from the stative nature of these predicates.



## 4 Operators in FDG

In Functional Discourse Grammar, as in various other grammatical theories (see Narrog 2009 for an overview), grammatical categories are organized in terms of their scope. Scope relations are defined in terms of different interpersonal (pragmatic) and representational (semantic) layers. These are represented in Figure 1. In this figure the symbols ‘>’ when read from left to right and ‘V’ when read from top to bottom mean ‘has scope over’.



**Figure 1.** Scope relations in FDG

At the Interpersonal Level different pragmatic layers are recognized, with scope relations between them: the lowest one relevant here is the Ascriptive Subact (T), which represents an act of predication; the next higher one is the Communicated Content (C), which is the message transmitted in an utterance; then follows the Illocution (F), which captures the communicative intention of the speaker; and the highest layer relevant here is the Discourse Act (A), which represents the basic unit of communicative behaviour and is characterized by the fact that it has its own illocutionary force.

At the Representational Level different semantic layers are distinguished, again with scope relations between them: the lowest one is the Property (f) expressed by a any lexical element; next is the Configurational Property (f<sup>c</sup>), which consists of the lexical element and its argument(s) and as such provides the basic characterization of a State-of-Affairs; then follows the State-of-Affairs (e) itself, which is the situated real or hypothesized situation the speaker has in mind; the Episode (ep) is the next higher layer, and is a thematically coherent combination of States-of-Affairs that are characterized by unity or continuity of time, location, and participants; the highest layer is the Propositional Content (p), which is a mental construct entertained about an episode.

The levels among themselves are also hierarchically related, with the Interpersonal Level having higher scope than the Representational Level, as indicated in Figure 1.

Grammatical categories (other than relational ones, which express functions) are treated as operators in FDG. For the purposes of this paper, in general terms two groups can be distinguished: operators that have the noun phrase as their domain, and operators that operate elsewhere. The former group might be classified as noun phrase operators and are not dealt with in this paper. The latter group can, however, not be treated as clausal operators, as not all discourse acts are realized as clauses. For instance, non-clausal Discourse Acts like the expression *Why?* may well occur independently, yet are clearly expressing the grammatical category of interrogativity. I therefore will take the Discourse Act rather than the clause as the relevant domain of investigation.

This wide definition of operators outside the domain of the noun phrase opens up an enormous range of grammatical categories. Table 6 gives an overview of all the relevant categories as presented in Hengeveld & Mackenzie (2008), but including the modifications proposed in Hengeveld & Hattnher (2015) for evidentiality, Hattnher & Hengeveld (2016), Olbertz & Gasparini Bastos (2013) and Olbertz & Honselaar (2017) for modality, Mackenzie (2009) and Hengeveld & Mackenzie (2018) for polarity, and Olbertz (2012) and Hengeveld (2017) for mirativity. It is outside the scope of this paper to give a full motivation of the categorization presented in Table 6. The reader is referred to the papers mentioned here for further argumentation.

Table 6. Tense, aspect, mood, evidentiality, mirativity, polarity, and direction categories in FDG

	Interpersonal Level		Representational Level						
	Discourse Act (A)	Illocution (F)	Communicated Content (C)	Ascriptive Subject (T)	Propositional Content (p)	Episode (ep)	State-of-Affairs (e)	Configurational Property (fc)	Lexical Property (f)
<b>Mood</b>	irony, mitigation, reinforcement	basic illocution, illocutionary modification			proposition-oriented modality <sup>1</sup>	episode-oriented modality <sup>2</sup>	event-oriented modality <sup>3</sup>	participant-oriented modality <sup>4</sup>	
<b>Polarity</b>	rejection	negative basic illocutions	denial	metalinguistic negation	disagreement	co-negation	non-occurrence	failure	local negation
<b>Evidentiality</b>			reportative	reportative	inference	deduction	event perception		
<b>Mirativity</b>			mirative						
<b>Tense</b>						absolute tense	relative tense		
<b>Aspect</b>							quantitative aspect	qualitative aspect	
<b>Direction</b>							event location		directionality

<sup>1</sup> This category includes subjective epistemic modality.

<sup>2</sup> This category includes objective epistemic modality and evaluative deontic modality.

<sup>3</sup> This category includes event-oriented facultative, deontic, and volitive modalities.

<sup>4</sup> This category includes participant-oriented facultative, deontic, and volitive modalities.

## 5 A'ingae operators in FDG

### 5.1 Introduction

The FDG approach to operators predicts that operators with lower scope occur closer to the stem than operators with wider scope. The order of operators thus iconically reflects the scope relations that obtain between them. The expectation is thus that the hierarchical classification presented in Table 6 is reflected in the ordering of morphemes expressing those operators in a certain language. We thus expect that the A'ingae system presented in Table 5 matches the ordering given in Table 6. Table 7 makes the match visible, by replacing the actual morphemes in Table 5 by the FDG-layers that they operate on, using the variables that stand for each layer.

Table 7 shows that in many respects there is a good match between the FDG predictions and the A'ingae facts. There are, however, a number of classifications of morphemes that seem to be less compatible with the predictions. These are printed in bold and underlined in Table 7. The problematic cases are the following.

*Illocution* can be expressed in three different positions: as a clause level second position enclitic (interrogative), in the second clitic position of the verbal template (imperative, prohibitive, mitigated imperative), and in the fourth position of the verbal template (assertive).

*Reportative evidentiality* can be found in two different positions, as a second position clitic and as a sentence final particle. This does not produce a conflict in terms of ordering, but is inconsistent with the idea that reportative evidentiality is a single grammatical category.

*Quantificational aspect* can be found expressed immediately on the verb, through vowel lengthening and reduplication, in the second suffix in the template for the verbal word, when the imperfective suffix is used to express habituality, and it can be realized through auxiliary constructions. Especially the fact that durative and iterative aspect, both classified as operators on the State-of-Affairs, are expressed immediately on the verb stem and are followed by qualificational aspect markers, which are classified as operators on the Configurational Property, goes against the predictions in FDG.

These three types of counterexamples to the FDG predictions will be discussed one by one in the following subsections.

### 5.2 Illocution

As mentioned above, illocution can be expressed in three different positions. The first interesting fact is that the Imperative, Prohibitive, and Mitigated Imperative occur closer to the verb than the Assertive. There is a fundamental difference between these two. Hengeveld et al. (2007: 73) make a distinction between propositional illocutions and behavioural illocutions. Propositional illocutions have to do with the transmission of information, while the latter have to do with influencing behaviour. Hengeveld (1990: 7) argues that behavioural illocutions, unlike propositional illocutions, do not contain the layer of the propositional content. They are not about the transmission of propositional information, but map directly onto the State-of-Affairs that the Addressee should bring about.

Hengeveld (1990) was framed in terms of FG, a theory that did not distinguish the Episode as a relevant representational unit. In an FDG framework, however, we should say that a behavioural illocution maps directly onto an Episode rather than onto a State-of-Affairs, as is evident from the fact that more than one State-of-Affairs may be ordered (82) or prohibited (83) in a single imperative or prohibitive Discourse Act.

- (82) Va=ma    anchun=pa    undikhû-ja.  
       prox=acc    sew=SS                dress-IMP  
       'Sew this and wear it!' (20060119-AnC-Consiana-01-0452.44)



- (83) Ja=pa      fi'thi=jama.  
 go=SS      kill=PROH  
 'Don't go and kill them!' (BC12.051)

There are two operator categories pertaining to the Episode layer, which is thus relevant to behavioural illocutions, which are the irrealis in clitic position +2 and negation in clitic position +3. Since the irrealis meaning is intrinsic to behavioural illocutions and negation is expressed in the prohibitive illocutionary marker itself, we may assume that the clitic positions +2 and +3 are left empty in the case of behavioural illocutions, and that the latter therefore align with the assertive in clitic position +4, rather than with the irrealis in clitic position +2.

The fact that the interrogative illocution is expressed in the clausal clitic position may be related to the fact that all questions are marked at the beginning of the utterance. Question words in content questions always occupy the first position in the clause. Similarly, the interrogative clitic attaches to the first constituent of the clause. Note that illocutionary distinctions are not marked prosodically in A'ingae.

Summarizing, the expression of imperative and prohibitive illocutions only at first sight provide a counterexample to the claims with respect to operator ordering in FDG. Closer inspection reveals that they actually align with the assertive clitic.

### 5.3 Reportative evidentiality

A second issue that needs to be addressed concerns the existence of two different strategies to express reportativity. The two markers occupy different positions, one as a second position clitic, another as a clause final particle. As mentioned above, this by itself does not go against the scope predictions in FDG. What is more important in connection to these predictions is that the two markers show different behaviour as regards their combinability with other elements. The most important of these is that the sentence final particle *khen* may be used in reporting discourse acts with different illocutions. The following examples illustrate this:

- (84) Ke=ja      kuira=pa      va=ni      kanse=ja      khen.  
 2sg=CONTR look.after=SS      prox=LOC live=IMP      quot  
 '“You take good care of him and live here” (he said)'
- (85) Ñan=jan      tisû=ni      ja-ye-ngi      in'jan      khen  
 1sg=CONTR REFL=LOC go-INF-CIS think      quot  
 '“I want to go to my own home” (she said).'

In (84) *khen* occurs at the end of an imperative sentence, in (85) at the end of a declarative sentence. The reportative clitic =*te*, on the other hand, only occurs in declarative clauses. As examples (84) and (85) furthermore show, they represent cases in which the speech of the reported person is quoted literally. This is different from the cases in which the reportative clitic =*te* is used. In these cases, the person reporting is using his/her own words, but at the same time indicates that the information he/she is communicating was provided by someone else. The distinction is similar to the one between direct and indirect speech. This is also clear from the pronoun shift in (84) and (85).

The A'ingae facts thus suggest that in FDG a distinction should be made between reportative evidentiality (rpt), and quotative evidentiality (quot). This distinction was already made for Ecuadorian Highland Spanish in Olbertz (2005).<sup>8</sup> Reportative evidentiality operates at the layer of the Communicated

<sup>8</sup> In this language the particle *dizque* marks indirect speech, while the combination of *dizque* + the verb *decir* 'say' marks direct speech.

Content (the information that is being passed on), quotative evidentiality at the layer of the Discourse Act (the earlier contribution to discourse that is being quoted). This distinction was not made in Hengeveld & Hattnher (2015). By assigning quotative evidentiality to the layer of the Discourse Act the fact that it may combine with different illocutions is accounted for, as it has scope over the illocutionary layer. Reportative modality, on the other hand, operates at the layer of the Communicated Content and is within the scope of illocution. Hence, it cannot freely combine with all kinds of illocutions.

## 5.4 Quantificational aspect

A final remarkable aspect in Table 7 concerns the expression of quantificational aspect. This type of operator can be found expressed immediately on the verb, through vowel lengthening and reduplication, in the suffix position +2, when the imperfective suffix is used to express HABITUALITY, and it can be realized through auxiliary constructions.

Especially the expression of iterative and durative aspect on the verb stem itself, where these can be followed by qualificational aspect, is problematic for the current FDG approach. In Hengeveld & Mackenzie (2008) all quantificational aspect distinctions are presented as operators at the layer of the State-of-Affairs and as having scope over qualificational aspect distinctions.

Boland (2006: 61), however, following Cusic (1981), Klein (1994) and Anstey (2002), distinguishes between ‘expressions that indicate the frequency of a property or relation and expressions that indicate the frequency of an entire event’.<sup>9</sup> Property quantification specifies iteration or intensity of a property, while event quantification quantifies over the event as a whole. In FDG property quantification would apply at the layer of the Lexical Property, while event quantification applies at the layer of the State-of-Affairs.

Property iteration is present in verbs with meanings that are typically iterative. It is precisely these verbs that occur either with reduplication or with the suffix *-ñakha* in A'ingae. Many of these are probably lexicalized, in the sense that they do not occur in non-reduplicated form. Examples are *ovi* ‘fill up with earth’, *khupi* ‘wipe with hand’, *uchhi* ‘knock’, *maphi* ‘punish’, *atoi* ‘chop’, *findi* ‘twist’, *kitsu* ‘peck’, *tsha* ‘rub’, and *kichu* ‘jab’. Some illustrations are (86) and (87).

(86) Tise pûshe      thatha-**ñakha**    ja-yi.  
3.SG woman    search-ITER    go-prosp  
‘His wife went searching for him.’ (BC19.079)

(87) Chhi-**chhi**=pa    phiña=mba      api=nga    si'nge=nga utsian.  
slice-ITER=SS    put.in=SS      pot=DAT    fire=DAT    put.on  
‘Having sliced it she put it in the pot and set in on the fire.’ (BC13.021)

These markers of iterativity might thus be reclassified as expressing property quantification rather than event quantification. This would then explain why we may find it in the scope of a direction operator, as in:

(88) Jinge patû=sû    a'i=ma      fi'thi-**thi**=nga=fa=ye  
HORTrock=ATTR    people=ACC1    kill-ITER=trans=PLS=inf  
‘Let's go kill the rock people.’ (BC12.046)

A similar argument applies to durative aspect, expressed through vowel lengthening. This aspect is found with verbs with intrinsically durative meanings, such as *mangû* ‘drag’, *mûtsinon* ‘rotate’, *sharu* ‘yawn’, *suivo* ‘twist’, *khejian* ‘make noise’, *kû'ndyi* ‘urinate (male)’, and *a'jû* ‘vomit’. An example is (89).

<sup>9</sup> Cusic (1981), cited in Rose (2005), uses the terms ‘event-internal’ and ‘event-external’ plurality and distinguishes ‘repetitive action’ from ‘repeated action’ (Cusic 1981).

- (89) Vana=mba sombo=pa mangu~:.  
 suffer=ss emerge=ss drag-dur  
 ‘He struggled, came out and dragged.’ (20060104-AQ-Matachi)

This type of example suggests that here again we are dealing with property quantification, and this would be consistent with the fact that durative aspect can be within the scope of a marker of qualificational aspect, as in (90), in which the current state is the result of the rolling over:

- (90) Khûi=ta mûtsinu~:-tshi=te khûi='ya.  
 lie.down=NEW rotate~DUR-QUAL=RPT lie.down=ASS  
 ‘It is said that he laid down rolled over, layed down.’  
 (20060104-AQ-Matachi-0166.962)

A final category to be reconsidered is the diminutive suffix *-kha*. It is used with verbs like *feña* ‘laugh’, *dyo* ‘fear’, *fundo* ‘scream’ and *ru'nda* ‘wait’. As it also indicates duration, just as vowel lengthening, I will likewise classify it as an instance of property quantification.

Among the other quantificational aspects there is another category that stands out. Cross linguistically, most quantificational aspects can be defined as simple quantifications over events, such as the semelfactive, the repetitive, and the distributive. The habitual, however, needs an additional qualification. It has to be defined as characterizing an event that occurs frequently ‘due to a habitual propensity of the participant involved’ (Dik 1997: 236). In a sense, then, habitual aspect specifies a relationship between a participant in an event and the (regular) realization of that event. Exactly that relationship between participant and event has been the reason in FDG to locate participant-oriented modalities at the layer of the Configurational Property. Thus, Hengeveld & Mackenzie (2008: 212) state that participant-oriented modality ‘affects the relational part of the utterance as expressed by a predicate and its arguments and concerns the relationship between a participant in a State-of-Affairs and the potential realization of that State-of-Affairs’. That same definition would apply to habitual aspect as well. We therefore propose to assign habitual aspect to the layer of the Configurational Property as well.

This analysis is consistent with a number of facts. First of all, it explains why habitual aspect (a quantificational aspect) and ability (a participant-oriented modality) can be expressed by the same auxiliary construction with the verb *atesû* ‘know’, both acting at the same layer of organization. Secondly, the habitual constructions involved all occur with human participants only. And thirdly, they never co-occur with another operator from the category pertaining to the Configurational Property, such as the imperfective used in a progressive sense.

This then leaves us with three categories of quantificational aspect: Property quantification at the (f)-layer, Participant-oriented quantification at the (f<sup>c</sup>)-layer, and Event quantification at the (e)-layer. A'ingae would then only have instances of Property quantification and Participant-oriented quantification.

## 5.5 Reconsidering the A'ingae system

The incorporation of the modifications suggested in this section leads to the revised classification of A'ingae operators in FDG in Table 8. As this table shows, there is a neat correlation between the position of an operator and its scope. The head of the predicate phrase is where operators of the Lexical Property, the Configurational Property, and the State-of-Affairs are expressed. Episode operators are expressed in clitic positions +2 and +3. Behavioural illocutions, i.e. those that do not target a Propositional Content, skip the latter two positions, as these are not relevant for them, the result being that most illocutions are expressed in clitic position +4. The reportative operator with the Communicated Content in its scope, is realized as a clausal clitic, while the quotative operator occurs in the absolute final position, where it can show its scope over all other layers. Note that the second suffix position within the verbal word hosts operators of both the Lexical Property and the Configurational Property.

Table 8. A'ingae operators in FDG (second attempt)

Free words P2 clitics	Predicate Phrase						Free words	
	+1			+2		+3		+4
	Head	Verbal words	Number	Mood	Negation	Illocution		
Adhortative F Interrogative F Reportative C	V	+1 Aspect Durative f Iterative f	+2 Aspect, Direction Event location Diminutive f Iterative f Imperfective fc Preculminative fc Prospective fc Quality fc Cislocative f Translocative f	+3 Distal e	-- --	-- --	Imperative F Prohibitive F Mitigated imperative F	Quotative A
Auxiliary constructions, non-verbal predicates								
Prospective fc Intrinsic ability fc Acquired ability fc Habitual fc Habitual fc Non verbal predicates, including: Habitual fc Negative Habitual fc Obligation fc								

Table 9. Tense, aspect, mood, evidentiality, mirativity, polarity, and direction categories in FDG – version 2

	Interpersonal Level					Representational Level				
	<i>Discourse Act</i>	<i>Illocution</i>	<i>Communicated Content</i>	<i>Ascriptive Subact</i>	<i>Propositional Content</i>	<i>Episode</i>	<i>State-of-Affairs</i>	<i>Configurational Property</i>	<i>Lexical Property</i>	
<b>Mood</b>	irony, mitigation, reinforcement	basic illocution, illocutionary modification			proposition-oriented modality	episode-oriented modality	event-oriented modality	participant-oriented modality		
<b>Polarity</b>	rejection	negative basic illocutions	denial	metalinguistic negation	disagreement	co-negation	non-occurrence	failure	local negation	
<b>Evidentiality</b>	<b>quotative</b>		reportative	reportative	inference	deduction	event perception			
<b>Mirativity</b>			mirative							
<b>Tense</b>						absolute tense	relative tense			
<b>Aspect</b>							event quantification	qualitative aspect, <b>property quantification</b>		
<b>Direction</b>							event location	<b>oriented quantification</b>	directionality	

The modifications proposed here have consequences for the classification of operators in FDG in general. These consequences are shown in Table 9. Newly added categories are printed in bold.

## 6 Conclusions

This study has shown that the FDG approach to grammatical categories is capable of accounting for many of the A'ingae facts. At the same time, it shows how the detailed study of the facts of a single language may help refine the theory in important ways.

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## Abbreviations

- 1 = first person
- 2 = second person
- 3 = third person
- ABL = ablative
- ACC1 = accusative 1
- ACC2 = accusative 2
- ADD = additive focus
- ADJR = adjectivalizer
- ADVR = adverbializer
- ANA = anaphoric reference to entity or event
- ANALOC = anaphoric reference to location or time
- ASS = assertive
- ATTR = attributive
- AUG = augmentative
- BEN = beneficiary
- CAUS = causativizer
- CIS = cislocative
- CMP = comparative
- CONTR = contrastive topic
- DAT = dative
- DIM = (verbal) diminutive
- DUR = durative
- DS = different subject cosubordinator
- ELAT = elative
- FRT = frustrative
- HAB = habitual
- HORT = hortative
- HUMPL = human
- IGNAN = ignorative animate
- IMP = imperative
- IPFV = imperfective

INF = infinitive  
 INT = interrogative  
 IRR = irrealis  
 ITER = iterative  
 LOC = locative  
 LOCNR = locative nominalizer  
 MANN = manner, path  
 MITIMP = mitigated imperative  
 NEG = negative  
 NEGHAB = negative habitual  
 NEGP = negative predicate  
 NEW = new topic  
 PASS = passive  
 PLS = plural subject  
 PRECUL = preculminative  
 PROH = prohibitive  
 PROSP = prospective  
 PROX = proximate  
 QUAL = quality  
 QUOT = quotative  
 REAL = realis  
 REFL = reflexive  
 RPT = reportative  
 SG = singular  
 SHAPESPINE = nominalizer object with protrusions  
 SIM = simultaneity  
 SS = same subject  
 sub = subordinator  
 trans = translocative

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