

A dual structure for Mayangna experience predicates¹

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This paper builds on classic (Belletti & Rizzi 1988) and recent works (Landau 2005; Adger & Ramchand 2006; Cuervo 2008) on experience predicates to analyze experience verbs in Mayangna, a language of the isolate Misumalpan family spoken by some 10,000 speakers in NE Nicaragua and SE Honduras. The analysis presented here supports the idea of a dual UG-available structure for experiencer predicates consisting of a light verb, an experience, a theme, and an experiencer. According to this approach, the experience is merged (with or without incorporation) with a V-head and creates a predication structure with the theme, while the experiencer is projected by a higher functional projection, $v_{\text{EXP}}\text{P}$. Furthermore, as well as in other languages, Mayangna shows the possibility of obtaining an agentive interpretation with this type of predicates. Such interpretation is the result of the merging of layered eventive structure on top of $v_{\text{EXP}}\text{P}$.

1 Introduction

1.1 An interesting phenomenon (among many)

Although the literature on experience predicates is overwhelmingly extensive, little work has been done to describe and account for the different phenomena with respect to experience predicates in Misumalpan or related families. As many other languages (Belletti & Rizzi 1988; van Voorst 1992; Landau 2005; Viñas-de-Puig 2009; among many others), Mayangna allows a dual reading in (certain) experiencer predicates. Consider the examples in (1)².

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² The glosses of the examples contain the following abbreviations: 1: 1st person; 2: 2nd person; 3: 3rd person; AGR: Agreement marker; D: determiner; DAT: Dative; p: plural; pl.mrkr: plural marker; PRES: Present tense; PRON: pronoun; s: singular.

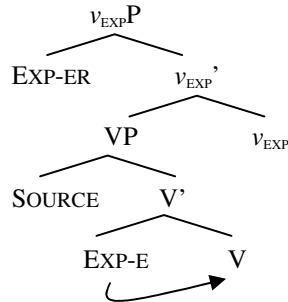
- (1) a. *Yâ* *bukutwi.*
 DAT:1s cough-PRES:3s
 ‘I cough.’
- b. *Tingki* *balna* *dalâ* *yâwi.*
 hand-AGR1s pl.mrkr pain DAT:1s-PRES:3s
 ‘My hands hurt.’ (lit. ‘My hands give me pain.’)
- c. *Manna* *dalâni* *yâtamana.*
 PRON:2p pain-AGR3s DAT:1s-PRES:2p
 ‘You (p) are hurting me.’ (lit. ‘You (p) are giving me pain.’)

The examples in (1a) and (1b) only allow a non-agentive interpretation; i.e. there is no external animate causer to the experience described. However, in (1c), the interpretation varies: the experience (*dalâni* ‘pain’) is the result of the action of an external causer (*manna* ‘you (pl.)’); that is, this predicate denotes an agentive event.

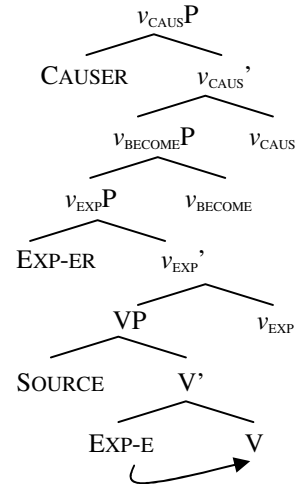
1.2 Hypothesis

Following different views in the literature on experience predicates and external causation (McGinnis 2000, 2001; Pylkkänen 1999, 2002; among others), I contend that this variation in the interpretation is structurally motivated. The two structures corresponding to the respective interpretations are schematized in (2).

(2) a. Non-agentive (stative) experience



b. Agentive experience



In the structure in (2a), an EXPERIENCE (EXP-E) argument merges with a V head (in a process that allows but does not require incorporation), and enters into a predication-like structure with the SOURCE (or THEME), while the EXPERIENCER (EXP-ER) is introduced by the functional projection v_{EXP} (Viñas-de-

Puig 2009). The result of this structure is stative in nature (cf. Arad 1999). This structure contrasts with the one in (2b), which introduces a level of eventive information. The result is an event that describes an experience (cf. McGinnis 2000, 2001; Pykkänen 1999, 2002). The higher head in this eventive structure, v_{CAUS} , is the one responsible for the introduction of the CAUSER of the experience. If such CAUSER presents animate features, the interpretation obtained will be that of an agentive experience predicate.

1.3 Goals

Given the hypothesis presented in the previous subsection, the goals of this paper are twofold: i. to present evidence in favor of a basic experience structure (2a); and ii. to account for the levels of parameterization of experience predicates in Mayangna in particular, but also crosslinguistically.

2 Basic information

2.1 Some basic information on Mayangna

Mayangna (or Sumu-Mayangna), along with Miskitu, Matagalpa (extinct), Cacaopera (extinct), and Ulwa, belongs to the isolate Misumalpan family. It is currently the language of some 10,000 speakers (Benedicto & Hale 2000; Koontz Garboden 2007; Eggleston 2009), who live in different communities in Northeast Nicaragua and in Southeastern Honduras. As Benedicto & Hale (2000) and Hale & Salamanca (2002) point out, Mayangna is a head-final language, with a strong preference for an SOV surface word order, and a system of switch-reference to mark subjects in complex clauses.

2.2 A brief background on experience predicates

Many scholars, within different frameworks, have proposed different analyses to account for the realization of experience (or psych) predicates crosslinguistically (Pesetsky 1987, 1995; Belletti & Rizzi 1988; Arad 1999; Landau 2005; Adger & Ramchand 2006; among many others). Belletti & Rizzi (1988) put forth a classification of psych predicates based on the Case assigned to the EXPERIENCER and the THEME (or SOURCE, in this paper).

- (3)
- a. *Class I*: Nominative EXPERIENCER, accusative THEME.
John loves Mary.
 - b. *Class II*: Nominative THEME, accusative EXPERIENCER.
The show amused Bill.
 - c. *Class III*: Nominative THEME, dative EXPERIENCER.
The idea mattered to Julie.

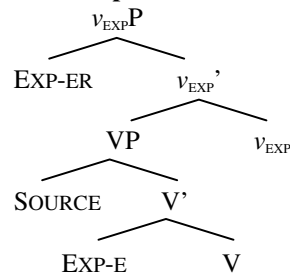
Notice that in this classification, used extensively throughout the literature, the Experience does not appear as an independent argument. This fact

contrasts with the examples in (1b) and (1c), in which the Experience surfaces independently. Therefore, a revised analysis of experience predicates needs to be proposed.

3 A basic experience structure: Evidence from Mayangna

In recent work (Viñas-de-Puig 2009), building on previous accounts on experience predicates and argument structure, I propose a universally available experience structure. This structure, presented in (2a) is repeated below in (4).

(4) Basic Experience Structure



According to this structure, the EXPERIENCE merges with a V head, and creates a predication-like structure with the SOURCE, which is externally merged at [Spec, VP]. The EXPERIENCER, following various accounts on the introduction of external arguments (cf. Kratzer 1996; Arad 1999; McGinnis 2000; Pytkäinen 2002, 2008; Cuervo 2008), is introduced by a functional projection, v_{EXP} .

If this analysis is on the right track, it allows for two possibilities regarding the expression of the EXPERIENCE: i. the EXPERIENCE is incorporated on V, thus becoming a full-fledged verb; or ii. the EXPERIENCE is not incorporated on V, thus triggering the presence of a light verb. These two possibilities are discussed in the following two subsections.

3.1 N-to-V incorporation

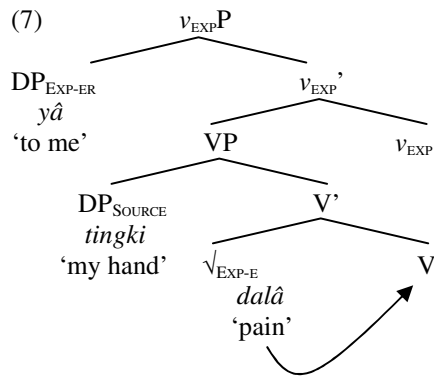
In their work on impersonal verbs, Charles & Torrez (2008) present evidence of different types of experience predicates in Mayangna. Their work illustrates evidence that Mayangna presents a subset of experience predicates with overt incorporation of the EXPERIENCE on V.

- (5) a. *kal dalâwi* ‘to hurt’ d. *kal wakahwi* ‘to yawn’
 b. *kal buihwi* ‘to shake or tremble’ e. *kal burwi* ‘to have a rash’
 c. *kal puruswi* ‘to cramp’ f. *kal bukutwi* ‘to cough’

The example in (6) presents evidence that a few of these predicates present a full argument structure; i.e. an (incorporated) EXPERIENCE, a SOURCE, and an EXPERIENCER.

- (6) *Tingki yâ dalâwi.*
 hand-AGR1s DAT:1s hurt-PRES:3s
 ‘My hand hurts.’

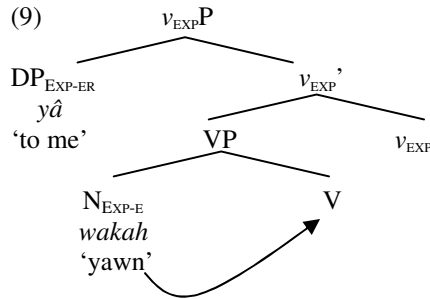
In (6), the EXPERIENCE root *dâla-* ‘pain’ is incorporated on V, and therefore is able to express verbal morphology. The SOURCE is also overtly expressed, while the EXPERIENCER, *yâ*, is externally merged at [Spec, v_{EXP}]. This example is the result of the structure in (7), confirming the first of the logical possibilities outlined above.



It is worth noting, however, that not all incorporating experience predicates in Mayangna follow the pattern of the example in (6), with the corresponding structure in (7). Charles & Torrez (2008) present ample evidence of incorporating experience predicates that do not overtly express the SOURCE. Consider the examples in (8).

- (8) a. *Yâ wakahwi.*
 DAT:1s yawn-PRES:3s
 ‘I yawn.’
 b. *Di bukutwi.*
 DAT:3p cough-PRES:3s
 ‘They cough.’

In both examples in (8), we observe the presence of the EXPERIENCE (*wakah-* ‘yawn’ in (8a); *bukut-* ‘cough’ in (8b)), incorporated on V, and the EXPERIENCER; the SOURCE is not expressed. These utterances, which are conditioned by the type of EXPERIENCE introduced, are the result of not merging the SOURCE in [Spec, VP]. The structure yielding such examples is shown in (9).



These data question previous classifications of experience predicates: the already classic taxonomy of psych predicates put forth by Belletti & Rizzi (1988) does not account for the Mayangna data observed in examples (8) and (9). As a consequence, a new subclass of experience predicates must be proposed, resulting in the modified classification shown in (10).

- (10)
- a. *Class I*: Nominative EXPERIENCER, accusative THEME.
John loves Mary.
 - b. *Class II*: Nominative THEME, accusative EXPERIENCER.
The show amused Bill.
 - c. *Class III*: Nominative THEME, dative EXPERIENCER.
The idea mattered to Julie.
 - d. *Class IV*: Dative EXPERIENCER, no THEME.
Yâ wakahwi.

3.1.1 Experience(r)s with relational nouns

Interestingly, the study by Charles & Torrez (2008) present evidence of the existence of yet another subtype of incorporating experience predicates. Consider the list in (11).

- (11)
- | | | | |
|-------------------------|-----------------|---------------------------|-------------------|
| a. <i>dini</i> buhwi | 'to be thirsty' | e. <i>nining</i> iwitwi | 'to feel dizzy' |
| b. <i>nining</i> liliwi | 'to be scared' | f. <i>isning</i> katwi | 'to remember' |
| c. <i>isning</i> awi | 'to like' | g. <i>dining</i> dulihiwi | 'to feel disgust' |
| d. <i>nining</i> isiwi | 'to disgust' | | |

Contrasting with the other examples previously analyzed in this Section 3, the experience predicates shown in (11) above are the result of having a relational noun as the EXPERIENCER, instead of a Dative. However, this subset of predicates bears close resemblance with the ones already discussed. Similarly to the predicates above, only a few of these predicates with relational nouns allow the merging of the SOURCE. An example of these is shown in (12).

- (12) *Mâtis namang isiwi.*
 rat against-AGR2S disgust-PRES:3s
 ‘Rats disgust you.’

A schematic structure resulting in the example in (12) is shown in (13).

- (13) $[_{V_{EXP}} [_{DP} \text{pro}_i [_{AGR} \textit{namang}]] [_{V_{EXP}'} [_{VP} [_{DP} \textit{mâtis}] [_{V'} \textit{isi- V}] v_{EXP}]]]$
 EXP-ER SOURCE $\begin{array}{c} \text{—} \wedge \\ \text{EXP-E} \end{array}$

Also in the same fashion of the previous examples, most of the Mayangna experience predicates with a relational noun as an EXPERIENCER are the result of the non-introduction of the SOURCE in the structure. Examples of this phenomenon are attested in (14) below.

- (14) a. *Dikît buhwi.*
 below-AGR1s dry-PRES:3s
 ‘I am thirsty.’ (lit. ‘My throat is drying.’)
 b. *Dinîna buhwi.*
 below-AGR3p dry-PRES:3s
 ‘They are thirsty.’ (lit. ‘Their throat is drying.’)

As noted, the contrast between the examples in (12) and (14) is to be found in the absence of the SOURCE in the latter. Building on the basic structure in (4) presented at the beginning of Section 3, the derivation yielding the examples in (14) is schematically shown below in (15).

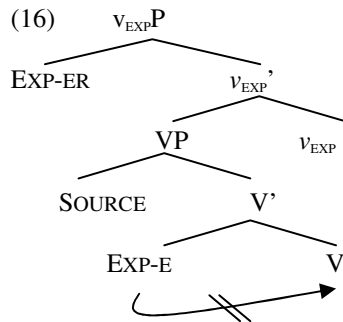
- (15) $[_{V_{EXP}} [_{DP} \text{pro}_i [_{AGR} \textit{dikît}]] [_{V_{EXP}'} [_{VP} \textit{buh- V}] v_{EXP}]]]$
 EXP-ER $\begin{array}{c} \text{—} \wedge \\ \text{EXP-E} \end{array}$

All the examples and structures discussed in this section provide evidence in favor of the first possibility regarding the expression of the EXPERIENCE allowed by the basic experience structure presented in (4). In the following subsection, I discuss the other possibility; i.e. the EXPERIENCE is not incorporated on V, which results in the presence of an overt light verb.

3.2 Light verb constructions

Light verb constructions are common crosslinguistically and, in many instances, they express unergative predicates (as Laka (1993) showed for Basque). However, the proposal that I put forth in this paper predicts that experience predicates can also be expressed through light verb constructions, resulting from the non-incorporation of the EXPERIENCE on V.

The hypothesized structure that results in this type of experience predicates is shown in (16).



The possibility of not having an incorporation of the EXPERIENCE on V is indeed attested in Mayangna (and in other languages (cf. Section 5)). Charles & Torrez (2008) present evidence of experience predicates with light verb constructions. Consider the list in (17).

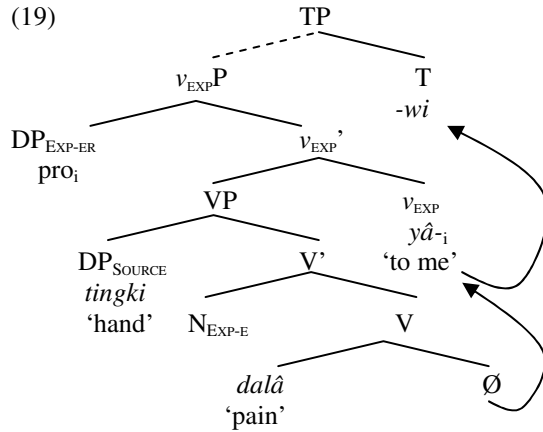
- (17)
- | | |
|-------------------------|--|
| a. <i>dâla kalawi</i> | ‘to hurt’ (lit. ‘to give pain’) |
| b. <i>yuh kalawi</i> | ‘to be hungry’ (lit. ‘to give hunger’) |
| c. <i>wakni kalawi</i> | ‘to feel discomfort’ (lit. ‘to give discomfort’) |
| d. <i>sari kalawi</i> | ‘to be sad’ (lit. ‘to give sadness’) |
| e. <i>alasma kalawi</i> | ‘to be happy’ (lit. ‘to give happiness’) |

In all these predicates, the EXPERIENCE (*dâla* ‘pain’ in (17a); *yuh* ‘hunger’ in (17b); *wakni* ‘discomfort’ in (17c); *sari* ‘sadness’ in (17d); *alasma* ‘happiness’ in (17e)) is expressed independently from the verbal inflection. This triggers the presence of a light verb (*kalawi* ‘to give’), which carries the verbal information and provides the ‘verbhood’ to the predicate.

Despite this (significant) structural difference, these experience predicates with an overt light verb do not show a behavior that is extremely different from those predicates discussed in the previous Section 3.1. In both cases (the ones in which the EXPERIENCE is incorporated on V and the ones in which the EXPERIENCE surfaces as an independent argument), a few predicates introduce the SOURCE in the structure. Consider the example in (18).

- (18) *Tingki dalâ yâwi*
 hand-AGR1s pain DAT:1s-PRES:3s
 ‘My hand hurts.’

In this example, the EXPERIENCE surfaces independently from the light verb, which carries the inflectional verbal information (the output of the light verb is actually the result of the combination of features in V, v_{EXP} , and T). The SOURCE, on the other hand, is externally merged at [Spec, VP]. The structure corresponding to this utterance is shown in (19).



This type of predicates also has a consequence in Belletti & Rizzi's (1988) classification of experience constructions: the initial classification did not consider the EXPERIENCE as an independent argument. Therefore, we can propose the modified classification in (20).

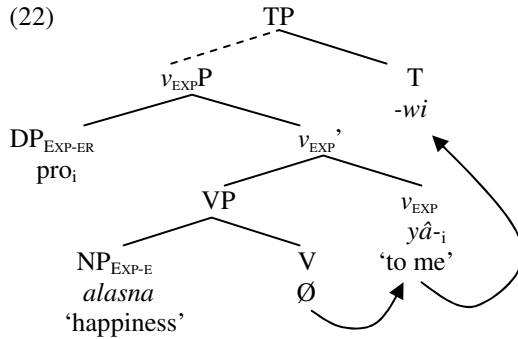
- (20)
- a. *Class I*: Nominative EXPERIENCER, accusative THEME.
John loves Mary.
 - b. *Class II*: Nominative THEME, accusative EXPERIENCER.
The show amused Bill.
 - c. *Class III*: Nominative THEME, dative EXPERIENCER.
The idea mattered to Julie.
 - d. *Class IV*: Dative EXPERIENCER, no THEME.
Yâ wakahwi.
 - e. ***Class V*: Nominative THEME, dative EXPERIENCER, overt EXPERIENCE.**
Tingki dalâ yâwi.

Similar to the incorporating type of experience predicates discussed above, Charles & Torrez (2008) present evidence of the existence of experience predicates with light verb constructions that do not merge the SOURCE in the structure. Consider the examples in (21).

- (21)
- a. *Yuh* *kalawi*.
hunger DAT:3s-PRES:3s
'She is hungry.'
 - b. *Alasna* *yâwi*.
happiness DAT:1s-PRES:3s
'I am happy.'

The main difference between the example in (18) and the ones in (21) is the lack of a SOURCE in the latter: in all these examples the EXPERIENCE

surfaces as an independent argument; the SOURCE, however, is only present in (18), while missing in (21). The structure accounting for these SOURCE-less experience examples with a light verb is shown in (22).



Again, these examples force us to review and modify the classification of experience predicates first put forth by Belletti & Rizzi (1988). The resulting modified classification is shown in (23).

- (23)
- a. *Class I*: Nominative EXPERIENCER, accusative THEME.
John loves Mary.
 - b. *Class II*: Nominative THEME, accusative EXPERIENCER.
The show amused Bill.
 - c. *Class III*: Nominative THEME, dative EXPERIENCER.
The idea mattered to Julie.
 - d. *Class IV*: Dative EXPERIENCER, no THEME.
Yâ wakahwi.
 - e. *Class V*: Nominative THEME, dative EXPERIENCER, overt EXPERIENCE.
Tingki dalâ yâwi.
 - f. ***Class VI***: Dative EXPERIENCER, overt EXPERIENCE, no THEME.
Alasma yâwi.

An important note must be made before closing this section. All the experience predicates discussed in Section 3 share an important feature, independently from the expression of the EXPERIENCE: all the examples discussed above express states, without a CAUSER or AGENT initiating the experience. However, as noted in Section 1, some experience predicates allow an agentive reading. In the following section I analyze these predicates and propose an account for their realization.

4 An account for the agentive reading

As the example (1c) above showed, Mayangna presents evidence, also observed in other languages (Belletti & Rizzi 1988; van Voorst 1992; Landau

2005; among others), of experience predicates that allow an agentive interpretation. Consider the examples in (24).

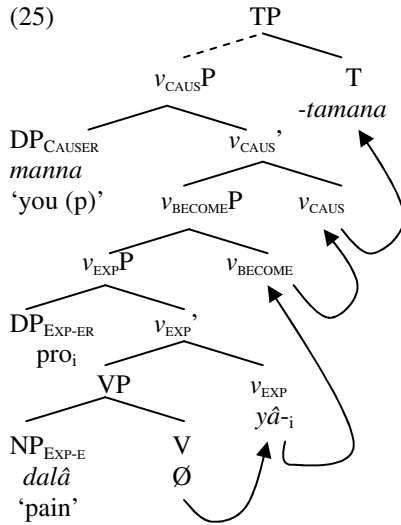
- (24) a. *Dalâ yâwi.*
pain DAT:1s-PRES:3s
'I am hurting.'
b. *Manna dalâni yâtamana.*
PRON:2p pain-AGR3s DAT:1s-PRES:2p
'You (p) are hurting me.'

In the examples above, we observe a contrast of interpretation. The sentence in (24a) does not allow an agentive interpretation; the sentence in (24b), on the other hand, expresses an agentive experience predicate: the experience is caused by an external AGENT (i.e. *manna* 'you (pl.)').

I argue that this variation in interpretation is structurally motivated. I contend, building on different views on the literature (Arad 1999; McGinnis 2000, 2001), that the basic experience structure discussed in Section 3 always yields stative readings. In other words, an agentive (and, consequently, eventive) interpretation must be the result of some eventive structural layer on top of $v_{\text{EXP}}\text{P}$.

Such a claim is supported by other facts. Notice that the thematic relations of the arguments are maintained in both (24a) and (24b) (none of the two sentences introduces a SOURCE). The only difference in the argument structure is the addition in (24b) of an AGENT (or external CAUSER). If we assume a strong version of Baker's (1988) Uniformity of Theta Assignment Hypothesis (UTAH), according to which identical thematic relationships are represented by identical structural relationships, we must conclude that the AGENT (or external CAUSER) has to be merged at another structural position.

Therefore, and building on recent views on event structure and external causation (Pylkkänen 1999, 2002, 2008; McGinnis 2000, 2001), I propose an eventive causative structure. The eventive unaccusative head v_{BECOME} selects $v_{\text{EXP}}\text{P}$ and turns the (stative) experience predicate into an inchoative event. The causative interpretation is the result of merging the head v_{CAUS} on top of $v_{\text{BECOME}}\text{P}$; v_{CAUS} is responsible for the introduction of the external CAUSER, which will become an AGENT if it has animate features. This structure is schematized in (25) below.



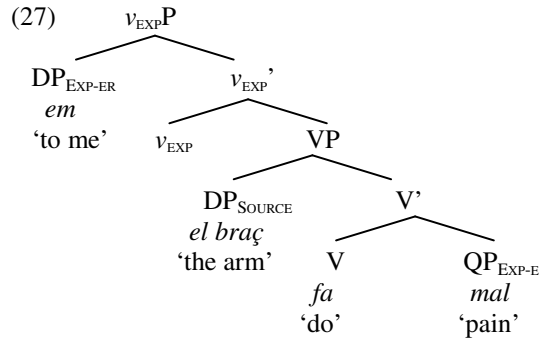
This layered structure analysis is supported by other data. Notice that in the example in (24b) there is agreement between the AGENT and the verbal inflection, a fact that was not observed in those experience predicates with a stative interpretation. This suggests that the AGENT is visible for such operation; i.e. the AGENT is structurally higher enough to trigger the agreement.

5 Supporting the analysis: Evidence from Catalan

The analysis presented in the previous sections not only accounts for the different outputs of experience predicates in Mayangna and their respective interpretations, but also for the realization of experience predicates crosslinguistically. Similar to Mayangna, Catalan, a Romance language, also presents examples of light verb constructions to express experience predicates. Consider the example in (26).

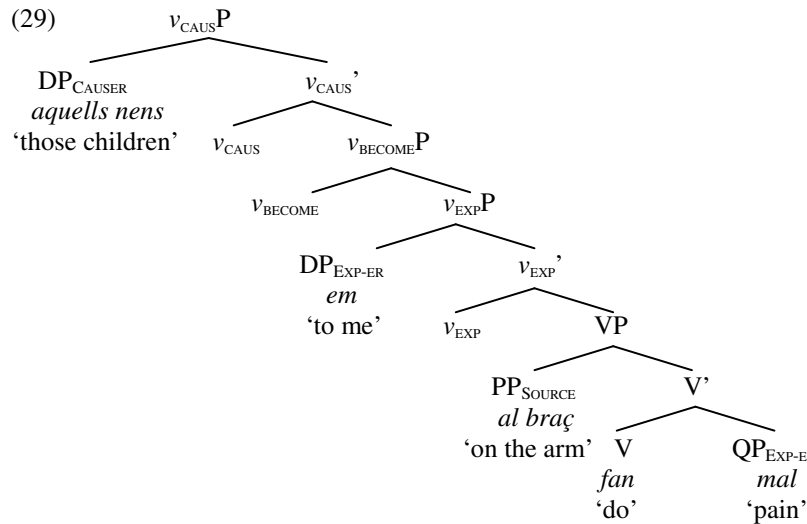
- (26) *Em fa mal el braç.*
 DAT:1s do-PRES:3s painD arm
 'My arm hurts.'

Note that in the example above, the EXPERIENCE (*mal* 'pain') surfaces independently from the light verb (*fer* 'to do'), while the other arguments (EXPERIENCER and SOURCE) are also indicated. This is the result of the structure in (27). (Catalan is a head-initial language; consequently, the head-complement relations in the arboreal structure are reversed compared to the ones observed in Mayangna.)



Also as in Mayangna, a reduced subset of these Catalan predicates allows an agentive interpretation. An example is shown in (28), with the corresponding structure in (29).

- (28) *Aquells nens em fan mal al braç.*
 those children DAT:1s do-PRES:3p pain on+the arm
 'Those children hurt my arm.'



Given all this evidence, we can conclude that the hypothesis presented is valid: there exists a universally-available experience structure that allows for the optional incorporation of the EXPERIENCE on V and is the base for an eventive structure, accounting for the realization of agentive experience predicates crosslinguistically.

6 Conclusions

In this paper I have presented an account for the different levels of parameterization of experience predicates in Mayangna, stemming from a crosslinguistically available experience structure. According to this structure, the EXPERIENCE may surface as incorporated on V or as an independent argument; the latter option triggers the presence of a light verb.

This structure, which by itself yields stative predicates, may be selected by eventive projections to obtain an eventive interpretation. If v_{CAUS} , a functional causative head introducing an external CAUSER, is merged in the structure, we obtain an agentive reading of experience predicates.

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