

# Psych Verbs in Spanish and Japanese: A Contrastive Study on the Semantics-Syntax Interface

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Psych Verbs in Spanish and Japanese:  
A Contrastive Study on the Semantics-Syntax Interface

スペイン語と日本語の心理動詞：  
意味と統語のインターフェースに関する対照研究

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# Chapter 1. Introduction

## 1.1. Topic of Research

This dissertation performs a cross-linguistic analysis of the semantics-syntax interface of psychological verbs (hereafter ‘psych verbs’). Psych verbs are those that denote a mental state or a change of mental state (e.g. *fear*, *frighten* in English; *odiar* ‘hate,’ *asustar* ‘frighten,’ *gustar* ‘please’ in Spanish; *nikum-* ‘hate,’ *odorok-* ‘get surprised’ in Japanese). These verbs display a variety of argument realization patterns both within- and cross-linguistically, and this poses a problem to the theories of argument structure that assume a uniform and universal mapping between semantic roles and syntactic configurations. In a cross-linguistic view, the problem involves different morphosyntactic phenomena that correlate with semantic properties of the predicates. For instance, Spanish and Japanese, our subjects of enquiry in this study, show case alternations (e.g. *Eso la/le asustó* ‘That frightened her/ That was frightening for her’; *Kanojyo-ga sore-o/-ni yorokon-da* ‘She felt happy about/because of that’) and (anti-)causative derivations (e.g. *asustar* ‘frighten’ – *asustarse* ‘get frightened’; *odorok-* ‘get surprised’ – *odorok-ase-* ‘surprise’) in their psych verbs. The problem posed by psych verbs has been examined from both syntactic and semantic perspectives. This study takes the latter approach: certain semantic differences of the predicates appear as different syntactic realizations. Taking that into account, which semantic differences between psych verbs are relevant to the variations in their syntactic realization? This dissertation conducts an analysis of psych verbs of Spanish and Japanese on the basis of three distinct semantic notions: thematic relation, lexical aspect, and causativity.

In this chapter, after introducing the details of the research topic in the present section (1.1), we will outline three landmark proposals for the theoretical frame of the topic in the next section (1.2) and then we will put forward the relevance of our thematic-aspectual-causative approach to the issue in the last section (1.3).

Psych verbs, denoting a psychological state or a change of psychological state, are often associated with two arguments, one of which typically is the ‘Experiencer’ and the other of which is often regarded as the ‘Stimulus’ (or ‘Theme’).<sup>1</sup> The peculiarity of this class of verbs

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<sup>1</sup> In this study, I use ‘Stimulus’ as a label that designates the non-Experiencer argument of psych verbs except where the quoted source favors other designations such as ‘Theme.’ As we will see presently, there is a different tradition, which employs the label of ‘Theme’ for the argument in question (Belletti and Rizzi 1988, Grimshaw 1990, among others). With psych verbs, this ‘Theme’ refers to the content or object of the described mental

is that some verbs express the Experiencer argument as the subject ('ExpSubj verbs') and others lexicalize it as the object ('ExpObj verbs').

- (1) a. *Experiencer*: “a participant who is characterized as aware of something” (action or state) but who is not in control of it (Andrews 1985:8, Dowty 1989, Saeed 2009)  
 b. *Stimulus*: a participant that “causes some emotional reactions or cognitive judgments in the Experiencer” (Dowty 1991:579, Talmy 1985)
- (2) a. The children {like/hate/fear...} ghosts.                      ExpSubj – StimulusObj  
 b. Ghosts {please/disgust/frigten...} the children.              StimulusSubj – ExpObj

The existence of ExpSubj verbs and ExpObj verbs has been considered problematic for the theories of argument structure that assume a uniform and universal mapping between thematic roles and syntactic configurations, such as *Universal Alignment Hypothesis* and *Uniformity of Theta Assignment Hypothesis*. That is to say, although psych verbs are associated with a particular pair of thematic roles, they do not lexicalize them as uniformly as expected.

- (3) a. *Universal Alignment Hypothesis* ('UAH'): “There exist principles of universal grammar which predict the initial relation borne by each nominal in a given clause from the meaning of the clause” (Perlmutter and Postal 1984:97).  
 b. *Uniformity of Theta Assignment Hypothesis* ('UTAH'): “Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure” (Baker 1988:46).

The argument realizations of psych verbs are also problematic for theories in which subject selection is realized according to certain Thematic Hierarchy. Namely, the argument realization of psych verbs does not entirely conform to the Thematic Hierarchy where the Experiencer is in a higher position than the role of the other argument (i.e. Theme) (Grimshaw 1990; cf. Jackendoff 1972), since ExpObj verbs do not select the Experiencer but the Theme as the subject.

- (4) Thematic Hierarchy (Grimshaw 1990:8):<sup>2</sup>  
 (*Agent (Experiencer (Goal/Source/Location (Theme))))*)

The argument realization problem of psych verbs is not only a matter restricted to a single language, but this is a cross-linguistic phenomenon. Psych verbs in many languages show variations in the case marking of their arguments. For instance, Italian has at least three

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state, although the traditional definition of this role is “a participant which is characterized as changing its position or condition, or as being in a state or position” (Andrews 1985:8).

<sup>2</sup> Jackendoff's (1972) Thematic Hierarchy was only missing the thematic role label 'Experiencer,' since it was considered as Goal in the localist view.



- b. El trueno **la** asustó (a María). StimulusNOM – ExpACC  
 the thunder ACC frightened ‘to’ María  
 ‘The thunder frightened María.’
- c. A María **le** gusta la música clásica. ExpDAT – StimulusNOM  
 to María DAT pleases the music classical  
 ‘Classical music pleases María (= María likes classical music).’

In Japanese, on the other hand, there are two classes of ExpSubj verbs that differ in the case marking of the Stimulus argument by the accusative *-o* or the “dative” *-ni* (we will review this later). Regarding ExpObj verbs, the language uses a morphological strategy to derive them from ExpSubj verbs.

- (8) a. Maki-ga hannin-**o** nikum-de i-ru. ExpSubj – Stimulus-*O*  
 Maki-NOM criminal-ACC hate-ASP-NPST  
 ‘Maki hates the criminal.’
- b. Maki-ga kaminari-**ni** odoroi-ta. ExpSubj – Stimulus-*NI*  
 Maki-NOM thunder-*NI* ‘get surprised’-PST  
 ‘Maki got surprised at the thunder.’
- c. Sono sirase-ga Maki-o odorok-**ase**-ta. StimulusSubj – ExpObj  
 that news-NOM Maki-ACC ‘get surprised’-CAUS-PST  
 ‘The news surprised Maki (or The news caused surprise in Maki).’

Moreover, both Spanish and Japanese display some kinds of case alternations. For instance, Spanish presents an ACC-DAT alternation for the Experiencer argument, i.e. most ExpACC verbs actually can also appear in the ExpDAT construction ((9a)). Japanese, on the other hand, displays an ACC-OBL alternation for the Stimulus argument, i.e. some ExpSubj verbs can occur with an *o*-marked object or a *ni*-marked element ((9b)). Interestingly, case alternations in both languages closely relate to semantic differences between variants.

- (9) a. Los perros **la/le** asustan (a María).  
 the dogs ACC/DAT frighten to María  
 ‘The dogs frighten María/The dogs are frightening for María.’
- b. Maki-ga sono sirase-**o/-ni** yorokon-da.  
 Maki-NOM that news-ACC-*NI* ‘get pleased’-PST  
 ‘Maki was pleased about/because of the news.’

Furthermore, there are typological differences between Spanish and Japanese with respect to the lexicalization patterns of certain psych verbs (Talmy 1985; see also Ikegami 1981). In Spanish, most ExpACC verbs (e.g. *sorprender* ‘surprise’) form an ExpSubj reflexive variant (e.g. *sorprenderse* ‘get surprised’). In Japanese, on the other hand, some ExpSubj verbs (e.g. *odorok-* ‘get surprised’) form an ExpObj causative variant (e.g. *odorok-ase-* ‘surprise’).

- (10) a. El trueno la asustó (a María).      Spanish: ExpObj verbs → ExpSubj reflexives  
           the thunder ACC frightened 'to' María  
           ‘The thunder frightened María.’  
       b. María se asustó del trueno.  
           María REFL frightened of the thunder  
           ‘María got frightened at the thunder.’
- (11) a. Maki-ga kaminari-ni odoroi-ta.      Japanese: ExpSubj verbs → ExpObj causatives  
           Maki-NOM thunder-NI 'get surprised'-PST  
           ‘Maki gets surprised at the thunder.’  
       b. Kaminari-ga Maki-o odorok-ase-ta.  
           thunder-NOM Maki-ACC 'get surprised'-CAUS-PST  
           ‘The thunder surprised Maki (caused Maki to get surprised).’

A number of studies have addressed the problem posed by psych verbs in order to preserve the hypotheses of uniform and universal mapping between semantic relations and syntactic realizations of arguments. The earlier works provide syntactic transformational accounts on the assumption that the thematic roles are the same across psych verbs. The later works, on the other hand, claim that psych verbs are not aspectually or thematically homogeneous because of the causativity (aspectual or morphological) of certain verbs, and that such semantic divergence causes the different syntactic realizations. In the next section, we will summarize the proposals of three landmark works on this field and we will highlight some relevant points for the approach we employ in this study.

## 1.2. Background

### 1.2.1. A Transformational Account: Belletti and Rizzi (1988)

Belletti and Rizzi (1988) propose a transformational analysis of psych verbs, where the surface subject of ExpObj verbs originates in the internal object position. In other words, ExpObj verbs are unaccusatives.<sup>3</sup> Their proposal had a great influence on subsequent studies, especially because it appears to successfully explain some syntactic peculiarities characterizing these verbs.

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<sup>3</sup> Intransitives can be divided into unergatives and unaccusatives. The difference lies in that the subject of unaccusatives is an underlying object, while the subject of unergatives is an object at both surface and deep structures. In other words, the subject of unaccusatives is a Theme (an entity that undergoes a change of state or location) just like the objects of transitives, while that of unergatives is an Agent (a person who intentionally performs an action) just like the subjects of transitives (see Perlmutter 1978 and Burzio 1986).

a. Transitive: John hit the ball: [John [ hit the ball]]] (*John* = Agent, *the ball* = Theme)  
 b. Unergative: John ran: [John [ run ]] (*John* = Agent)  
 c. Unaccusative: The train arrived: [(ec) [arrive the train]] (*the train* = Theme) (ec: empty category)

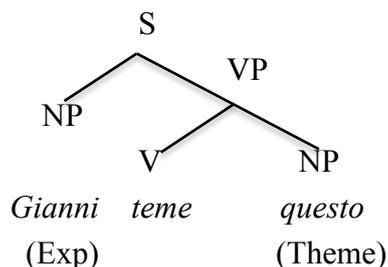
According to them, psych verbs have a uniform  $\theta$ (theta)-grid [Experiencer, Theme], where the Experiencer is the individual experiencing the mental state and the Theme is the content or object of the mental state. However, as already mentioned, there are three classes of psych verbs in Italian: (i) *temere* ‘fear,’ (ii) *preoccupare* ‘worry,’ and (iii) *piacere* ‘please.’ Regarding *piacere* class, the Experiencer can appear both pre-verbally ((12c)) and post-verbally ((12c’)), although the former is the unmarked one (Belletti and Rizzi 1988:292):

- |                             |                   |                    |
|-----------------------------|-------------------|--------------------|
| (12) a. Gianni teme questo. | ExpNOM – ThemeACC | (i) ExpNOM verbs   |
| Gianni fears this           |                   |                    |
| b. Questo preoccupa Gianni. | ThemeNOM – ExpACC | (ii) ExpACC verbs  |
| this worries Gianni         |                   |                    |
| c. A Gianni piace questo.   | ExpDAT – ThemeNOM | (iii) ExpDAT verbs |
| to Gianni pleases this      |                   |                    |
| c’. Questo piace a Gianni.  | ThemeNOM – ExpDAT |                    |
| this pleases to Gianni      |                   |                    |

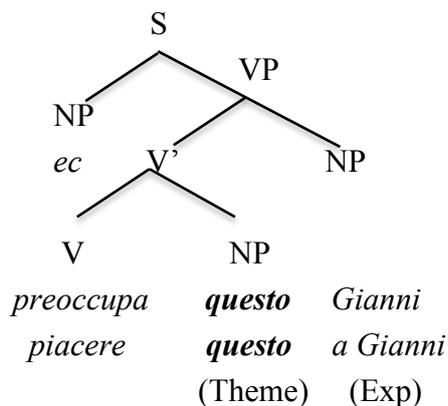
The main proposal is that ExpObj verbs (both (ii) and (iii)) are a type of ‘unaccusatives’ that has a d(eep)-structure close to that of double-object constructions. While the subject of ExpSubj verbs is an inherently external argument ((13a)), the subject of ExpObj verbs originates in the internal position and then undergoes a movement to the external position ((13b)). These apparently different d-structures share the point that “the verb directly  $\theta$ -marks the Theme, and the constituent ‘V+Theme’ compositionally  $\theta$ -marks the Experiencer” (Belletti and Rizzi 1988:293). Therefore, this proposal does not contradict the hypothesis of a uniform thematic-syntactic mapping.

(13) D-structures of Italian psych verbs (Belletti and Rizzi 1988:293):

a. (i) *Temere*



b. (ii) *Preoccupare* and (iii) *Piacere*

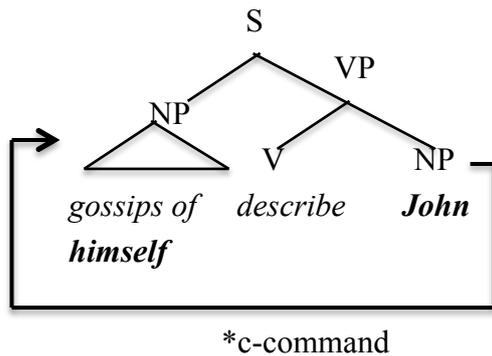


The unaccusative analysis of ExpObj verbs seems to account for some syntactic behaviors that have been considered typical of these verbs. For instance, the object of *frighten* verbs can bind an anaphor contained within the subject. This backward binding is normally impossible

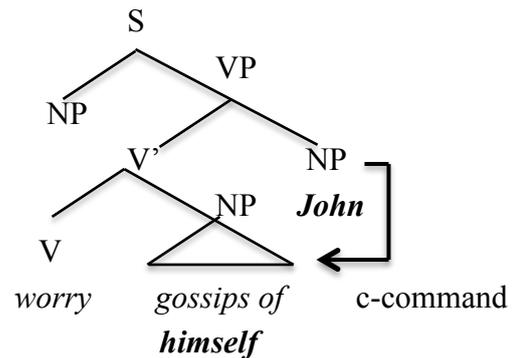
because the antecedent must c(onstituent)-command the anaphor, as shown in (14a, 15a). The *frighten* verbs allow backward binding because, if they are unaccusatives, the c-command relation properly occurs at the d-structure, as described in (14b, 15b).

- (14) a. \*These gossips of himself<sub>i</sub> describe John<sub>i</sub> better than any official biography.  
 b. These gossips of himself<sub>i</sub> worry John<sub>i</sub> more than anything else.  
 ← [[worry [these gossips [of himself<sub>i</sub>]]] John<sub>i</sub>] (Belletti and Rizzi 1988:312)

(15) a.



b.



The unaccusativity of *preoccupare* class verbs is corroborated by the nature of their subjects and objects. First, the subject of this class is not an inherent subject but a derived subject. For instance, the inherent subjects can bind a reflexive clitic ((16a)), whereas the derived subjects of some constructions, such as passives, cannot ((16b)). The *preoccupare* class does not have the ability of this anaphoric cliticization ((17b)), while the *temere* class does ((17a)). Therefore, the subject of *temere* class is an inherent subject, but that of *preoccupare* class is a derived subject. Note that we are here talking about so-called “true reflexives” and not about the inchoative variants with *si* that *preoccupare* verbs can form without any problem ((17c)).

- (16) a. Gianni *si* è fotografato.  
 Gianni himself photographed  
 b. \*Gianni *si* è stato affidato. (Belletti and Rizzi 1988:295)  
 Gianni to himself was entrusted

- (17) a. Gianni *si* teme.  
 Gianni himself fears  
 b. \*Gianni *si* preoccupa.  
 Gianni himself worries  
 c. Gianni *si* preoccupa per/di questo. (Belletti and Rizzi 1988:296, f2)  
 Gianni worries for/of this

Moreover, the object of the *preoccupare* class is not a canonical object, but more like the second object of a double object construction. For instance, the Experiencer object of this class does not allow extraction of material ((18b)), while the Theme object of *temere* class

does ((18a)). The extraction of material is only possible for NP in the direct object position of V, and impossible for NP in other positions such as subject, prepositional object and adverbial. Therefore, the object of *temere* is a canonical one while that of *preoccupare* is not.

- (18) a. La ragazza di cui Gianni teme il padre.  
           the girl           of whom Gianni fears the father  
       b. \*La ragazza di cui Gianni preoccupa il padre                   (Belletti and Rizzi 1988:325)  
           the girl           of whom Gianni worries the father

Nevertheless, not all ExpObj verbs are unaccusatives in a traditional sense. According to the unaccusativity test by the aspectual auxiliary selection (Burzio 1986), the *piacere* class is indeed unaccusative because it selects *essere* ‘be,’ while the *preoccupare* class is not, since it selects *avere* ‘have.’ However, *preoccupare* verbs are not ordinary transitives, either, because they lack an external argument, i.e. an argument generated in the external (subject) position. Given that “a case is assigned to the object if a  $\theta$ -role is assigned to the subject” (Belletti and Rizzi 1988:332 after Burzio 1986), *preoccupare* verbs present an exceptional case: the object is assigned an accusative case even though there is no argument in the subject position to assign  $\theta$ -role. That is, the accusative case of their object must be inherently assigned in the lexicon.<sup>4</sup> The difference between *preoccupare* class and *piacere* class is, then, that the former is an inherent accusative case assigner while the latter is an inherent dative case assigner.

To sum up, according to Belletti and Rizzi (1988), psych verbs have a  $\theta$ -grid [Experiencer, Theme] across classes, although ExpSubj verbs have the Experiencer as an external argument while ExpObj (ACC or DAT) verbs lack an external argument. Both ExpACC verbs and ExpDAT verbs are similar to unaccusatives in this sense, but they differ from each other regarding the case they assign to the Experiencer in the lexicon:

(19) Lexical entry of psych verbs (Belletti and Rizzi 1988:344):

- |                                |                                                                                                                    |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------|
| (i) <i>temere</i> class:       | $\left[ \begin{array}{l} \theta\text{-grid [Experiencer, Theme]} \\ \text{Case-grid [-, -]} \end{array} \right]$   |
| (ii) <i>preoccupare</i> class: | $\left[ \begin{array}{l} \theta\text{-grid [Experiencer, Theme]} \\ \text{Case-grid [Acc, -]} \end{array} \right]$ |
| (iii) <i>piacere</i> class:    | $\left[ \begin{array}{l} \theta\text{-grid [Experiencer, Theme]} \\ \text{Case-grid [Dat, -]} \end{array} \right]$ |

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<sup>4</sup> Consequently, the unaccusativity test is modified: “a verb will select *avere* if it has an external argument or if it has inherent accusative in its case-grid” (Belletti and Rizzi 1988:333). Transitives and unergatives select *avere* because they have an external argument, while unaccusatives select *essere* because they have no external argument. *Preoccupare* verbs select *avere* even though they have no external argument because they have an inherent accusative in its case-grid. *Piacere* verbs select *essere* because they have neither external argument nor inherent accusative (but dative).

Belletti and Rizzi's (1988) unaccusative analysis of ExpObj verbs had great impact on the studies of psych verbs, mostly because it seemed to efficiently account for some syntactic peculiarities associated with these verbs, such as the backward binding phenomenon. However, there are some alternative views to this topic. Bouchard (1992) argues that not only ExpObj verbs but non-psych verbs also show the backward binding phenomena, and the backward binding is not due to the unaccusativity of the verbs but rather due to the nature of the antecedent itself. The following examples show that the backward binding only occurs in the 'representational' interpretation, and it does not occur in the 'individual' reading.

- (20) #That picture of herself struck Mary as funny. (*strike* in a psych use <sup>5</sup>)
- i) ??: the picture itself, e.g. it had an odd frame. ('individual')
  - ii) OK: what the picture represents, e.g. what she looked like in it. ('representational')

Moreover, the inability of reflexive cliticization can also be accounted for by other means. The subject of *fear* verbs can bind the reflexive anaphor, whereas the subject of *frighten* verbs cannot. Bouchard (1992) claims that this phenomenon has to do with 'type mismatch.' Being reflexive, the antecedent must be of the type 'individual.' However, the subject of *frighten* verbs can be either of the type 'individual' or 'properties of individual,' and in the latter case a type mismatch occurs.

- (21) a. They fear themselves.  
       'Individual' = 'Individual'
- b. ?\*They frighten themselves.  
       i) 'Individual' = 'Individual'  
       ii) 'Properties of the individual' ≠ 'Individual'

Similarly, Arad (1998) argues that a verb can have an agentive reading and a stative reading, and the syntactic peculiarities associated with psych verbs, such as the inability of anaphoric cliticization ((22a)) and extraction of material ((23a)) pointed out by Belletti and Rizzi (1988: 296, 325), would disappear in the agentive reading, as shown in (22b, 23b) (Arad 1998:7,9).

- (22) a. \*Gianni si preoccupa/ ??Gianni si spaventa.  
       Gianni himself worries      Gianni himself frightens

---

<sup>5</sup> Arad (1998) also asserts that almost any verb can be interpreted as a psych verb if it fulfills certain requirements, such as: (A) the verb has an animate argument (e.g. *Nina turned the TV on* vs. *Nina turned Paul on*); (B) its external argument is incapable of physical action (e.g. *Le serpent a fasciné sa proie, puis lui a sauté dessus* 'The snake fascinated its prey, then leapt upon it' vs. *La beauté d'Ava Gardner fascinait les spectateurs* 'Ava Gardner's beauty fascinated the audience'); or (C) in case of non-incorporated psych verbs, one of the internal arguments is an emotion or a mental state (*This child gave Mary a book* vs. *This child gives his parents enormous joy*). Then, even verbs like *kill* can have a psych use (e.g. *Oedipus killed his father* vs. *This joke really killed the audience*).

- b. Gli student si spaventano prima degli esami per indursi a studiare di più.  
 ‘The students frighten themselves before exams in order to urge themselves to study hard.’

- (23) a. \*La ragazza di cui Gianni preoccupa il padre  
           the girl           of whom Gianni worries           the father  
 b. La ragazza di cui Gianni ha spaventato i genitori perchè gliela facessero sposare.  
 ‘The girl whose parents Gianni frightened so that they will allow him to marry her.’

### 1.2.2. An Aspectual Account: Grimshaw (1990)

Grimshaw (1990) argues that ExpObj verbs and ExpSubj verbs are aspectually different even though they are thematically identical. While ExpSubj verbs are stative, ExpObj verbs are causative. According to her, argument structure is a representation of the prominence relations determined by the thematic and the aspectual properties of the predicates. The thematic prominence is provided via thematic hierarchy ((24a)), while the aspectual prominence corresponds to the causal hierarchy in the event structure, i.e. participation in the first sub-event or the second sub-event ((24b)).

- (24) a. Thematic hierarchy: (Agent (Experiencer (Goal/Source/Location (Theme))))  
 b. Causal hierarchy: (Cause (other (...))) (Grimshaw 1990:24)

ExpObj verbs like *frighten* and ExpSubj verbs such as *fear* express the same thematic relations but differ from each other in the aspectual dimension. The Theme argument of ExpObj verbs is what causes a change of psychological state in the Experiencers, and therefore the Theme argument turns out to be aspectually more prominent than the Experiencer argument ((25b)). The aspectual prominence is more decisive than the thematic one for the subject selection. The argument that is aspectually more prominent will appear as the subject, even though it is thematically less prominent. The only problem here is, as Grimshaw (1990) herself notes, there is no independent evidence for the Experiencer of ExpSubj verbs to be aspectually more prominent than the Theme ((25a)).

- (25) a. John fears ghosts.             $\left[ \begin{array}{l} \text{Thematic dimension: (Exp (Theme))} \\ \text{Aspectual dimension: 1(?) \quad 2(?)} \end{array} \right]$   
 b. Ghosts frighten John.            $\left[ \begin{array}{l} \text{Thematic dimension: (Exp (**Theme**))} \\ \text{Aspectual dimension: 2 \quad 1} \end{array} \right]$

In this prominence theory, the notion of external argument is also redefined. The “external argument” has been used to refer to a d-structure subject, while Grimshaw’s external argument refers to the most prominent argument in both thematic and aspectual dimensions.

Following this, ExpObj verbs are distinguished from unaccusatives in the reason why they lack an external argument: ExpObj verbs have no external argument because of the mismatch between the thematic and the aspectual prominence relations of the arguments, while unaccusatives lack an external argument because they are monadic predicates that only have a Theme argument, i.e. they denote only a second sub-event and lack a first-subevent.

To sum up, according to Grimshaw (1990), ExpSubj verbs and ExpObj verbs are distinguished in the prominence of arguments in the aspectual dimension, which also relates to the presence/absence of an external argument. The *fear* verbs have an external argument ((26a)), while the *frighten* verbs have no external argument ((26b)) unless used in an agentive reading ((26c)). ExpObj verbs are not completely unaccusatives because they lack an external argument for different reasons.

(26) a. Psychological state (e.g. *fear*): (Exp (Theme))

1(?) 2(?)

b. Psychological causative (e.g. *frighten*): (Exp (Theme)) (cf. Unaccusative: ((Theme)))

2 1

c. Agentive psychological causative: (Agent (Exp))

1 2

Grimshaw (1990) proposes that ExpObj verbs differ from ExpSubj verbs in the aspectual prominence of the arguments. ExpObj verbs are causatives, complex events consisting of subevents, i.e. a process and a change of state (= Vendler's (1967) 'accomplishments'). There are actually a number of aspectual studies of psych verbs. Croft (1986) and Dowty (1991) assert that ExpSubj verbs are stative, while ExpObj verbs can be either stative or inchoative. Van Voorst (1992) regards psych verbs as describing 'achievements' across classes. Arad (1998), as mentioned already, argues that verbs can be "psych" only in the stative reading. Pylkkänen (2000) claims that ExpSubj verbs and ExpObj verbs are not opposing in the stativity/causativity distinction, because there are stative ExpObj causatives in Finnish. Rather, the causativity must be separated from the notion of aspect. We will see the details concerning these aspectual analyses of psych verbs in Chapter 3.

### 1.2.3. A Morphological Account: Pesetsky (1995)

Pesetsky (1995) proposes that ExpObj verbs differ from ExpSubj verbs in their thematic roles because ExpObj verbs are morphologically causatives that embed an ExpSubj predicate. According to him, the subject of ExpObj verbs is a 'Causer' of emotion, while the object of ExpSubj verbs is assigned a different role, 'Target or Subject Matter' (T/SM) of emotion. The subject selection is realized conforming to a thematic hierarchy containing these roles ((28)).

- (27) a. John {fears/be angry at/worries about} ghosts.      Experiencer – T/SM  
 b. Ghosts {frighten/anger/worry} John.                      Causer – Experiencer

(28) *Causer > Experiencer > T/SM*      (Pesetsky 1995:59).

Some early studies assumed that ExpSubj verbs and ExpObj verbs have the same thematic relations, i.e. Experiencer and Theme, because the selectional restrictions on the subject of *fear* verbs and the object of *frighten* verbs and the selectional restrictions on the object of *fear* verbs and the subject of *frighten* verbs appear to be the same. Nevertheless, this is actually not the case (Bouchard 1992).

- (29) a. The brown spots on Ronald’s skin frighten Nancy.  
 b. #Nancy fears the brown spots on Ronald’s skin.

Moreover, the object of ExpSubj verbs and the subject of ExpObj verbs are different in the truth conditions. For example, in (30a) *the article* is evaluated negatively by the Experiencer, while in (30b) it only causes anger in the Experiencer (the Experiencer may be angry at someone or something that the article is about, and not at the article itself).

- (30) a. Bill was very angry at the article in *The Times*.  
 b. The article in *The Times* angered/enraged Bill.

It is observed that an ExpObj verb cannot assign both ‘Causer’ and ‘T/SM’ roles in the same sentence, while its periphrastic variant can (‘T/SM restriction’).

- (31) a. \*The article in *The Times* angered Bill at the government.  
 b. The article in *The Times* made [Bill angry at the government].

The T/SM restriction is due to the morphological causativity of ExpObj verbs. Pesetsky (1995) assumes that ExpObj verbs in English are bimorphemic, consisting of a phonologically null causative morpheme and a bound root that corresponds to an ExpSubj predicate ((32)). An ExpObj verb cannot appear with both Causer and T/SM because the Causer role is assigned by the CAUS but the T/SM role belongs to the ExpSubj predicate embedded in the ExpObj verb. Note that this proposal is based on the observation that in other languages such as Japanese, ExpObj verbs are morphologically overt causatives, which are derived from ExpSubj verbs by attaching a causative morpheme ((33)).

- (32) a. The news [*CAUS* [depressed<sub>v</sub>]<sub>v</sub>] Bill.  
 b. *depress* : [[ $\sqrt{\text{depress}}_v$ ]*CAUS*<sub>v</sub>]      ( $\sqrt{\text{depress}}$  = ‘be (become) depressed’)

- (33) Sono sirase-ga Tanaka-o kanasim-ase-ta.  
that news-NOM Tanaka-ACC 'feel sad'-CAUS-PAST  
'That news saddened Tanaka.'

(Pesetsky 1995:7)

Pesetsky (1995) proposes that ExpObj verbs are morphologically causatives (overtly or covertly). ExpObj verbs embed an ExpSubj predicate, and hence the former differ from the latter even thematically. Pesetsky's (1995) idea is based on the assumption that lexically causative verbs (e.g. ExpObj verbs in English) and morphologically overt causatives (e.g. ExpObj causatives in Japanese) can be treated as semantically equal. However, it seems that causatives are not all the same kind across languages. For instance, Japanese *-(s)ase* causatives are more like periphrastic causatives constructed with *make*, *have*, *cause*, or *let* than single-verb causative predicates (cf. Katada 1994). There may be different types in causatives, e.g. lexically causative predicates, causatives formed in the lexicon, and causatives formed in the syntax (Horvath and Sioni 2011a). We will tackle this issue in Chapter 4.

#### 1.2.4. Summary

So far we have summarized three landmark works for the study of psych verbs. Belletti and Rizzi (1988) propose an unaccusative analysis of ExpObj verbs, assuming that all psych verbs share the same theta-grid [Experiencer, Theme]. Grimshaw (1990) claims that ExpObj verbs differ from ExpSubj verbs in the aspectual prominence of the Theme argument because ExpObj verbs are causative predicates consisting of two subevents, a process and a change of state. Pesetsky (1995) argues that ExpObj verbs differ from ExpSubj verbs even thematically because ExpObj verbs are causatives morphologically embedding an ExpSubj predicate.

Even though there are some debatable points in each of these proposals, these three works still provide us a guideline for the study of psych verbs. Belletti and Rizzi's (1988) transformational account is based on the view that all psych verbs are characterized by the same pair of thematic roles, i.e. Experiencer and Theme, while Grimshaw's (1990) account suggests that psych verbs are thematically the same but differ in the aspectual dimension, and Pesetsky's (1995) account claims that psych verbs differ even thematically because of the causativity.

- (34) Belletti and Rizzi (1988):
- a. ExpSubj verbs: Experiencer, Theme
  - b. ExpObj verbs: **Theme**, Experiencer (result of a transformation)

- (35) Grimshaw (1990):
- a. ExpSubj verbs: Experiencer, Theme
  - b. ExpObj verbs: **Theme**, Experiencer (due to the aspectual “causativity”)
- (36) Pesetsky (1995):
- a. ExpSubj verbs: Experiencer, T/SM
  - b. ExpObj verbs: **Causer**, Experiencer (due to the morphological causativity)

From these proposals we could assume that a study of psych verbs must examine, at least, the thematic roles that psych predicates could be associated with, the aspectual nature relevant for the argument realization of the verbs in question, and the causativity related to the morphological derivation of these verbs. Moreover, thematic roles, lexical aspect, and causativity are not independent notions, but there are notable interactions between them. In this study, therefore, we will conduct thematic, aspectual, and causative analyses on psych verbs to review how these different semantic properties interact with each other.

### 1.3. Goal of Research

Psych verbs are considered problematic for the theories of argument realization. The existence of ExpSubj verbs and ExpObj verbs seems to contradict the hypothesis that there is a uniform, constant and universal function between thematic roles and syntactic configurations. We will pursue this problem associated with psych verbs by adopting the position that argument realizations are projections of certain semantic information stored in the lexicon (Grimshaw 1990, Levin and Rappaport Hovav 2005, and many others). That is to say, psych verbs are not semantically homogeneous, and the variations in the argument realizations can be ascribed to certain semantic differences between the predicates. This study will conduct thematic, aspectual, and causative analyses on psych verbs, and will highlight the idea that the semantic information relevant to argument realization lies in the interactions between these semantic properties of the predicates. The examination will be conducted on the psych verbs of Spanish and Japanese. A contrastive study between these two languages will lead us to a better understanding of the issue, since they cover many different morphosyntactic phenomena pertinent to the topic and they constitute a couple of languages that displays a typological contrast that could relate to cross-linguistic semantic variations of the predicates in question.

In Chapter 2, we will conduct a typological classification of psych verbs of Spanish and Japanese on the basis of the mapping of thematic roles to syntactic forms such as morphological cases. A potential problem for the stability of this mapping lies in that these

languages show case alternations that interact with the thematic interpretations of the arguments. Spanish psych verbs present a three-way classification similar to the Italian ones, i.e. ExpNOM verbs, ExpACC verbs and ExpDAT verbs. However, psych verbs in Spanish cannot be so clearly classified as those in Italian since most of them show case alternations for their arguments. For instance, in an ACC-DAT alternation for the Experiencer argument, the ACC variant and the DAT variant may differ in the affectedness. In Japanese, on the other hand, psych verbs are typically ExpSubj verbs, and they can be divided into two classes depending on the case marking for the Stimulus argument, i.e. *-o* or *-ni*, although some verbs can be classified into both. The case markings in Japanese also seem to correlate with the thematic interpretation of the arguments. The *o*-marked Stimulus is rather interpreted as the target of the denoted emotion, while the *ni*-marked one is regarded as referring to the cause of the emotion. To describe the case alternations and their semantic effects, we will apply the Argument Selection Principle based on proto-role entailments (Dowty 1991, Ackerman and Moore 2001). The conclusion of the chapter will suggest a possible relationship between thematic-case relation and aspectual property of the predicates.

In Chapter 3, we will perform an aspectual analysis of psych verbs of Spanish and Japanese. The task is not simple because Vedler's (1967) four aspectual classes fall short to capture the aspectual nature of psych verbs. Actually, there are a number of studies about the aspectual classification of these verbs, but the opinions vary. This study will embrace Piñón's (1997) logic of beginnings and endings to describe finer-grained aspectual differences between the predicates in question. For instance, some psych verbs can be regarded as describing the beginning of a mental state, while others can be interpreted as describing a mental state including its beginning (see also Marín and McNally 2011). The interesting point is that a finer-grained aspectual classification of this sort may explain argument realization variations of psych verbs. Moreover, the cross-linguistic nature of this analysis allows us to notice some aspectual differences related to the morphological derivations used in different languages.

In Chapter 4, we will examine the morphological derivations found in psych verbs of Spanish and Japanese. There is a clear typological contrast between Spanish and Japanese psych verbs. While Japanese forms ExpObj causatives from certain type of ExpSubj verbs via overt causativization, Spanish derives ExpNOM reflexive verbs from ExpACC verbs through an operation involving the clitic *se*, which will be treated as anticausativization in this study (see also Koontz-Garboden 2009). A close examination of the causativization and the anticausativization operations of these languages may reveal some semantic consequences of their typological contrast. That is to say, there are semantic differences between Japanese ExpSubj verbs and Spanish ExpNOM reflexives and between Spanish ExpACC verbs and Japanese ExpObj causatives, and this may relate to the derivational status of these words and the nature of the morphological derivations such words undergo.

Finally, in Chapter 5, we will conclude the study by synthesizing the results of these thematic, aspectual, and causative analyses of psych verbs. Psych verbs vary in the syntactic realization of the arguments. If these verbs constitute a semantically constant class, their variations in the argument realization deny any uniform or universal relationship in the semantics-syntax interface. However, many (morpho)syntactic phenomena do correlate with the semantic properties of the predicates. Therefore, psych verbs are rather not semantically homogeneous and certain semantic properties such as thematic relation, lexical aspect, and causativity interact with each other to manifest different syntactic realizations. The main goal of this research is to describe how these different semantic properties and their interactions relate to the argument realizations of psych verbs.

## Chapter 2. Psych Verbs and Case Alternation

Psych verbs are usually associated with two arguments, one of which can be an Experiencer and the other of which has been labeled in various ways: e.g. ‘Stimulus’ (Talmy 1985, Dowty 1991); ‘Theme’ (Belletti and Rizzi 1988, Grimshaw 1990); ‘Causer’ or ‘T/SM’ (Pesetsky 1995); among others. There are both cross- and within-linguistically different patterns of mapping these thematic roles to syntactic forms, whether grammatical relations (e.g. subject, direct object, indirect object) or morphological cases (e.g. nominative, accusative, dative). In the following two sections, we will classify psych verbs of Spanish and Japanese with respect to the mapping of thematic roles to cases. However, the task is not so simple, since psych verbs in these languages present some types of case alternations that interact with different thematic interpretations. We will devote the last section of this chapter to discuss it.

### 2.1. Psych Verbs in Spanish

#### 2.1.1. Classification

Spanish appears to present three classes of psych verbs that are similar to the three classes proposed for Italian ones (cf. Belletti and Rizzi 1988). There are psych verbs whose Experiencer argument appears as the nominative subject (‘ExpNOM verbs’ (37a)), others whose Experiencer is interpreted in the accusative case clitic (‘ExpACC verbs’ (38)), and others whose Experiencer is assigned the dative case (‘ExpDAT verbs’ (39)). ExpNOM verbs include those that express the Stimulus argument in an oblique complement, i.e. a prepositional phrase that is lexically selected by the verb (a.k.a. ‘*complemento de régimen verbal*’ in Cano Aguilar 1999, RAE 2009, or ‘*suplemento*’ in Alarcos Llorach 1968) ((37b)).

- (37) a. María odia las serpientes.                      ExpNOM – StimulusDO  
      María hates the snakes  
      ‘María hates snakes.’
- b. María confía en su intuición.                      ExpNOM – StimulusOBL  
      María trusts in her intuition  
      ‘María trusts (in) her intuition.’
- (38) El trueno la asustó (a María).                      ExpACC – StimulusNOM  
      the thunder ACC frightened ‘to’ María  
      ‘The thunder frightened María.’

- (39) A María le agrada ver las películas del oeste.      ExpDAT – StimulusNOM  
 to María DAT pleases see the movies of the western  
 ‘To watch western movies pleases María.’

The important point here is that most psych verbs in Spanish can appear in more than one type of construction. Some ExpNOM verbs can express the Stimulus argument both as a direct object and as an oblique complement (‘DO-OBL alternation’), e.g. *temer (por)* ‘fear (for),’ *disfrutar (de)* ‘enjoy (of)’. Some ExpACC verbs can also assign the dative case to the Experiencer (‘ACC-DAT alternation’), e.g. *asustar* ‘frighten,’ *enfadar* ‘anger.’ Some verbs can appear with the Experiencer in the dative clitic or as the nominative subject (‘DAT-NOM alternation’), e.g. *repugnar* ‘disgust,’ *apetecer* ‘feel like.’ As we will discuss later, these alternations seem to interact with some differences of meaning between the variants.

- (40) a. María teme **los perros/por los perros**.      DO-OBL alternation  
 María fears the dogs for the dogs  
 ‘María fears dogs/ for the dogs.’  
 b. El trueno **la/le** asustó (a María).      ACC-DAT alternation  
 the thunder ACC/DAT frightened to María  
 ‘The thunder frightened María.’  
 c. A María **le** repugnan las guerras/ **María** repugna las guerras.      DAT-NOM alternation  
 to María DAT disgust the wars María detests the wars  
 ‘Wars disgust María /María detests wars.’

Moreover, there is a class of psych verbs that appear with a reflexive clitic (i.e. *me, te, se, nos, os, se*). The reflexive clitic agrees with the verb and the subject in person and number (the form *se* refers to third person in both singular and plural). As the Experiencer argument of these predicates appears as the nominative subject, the reflexive clitic seems to refer to the Experiencer. There are some verbs that always appear with this clitic, e.g. *arrepentirse* ‘regret,’ and others that have a variant without it, e.g. *compadecer(se)* ‘feel pity,’ *asustar(se)* ‘get frightened.’

- (41) (Yo) **me** arrepiento de haber mentado.  
 1SG.NOM REFL.1SG regret.1SG of have lied  
 ‘I regret having lied.’
- (42) a. (Tú) **te** compadeces siempre de los pobres.  
 2SG.NOM REFL.2SG ‘feel pity’.2SG always of the poor  
 ‘You always feel pity for the poor.’  
 b. (Tú) compadeces siempre a los pobres.  
 2SG.NOM ‘feel pity’.2SG always ‘to’ the poor  
 ‘You always pity the poor.’

- (43) a. María **se** asustó del trueno.  
 María REFL.3 frightened.SG of the thunder  
 ‘María got frightened at the thunder.’
- b. El trueno la asustó (a María).  
 the thunder ACC frightened ‘to’ María  
 ‘The thunder frightened her.’

There are also psych verbs that appear in the double clitic construction, e.g. *antojársele* ‘feel like,’ *ocurrírsele* ‘come to mind,’ and *olvidar(se)(le)* ‘forget.’ A notable difference from the reflexive psych verbs mentioned just above is that these predicates express the Experiencer argument in the dative clitic, and not in the clitic *se*.<sup>6</sup>

- (44) a. Se **me** antoja una botella de vino.  
 REFL.3 DAT.1SG ‘feel like’.3SG one bottle of wine  
 ‘I feel like a bottle of wine.’
- b. Se **le** ha ocurrido una buena idea.  
 REFL.3 DAT.3SG have.3SG occurred one good idea  
 ‘A good idea has come to his/her mind.’
- c. Se **me** ha olvidado su nombre.  
 REFL.3 DAT.1SG have.3SG forgotten his/her name  
 ‘I have forgotten his/her name.’

The verb *antojarse* always appear in this double clitic construction, while the other verbs are also used without clitics (e.g. *Ha ocurrido un accidente* ‘An accident has occurred’). The interpretation of the verb *olvidar*, especially in the double clitic construction shown in (45a), tends to be that the person expressed in the dative clitic is not to blame for the described forgetting event.

- (45) a. Se **me** ha olvidado su nombre.  
 REFL.3SG DAT.1SG have.3SG forgotten his/her name  
 ‘I forgot his/her name.’
- b. **Me** he olvidado de su nombre.  
 REFL.1SG have.1SG forgotten of his/her name  
 ‘I forgot his/her name.’
- c. He olvidado su nombre.  
 have.1SG forgotten his/her name  
 ‘I forgot his/her name.’

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<sup>6</sup> These predicates look similar to those Russian ExpDAT verbs that involve a reflexive suffix *-sja* (e.g. *nravit-sja* ‘like’), as mentioned in Chapter 1.

To sum up, Spanish presents at least three constructions where psych predicates can appear, depending on which case is assigned to the Experiencer argument, i.e. ExpNOM, ExpACC, and ExpDAT constructions. Verbs that occur in the ExpNOM construction include those that express the Stimulus argument as a verb-selected prepositional phrase. Some verbs appear preferably in one construction, while many others alternate between more than one construction, i.e. ACC-DAT and DAT-NOM alternations for Experiencer arguments and DO-OBL alternation for Stimulus arguments. Moreover, there are many reflexive psych verbs in Spanish, some of which are inherently reflexive and others of which are seemingly derived from non-reflexive variants. Reflexive psych verbs may be divided into ExpNOM and ExpDAT constructions depending on the case assignment to the Experiencer arguments.

(46) Psych Verbs (constructions):

- a. ExpNOM – StimulusDO: e.g. *Ana odia las guerras* ‘María hates wars.’
- b. ExpNOM – StimulusOBL: e.g. *Ana confía en su memoria* ‘Ana trusts her memory.’
- c. ExpACC – StimulusNOM: e.g. *El trueno la asustó* ‘The thunder frightened her.’
- d. ExpDAT – StimulusNOM: e.g. *Le gusta la música folclórica* ‘S/he loves folk music.’

(47) Reflexive Psych Verbs (constructions):

- a. ExpNOM – StimulusOBL: e.g. *(Ella) se enfadó conmigo* ‘She got angry with me.’
- b. ExpDAT – StimulusNOM: e.g. *Se le antoja una caña* ‘S/he feels like a beer.’

For instance, the verb *admirar* ‘admire’ is possible in the ExpNOM construction, the ExpDAT construction, and a reflexive construction.

- (48) a. Sábado **admira** la literatura rusa,[...]. (Juan Ignacio Hernáiz, *Teoría, historia y sociología del arte*, 1986) (‘Sábado admires Russian literature.’)
- b. A mí **me admira** la gente capaz de pensar hasta en un bazar. (Luis Landero, *Juegos de la edad tardía*, 1989) (‘People who are capable of thinking even at a bazaar amaze me.’)
- c. [...], Caperucita **se admira** del tamaño de las orejas del lobo vestido de abuelita, de sus ojos, de sus manos:[...]. (Antonio Aguilera Pedrosa, *Hombre y cultura*, 1995) (‘Little Red Riding Hood is astonished by the size of the ears of the wolf who is disguised as grandmother, of his eyes, of his hands.’)

Some psych verbs are listed below (Cano Aguilar 1999, Gutiérrez 1999, De Miguel 1999, Vanhoe 2002, Romero 2008, RAE 2009, Marín 2011, Marín and McNally 2011).

(49) a. ExpNOM verbs:

- i) *aborrecer* ‘adhor,’ *admirar* ‘admire,’ *adorar* ‘adore,’ *amar* ‘love,’ *apreciar* ‘appreciate,’ *despreciar* ‘depreciate,’ *desear* ‘wish,’ *detestar* ‘detest,’ *idolatrar*

‘idolize,’ *lamentar* ‘be sorry for,’ *querer* ‘want,’ *odiar* ‘hate,’ *respetar* ‘respect,’ *temer* ‘fear,’ *venerar* ‘worship’

ii) *confiar en* ‘trust (in),’ *desconfiar de* ‘distrust,’ *desesperar (de)* ‘despair (of),’ *disfrutar (de)* ‘enjoy,’ *gozar (con/de)* ‘enjoy,’ *padecer (de/con/por)* ‘suffer,’ *recelar (de)* ‘suspect,’ *sospechar (de)* ‘suspect,’ *sufrir (de)* ‘suffer,’ *temer (de/por)* ‘fear (for)’

b. ExpACC verbs:

*aburrir* ‘bore,’ *agobiar* ‘overwhelm,’ *alegrar* ‘make happy,’ *angustiar* ‘upset,’ *apasionar* ‘inspire,’ *asombrar* ‘astonish,’ *asustar* ‘frighten,’ *aterrorizar* ‘terrorize,’ *cabrear* ‘piss off,’ *complacer* ‘please,’ *confundir* ‘confuse,’ *contentar* ‘satisfy,’ *deprimir* ‘depress,’ *desanimar* ‘discourage,’ *desesperar* ‘exasperate,’ *desilusionar* ‘disappoint,’ *desmotivar* ‘discourage,’ *disgustar* ‘upset,’ *distraer* ‘distract,’ *divertir* ‘amuse,’ *encantar* ‘please, bewitch,’ *enfadar* ‘make angry,’ *enfurecer* ‘infuriate,’ *enojar* ‘anger,’ *entretener* ‘distract,’ *entristecer* ‘sadden,’ *espantar* ‘scare,’ *excitar* ‘excite,’ *extrañar* ‘puzzle,’ *entusiasmar* ‘excite,’ *fascinar* ‘fascinate,’ *fastidiar* ‘disgust,’ *horrorizar* ‘horrify,’ *humillar* ‘humiliate,’ *ilusionar* ‘inspire hope,’ *impresionar* ‘impress,’ *indignar* ‘outrage,’ *interesar* ‘interest,’ *inquietar* ‘worry,’ *irritar* ‘irritate,’ *molestar* ‘bother,’ *mosquear* ‘annoy,’ *obsesionar* ‘obsess,’ *ofender* ‘offend,’ *ofuscar* ‘bewilder,’ *satisfacer* ‘satisfy,’ *preocupar* ‘worry,’ *sorprender* ‘surprise’

c. ExpDAT verbs:

*agradar* ‘please,’ *apetecer* ‘feel like,’ *desagradar* ‘annoy,’ *gustar* ‘please, like,’ *importar* ‘matter,’ *placer* ‘please, enjoy,’ *repugnar* ‘disgust’

d. Reflexive psych verbs:

i) Inherently reflexive:

*arrepentirse* ‘regret,’ *atreverse* ‘dare,’ *despreocuparse* ‘stop worrying, ignore,’ *jactarse* ‘boast,’ *resentirse* ‘resent’

ii) Reflexive variants of ExpNOM verbs:

*admirar(se)* ‘be amazed,’ *compadecer(se)* ‘feel sorry for,’ *desesperar(se)* ‘despair of’ *lamentar(se)* ‘grumble,’ *gozar(se)* ‘enjoy’ (*admirar(se)* and *desesperar(se)* also have ExpObj uses.)

iii) Reflexive variants of ExpACC verbs:

*aburrir(se)* ‘be bored,’ *acongojar(se)* ‘become distressed,’ *afligir(se)* ‘be bothered,’ *agobiar(se)* ‘be overwhelmed,’ *alegrar(se)* ‘be pleased,’ *aliviar(se)* ‘feel relief,’ *amedrentar(se)* ‘get scared,’ *angustiar(se)* ‘become anxious,’ *animar(se)* ‘be motivated,’ *anonadar(se)* ‘be overwhelmed,’ *apaciguar(se)* ‘calm down,’ *apasionar(se)* ‘be crazy about,’ *apenar(se)* ‘be sad,’ *apesadumbrar(se)* ‘be saddened by,’ *apiadar(se)*

‘pity,’ *asombrar(se)* ‘be astonished,’ *asustar(se)* ‘get frightened,’ *aterrorizar(se)* ‘be terrified,’ *atemorizar(se)* ‘be terrified,’ *avergonzar(se)* ‘be ashamed,’ *cabrear(se)* ‘get furious,’ *complacer(se)* ‘be pleased,’ *compungir(se)* ‘feel remorseful,’ *confundir(se)* ‘get confused,’ *conmocionar(se)* ‘be shocked,’ *consternar(se)* ‘be dismayed,’ *contentar(se)* ‘be content,’ *convencer(se)* ‘be sure,’ *deprimir(se)* ‘become depressed,’ *desanimar(se)* ‘become discouraged,’ *desesperar(se)* ‘despair,’ *desilusionar(se)* ‘be disappointed,’ *deshonrar(se)* ‘disgrace oneself,’ *desmotivar(se)* ‘become discouraged,’ *disgustar(se)* ‘get annoyed,’ *distraer(se)* ‘keep oneself amused,’ *divertir(se)* ‘enjoy,’ *encantar(se)* ‘be entranced,’ *enfadar(se)* ‘get angry,’ *enfurecer(se)* ‘become furious,’ *enamorar(se)* ‘fall in love,’ *enojar(se)* ‘get mad,’ *enorgullecer(se)* ‘feel proud,’ *entretener(se)* ‘have fun,’ *entristecer(se)* ‘get sad,’ *escandalizar(se)* ‘be shocked,’ *espantar(se)* ‘get scared,’ *excitar(se)* ‘get excited,’ *extrañar(se)* ‘be surprised,’ *entusiasmar(se)* ‘get excited,’ *fascinar(se)* ‘be fascinated,’ *fastidiar(se)* ‘get annoyed,’ *frustrar(se)* ‘become frustrated,’ *honrar(se)* ‘feel honored,’ *horrificar(se)* ‘be horrified,’ *humillar(se)* ‘humble oneself,’ *ilusionar(se)* ‘have a fancy,’ *impresionar(se)* ‘be impressed,’ *indignar(se)* ‘be outraged,’ *interesar(se)* ‘be interested in,’ *inquietar(se)* ‘worry,’ *irritar(se)* ‘get irritated,’ *molestar(se)* ‘be offended,’ *mortificar(se)* ‘mortify(intr.)’ *mosquear(se)* ‘get irritated,’ *obnubilar(se)* ‘be captivated,’ *obsesionar(se)* ‘get obsessed,’ *ofender(se)* ‘take offense,’ *ofuscar(se)* ‘be bewildered,’ *olvidar(se)* ‘forget,’ *satisfacer(se)* ‘be satisfied,’ *perturbar(se)* ‘go crazy,’ *preocupar(se)* ‘worry about,’ *sorprender(se)* ‘be surprised’

iv) Double clitic psych verbs:

*antojarsele* ‘feel like,’ *ocurrirsele* ‘come to mind,’ and *olvidar(se)(le)* ‘forget’

### 2.1.2. Treatment of Dative Experiencer

In Spanish there are psych verbs that express the Experiencer argument in a dative case clitic. Some verbs exclusively or preferably appear in this ExpDAT construction, i.e. ExpDAT verbs listed above, while other verbs can alternate between the ExpDAT construction and others, such as ExpACC construction and ExpNOM construction. In this section we will discuss the grammatical status of the dative Experiencer. First, the dative variant of ExpACC verbs is often treated as a case of *leísmo*, i.e. dialectal use of the dative clitic *le* as a substitute for the accusative *lo* to refer to direct object, but there are crucial differences between them. Moreover, the Experiencer argument of ExpDAT verbs functions as an indirect object, but it can also be a “dative subject,” i.e. a dative-marked argument with subject-like behaviors.

The dative variant of ExpACC must be separated from *leísmo*, that is a dialectal phenomenon reported much more in Spanish of Spain, except Aragón and Andalucía, than in Spanish of

America. There are cases of (i) *leísmo* for singular/plural masculine person ((50)), (ii) *leísmo* for singular/plural masculine thing ((51)), and (iii) *leísmo* for feminine singular/plural person ((52)) (Fernández-Ordóñez 1993, 1999, RAE 2009). The first case (i), especially for the singular, is the most extended one. The others, i.e. *leísmo* for thing, *leísmo* for plural (person or thing), *leísmo* for feminine person (singular or plural), show reduced or rare instances, and they are not considered standard in the Spanish grammar (RAE 2009).<sup>7</sup>

(50) a. Al niño **lo/le** premiaron en el colegio.

to the boy ACC/DAT rewarded in the school

‘They praised the boy in school.’

b. A los niños **los/les** premiaron en el colegio.

to the boy ACC/DAT rewarded in the school

‘They praised the boys in school.’

(51) a. Te devuelvo el libro porque ya **lo/le** he leído.

you return the book because already ACC/DAT have read

‘I give the book back to you because I have already read it.’

b. Te devuelvo los libros porque ya **los/les** he leído.

you return the books because already ACC/DAT have read

‘I give the books back to you because I have already read them.’

(52) a. A la niña **la/le** premiaron en el colegio.

to the girl ACC/DAT rewarded in the school

‘They praised the girl in school.’

b. A las niñas **las/les** premiaron en el colegio.

to the girls ACC/DAT rewarded in the school

‘They praised the girls in school.’

The dative clitic *le* that appears with psych verbs differs from the form *le* of *leísmo* in the grammatical status. While the *le* of *leísmo* refers to a direct object just like *lo* does, the dative clitic *le* of psych verb refers to an indirect object. For instance, an accusative clitic *lo* cannot co-occur with the prepositional phrase ‘*a* + proper name’ ((53a)), and neither can the form *le* of *leísmo* ((53b)), whereas the dative *le* referring to an indirect object of ditransitive verbs can appear with such phrase ((53c)). The clitic *le* of psych verbs patterns like the indirect object ((54)).<sup>8</sup>

<sup>7</sup> In order to avoid confusion with *leísmo*, this study preferably uses Spanish examples where the dative clitic refers to feminine person or plural persons.

<sup>8</sup> When the phrases ‘*a* + name’ or ‘*a* + prepositional pronoun’ precede the verb, the clitic, either accusative or dative, obligatorily appears: *A María la busco/ A ella la busco/A María le escribí una carta/ A ella le escribí una carta*. When the phrase ‘*a* + name’ or ‘*a* + prepositional pronoun,’ with the exception of ‘*a* + name’ referring to a direct object, is in postverbal position, the clitic can or must co-occur: *(\*La) busco a María/La busco a ella/(Le) escribí a María una carta/Le escribí a ella una carta*.

- (53) a. **Lo** vi (\*a Juan) ayer en la biblioteca.  
 ACC saw ('to' Juan) yesterday in the library  
 'I saw him yesterday in the library.'
- b. **Le** vi (\*a Juan) ayer en la biblioteca.  
 DAT saw ('to' Juan) yesterday in the library  
 'I saw him yesterday in the library.'
- c. **Le** envié un regalo (a Juan).  
 DAT sent a present (to Juan)  
 'I sent him a present (to Juan).'

- (54) **Le** asustan las serpientes (a Juan).  
 DAT frighten the snakes (to Juan)  
 'Snakes frighten him (to Juan).'

Moreover, the accusative and dative variants differ in semantic interpretation as well (see the next section for the details). Namely, the speakers can select one of these constructions to express different meanings, and this is what discriminates the ACC-DAT alternation from the *leísmo*, which is merely a formal phenomenon.

Regarding ExpDAT verbs, such as *agradar* 'please, like' and *gustar* 'please, like,' the dative-marked element is indeed an argument selected by the predicate. That is, ExpDAT verbs are two-place-predicates with a subject and an indirect object. According to Gutiérrez (1999), there are two kinds of indirect objects: (i) ones that are arguments selected by the verb and (ii) the ones that were originally adjuncts but are incorporated into a verb phrase, and the dative experiencer of ExpDAT verbs is a case of the former. A basic difference between selected ones and incorporated ones is that the latter need to appear with a dative clitic ((55b)) while the former need not ((55a)). Although it can also appear without the dative clitic ((56a)), the Experiencer argument of ExpDAT verbs preferably appears with a dative clitic unless the indirect object appears in a preverbal position ((56b)).

- (55) a. Luis (les) escribió una carta a sus padres.  
 Luis (DAT) wrote a letter to his parents  
 'Luis wrote a letter to his parents'
- b. La abuela les asó un pollo a los invitados.  
 the grandmother DAT roasted a chicken to the invited guests  
 (← La abuela asó un pollo para los invitados)  
 the grandmother roasted a chicken for the invited guests  
 'My grandmother roasted a chicken for the guests.'
- (56) a. El fútbol (les) gusta a los hombres. / b. A los hombres les gusta el fútbol.  
 the soccer (DAT) pleases to the men to the men DAT pleases the soccer  
 'Soccer pleases men (Men like soccer).'

For another grammatical difference between two types of indirect objects, selected ones are arguments and incorporated ones are more like adjuncts. For instance, while the indefinites referring to arguments cannot be omitted in a type of conditionals ((57a)), those referring to adjuncts can be omitted ((57b,c)). The indefinites referring to incorporated elements show some possibility of omission, although the presence of a dative clitic is obligatory instead ((58)). As for the dative Experiencers, the indefinites cannot be omitted, and therefore they are arguments ((59)).

(57) Escribió una carta a su novia ayer por unas ganas repentinas.

wrote a letter to his girlfriend yesterday for some desire sudden

‘He wrote a letter to his girlfriend yesterday on a sudden whim.’

a. Si a alguien/\*Ø escribió unas cartas ayer por unas ganas repentinas, fue a su novia.

if to someone wrote some letter yesterday for some desire sudden was to his girlfriend

‘If he wrote a letter to someone yesterday on a sudden whim, it was his girlfriend.’

b. Si algún día/Ø escribió una carta a su novia por ganas repentinas, fue ayer.

if some day wrote a letter to his girlfriend for desire sudden was yesterday

‘If he wrote a letter to his girlfriend some day on a sudden whim, it was yesterday.’

c. Si por alguna razón/Ø escribió una carta a su novia ayer, fue por ganas repentinas.

if for some reason wrote a letter to his girlfriend yesterday was for desire sudden

‘If he wrote a letter to his girlfriend yesterday for some reason, it was for a sudden whim.’

(58) Les asaré un pollo a los invitados.

DAT will roast a chicken to the invited guests

‘I will roast a chicken for the guests.’

→ Si a alguien/<sup>??</sup>Ø les aso un pollo, será a los invitados.

if to someone DAT roast a chicken will be to the invited guests.

‘If I roast a chicken for someone, it will be for the guests.’

(Gutiérrez 1999:1885, translation mine)

(59) A Luis le gusta el dinero.

to Luis DAT pleases the money

‘Money pleases Luis (Luis loves money).’

→ Si a alguien/\*Ø le gusta el dinero, es a Luis.

if to someone DAT pleases the money is to Luis

‘If money appeals to someone, it is to Luis.’ (Gutiérrez 1999:1883, translation mine)

However, the dative Experiencers of ExpDAT verbs are not canonical indirect objects but rather “dative subjects,” since they behave like subjects. For instance, while the null subject of an embedded infinitive normally refers to the subject of the matrix verb ((60a, 61a)), it refers to the dative Experiencer in sentences with ExpDAT verbs ((60b, 61b)). That is, the dative Experiencer argument controls the subject position of infinitives just like the subjects do (Vázquez Rozas 2006, RAE 2009).

- (60) a. Lulú<sub>i</sub> prefiere  $e_i$  nadar en el mar.  
 Lulu prefers swim in the sea  
 ‘Lulu prefers to swim in the sea.’
- b. A Lulú<sub>i</sub> le gusta  $e_i$  nadar en el mar.  
 to Lulu DAT pleases swim in the sea  
 ‘To swim in the sea pleases Lulu (Lulu likes to swim in the sea)’
- (61) a. A Luci<sub>i</sub> le escribía Ronny<sub>j</sub> antes de  $e_{i/j}$  conocer a Otto.  
 to Lulu DAT wrote Ronny before of get-to-know ‘to’ Otto  
 ‘With regard to Luci, Ronny was writing to her before he knew Otto.’
- b. A Luci<sub>i</sub> le gustaba Ronny<sub>j</sub> antes de  $e_{i/*j}$  conocer a Otto.  
 to Lulu DAT pleased Ronny before of get-to-know ‘to’ Otto  
 ‘With regard to Luci, Ronny appealed to her before she knew Otto.’  
 (‘With regard to Luci, Luci loved Ronny before she knew Otto.’)  
 (Vázquez Rozas 2006:14, translation mine)

Some ExpDAT verbs can appear in the ExpNOM construction as well. The dative and nominative variants of these verbs behave alike.

- (62) a. A María<sub>i</sub> le repugnaba su suegra<sub>j</sub> antes de  $e_{i/*j}$  darse cuenta de su soledad.  
 to María DAT disgusted her mother-in-law before of become aware of her loneliness  
 ‘To María, her mother-in-law was disgusting before she noticed her loneliness.’
- b. María<sub>i</sub> repugnaba su suegra<sub>j</sub> antes de  $e_{i/*j}$  darse cuenta de su soledad.  
 María detested her mother-in-law before of become aware of her loneliness  
 ‘María detested her mother-in-law before she noticed her loneliness.’

### 2.1.3. Case Alternations

#### 2.1.3.1. ACC-DAT alternation for the Experiencer

Most of psych predicates listed above as ExpACC verbs actually appear in the ExpDAT construction as well. That is, the Experiencer argument can be expressed both in the accusative and dative case clitics. This ACC-DAT alternation is distinguished from *leísmo*, as discussed in the previous section, and yields some differences of meaning between variants (Cuervo 1874, Alcina and Blecua 1975, Vázquez Rozas 1995, Fernández-Ordóñez 1999, Gutiérrez 1999, Romero 2008, RAE 2009, among many others).

Traditionally, the ACC-DAT alternation has been accounted for by the notion of animacy of the subjects (Cuervo 1874, Alcina and Blecua 1975).<sup>9</sup> Namely, when the subject is an animate entity, the Experiencer argument is assigned an accusative case; and when the subject is an inanimate thing, the Experiencer tends to be assigned a dative case.

- (63) a. A la niña *la* asustó Pedro. [+animate]  
 ‘to’ the girl ACC frightened Pedro  
 ‘To the girl, Pedro gave her a fright.’  
 b. A la niña *le* asustó el portazo. [-animate]  
 to the girl DAT frightened the slam  
 ‘To the girl, the slam of the door gave her a fright.’

However, there are counterexamples for this generalization: even with an animate subject, the Experiencer is expressed in the dative case ((64)); and even with an inanimate subject, the Experiencer appears in the accusative case ((65)).

- (64) a. A la niña *le* asustó Pedro.  
 to the girl DAT frightened Pedro  
 ‘To the girl, Pedro gave her a fright.’  
 b. Su hija *le* tranquilizó. (Luisa Castro, *La fiebre amarilla*, 1994)  
 ‘Her/His daughter reassured her/him.’  
 c. A Sofian *le* impresiona esa mujer, (Patricia de Souza, *La mentira de un fauno*, 1998)  
 ‘To Sofian, that woman struck him as impressing.’
- (65) a. A la niña *la* asustó el portazo.  
 ‘to’ the girl ACC frightened the slam  
 ‘To the girl, the slam of the door gave her a fright.’  
 b. [...] a Teresa *la* aburrió París, la decepcionó Roma y *la* fascinó Venecia. (Arturo Pérez-Reverte, *La Reina del Sur*, 2002)  
 ‘Paris bored Teresa, Rome let her down and Venice captivated her.’  
 c. [...], pero sigue pensando que siempre precisará un hombre a su lado y *la* aterroriza la idea de vivir sola. (Enrique González Duro, *Las neurosis del ama de casa*, 1989)  
 ‘[...], but she goes on thinking that she will always need a man by her side and the idea of living on her own terrifies her.’

The ACC-DAT alternation cannot be explained by the notion of animacy only. For instance, it may be associated with the agentivity of the subjects. That is, the accusative variant occurs

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<sup>9</sup> The ACC-DAT alternation closely relates to the postverbal/preverbal word order distinction, which is not discussed in this study. Alcina and Blecua (1975) indeed asserts that in ‘*verbos pseudo-impersonales*’ (including psych verbs) “*no hay agente que realice la acción*” and “*su sujeto suele ser o puede ser un nombre inanimado que se pospone al verbo y semánticamente puede ser tomado como complemento directo,*” y “*suelen admitir un complemento indirecto pronominal*” (Alcina and Blecua 1975: 895).



b'. Al ladrón no *le* sorprendió la actuación de la policía.  
 to the thief NEG DAT surprised the intervention of the police  
 'The police intervention did not surprise the thief.'

c. El hada *la* encantó (a Cenicienta).  
 the fairy ACC enchanted ('to' Cinderella)  
 'The fairy put a spell on her.'

c'. El hada *le* encantó. ('Le gustó mucho.')

the fairy DAT enchanted ('DAT pleases much')

'S/he loved the fairy.'

(Vázquez Rozas 2006:26; Gutiérrez 1999:1882, translation mine)

To sum up, the ACC-DAT alternation seems to interact with the agentivity of the subjects, the affectedness of the objects, and/or the aspectual nature of the described situations.

	<u>Subject</u>	<u>Object</u>
(69) a. A la niña <i>la</i> asustó Pedro.	[+animate][+agentive]	
b. A la niña <i>le</i> asustó Pedro.	[+animate][-agentive]	
c. A la niña <i>le</i> asustó el portazo.	[-animate][-agentive]	[-physically affected]
d. A la niña <i>la</i> asustó el portazo.	[-animate][-agentive]	[+physically affected]

In addition, the ACC-DAT alternation closely relates to different aspectual interpretations of the sentence as well. The accusative variant is used to describe a nonstative situation ((70a)), while the dative variant tends to denote a state ((70b)). Similarly, the accusative variant occurs when the verb is expressed in perfective aspect, while the dative variant tends to occur with the verb in imperfective aspect (Vázquez Rozas 1995, Di Tullio 1996, 2004, Fernández-Ordóñez 1999). We will study more details of the aspectual differences between psych verbs in Chapter 3.

(70) a. Su amiga *la* decepcionó cuando no vino al cumpleaños.  
 her friend ACC disappointed when no came to the birthday  
 'Her girlfriend let her down when she did not show up to her birthday.'

b. A Jesús nunca *le* decepciona {su amiga María/el trabajo}.  
 to Jesús never DAT disappoint his friend María/ the work  
 '{His friend María/His work} never lets Jesús down.'

(Fernández-Ordóñez 1999:1324, translation mine)

### 2.1.3.2. DAT-NOM alternation for the Experiencer

There are also verbs that can express the Experiencer either in the dative case clitic or as the nominative subject. Some are listed above as ExpDAT verbs, e.g. *apetecer* 'feel like,'

*repugnar* ‘disgust, detest,’ *gustar* ‘please, like’; and others are listed as ExpNOM verbs, e.g. *admirar* ‘admire,’ *desesperar (de)* ‘despair of.’ The dative and nominative variants are grammatically alike, as we discussed above, but the alternation seems to cause certain difference of meaning, albeit very little one. The nominative Experiencer tends to be interpreted as having a bit more control than the dative Experiencer concerning the direction that he or she is aiming the emotion at. In other words, when the situation is under volitional control of the Experiencer, the Experiencer appears in the nominative subject ((71a,b,c)); otherwise, in the dative ((71a’,b’,c’)) (Vázquez Rozas 1995; Whitley 1995, 1998; Gutiérrez 1999).

(71) a. Lucas admira tu valentía.

Lucas admires your bravery

‘Lucas admires your bravery.’

a’. A Lucas *le* admira tu valentía.

to Lucas DAT amazes your bravery

‘Your bravery amazes Lucas’

b. Apetece una casa propia.

feel like a house one’s own

‘S/he fancies having her/his own house.’

b’. *Le* apetece una casa propia.

DAT ‘feel like’ a house one’s own

‘S/he fancies having her/his own house.’

c. Ana repugna el olor de la gasolina.

Ana detests the smell of the gasoline

‘Ana detests the smell of gasoline.’

c’. A Ana *le* repugna el olor de la gasolina.

To Ana DAT disgusts the smell of the gasoline

‘To Ana, the smell of gasoline is gisgusting.’ (Gutiérrez 1999:1881, translation mine)

This follows the intuition that “one can choose to love, hate, hope, use, even take responsibility for it, while pleasure (*gustar*, *placer*), pain (*doler*), and sorrow (*pesar*) are feelings that simply happen to the experiencer” (Whitley 1998:130), although “it is not clear to what extent one can love, hate or admire something or somebody as a result of a conscious, volitional effort” (Vázquez Rozas 2006:18). Actually, most psych verbs do not pass volitionality tests. For instance, psych verbs are mostly incompatible with the volitional adverbials such as *deliberadamente* ‘deliberately’ and *intencionadamente* ‘intentionally.’ Psych verbs do not allow the imperative form, either. Nevertheless, the imperative form is possible with psych verbs “*si se le atribuye al sujeto la posibilidad de participar activamente en el evento, o al menos de intentarlo*” (‘as long as we interpret that the subject is able to

actively participate in the event, or at least to try to participate.’) (De Miguel 1999:3015; translation mine).

- (72) a. \*¡Odia a tu primo!; \*¡Sabe la verdad!  
‘Hate your cousin!’; ‘Know the truth!’  
b. ¡Compréndeme! (‘Haz un esfuerzo por comprender’)  
‘Understand me!’ (‘Try to understand.’)  
c. ¡Quiere a tus semejantes! (‘Haz un esfuerzo por querer’)  
‘Love your peers!’ (‘Try to love.’)

### 2.1.3.3. DO-OBL alternation for the Stimulus

ExpNOM verbs include those that can express the Stimulus as direct object or oblique complement, e.g. *temer (por/de)* ‘fear,’ *disfrutar (de/con)* ‘enjoy,’ *gozar (con/de)* ‘enjoy,’ *padecer (de/con/por)* ‘suffer,’ *recelar (de)* ‘distrust,’ *sospechar (de)* ‘suspect,’ *sufrir (de)* ‘suffer.’ Some verbs have a clear meaning difference between the two variants, but the others do not. For instance, the verb *temer* can appear with a direct object or a *por* ‘for, by’ phrase. In the former case the Experiencer evaluates the object as fearsome, while in the latter the experiencer worries about someone or something. In other words, the direct object is a target of the fear, while the *por* phrase is not the target but rather interpreted as a source of the fear.

- (73) a. María teme a sus hijos.  
María fears ‘to’ her sons  
‘For María her sons are fearsome.’  
b. María teme por sus hijos.  
María fears for her sons  
‘María worries about her sons.’

The verb *sospechar* means ‘to imagine or suppose something’ with a direct object ((74a)), and ‘to feel distrust toward someone or something’ with *de* ‘of, from’ phrase ((74b)). The former meaning is more about the existence of the object itself, while the latter is about the quality. The verb *recelar* is used more preferably in the latter meaning.

- (74) a. Ana sospecha la infidelidad de su marido.  
Ana suspect the infidelity of her husband  
‘Ana imagines that her husband is unfaithful to her.’  
b. Ana sospecha de su marido.  
Ana suspect of her husband  
‘Ana distrusts her husband.’

Regarding the verbs *disfrutar/gozar* ‘enjoy’ and *padeecer/sufrir* ‘suffer,’ both DO and OBL variants mean more or less the same: ‘to perceive a pleasure or benefit’ or ‘to have a physically or psychically good condition’ for the former pair, and ‘to feel or endure a physical or psychic pain’ for the latter.

(75) a. Ana disfruta/goza una vida tranquila.

Ana enjoy/enjoy a life tranquil

‘Ana (has and) enjoys a peaceful life.’

b. Ana disfruta/goza de buena salud.

Ana enjoy/enjoy of good health

‘Ana (has and) enjoys good health.’

(76) a. María padece/sufre una depresión grave.

María suffer/suffer a depression serious

‘María suffers a serious depression.’

b. María padece/sufre de estrés.

María suffer/suffer of stress

‘María suffers from stress.’

The DO and OBL variants differ in the transitivity, and this seems to relate to the following meaning differences: with a direct object the experiencer is evaluating the object as fearsome, enjoyable, or a painful thing, while with an oblique complement the experiencer feels fear, pleasure, suspect or pain because of or from something, although not all cases show a clear meaning difference between variants.

In summary, Spanish has ExpNOM verbs, including those with StimulusACC (e.g. *odiar* ‘hate’) and StimulusOBL (e.g. *confiar en* ‘trust in’), ExpACC verbs (e.g. *asustar* ‘get frightened’), and ExpDAT verbs (e.g. *agradar* ‘please’). Spanish has a number of reflexive psych verbs as well, which we will discuss in Chapter 4. Most psych verbs can appear in more than one construction because of the ACC-DAT alternation and DAT-NOM alternation for the Experiencer arguments and the DO-OBL alternation for the “Stimulus” arguments. These case alternations interact with the different semantic interpretations of the arguments. In an ACC-DAT alternation, the subject of the ACC variant is agentive, while that of the DAT variant is nonagentive; the accusative Experiencer is interpreted as physically affected whereas the dative Experiencer is only psychically affected; or the described situation is more dynamic in the ACC variant than the DAT variant. In a DAT-NOM alternation, the nominative Experiencer has more volitional control towards the denoted emotion than the dative Experiencer. In a DO-OBL alternation, the variants have little semantic deference, but if any, the accusative Stimulus is positively or negatively evaluated while the oblique variant is not a target of evaluation but a source of emotion.

## 2.2. Psych Verbs in Japanese

### 2.2.1. Classification

In Japanese, psych verbs are typically expressed in the ExpSubj configurations. There are two classes of ExpSubj verbs that differ in the case marking for the Stimulus argument. Some ExpSubj verbs mark their object by the accusative case marker *-o* ('ExpSubj-*O* verbs'), while others mark their object by *-ni* ('ExpSubj-*NI* verbs'). Some verbs can mark the objects both by *-o* and *-ni* (Teramura 1982, Bando 1996, Bando and Matsumura 2001, Endo and Zushi 1993, Matsumura 1996, Yamakawa 2004, Shimizu 2007, Yoshinaga 2008, Isse 2008).

- (77) a. Maki-ga Taro-**o** nikum-da.                      ExpSubj – Stimulus*O* (ExpSubj-*O* verbs)  
Maki-NOM Taro-ACC hate-PST  
'Maki hated Taro.'
- b. Maki-ga kaminari-**ni** odoroi-ta.                      ExpSubj – Stimulus*NI* (ExpSubj-*NI* verbs)  
Maki-NOM thunder-*NI* 'get surprised'-PST  
'Maki got surprised by the thunder.'
- (78) Maki-ga purezento-**o/-ni** yorokon-da.                      ExpSubj – Stimulus{-*NI*/*-O*}  
Maki-NOM present-ACC/*-NI* 'be/get pleased'-PST  
'Maki was/got pleased at/because of the present.'

The particle *-ni* can be treated as a dative case marker, but it actually marks many different types of elements, e.g. indirect object ( $\approx$  dative case or 'to'), location ( $\approx$  'at, in'), direction ( $\approx$  'to'), passive agent ( $\approx$  'by'), purpose, etc.; so, we gloss it as '*NI*' in this study for convenience, unless its use is easily identifiable.

The case marking by *-o* or *-ni* actually varies the interpretation of the Stimulus argument. The *o*-marked objects are interpreted as the 'Object of Emotion,' while most *ni*-marked ones refer to the 'Cause of Emotion,' although there are a few exceptions that *ni*-marked elements are rather 'Object of Emotion' than 'Cause of Emotion,' e.g. *akogareru* 'yearn for,' *horeru* 'fall in love with,' *kogareru* 'long for' (Teramura 1982).

- (79) a. Maki-wa sono sirase-**o** kanasim-da.                      'Object of Emotion'  
Maki-TOP that news-ACC 'feel sad'-PST  
'Maki felt sad about the news.'
- b. Maki-wa sono sirase-**ni** kanasim-da.                      'Cause of Emotion'  
Maki-TOP that news-*NI* 'feel sad'-PST  
'Maki felt sad because of the news.'

- (80) Taro-wa sensei-**ni** akogare-ta/ hore-ta. ‘Object of Emotion’  
 Taro-TOP teacher-*NI* ‘yearn’-PST ‘fall in love’-PST  
 ‘Taro yearned for/ fell in love with his teacher.’

Notice that this ‘Object of Emotion’/‘Cause of Emotion’ distinction looks similar to Pesetsky’ (1995) ‘T/SM’/‘Causer’ distinction. Pesetsky actually states that ‘Target of Emotion’ and ‘Subject Matter of Emotion’ are generally lumped together under the term ‘Object of Emotion.’ Note, however, that ‘Object of Emotion’ and ‘Cause of Emotion’ both appear as object elements of ExpSubj verbs in Japanese, while ‘T/SM’ and ‘Causer’ are associated with the objects of ExpSubj verbs and the subjects of ExpObj verbs, respectively.

- (81) a. Bill was very angry at the article in the Times. ‘Target of Emotion’  
 b. John worried about Mary’s poor health ‘Subject Matter of Emotion’  
 (82) a. The article in the Times angered Bill greatly. ‘Causer’  
 b. Mary’s poor health worried John ‘Causer’

Regarding ExpObj verbs, they are morphologically derived from ExpSubj verbs by suffixing a causative morpheme *-(s)ase*.<sup>10</sup> However, not all ExpSubj verbs have ExpObj variants. It seems that most ExpSubj-*NI* verbs, including those that alternate between *-o* and *-ni*, can productively form ExpObj causatives.

- (83) a. Kaminari-ga Maki-o odorok-ase-ta.  
 thunder-NOM Maki-ACC ‘get surprised’-CAUS-PST  
 ‘The thunder surprised Maki.’  
 b. Purezento-ga Maki-o yorokob-ase-ta.  
 present-NOM Maki-ACC ‘be/get surprised’-CAUS-PST  
 ‘The present pleased Maki.’

Most ExpSubj-*O* verbs, on the other hand, cannot form ExpObj variants, although a “regular” causative construction may be tolerable instead.

- (84) a. \*Taro-ga Maki-o nikum-ase-ta.  
 Taro-NOM Maki-ACC ‘hate’-CAUS-NPST  
 Intended: ‘Taro caused hatred for him in Maki.’  
 b. (?)Jiro-ga Maki-ni Taro-o nikum-ase-ta.  
 Jiro-NOM Maki-DAT Taro-ACC hate’-CAUS-PST  
 ‘Jiro made Maki hate Taro.’

<sup>10</sup> In Japanese there are more than one morpheme to derive causative variants from noncausative predicates productively, e.g. *-su/-seru*, *-sasu/-saseru*, and *-simu/-simeru* (literary or archaic/colloquial). There are a few ExpObj causatives that end with another type of causative morpheme, *-simeru*, e.g. *hazukasimeru* ‘humiliate,’ *korasimeru* ‘teach a lesson,’ *kurusimeru* ‘torment.’

Among ExpSubj-*O* verbs, *tanosim-* ‘enjoy’ is exceptionally able to form its ExpObj variant.

- (85) a. Maki-ga sono hanasi-o tanosim-da.  
Maki-NOM that story-ACC enjoy-PST  
‘Maki enjoyed the story.’  
b. Sono hanasi-ga Maki-o tanosim-ase-ta.  
that story-NOM Maki-ACC enjoy-CAUS-PST  
‘The story amused Maki.’

Moreover, the ExpSubj verbs whose *ni*-marked objects are rather interpreted ‘Object of Emotion’ than ‘Cause of Emotion’ cannot form ExpObj variants, although a “regular” causative construction may be tolerable. That is, these verbs behave just like ExpObj-*O* verbs (We will discuss more details of causative constructions in Chapter 4).

- (86) a. Taro-ga Hanako-ni akogare-ta.  
Taro-NOM Hanako-*NI* long-PST  
‘Taro longed for Hanako.’  
b. ?? Hanako-ga Taro-o akogare-sase-ta.  
Hanako-NOM Taro-ACC long-CAUS-PST  
Intended: ‘Hanako caused a longing for her in Taro.’  
c. (?) Hanako-ga Taro-o jibun-ni akogare-sase-ta.  
Hanako-NOM Taro-ACC self-*NI* long-CAUS-PST  
‘Hanako made Taro long for herself.’

Additionally, it has to be mentioned that Japanese employs adjectival predicates to describe psychological states. Most of psych adjectives are morphologically related to ExpSubj-*O* verbs, i.e. they share the same root.

- (87) a. Maki-wa Taro-o nikum-da  
Maki-TOP Taro-ACC hate-PST  
‘Maki hated Taro.’  
b. Maki-wa Taro-ga nikui.  
Maki-TOP Taro-NOM hateful  
‘Maki hates Taro.’ (Lit. ‘To Maki Taro is (a) hateful (person).’)

These adjectives behave just like their verbal variants in the sense that they are used to express the Experiencer’s mental states toward the Stimulus ((88)), and not the Stimulus’s attributes ((89a)), although most of them have the latter use as well ((89b)) (Shibatani 2000[2001]).

- (88) a. Maki-wa inu-ga sukida/kiraida/hosii.  
 Maki-TOP dog-NOM 'like'/'hate'/'want' (There are no corresponding adjectives in English.)  
 'Maki likes/hates/wants dogs.'
- b. Maki-(ni)wa obake-ga osorosii.  
 Maki-(DAT)TOP ghost-NOM terrible  
 'Maki fears ghosts (Lit. For Maki ghosts are frightening)'
- (89) a. \*Inu-wa sukida/kiraida/hosii.  
 dog-TOP 'like'/'hate'/'want'  
 Intended: 'Dogs are pleasant/hateful/desirable.'
- b. Obake-wa osorosii.  
 ghost-TOP terrible  
 'Ghosts are frightening.'

(90) Psych adjectives:

*ayasii* 'suspicious,' *awarena* 'pitiful,' *hazukasii* 'embarrassing,' *hosii* 'want,' *itowasii* 'disgusting,' *itoosii* 'love,' *ibukasii* 'suspicious,' *imaimasii* 'bloody,' *iyasii* 'humble,' *kiraida* 'hate,' *konomasii* 'pleasant, like,' *kuyasii* 'regrettable,' *nagekawasii* 'deplorable,' *natsukasii* 'nostalgic,' *netamasii* 'enviable,' *nikui/nikunikusii/nikurasii* 'hateful,' *nozomasii* 'derivable,' *osii* 'regrettable,' *osorosii* 'terrible,' *sukida* 'like,' *tanosii* 'pleasant, enjoyable,' *toutoi* 'venerable,' *utagawasii* 'doubtful,' *utomasii* 'desagreeable,' *uyayusiasii* 'reverent,' *uramesii* 'reproachful,' *urayamasii* 'enviable,' *kanasii* 'sad,' *yorokobasii* 'glad,' etc.<sup>11</sup>

To sum up, Japanese displays two classes of ExpSubj verbs that differ in the case marking of their arguments, and ExpObj verbs are formed from one of them with a causative morphology. The *o*-marked objects are interpreted as 'Object of Emotion' and the *ni*-marked ones are mostly regarded as 'Cause of Emotion.' The case marking difference also reflects the different grammatical status of the marked elements and of the two classes of ExpSubj verbs, as we will discuss in the following section.<sup>12</sup>

<sup>11</sup> Even psych adjectives that have no verbal variants can form psych verbs by attaching *-garu*, e.g. *kowai* 'terrible' - *kowa-garu* 'look terrified,' *uresii* 'glad' - *uresi-garu* 'look happy.'

a. Maki-wa hebi-ga kowai.      b. Maki-wa hebi-o-ni kowa-garu.  
 Maki-TOP snake-NOM terrible      Maki-TOP snake-ACC/-NI 'look terrified'  
 'Maki fears snakes.'      'Maki fears snakes.'

<sup>12</sup> There are also psych predicates that are made of psych nouns or onomatopoeia with a light verb *-sur-* 'do,' e.g. *koukai-sur-* 'regret(v.)' ('regret(n.)'+ 'do'), *bikkuri-sur-* 'get surprised' ('surprised(onmtp.)'+ 'do') (Matsumura 1996, Yoshinaga 2008, and others). These will not be studied here since they are beyond the scope of this study.

a. Taro-wa jibun-no si-ta koto-o koukai-si-ta.  
 Taro-TOP self-GEN do-PST thing-ACC regret-do-PST  
 'Taro regretted what he had done.'

b. Taro-wa kaminari-ni bikkuri-si-ta.  
 Taro-TOP thunder-NI 'surprised'-do-PST  
 'Taro got surprised by the thunder.'

(91) Japanese ExpSubj verbs:

a. ExpSubj – Stimulus-*O* ('ExpSubj-*O* verbs'):

*aisuru* 'love,' *agameru* 'worship, adore,' *anadoru* 'make light of' *ayasimu* 'suspect,' *ayabumu* 'fear,' *awaremu* 'feel pity for,' *hajiru* 'be ashamed,' *higamu* 'take a jaundiced view of,' *hossuru* 'want,' *itamu* 'lament, mourn,' *itsukusimu* 'cherish,' *itou* 'dislike, avoid,' *itoosimu* 'love,' *ibukasimu* 'suspect,' *ibukaru* 'suspect,' *imu* 'abhor,' *iyasimu* 'hamble,' *kirau* 'dislike,' *konomu* 'like,' *kuiru* 'regret,' *kuyamu* 'repent,' *mederu* 'admire,' *nageku* 'grieve, deplore' *natukasimu* 'miss,' *netamu* 'envy, begrudge,' *nikumu* 'hate,' *nozomu* 'wish, desire' *osimu* 'regret, spare,' *osoreru* 'fear,' *sagesumu* 'despise,' *sinobu* 'recall,' *sitau* 'adore,' *sonemu* 'envy,' *suku* 'like,' *tamerau* 'hesitate,' *tanosimu* 'enjoy,' *toutobu* 'respect,' *utagau* 'doubt,' *utomu* 'dislike,' *utonjiru* 'alienate,' *uyamau* 'respect,' *uramu* 'have a grudge against,' *urayamu* 'envy,' *yaku* 'be jealous of,' etc.

b. ExpSubj – Stimulus-*NI* ('ExpSubj-*NI* verbs'):

*akireru* 'be shocked,' *akiru* 'get bored,' *aseru* 'be impatient,' *awateru* 'panic,' *bibiru* 'be scared,' *hasyagu* 'frolic,' *hirumu* 'flinch, shrink,' *ijikeru* 'be perverse,' *ikaru* 'get mad,' *iradatu* 'get impatient,' *jireru* 'get impatient,' *komaru* 'be troubled,' *koriru* 'learn one's lesson,' *kurusimu* 'suffer,' *maiagaru* 'become cheerful,' *mairu* 'feel beaten,' *mayou* 'waver,' *megeru* 'lose hope,' *meiru* 'get depressed,' *mukureru* 'get sullen,' *nayamu* 'be bothered,' *obieru* 'be scared,' *odoroku* 'get surprised,' *ogoru* 'be proud of oneself,' *ojikeru* 'dread,' *okoru* 'get angry,' *ononoku* 'tremble,' *otituku* 'calm down,' *sirakeru* 'become chilled,' *syogeru* 'get depressed,' *tereru* 'be bashful,' *tomadou* 'be confused,' *ukareru* 'be in high spirits,' *urotaeru* 'be upset,' etc.  
(*akogareru* 'yearn for,' *horeru* 'fall in love with,' *kogareru* 'long for').

c. ExpSubj – Stimulus-*O*/*NI*:

*kanasimu* 'be sad,' *yorokobu* 'be/get pleased' (Note that some of ExpSubj verbs listed above also vacillate between *-o* and *-ni* depending on the contexts and the users.)

(92) ExpObj causatives ← ExpSubj-*NI* verbs + causative morpheme *-(s)ase*:

*tanosim-ase-* 'amuse'; *kanasim-ase-* 'sadden,' *yorokob-ase-* 'please';  
and others derived from ExpSubj-*NI* verbs listed above (except *akogareru* 'yearn for,' *horeru* 'fall in love with,' and *kogareru* 'long for').

### 2.2.2. Case Markings of ExpSubj verbs

As noted in the previous section, the elements marked by *-o* or *-ni* vary in their thematic interpretation. The *o*-marked objects are interpreted as the 'Object of Emotion,' while the *ni*-marked elements, except a few cases, are considered as the 'Cause of Emotion.' In this

section, we will discuss more in detail the grammatical differences between the two classes of ExpSubj verbs. The case marking does not only interact with the thematic interpretation but also with the argument/adjunct distinction of the elements.

ExpSubj-*O* verbs and ExpSubj-*NI* verbs differ in the grammatical status of their objects. While the *o*-marked elements are indeed verb-required direct objects, the *ni*-marked ones can actually be optional postpositional phrases. In a simple test, for instance, the *o*-marked elements are essential for the sentence to be grammatical, while the *ni*-marked ones are mostly omittable.

- (93) a. Maki-ga \*(Taro-o) nikum-da.  
 Maki-NOM Taro-ACC hate-PST  
 ‘Maki hated Taro.’  
 b. Maki-ga (monooto-ni) odoroi-ta.  
 Maki-NOM noise-*NI* ‘get surprised’-PST  
 ‘Maki got surprised (at a noise).’

In Japanese, case markers and postpositions are apparently indistinguishable because both are particles suffixed to nominal phrases (NPs). Nevertheless, case-marked NPs and NPs with postpositions behave differently in a syntactic phenomenon called ‘quantifier floating.’ According to Miyagawa (1989a,b), a floated numeral quantifier (NQ) and its host NP must c-command each other, as a floated NQ a case-marked NP in (94a,b). A floated NQ cannot be accepted in (94c,d), because the NP is within a postpositional phrase and the c-commanding relationship is blocked.

- (94) a. Paul-wa [hon-o] san-satu yom-da.  
 Paul-TOP book-ACC three-CL read-PST (CL=classifier)  
 ‘Paul read three books.’  
 b. Ruth-wa [ayasii otoko-ni] hutari a-ta.  
 Ruth-TOP suspicious mam-*NI*(DAT) two.CL meet-PST  
 ‘Ruth met two suspicious men.’  
 c. \*Ruth-wa [[tomodati]-ni] hutari but-are-ta.  
 Ruth-TOP friends-*NI*(‘by’) two.CL hit-PASS-PST  
 ‘Ruth was hit by two friends.’  
 d. \*Gail-wa [[bou]-de] ni-hon jyuuji-o tuku-ta.  
 Gail-TOP stick-with two-CL cross-ACC make-PST  
 ‘Gail made two crosses with sticks.’ (Matsumura 1996:126)

Notice that the particle *-ni* in (94b) is a dative case marker, while the same particle in (94c) is a postposition introducing the passive agent. A *ni*-marked element can be a case-marked object or a postpositional phrase.

Applying this test to the two classes of ExpSubj verbs, the *o*-marked elements are case-marked NPs as in (95a), while the *ni*-marked elements are NPs within a postpositional use of *ni* as in (95b) (Matsumura 1996). In other words, the *o*-marked objects of ExpSubj verbs are verb-selected arguments whereas the *ni*-marked elements are adjuncts.

- (95) a. Ruth-wa [otoko-o] san-nin nikum-da.  
 Ruth-TOP man-ACC three-CL hate-PST  
 ‘Ruth hated three men.’  
 b. \*Gail-wa [[ayasii otoko]-ni] san-nin obie-ta.  
 Gail-TOP suspicious man-NI three-CL ‘be scared’-PST  
 ‘Gail was scared of three suspicious men.’ (Matsumura 1996:127)

Regarding the ExpSubj verbs whose *ni*-marked objects are rather ‘Object of Emotion,’ just like ExpSubj-*O* verbs, the ellipsis test indicates that their *ni*-marked elements are verb-selected arguments ((96a)), although the same cannot be said in the NQ test ((96b)).

- (96) a. Maki-ga \*(eiga sutaa-ni) akogare-ta.  
 Maki-NOM movie star-NI ‘long’-PST  
 ‘Maki longed for \*(the movie star).’  
 b. \*Maki-ga eiga sutaa-ni hutari akogare-ta.  
 Maki-NOM movie star-NI two.CL ‘long’-PST  
 ‘Maki longed for two movie stars.’

Moreover, the *o*-marked objects can be the subjects of passive sentences, while the *ni*-marked elements cannot, unless they are interpreted ‘Object of Emotion.’ In other words, the objects that can be interpreted as ‘Object of Emotion,’ whether marked by *-o* or *-ni*, can be the subjects of passives ((97, 98)), whereas the elements interpreted as ‘Cause of Emotion’ cannot ((99)). In (99b), the sentence becomes more tolerable when the subject of the passive is no longer ‘Cause’ but ‘Object.’ Notice also that the passives of ExpSubj verbs can mark the Experiencer complement by *-kara* ‘from.’ The Experiencer of these verbs can be the source of the described emotional reaction or judgment (Teramura 1982).

- (97) a. Taro-wa Maki-o nikum-de i-ta. ‘Object of Emotion’  
 Taro-TOP Maki-ACC hate-ASP-PST  
 ‘Taro hated Maki.’  
 b. Maki-wa Taro-ni/-kara nikum-are-te-i-ta.  
 Maki-TOP Taro-‘by’/-‘from’ hate-PASS-ASP-PST  
 ‘Maki was hated by Taro.’  
 (98) a. Taro-ga Maki-ni hore-ta. ‘Object of Emotion’  
 Taro-NOM Maki-NI ‘fall is love’-PAST  
 ‘Taro fell in love with Maki.’

- b. Maki-ga Taro-ni/-kara horer-are-ta.  
 Maki-NOM Taro-‘by’/‘from’ ‘fall in love’-PASS-PAST  
 ‘Maki was fallen in love with by Taro.’

- (99) a. Taro-ga sono hanasi-ni odoroi-ta. ‘Cause of Emotion’  
 Taro-NOM that story-*NI* ‘get surprised’-PST  
 ‘Taro got surprised by that story.’  
 b. \*/?Sono hanasi-wa Taro-ni/-kara odorok-are-ta.  
 that story-TOP Taro-‘by’/‘from’ ‘get surprised’-PASS-PST  
 Lit.: ‘That story was gotten surprised by Taro.’ (That story was surprising for Taro.)

So far we have seen that ExpSubj verbs differ in the case marking, which interacts with the different thematic interpretations of the Stimulus, and also relates to the different grammatical status of the same participant, verb-selected argument or verb-external adjunct.

- (100) a. ExpSubj-*O* verbs:  
 The *o*-marked element is ‘Object of Emotion’ (e.g. *nikum-* ‘hate’): Argument  
 b. ExpSubj-*NI* verbs:  
 (i) the *ni*-marked element is ‘Object of Emotion’ (e.g. *akigare-* ‘long for’); Argument (?)  
 (ii) the *ni*-marked element is ‘Cause of Emotion’ (e.g. *odorok-* ‘get surprised’); Adjunct

If the *ni*-marked elements (that are interpreted as ‘Cause of Emotion’) are adjuncts, ExpSubj-*NI* verbs could be one-place intransitive predicates. Assuming that intransitive verbs are divided into unergatives and unaccusatives, ExpSubj-*NI* verbs seem to have properties of both (Matsumura 1996). The unergative/unaccusative distinction of intransitives can be associated with the agentivity/nonagentivity of their only argument. It is assumed that the subject of an unergative verb is an Agent who performs volitional actions, whereas that of an unaccusative is a nonagentive participant, e.g. Theme, that undergoes a change of state or location.

ExpSubj-*NI* verbs behave like unaccusatives in the sense that their subjects are Experiencers that have no volition in experiencing the mental state denoted by the verb. For instance, in a causative construction, the causee marked by the accusative case marker tends to be interpreted as being forced to carry out an act ((101a)), while the causee marked by the dative case marker is interpreted as following her or his own volition to carry out an act ((101b)). In other words, agentive verbs have a choice of accusative case or dative case for the causee in its causative construction, whereas nonagentive verbs can mark the causee only by the accusative case. The subject of ExpSubj-*NI* verbs cannot be marked by the dative in a causative construction, and therefore it does not have volition ((102)).

- (101) a. Kanjya-ga arui-ta.  
 patient-NOM walk-PST

‘The patient walked.’

b. Isya-ga kanjya-o/-ni aruk-ase-ta.

doctor-NOM patient-ACC/-DAT walk-CAUS-PST

‘The doctor made the patient walk (by force/on her or his own).’

(102) a. Arisa-ga odoroi-ta.

Arisa-NOM ‘get-surprised’-PST

‘Arisa got surprised.’

b. Otoko-ga Arisa-o/\*-ni odorok-ase-ta.

man-NOM Arisa-ACC/\*-DAT ‘get surprised’-CAUS-PST

‘The man surprised Arisa.’

(Matsumura 1996:131)

However, ExpSubj-*NI* verbs behave like unergatives as well. It is reported that the subject of an unergative verb can be the subject of its causative-passive construction ((103a)), while that of an unaccusative cannot ((103b)) (Kageyama 1993, Tsujimura 1996). ExpSubj-*NI* verbs allow their subjects to be the subject of causative-passives, although the examples sound a bit redundant ((104a)) and one would use a simpler construction, with neither causative nor passive morpheme, that means the same ((104b)). A difference between unergatives and unaccusatives is characterized by the presence/absence of an external argument, i.e. inherent subject such as Agent argument. Given that ExpSubj-*NI* verbs behave like unergatives here, they have an external argument (Matsumura 1996).

(103) a. Ruth-ga utaw-ase-rare-ta.

Ruth-NOM sing-CAUS-PASS-PST

‘Ruth was made sing.’

b. \*Hana-ga sak-ase-rare-ta.

flower-NOM bloom-CAUS-PASS-PST

‘The flower was made bloom.’

(Matsumura 1996:129-130)

(104) a. (?)Lilian-wa sono sirase-ni {odorok/urotae/yorokob}-ase-rare-ta.

Lilian-TOP that news-by {get surprised/ ‘get upset’/ ‘get pleased’} -CAUS-PASS-PST

Lit.: ‘Lilian was made get surprised/ get upset/ get pleased by the news.’

b. Lilian-wa sono sirase-ni {odoroi/urotae/yorokon}-ta.

Lilian-TOP that news-by {get surprised/ ‘get upset’/ ‘get pleased’} -PST

‘Lilian got surprised/ got upset/ got pleased by the news.’

In summary, Japanese has two classes of ExpSubj verbs that differ in the case marking for the Stimulus arguments, ExpSubj-*O* verbs and ExpSubj-*NI* verbs. Regarding ExpObj verbs, they are obtained by attaching a causative morpheme to ExpSubj-*NI* verbs. Additionally, there are psych adjectives that are morphologically related to ExpSubj-*O* verbs. The case marking difference interacts with the different thematic interpretation of the elements, i.e. the *o*-marked objects are interpreted as the ‘Object of Emotion,’ while the *ni*-marked elements are

mostly the ‘Cause of Emotion,’ and it also reflects the grammatical status of the elements, i.e. the *o*-marked ones are verb-selected arguments while the *ni*-marked ones are mostly verb-external adjuncts. Most ExpSubj-*NI* verbs are one-place predicates that have both unergative and unaccusative properties. This may be because Experiencer is something between Agent and Theme. Experiencer is close to but different from Agent because it has no volition but may have some control over the emotion. Experiencer is also close to but different from Theme because it undergoes a change of state but it is only psychically affected.

## 2.3. Case Alternations and Thematic Relations

### 2.3.1. Classification of Psych Verbs in Japanese and Spanish

So far we have classified psych verbs of both Spanish and Japanese in terms of the relationship between thematic roles and case marking. These languages present various classes of psych verbs that differ in the case marking of the arguments. Psych verbs in Japanese and Spanish and the intuitive correspondence between them are summarized below:

(105) Psych Predicates in Japanese and Spanish:

<u>Japanese</u>	<u>Spanish</u>
a. Psych adjectives: Maki-(ni)wa hebi-ga osorosii. Maki-(DAT)TOP snakes-NOM horrible ‘Maki fears snakes (For Maki snakes are scary).’	--- e. ExpDAT: A María le gusta la opera. To María DAT pleases the opera ‘María likes the opera (The opera pleases María).’
b. ExpSubj-Stimulus <i>O</i> : Maki-ga hebi-o osore-ta. Maki-NOM snakes-ACC fear-PST ‘Maki feared snakes.’	--- f. ExpNOM-(StimulusDO/OBL): María odia/confía en los adultos. María hates/ trusts in the adults ‘María hates/trusts in the adults.’
c. ExpSubj-Stimulus <i>NI</i> : Maki-ga monooto-ni odoroi-ta. Maki-NOM sound- <i>NI</i> ‘get surprised’-PST ‘Maki got surprised by the sound.’	--- g. Reflexive Psych Verbs: María se asustó por el ruido. María REFL frightened by the sound ‘María got frightened by the sound’
d. ExpObj causatives: Taro-ga Maki-o odorok-ase-ta. Taro-NOM Maki-ACC ‘get surprised’-CAUS-PST ‘Taro surprised Maki.’	--- h. ExpACC: Juan asustó a María (La asustó). Juan frightened ‘to’ María (ACC frightened) ‘Juan frightened María.’

Japanese has two classes of ExpSubj verbs that differ in the case marking of the Stimulus arguments, ExpSubj-*O* verbs and ExpSubj-*NI* verbs. Note that Spanish also presents some ExpNOM verbs that take an oblique complement (e.g. *confiar en* ‘trust in’), but it is considered as verb-selected element. The *ni*-marked elements ExpSubj-*NI* verbs in Japanese are verb-external adjuncts, and therefore these are one-place predicates. Regarding ExpObj verbs, the language uses a morphological strategy to form them from ExpSubj verbs. In contrast, Spanish has two classes of ExpObj constructions, ExpACC and ExpDAT, though the dative experiencers may be rather ‘dative subjects’ than canonical indirect objects. Spanish also has many types of reflexive psych verbs, one large group of which can be derived from ExpACC verbs (as for the derivational contrast between Spanish and Japanese, we will discuss the details in Chapter 4). Japanese has no verbs that would correspond to Spanish ExpDAT verbs but does have psych adjectives that behave like their ExpSubj-*O* verbal variants.

The classification of psych verbs based on the linking between thematic roles and case marking, however, is not an absolute one because psych verbs present different kinds of case alternations in both languages and such case marking differences interact with the different thematic interpretation of the arguments. In order to describe this phenomenon in an efficient way, we need systematically organized notions of thematic roles. This study revalues the utility of proto-role entailments. In the next sections, we will summarize Dowty’s (1991) proto-role proposal and Ackerman and Moore’s (2001) related proposal, and then we will apply them to case marking differences of psych verbs.

### **2.3.2. Proto-Role Entailments and Argument Realization**

In a traditional view, verbs have particular requirements for the number of arguments and for the thematic roles of the arguments. Thematic roles are relations between predicates and their arguments in sentences, or relations between an event described by a verb and a participant in it (Carlson 1984). An inventory may include Agent, Patient, Theme, Instrument, Beneficiary, Goal, Location, Source, etc., although it varies from author to author (Fillmore 1968, Gruber 1965, Jackendoff 1972, Andrews 1985, Dowty 1989, and many others). Thematic roles are useful to explain many different kinds of grammatical phenomena, though controversy remains over the fact that the more fine-grained semantics the linguistic tasks require, the higher the number of thematic roles we need. The bottom of this problem lies in the definition of ‘thematic roles’ *per se*, i.e. what they really are in the first place.

According to Dowty (1991), thematic roles are sets of entailments the predicates hold for their arguments. He proposes that argument realization such as subject-object selection can be efficiently described in terms of two proto-roles, Proto-Agent and Proto-Patient. A predicate

entails a set of Proto-Agent properties and/or Proto-Patient properties for its argument(s) and the argument which holds the greater number of Proto-Agent properties will appear as the subject, while the argument with the greater number of Proto-Patient properties will be lexicalized as the object.

(106) Proto-Role Entailments (Dowty 1991:572):

a. Proto-Agent properties:	b. Proto-Patient properties:
i) volitional involvement in the event or state ii) sentience (and/or perception) iii) causing an event or change of state in another participant iv) movement relative to the position of another participant v) exists independently of the event named by the verb	i) undergoes change of state ii) Incremental Theme iii) causally affected by another participant iv) stationary relative to movement of another participant v) does not exist independently of the event, or not at all

Among the properties listed above, ‘sentience/perception’ is a property typically entailed by propositional attitude verbs (e.g. *believe, wonder*), stative perception verbs (e.g. *see*), and stative psych-predicates (e.g. *fear, be surprised at*). ‘Incremental Theme,’ coined to differentiate it from normal Theme, i.e. a thing that moves or undergoes change of state, especially refers to an entity whose state changes (or comes into existence) portion by portion along with the development of the described event (e.g. *mow the lawn, build a house, write a letter, etc.*) (Dowty 1991:567-568). Moreover, some properties bear a converse relationship. Namely, if a verb entails one of the Proto-Patient properties (106b.iii-v) for one argument, it necessarily has the corresponding one of the Proto-Agent properties (106a.iii-v) for the other argument (e.g. *Smoking causes cancer; The bullet entered the target; John built a house*) (Dowty 1991:574).

The subject-object selection is realized conforming to the following principle ((107)). In brief, the more Proto-Agentive argument will be the subject and the more Proto-Patientive argument will be the direct object. The ‘corollaries’ suggest the existence of predicates that could show an alternation if their arguments “tie” in the proto-role entailments.

(107) a. *Argument Selection Principle* (Dowty 1991:576): “In predicates with grammatical subject and object (“true direct object”), the argument for which the predicate entails the greatest number of Proto-Agent properties will be lexicalized as the subject of the predicate; the argument having the greatest number of Proto-Patient entailments will be lexicalized as the direct object.”

b. *Corollary 1*: “If two arguments of a relation have (approximately) equal number of entailed Proto-Agent and Proto-Patient properties, then either or both may be lexicalized as the subject (and similarly for objects).”

c. *Corollary 2*: “With a three-place predicate, the nonsubject argument having the greater number of entailed Proto-Patient properties will be lexicalized as the direct object and the nonsubject argument having fewer entailed Proto-Patient properties will be lexicalized as an oblique or prepositional object (and if two nonsubject arguments have approximately equal numbers of entailed P-Patient properties, either or both may be lexicalized as direct object).”

The proposed Argument Selection Principle predicts the argument realization of many types of predicates. Dowty (1991) makes an insightful remark on the argument configurations of psych verbs as well. Psych verbs such as *like* and *please* have been considered “lexical doublets” (e.g. *Mary likes classical music/Classical music pleases Mary*). However, these predicates actually differ in the proto-role entailments and this may cause configurational variations of the arguments. Psych verbs are regarded as entailing that “the Experiencer has some perception of the Stimulus” and the Stimulus “causes some emotional reaction or cognitive judgment in the Experiencer” (Dowty 1991:579). That is, a psych verb entails a Proto-Agent property ‘sentience/perception’ for one argument (i.e. the Experiencer) and another Proto-Agent property ‘causation’ for the other argument (i.e. the Stimulus). If a psych verb does not entail anything else, its two arguments apparently “tie” in the proto-role entailments, and the subject-object selection of these predicates would be unpredictable.

(108) Subject-Object Selection for Psych Verbs:

Predicate	< arg <sub>1</sub> (Experiencer),	arg <sub>2</sub> (Stimulus) >
Proto-role properties:	‘Sentience’ (P-Agent)	‘Causation’ (P-Agent)
Subj-Obj Selection:	→ SUBJ or OBJ	→ SUBJ or OBJ

Dowty (1991), then, takes Croft’s (1986) observation into account. According to the latter, ExpSubj verbs are always stative, while ExpObj verbs can be either stative or inchoative, i.e. “describing the coming about of the perception and the consequent emotional or cognitive reaction” (Dowty 1991:580). From this description, the inchoative interpretation can be associated with the entailment of a Proto-Patient property ‘change of state’ for the Experiencer argument. The subject-object selection of ExpObj verbs, then, could be successfully predicted as below, although that of ExpSubj verbs is still unexplained.

(109) Subject-Object Selection for ExpObj verbs (inchoative reading):

Predicate	< arg <sub>1</sub> (Experiencer),	arg <sub>2</sub> (Stimulus) >
Proto-role properties:	‘Sentience’ (P-Agent)	‘Causation’ (P-Agent)
	‘Change of state’ (P-Patient)	
Subj-Obj Selection:	→ OBJ	→ SUBJ

Dowty's (1991) proto-role proposal for argument realization is not only applicable to the subject-object selection but also the argument alternation of direct and oblique objects, as predicted in the 'corollary 2.' Borrowing Ackerman and Moore's (2001) terms, the former can be called 'syntagmatic argument realization' ((110a)) and the latter, 'paradigmatic argument realization' ((110b)). The paradigmatic one includes the subject-oblique alternation, which is a cross-linguistically reported phenomenon. The syntagmatic argument realization of a predicate relies on Proto-Agentivity and Proto-Patientivity of its arguments, as described above. Among paradigmatic argument realizations, the alternation between direct object and oblique object reflects the Proto-Patientivity of the argument, i.e. the more Proto-Patientive the argument is, the less oblique it will be lexicalized. Finally, the alternation between subject and oblique subject interacts with the Proto-Agentivity of the argument, i.e. the more Proto-Agentive the argument is, the less obliquely it will be expressed.

(110) a. Syntagmatic Argument Realization (i.e. Subject-Object Selection):

Pred.	arg <sub>1</sub> most Proto-Agentive → SUBJ	arg <sub>2</sub> most Proto-Patientive → DO
-------	------------------------------------------------	------------------------------------------------

b. Paradigmatic Argument Realization:

i) Direct Object-Oblique Object Alternation:

Pred.	arg <sub>1</sub>	arg <sub>2</sub> most Proto-Patientive → DO
	arg <sub>1</sub>	arg <sub>2</sub> less Proto-Patientive → OBL

ii) Subject-Oblique Subject Alternation:

Pred.	arg <sub>1</sub> most Proto-Agentive → SUBJ	arg <sub>2</sub>
	arg <sub>1</sub> less Proto-Agentive → OBL	arg <sub>2</sub>

Ackerman and Moore (2001) propose that Dowty's proto-role entailments are not only useful to account for the realization of arguments as grammatical functions (i.e. subject, object, indirect object), but also for the realization of arguments as morphological cases (i.e. nominative, accusative, dative). Grammatical functions and morphological cases are associated with similar obliqueness hierarchies, which argument realizations conform with.

(111) Obliqueness hierarchies (Ackerman and Moore 2001:91-92):

- a. In grammatical functions: Subject > Direct Object > Indirect Object > Oblique
- b. In morphological cases: NOM > ACC > GEN > (PART >) DAT > LOC...

For instance, Estonian shows a genitive-partitive case alternation of the objects. The examples below tell that a genitive-marked object requires a secondary resultative predicate that specifies a change of state ((112a)), while a partitive-marked object may not ((112b)). Therefore, the genitive-marked object is associated with a Proto-Patient property ‘change of state,’ which makes it more Proto-Patientive than the partitive-marked object. In other words, the more Proto-Patientive argument will appear in the genitive case and the less Proto-Patientive argument, in the partitive case, which is more oblique in the hierarchy above.

- (112) a. \*Ta lõi paku. / a'. Ta lõi paku pooleks.  
 s/he hit block-GEN s/he hit block-GEN in half  
 ‘S/he hit the block.’/ ‘S/he smashed the block (of wood) in half.’
- b. Ta lõi pakkus. / b'. ?? Ta lõi pakku pooleks.  
 s/he hit block-PART s/he hit block-PART in half  
 ‘S/he {hit/ was hitting} the block.’/ ‘S/he was smashing the chair apart.’

(Ackerman and Moore 2001:98-99)

Moreover, Hindi offers examples of dative subjects. Dative subjects are dative-marked nominal elements that grammatically behave like subjects. Some predicates inherently require a dative-marked subject ((113)) or appear in a nominative-dative case alternation of the subjects ((114)). The nominative-marked subject is regarded as holding volition, while the dative-marked subject lacks it. In other words, the most Proto-Agentive argument will be assigned the nominative case and the least Proto-Agentive argument, the dative case, which is more oblique.

- (113) Tuṣaar-ko kitaab milii.  
 Tushar-DAT book-NOM receive-PERF  
 ‘Tushar received a book.’

- (114) a. Tuṣaar-ko k<sup>h</sup>ṣii huii.  
 Tushar-DAT happiness-NOM happen-PERF  
 ‘Tushar became happy.’

- b. Tuṣaar k<sup>h</sup>uś huaa.  
 Tushar-NOM happy become-PERF  
 ‘Tushar became happy.’ (Ackerman and Moore 2001:162 after Mohanan 1994)

Applying these proto-role proposals of Dowty (1991) and Ackerman and Moore (2001), the case marking differences and case alternations observed in psych verbs of Japanese and Spanish could be efficiently described as following.

### 2.3.3. Case Markings of Japanese Psych Verbs

Japanese shows different case markings for the Stimulus arguments of ExpSubj verbs and this marking difference reflects to a great extent the different thematic interpretations of the arguments. In Japanese, there are ExpSubj-*O* verbs and ExpSubj-*NI* verbs, and the *o*-marked objects are interpreted as the ‘Object of Emotion’ while the *ni*-marked objects are mostly regarded as the ‘Cause of Emotion.’ The difference is that the former is “evaluated” positively or negatively with respect to its property or quality, while the latter is mentioned as a trigger for the described emotion. The interesting point is that there are ExpSubj verbs that can appear in both constructions (e.g. *kanasim*- ‘be sad,’ *yorokob*- ‘become happy,’ and possibly more), and their thematic interpretations indeed correlate with the case marking of the arguments. That is, *the news* in (115a) is evaluated as something pleasing or sad by the Experiencer, while in (115b) they are merely a cause of the Experiencer’s emotional states.

(115) a. Maki-ga sono sirase-o yorokon-da/kanasim-da.

Maki-NOM that news-ACC ‘get pleased’-PST/‘be sad’-PST

‘Maki felt happy/sad about the news.’

b. Maki-ga sono sirase-ni yorokon-da/kanasim-da.

Maki-NOM that news-*NI* ‘get pleased’-PST/‘be sad’-PST

‘Maki became pleased/sad at (because of) the news.’

Therefore, in terms of proto-role entailments, ExpSubj-*NI* verbs indeed entail a property of ‘causation’ for the *ni*-marked ‘Cause of Emotion’ argument. Moreover, as the Experiencer of these verbs undergoes an emotional change, the verbs also hold a property of ‘change of state’ other than ‘sentience’ for the Experiencer. Nevertheless, the argument realization of ExpSubj-*NI* verbs cannot be successfully accounted for by these proto-role entailments, as shown in (116a). Moreover, let us recall that ExpSubj-*NI* verbs are likely to be one-place predicates, with *ni*-marked elements as adjuncts. The ‘Cause of Emotion’ may be an externally added element both semantically and grammatically. Considering these points, the argument realization of ExpSubj-*NI* verbs can be schematized as in (116b).

(116) a. ExpSubj – Stimulus-*NI* (to be revised):

Pred.	< x,	y >
Proto-role entailment:	‘Sentience’ (P-A) ‘Change of state’ (P-P)	‘Causation’ (P-A)
Argument Selection:	→ SUBJ ?	→ OBJ ?

b. ExpSubj (– Stimulus-*NI*):

Pred.	< x >
Proto-role entailment:	‘Sentience’ ‘Change of state’
Argument Selection:	→ SUBJ

What about ExpSubj-*O* verbs, then? The *o*-marked arguments are interpreted as ‘Object of Emotion,’ which is a target of emotional evaluation, and not a cause. Therefore, these predicates may not entail a property of ‘causation,’ and we need a different proto-role property to fill this slot. However, none of the properties listed in (106) could perfectly fit, and it would be ill-advised to simply invent new properties. Rather, we propose that these verbs entail another Proto-Agent property ‘volition’ for the Experiencer because the ‘Object of Emotion’ is evaluated by the Experiencer and the evaluation may require some volition. That is, the Experiencer has a volitional control over positive or negative evaluation of the target. The argument realization of ExpSubj-*O* verbs, then, can be sufficiently explained by the Proto-Agentivity of one argument, as in (117b).

(117) a. ExpSubj – Stimulus-*O* (to be revised):

Pred.	< x,	y >
Proto-role entailment:	‘Sentience’ (P-A)	‘Causation’ (P-A)
Argument Selection:	→ SUBJ ?	→ OBJ ?

b. ExpSubj – Stimulus-*O*:

Pred.	< x,	y >
Proto-role entailment:	‘Sentience’ (P-A) ‘Volition’ (P-A)	‘Causation’ (P-A)??
Argument Selection:	→ SUBJ	→ OBJ

### 2.3.4. Case Alternations of Spanish Psych Verbs

Spanish, on the other hand, displays ACC-DAT alternation and DAT-NOM alternation for the Experiencer arguments and DO-OBL alternation for the “Stimulus” arguments. In the ACC-DAT alternation ((118, 119)), the differences of meaning between the variants have been described by agentivity and affectedness. For instance, the subject of the ACC variant is an agent, while that of the DAT variant is not an agent but merely a cause. The agentivity difference can be characterized by a Proto-Agent property ‘volition,’ as shown in (120a-i). Moreover, the accusative Experiencer is interpreted physically affected, whereas the dative Experiencer is only psychically affected. Similarly, Ackerman and Moore (2001) propose, based on Croft’s (1986) generalization that ExpObj verbs can be either stative or inchoative,

that Spanish ACC-DAT alternation correlates with the inchoative-stative distinction. As inchoative reading is characterized by the presence of a Proto-Patient property ‘change of state,’ the ACC variant of the alternation can also be described as in (120a-ii). (For the aspectual analysis, see Chapter 3.)

(118) a. Los payasos la sorprendieron.  
 the clowns ACC surprised  
 ‘The clowns surprised her (on purpose).’

b. Los payasos le sorprendieron.  
 the clowns DAT surprised  
 ‘The clowns surprised her (unintentionally).’

(119) a. Los perros la asustaron.  
 the dogs ACC frightened  
 ‘The dogs frightened her (and she was stunned for a moment).’

b. Los perros le asustaban.  
 the dogs DAT frightened  
 ‘The dogs frightened her (She feared the dogs)’

(120) ACC-DAT alternation for the “Stimulus”:

a. ExpACC variant:

i) by Agentivity

Pred.	< x,	y >
Proto-role entailment:	‘Causation’ (P-A) ‘Volition’ (P-A)	‘Sentience’ (P-A)
Argument Selection:	→ NOM	→ ACC

ii) by Affectedness

Pred.	< x,	y >
Proto-role entailment:	‘Causation’ (P-A)	‘Sentience’ (P-A) ‘Change of state’ (P-P)
Argument Selection:	→ NOM	→ ACC

b. ExpDAT variant:

Pred.	< x,	y >
Proto-role entailment:	‘Causation’ (P-A)	‘Sentience’ (P-A)
Argument Selection:	→ NOM ?	→ DAT ?

The problem is that the realization of the ExpDAT variant cannot be explained because the two arguments “tie” in the proto-role entailments ((120b)). Nevertheless, let us recall that Dowty’s Argument Selection Principle predicts that “If two arguments of a relation have

(approximately) equal number of entailed Proto-Agent and Proto-Patient properties, then either or both may be lexicalized as the subject” (Dowty 1991:576).

Actually, some ExpDAT verbs in Spanish can appear in the ExpNOM construction (and some ExpNOM verbs can appear in the ExpDAT construction), i.e. the DAT-NOM alternation ((121)). In this alternation, the nominative Experiencer is regarded as having slightly more volitional control towards the denoted emotion than the dative Experiencer. The realization of the ExpNOM variant, then, can be described as (122b). Although it is uncertain whether the “Stimulus” really holds a property of ‘causation,’ as mentioned for Japanese ExpSubj-O verbs, the Experiencer is still going to be the nominative subject because of its Proto-Agentivity, which is slightly larger than the one belonging to the other argument.

(121) a. A María le admira la valentía de su marido.

to María DAT amaze the bravery of her husband

‘The bravery of her husband admires her.’

b. María admira la valentía de su marido.

María admire the bravery of her husband

‘María admires the bravery of her husband.’

(122) DAT-NOM alternation for the Experiencer:

a. ExpDAT variant

Pred.	< x,	y >
Proto-role entailment:	‘Sentience’ (P-A)	‘Causation’ (P-A)
Argument Selection:	→ DAT ?	→ NOM ?

b. ExpNOM variant

Pred.	< x,	y >
Proto-role entailment:	‘Sentience’ (P-A) (‘Volition’ (P-A))	‘Causation’ (P-A)??
Argument Selection:	→ NOM	→ ACC

The ExpDAT variant is something between the ExpACC and the ExpNOM. The dative experiencer is unspecified in both its volition and its change of state.

(123) ExpNOM ----- ExpDAT ----- ExpACC  
 [+volition] [-volition] [-volition]  
 [-change of state] [-change of state] [+change of state]



In other words, for stative predicates, the Experiencer can be the source of emotional judgments and the recipient of psychological stimuli at the same time, and the Stimulus can be the target of such emotional judgments and the trigger of psychological reactions at the same time. The stativity, therefore, is the one that allows some verbs to alternate between ExpNOM and ExpDAT constructions. Speakers can select one of these constructions to express one of the intuitive courses of the denoted emotion.

In the next chapter, we will conduct an aspectual analysis of psych verbs to examine to what extent the aspectual nature of the predicates interacts with the argument realization.

## Chapter 3. Aspectual Description of Psych Verbs

### 3.1. Components of Lexical Aspect

Argument realization of a predicate appears to reflect the temporal property of the predicate to some extent. There are many attempts to account for the argument realization of psych verbs in terms of their lexical aspect. However, it seems difficult to classify psych verbs into any of Vendler's four aspectual classes. In order to describe more efficiently the internal temporal structure of these predicates, this study takes the notion of 'boundary' and its types as relevant semantic components for aspectual studies.

#### 3.1.1. Aspectual Classes and Diagnostics

A sentence presents temporal information about a situation via tense and aspect. Tense locates a situation in time relative to the time of utterance (i.e. in the past, present or future), while aspect describes in different ways the internal temporal nature of an event or situation (Comrie 1976, Cann 1993, Saeed 2009). There are two kinds of aspect, grammatical aspect and lexical aspect. Grammatical aspect is expressed in syntactic or morphological forms to describe an event as complete (i.e. the perfective aspect) or as ongoing or incomplete (i.e. the imperfective aspect). Lexical aspect, on the other hand, is understood as aspectual classes (a.k.a. *aktionsarten*) encoded in the predicates. In other words, predicates can be categorized into several classes according to their lexical aspect. One of the most used classifications consists of state, activity, accomplishment and achievement (Vendler 1967; cf. Dowty 1979 for an elaborated description; cf. Kearns 2011, Filip 2011, 2012 for updated descriptions).

- (127) a. Stative verbs: *know, believe, have, desire, love, etc.*  
b. Activity verbs: *run, walk, swim, push a car, drive a car, etc.*  
c. Accomplishment verbs: *paint a picture, make a chair, deliver a sermon, etc.*  
d. Achievement verbs: *recognize, spot, find, lose, reach, die, etc.*

These four aspectual classes can be characterized in terms of dynamicity, durativity and telicity of the described situations. Dynamicity tells whether a predicate involves any change or motion in the described situation, and this feature separates stative predicates from the others. Durativity is about whether the described situation requires some duration to occur, and this property is shared by the predicates denoting states, activities and accomplishments.

Telicity (from Greek *telos* ‘goal, purpose, completion’) is about the existence of a natural endpoint in the described situation, and this feature distinctly characterizes accomplishments. The notion of telicity should be distinguished from ‘boundedness.’ If telic predicates are those that involve a natural finishing point in the denoted event, atelic predicates are those that lack it. However, when an atelic predicate appears with a temporal adverbial that measures the event duration, e.g. *Mary sang songs for two hours*, the whole expression does have a finishing point. Namely, the sentence describes a bounded event.

(128) Semantic Distinctions between Four Aspectual Classes:

	Dynamicity	Durativity	Telicity
States:	-	+	-
Activities:	+	+	-
Accomplishments:	+	+	+
Achievements:	+	-	+(?)

Regarding achievements, they are non-durative, or genuinely punctual. If achievements are instantaneous events that happen at a moment, the telicity of achievements may be different from that of accomplishments: i.e. while accomplishments involve *telos* as a part, achievements are themselves *telos* (for our discussion about achievements see Section 3.1.3).

Assuming states, activities, accomplishments and achievements as aspectual classes of predicates, the semantic differences between them appear as different behaviors in some tests. For instance, (i) dynamic predicates in the present tense normally yield a habitual interpretation or other “special” reading (e.g. a historical present, an immediate future), whereas stative verbs can have a non-habitual interpretation, such as a ‘right now’ reading.

- (129) a. John believes her story. (Non-habitual interpretation)  
 b. John walks (every day). (Habitual interpretation)  
 c. John builds a house (every year). (Habitual interpretation)  
 d. John arrives in time (normally). (Habitual interpretation)

(ii) Durative predicates, except telic ones, are compatible with a *for* adverbial to express the duration of the described state or activity, while (iii) telic predicates require an *in* adverbial to express the event duration, or the amount of time the denoted event took to occur.

- (130) a. She lived there {for/#in} two years.  
 b. She ran {for/#in} an hour.  
 c. She built a house {in/#for} a week.  
 d. She arrived at home {in/#for} an hour.

Note that the *in* adverbial with some achievements can yield an interpretation like “the time which elapses before the event,” e.g. *He recognized her in a minutes or so* (Kearns 2011:160). Actually, some atelic predicates are tolerable with an *in* adverbial in this ‘after x time’ reading: #*They walked in the park in half an hour* (‘After half an hour they began to walk in the park’); #*Jones knew him well in five years* (‘After five years Jones began to know him well’). Even stative predicates (e.g. *know*) can appear with an *in* adverbial because many stative verbs permit an inchoative interpretation (Dowty 1979). Note also that the *for* adverbial with some telic predicates can yield an interpretation like ‘the duration of the period during which a series of events repeatedly occurred’: *The gang painted the wall for five years*; or an interpretation like ‘the duration of the result state of the event’: *He has left the office for a few minutes, but he will return soon* (Dowty 1979, Kearns 2011).

As another diagnostic of telicity, (iv) telic predicates in the progressive bear different entailments from atelic ones. With activities, the meaning of the form ‘be V-ing’ entails that of ‘have V-ed,’ whereas with accomplishments, it does not (Kenny 1963). This phenomenon is also known as ‘imperfective paradox’ (Dowty 1979), i.e. atelic predicates in an imperfective aspect form have a perfective meaning.

(131) Entailments of the progressives ( $\rightarrow$  ‘entails’;  $*\rightarrow$  ‘does not entail’):

- a. He is walking.  $\rightarrow$  He has walked.
- b. He is baking a cake.  $*\rightarrow$  He has baked a cake.
- c. She was running.  $\rightarrow$  She ran.
- d. She was writing a letter.  $*\rightarrow$  She wrote a letter.

Achievements pattern like accomplishments in this test. Note however, that achievements in the progressive have a “special” interpretation (Piñón 1997, Kearns 2003, 2011), i.e. a “preliminary circumstance” interpretation (Kearns 2003). That is, achievements like *die*, *win*, *reach the summit*, and *arrive* may involve an implicit process leading up to the described situation, and therefore their progressive forms express out that “prelude” process (Kearns 2011:165, see (133)).

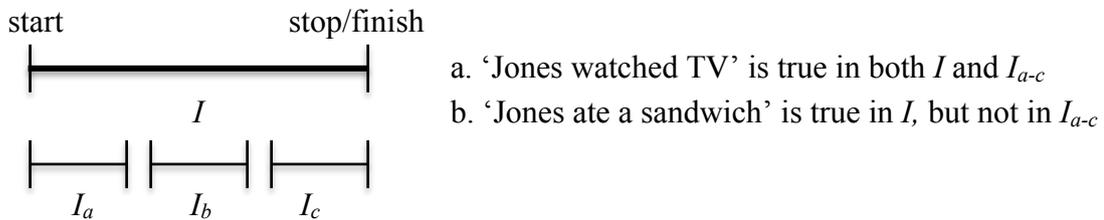
- (132) a. He is dying.  $*\rightarrow$  He has died.
- b. She was arriving at home.  $*\rightarrow$  She arrived at home.

- (133) a. Jones was dying for months and finally died just before Christmas.
- b. #Jones was building that house for months and finally built it just before Christmas.

The entailment difference between activity verbs and accomplishment verbs has to do with the presence/absence of sub-interval property, or the homogeneity/non-homogeneity of the denoted event throughout its development. While “the event described by an atelic predicate

is evenly spread through its run-time,” “the event described by a telic predicate occurs at a unique interval of time” (Kearns 2011:164). That is to say, when *Jones watched TV* for an interval of time *I*, Jones also watched TV in all of its sub-intervals ( $I_{a-c}$ ). When *Jones ate a sandwich* in an interval of time, Jones has not yet finished eating it in any of its sub-intervals.

(134) Sub-interval property or homogeneity of an event:



In addition, (v) the incompatibility with the progressive form apparently distinguishes stative predicates from the other aspectual classes. That is, the progressive is possible with activities and accomplishments, and also with achievements in a special reading such as a ‘preliminary circumstance’ one, but not possible with statives ((135)). However, as Dowty (1979) notes, some stative verbs can appear in the progressive, and then the described state is interpreted in a more temporary fashion than in the non-progressive form ((136)).

- (135) a. #John is knowing Mary.  
b. John is running.  
c. John is painting a picture.  
d. John is dying.

- (136) a. We live in London.  
b. We are living in London.

(137) Aspectual classes and some diagnostics:

	State	Activity	Accomplishment	Achievement
(i) The present tense	Non-habitual	Habitual	Habitual	Habitual
(ii) <i>for</i> + time	Yes	Yes	No	No
(iii) <i>in</i> + time	No	No	Yes	Yes
(iv) ‘be V-ing’ → ‘have V-ed’	N/A	Entail	Not entail	Not entail
(v) The progressive	No/Yes	Yes	Yes	Yes

To sum up, Vendler’s four aspectual classes are distinguished in terms of dynamicity, durativity and telicity. Basically, the dynamicity/stativity is characterized by the habitual/non-habitual interpretation in the present tense, the durativity appears as the compatibility with *for* temporal adverbials, while the telicity requires *in* adverbials instead. The telicity also relates to the entailment difference in the progressives. Finally, the acceptability of the progressive

form excludes statives with some exceptions. These aspectual diagnostics are proposed for English verbs in the literature, though most of them are applicable to other languages. Also, a language may have some language-depending tests.

### 3.1.2. Psych Verbs: Stativity, Inchoativity and Causativity

There are different opinions regarding the aspectual classification of psych verbs. There are a number of attempts to explain the variation of argument structure in terms of some kinds of aspectual differences. For instance, Dowty (1991), following Croft (1986), asserts that ExpSubj verbs are always stative while ExpObj verbs can be stative or inchoative, as we mentioned in the previous chapter. Grimshaw (1990) sees ExpObj verbs as accomplishment predicates because they are causative. Croft (1993) also considers ExpObj verbs as causatives, but from a different perspective. Pylkkänen (2000), however, argues that ExpSubj verbs and ExpObj verbs do not differ in the stativity/causativity but in the Individual-level/Stage-level stativity. There are also arguments that psych verbs do not vary in the lexical aspect. Arad (1998) states that a verb can be a psych verb only in a stative reading. Van Voorst (1992) claims that all classes of psych verbs are achievement predicates.

Grimshaw (1990) proposes that ExpSubj verbs (e.g. *like, fear*) are stative, while ExpObj verbs (e.g. *please, frighten*) are nonstative causatives, and therefore accomplishments because it was widely assumed that accomplishments are causatives. This tradition came from the decompositional analysis of aspectual classes, where accomplishments are distinguished from the other classes in the event complexity.

According to Dowty (1979), states are semantic primitives and the other aspectual classes can be decomposed into a state and a small set of abstract predicates such as DO (agentivity), BECOME (definite change of state) and CAUSE (causation) ((138)). Accomplishments are analyzed as having the logical structure  $\phi$  CAUSE  $\psi$ , where  $\phi$  and  $\psi$  are sentences containing DO or BECOME. For instance, achievements are considered as BECOME  $\phi$  ('single definite change of state'), while accomplishments are represented as  $\psi$  CAUSE [BECOME  $\phi$ ] ('complex definite change of state'), as in (139).

- (138) a. Statives: e.g.  $\pi_n(\alpha_1, \dots, \alpha_n)$   
 b. Activities: e.g. DO ( $\alpha_1, [\pi_n(\alpha_1, \dots, \alpha_n)]$ )  
 c. Achievements: e.g. BECOME [ $\pi_n(\alpha_1, \dots, \alpha_n)$ ]  
 d. Accomplishments: e.g. [[DO ( $\alpha_1, [\pi_n(\alpha_1, \dots, \alpha_n)]$ )] CAUSE [BECOME [ $\rho_m(\beta_1, \dots, \beta_m)$ ]]]

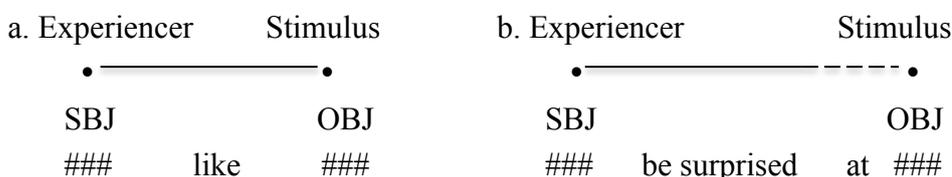
- (139) a. *Bill died*: BECOME¬[Bill is alive]      (¬[Bill is alive] = 'Bill is dead')  
 c. *John killed Bill*: [[John did something] CAUSE [BECOME¬[Bill is alive]]]

However, later studies revise this ‘accomplishments=causative’ view. For instance, there are accomplishments that are not causative, e.g. *John drove a car from Boston to Detroit*, and there are causatives that are not accomplishments, e.g. *The clowns walked the elephants around in a circle {for/#in} five minutes* (Filip 2011). Moreover, the causativity must be treated as a separated notion from the aspect (Pylkkänen 2000; see below).

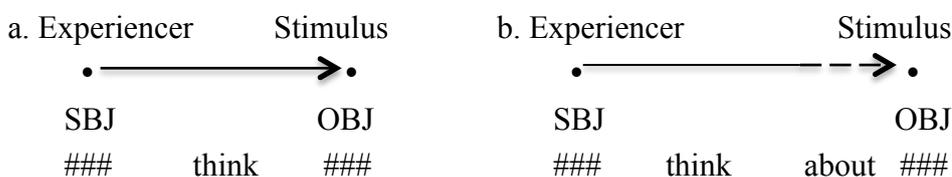
Croft (1993) also asserts, from a different perspective, that ExpSubj verbs are purely stative while ExpObj verbs are causative. The Experiencer in ExpSubj verbs is characterized as “simply being in a mental state regarding the Stimulus,” whereas the Stimulus in ExpObj verbs “causes the Experiencer to enter the mental state” (Croft 1993:56). For him, linguistic processes such as subject-object selection, surface case assignment, and verbal voice can be accounted for by cognitive conceptualization of events as ‘causal chains.’ Languages may have different types of psych verbs: (i) stative mental verbs (e.g. *like, be surprised at*), (ii) mental activity verbs (e.g. *think (about), wonder (about)*), (iii) causative mental verbs (e.g. *please, surprise*), and (iv) inchoative mental verbs (e.g. *get angry with*). The causal chain associated with each of them predicts their subject-object selections. However, as already mentioned in the last section of Chapter 2, the subject-object selection of stative mental verbs is not universally predictable. It is difficult to specify a causal chain for a stative predicate.

(140) Causal chains of psych predicates:

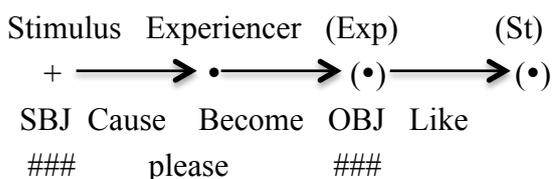
(i) Stative mental verbs:



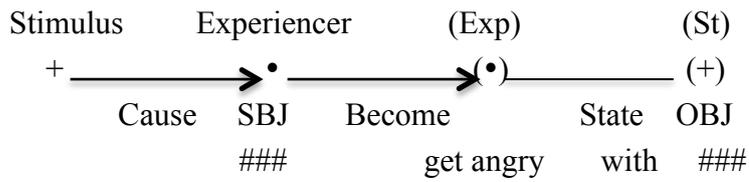
(ii) Mental activity verbs:



(iii) Causative mental verbs:



(iv) Inchoative mental verbs:



There are also some view that psych verbs do not vary in the aspectual class. For instance, Van Voorst (1992) argues that there are four classes in psych verbs and they are neither states, activities nor accomplishments; but “achievement” (Van Voorst 1992:66-67):

(141) (I): From action verb to psych verb

a. *He struck me as rather odd; He hit me as rather impatient.*

(II): Psych verbs with an intentional subject

b. *The clown tried to amuse me; She was trying to upset me with her rude remarks.*

(III): Psych verbs with a non-intentional subject

c. *These experiences amused me tremendously; The airplane crash upset me a lot.*

(IV): Psych verbs of the dislike-type

d. *My friends adore flower paintings; We all detested the dirty streets in that area.*

Psych predicates are not states because they take place, and hence can appear in the pseudo-cleft construction ((143)), unlike other stative predicates ((142)).

(142) \*What the class did, was matter a lot.

(143) a. (I): What these wars did, was strike me as very futile.

b. (II): What he did, was amuse me intensely.

c. (III): What the play did, was amuse me.

d. (IV): [?]What I did, was dislike these meals intensely. (Van Voorst 1992:78-79)

Psych verbs are not accomplishments according to the interpretation with an adverb *almost*. With accomplishment verbs, the adverb *almost* presents ambiguity between two readings, ‘fail to begin’ or ‘fail to end,’ while only one reading is possible with the other aspectual classes ((144)). This reading ambiguity is a reflection of the event complexity of achievements. That is, accomplishments are complex events that consist of a process and a change of state, and therefore the adverb *almost* can scope over each of these sub-events. Psych verbs can only have the interpretation the event has failed to star occurring ((145)).

(144) a. These report almost mattered to us. ‘fail to begin’

b. He almost walked. ‘fail to begin’

c. He almost built a castle. ‘fail to begin’ or ‘fail to end’

d. They almost noticed me in the corridor. ‘fail to begin’

- (145) a. (I): These remarks almost struck me as odd. ‘fail to begin’  
 b. (II): He almost amused me. ‘fail to begin’  
 c. (III): These events almost amused me. ‘fail to begin’  
 d. (IV): They almost admired him because of his talents. ‘fail to begin’

(Van Voorst 1992:70)

They are not activities because the individuation of direct objects changes the aspectual class of the psych predicates. Namely, activities can become accomplishments when the object is individuated. For instance, the verb *drink* with a mass noun such is atelic (i.e. activity): *He drank red wine {\*in 15 minutes/for two hours}*; while with an individuated object the verb phrase becomes telic (i.e. accomplishment): *He drank a bottle of red wine {in 15 minutes/\*for two hours}*. The *almost* test just mentioned also detects the aspectual change from an activity to an accomplishment ((146)). Psych verbs with individuated objects do not behave as accomplishments ((147)).

- (146) a. He almost drank red wine. ‘almost started’  
 b. He almost drank a bottle of red wine. ‘almost started’ or ‘almost finished’

- (147) a. (I): These things almost troubled the man. ‘almost began’  
 b. (II): These circumstances almost worried my sister. ‘almost began’  
 c. (III): That family reunion almost worries his uncle. ‘almost began’  
 d. (IV): They almost admired him after his latest concert. ‘almost began’

(Van Voorst 1992:71-72)

Moreover, Arad (1998) claims that verbs can be “psych” only in a stative reading. In other words, all verbs or uses that are psych are stative. According to her, a verb can have three different readings depending on the presence/absence of agentivity and change of state:

- (148) (i) agentive reading [+Agent, +Change of state] (see 149a)  
 (ii) eventive reading [-Agent, +Change of state] (see 149b, b’)  
 (iii) stative reading [-Agent, -Change of state]. (see 149c)

- (149) a. Nina frightened Laura {deliberately/to make her go away}.  
 b. Nina frightened Laura {unintentionally/accidentally}.  
 b’. {The explosion/The noise/the thunderstorm} frightenend Laura.  
 c. John/John’s behavior/Nuclear war frightened Nina. (Arad 1998:3-4)

The stative reading is defined as: “something inherent to the Stimulus triggers a particular mental state in the Experiencer” or “the Experiencer is at a specific mental state as long as she perceives the Stimulus (or has it on her mind)” (Arad 1998:4). She extends this to the idea

that in the stative reading the Stimulus is an inherent part of the event of mental state, while in the agentive and eventive readings the Stimulus is rather an Agent or Causer and not part of the event: it merely brings it about. In other words, the subject of ExpObj verbs in the stative reading is not as much external as that in the nonstative readings. This indicates that aspectual interpretation of predicates relates to thematic status of the arguments.

Finally, Pykkänen (2000) points out that ExpSubj verbs and ExpObj verbs are not opposing in the stativity/causativity distinction, since there are stative ExpObj causatives in Finnish. According to her, Finnish displays two classes of ExpSubj verbs, stative ones and nonstative ones. The latter class involves the inchoative morpheme *-stu*. Stative ExpSubj verbs mark the objects by the partitive case, while nonstative ExpSubj verbs mark the objects by the elative case. Both stative and nonstative ExpSubj verbs can form ExpObj causatives by suffixing the causative morpheme *-tta*.

- (150) a. Mikko inhoa-a hyttysi-ä. Stative ExpSubj verbs  
 MikkoNOM 'find disgusting'-3SG mosquitos-PAR  
 'Mikko finds mosquitos disgusting.'
- b. Hyttyset inho-**tti**-vat Mikko-a. Stative ExpObj causatives  
 mosquitosNOM 'find disgusting'-CAUS-3PL. Mikko-PAR  
 'Mosquitos disgust Mikko.' (Pykkänen 2000:418)
- (151) a. Mikko viha-stu-i uutisi-sta. Inchoative ExpSubj verbs  
 MikkoNOM anger-INCHO-3SG.PST news-ELA  
 'Mikko became angry because of the news.'
- b. Untiset viha-stu-**tti**-vat Mikko-a. Inchoative ExpObj causatives  
 newsNOM angry-INCHO-CAUS.PST-3PL Mikko-PAR  
 'The news made Mikko become angry.' (Pykkänen 2000:418)

ExpObj causatives formed from stative ExpSubj verbs are also stative. For instance, neither ExpObj causatives nor ExpSubj verbs pass the telicity test. In Finnish, accusative case marking on a direct object makes the denoted event telic, while partitive case marking leaves the completion of the activity open (Pykkänen 2000:420), as in (152a). Achievements, which inherently involve culmination, are incompatible with partitive objects ((152b)). States, which are inherently atelic, are incompatible with accusative objects ((152c)). ExpObj causatives are not compatible with accusative objects, just like their ExpSubj variants ((153)).

- (152) a. Pekka rakensi talo-n/-a.  
 Pekka.NOM built house-ACC/-PAR  
 'Pekka built a house/ Pekka was building a house.'
- b. Matti voitti kisa-n/\*-a.  
 Matti.NOM won race-ACC/-PAR  
 'Matti won the race.'

c. Pekka rakastaa Liisa-a/\*-n  
 Pekka.NOM loves Liisa-PAR/-ACC  
 ‘Pekka loves Liisa.’

(153) a. \*Matti suri uutise-t. ExpSubj verbs

Matti.NOM ‘be sad’.PST news-ACC.PL  
 ‘Matti was sad because the news.’

b. \*Uutiset sure-tti-vat Mati-n. ExpObj causatives

news-NOM ‘be sad’-CAUS-3PL Matti-ACC  
 ‘The news made Matti sad.’

(Pylkkänen 2000:421)

The fact that there are stative ExpObj causatives in Finnish indicates that stativity and causativity are not opposing notions. Pylkkänen (2000), therefore, claims that causativity must be treated as a separated notion from aspectual classes. ExpSubj verbs and ExpObj verbs cannot be characterized by the stative/causative distinction, but by the ‘Individual-level stativity/Stage-level stativity’ distinction. Individual-level predicates are those that denote a property that is true throughout the existence of an individual, e.g. *intelligent*, *altruistic*, *have long arms*, while Stage-level predicates are those that denote a spatiotemporal property of an entity, e.g. *available*, *drunk*, *stand on a chair* (cf. Carlson 1977, Kratzer 1995 for the details).

For instance, the incompatibility with temporal or locative adverbials distinguishes Individual-level predicates from Stage-level ones ((154)). Moreover, bare plurals only yield a universal interpretation with Individual-level predicates while they naturally have an existential (or arguably also universal) reading with Stage-level predicates ((155)). Furthermore, the unacceptability of quantificational adverbials such as *always* differentiates Individual-level predicates from Stage-level ones ((156)).

(154) a. ??Sääli-n sinu-a eilen kello 3.

pity-1SG you-PAR yesterday clock 3

‘I pitied you yesterday at 3 o’clock.’

b. Sinä sääli-tit minu-a eilen kello 3.

you.NOM pity-CAUS.PST.2SG I-PAR yesterday clock 3

‘You caused pity in me yesterday at 3 o’clock.’

(Pylkkänen 2000:426)

(155) a. Eurooppalaiset pohti-vat tulevaisuu-tta. (Only universal reading)

Europeans.NOM wonder-3PL future-PAR

‘(All) Europeans wonder about the future.’

b. Eurooppalaisi-a pohditu-tta-a tulevaisuus. (Existential (and universal) reading)

Europeans-PAR wonder-CAUS-3SG future.NOM

‘The future makes (all/some) Europeans wonder.’

(Pylkkänen 2000:427)

(156) a. ??Kerttu aina inhoa-a räntäsadett-a.

Kerttu.NOM always 'find disgusting'-3SG sleet-PAR

'Kerttu always finds sleet disgusting.'

b. Räntäsade inho-tta-a aina Kerttu-a.

sleet.NOM 'find disgusting'-CAUS-3S always Kerttu.PAR

'Sleet always disgusts Kerttu.'

(Pylkkänen 2000:428)

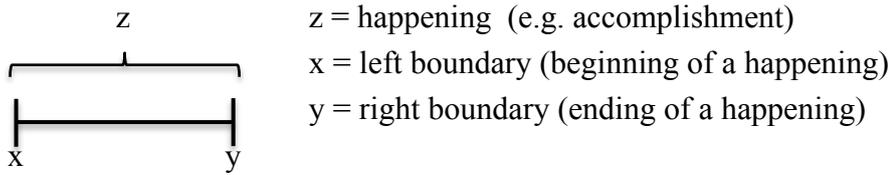
In this section we have summarized some notable opinions about the aspectual classification of psych predicates. If we separate causativity from aspect notions, as Pylkkänen (2000) suggest, psych verbs are mostly stative, although some may have an inchoative reading (Croft 1986, Dowty 1991), there may be an Individual-level/Stage-level distinction (Pylkkänen 2000), and a verb can have an agentive or eventive reading other than stative one (Arad 1998). Van Voorst's (1992) argument, then, may sound different from the others. However, it becomes more plausible if his "achievements" refer to inchoative predicates that describe the beginning of a state, such as *notice*. In fact, achievements as an aspectual class require a careful treatment in order to describe more successfully the aspectual nature of the predicates. In the next section, we will introduce Piñón's (1997) semantics of achievements to demonstrate the relevancy of a finer-grained description of lexical aspect in terms of 'boundaries' as aspectual notions.

### 3.1.3. 'Beginning' and 'Ending'

Achievements are sometimes treated as short accomplishments. However, the distinction between accomplishments and achievements is not just a matter of the length of the event duration. This study takes the position that achievements are crucially different from accomplishments in that they are truly instantaneous events that have no temporal duration. In Piñón's (1997) terminology, achievements are 'boundary happenings,' i.e. boundaries of certain happenings. Consequently, we could see some subcategories under achievements with respect to the type of boundary the predicate denotes.

According to Piñón (1997), events (including states) are divided into those that have duration, even a very short one, and those that have no duration at all. He calls the former 'happenings' and the latter, 'boundary happenings,' because they usually correspond to the beginning or ending of a happening. Eventualities (cf. Bach 1981) such as states, activities and accomplishments are happenings, while achievements are boundary happenings

(157) Happening and Boundaries:



More precisely, “[a] boundary happening begins (ends) an eventuality of a particular type just in case no eventuality immediately preceding (following) it such that the sum of the two eventualities is of the same type” (Piñón 1997:289). Beginnings and endings are formally described as below. Note especially that the beginnings and endings require reference to the type of eventualities that they are boundaries of.

- (158) a. **Beg(inning)** :=  $\lambda e \lambda e' \lambda P [\text{Boundary-Happening}(e) \wedge \text{Eventuality}(e') \wedge \text{Left-Boundary}(e, e') \wedge P(e') \wedge \neg \exists e'' [e'' \ll e' \wedge P(e'' \oplus e')]]$   
(boundary happening  $e$  begins eventuality  $e'$  of type  $P$ )
- b. **End(ing)** :=  $\lambda e \lambda e' \lambda P [\text{Boundary-Happening}(e) \wedge \text{Eventuality}(e') \wedge \text{Right-Boundary}(e, e') \wedge P(e') \wedge \neg \exists e'' [e' \ll e'' \wedge P(e' \oplus e'')]]$   
(boundary happening  $e$  ends eventuality  $e'$  of type  $P$ )

If achievements are ‘boundary happenings’ and there are different types of boundaries, there could be subcategories under achievements depending on the type of the described boundary. For instance, *recognize* in *Anita recognized Peter* describes a “boundary happening that begins in a state happening in which *Anita* recognizes *Peter*” (Piñón 1997:291), as formalized in (159a). In *Rebecca reached the summit*, on the other hand, *Rebecca* reaches the summit and then “the reaching is both the ending of her climb and the beginning of her being at the summit” (Piñón 1997:291), as described in (159b). From this description, we could also infer another type. The verb *find*, for example, may describe a boundary happening that is the ending of a preceding event, as shown in (159c).

- (159) a. *recognize* :=  $\lambda y \lambda x \lambda e [\exists e' [\mathbf{Beg}(e, e', \lambda e'' [\text{Recognize}(e'') \wedge \text{Happening}(e'') \wedge \text{Experiencer}(e'', x) \wedge \text{Theme}(e'', y)])]]]$
- b. *reach* :=  $\lambda y \lambda x \lambda e [\exists e' [\mathbf{End}(e, e', \lambda e'' [\text{Motion}(e'') \wedge \text{Happening}(e'') \wedge \text{Agent}(e'', x) \wedge \text{Goal}(e'', y) \wedge \exists e''' [\mathbf{Beg}(e, e''', \lambda e'''' [\text{Be-On}(e''''') \wedge \text{Happening}(e''''') \wedge \text{Theme}(e''''', x) \wedge \text{Location}(e''''', y)])]]])] ]]$
- c. *find* :=  $\lambda y \lambda x \lambda e [\exists e' [\mathbf{End}(e, e', \lambda e'' [\text{Motion}(e'') \wedge \text{Happening}(e'') \wedge \text{Experiencer}(e'', x) \wedge \text{Theme}(e'', y)])]]]$

These subclasses of boundary happenings are roughly schematized as below: (i) a boundary happening that is the beginning of a happening (e.g. *recognize*), (ii) a boundary happening

that is the ending of a happening and the beginning of another happening at the same time (e.g. *reach*), and (iii) a boundary happening that is the ending of a happening (e.g. *find*).

(160) Boundary happenings:

- i) beginning ('left boundary happening'): [-----
- ii) ending=beginning ('left=right boundary happening'): ----][-----
- ii) ending ('right boundary happening'): -----]

Being truly instantaneous events, achievements are distinguished from accomplishments. While accomplishments are events involving process leading up to end, achievements lack a process factor but they are themselves certain components of other events. Although both seem to have telicity in the tests mentioned in the previous section, not all achievements are telic predicates in the same way as accomplishments. If telicity is defined by the presence of a natural endpoint in a described event, only those that describe the 'ending' of an event could be telic. In other words, among achievements, the 'beginning' type is atelic.

Achievements are also distinguished from 'semelfactives.' Semelfactives (from Latin *semel* 'once') are those that describe "a brief event which 'resets,' or returns to the initial situation, and so is inherently repeatable," e.g. *sneeze, cough, hiccup, rap, tap, knock, kick, slap, blink, flash* (Kearns 2011:159; see also Talmy 1985:77 for 'full-cycle resettable' events). Semelfactives form a class apart even though they resemble achievements in the brevity of the denoted events. That is, semelfactive describe events that are so short as to reset or repeat, but not as genuinely punctual as achievements. In fact, they behave differently with temporal adverbials. Semelfactives are not compatible with *in* adverbials unlike achievement verbs, but accept *for* adverbials like activity verbs: e.g. *Jones rapped the table {#in ten minutes/ for ten minutes}*. Note, however, that semelfactives with *for* adverbials yield an iterative interpretation, which is also observed in the progressive: e.g. *Jones was rapping the table*.

To sum up, achievements are boundary happenings that can be divided into subclasses depending on the type of boundary, i.e. 'beginning' (left boundary), 'beginning=ending' (left=right boundary) or 'ending' (right boundary). Taking these boundary types as relevant notions for aspectual studies, we could see more clearly the semantic differences between aspectual classes and we could also offer more efficient explanation for linguistic phenomena related to the aspectual nature of the predicates. In the next two sections, we will examine the aspectual nature of Spanish and Japanese psych verbs to see what to extent the aspectual nature of the predicates interacts with the argument realization.

## 3.2. Aspectual Nature of Spanish Psych Verbs

Most psych verbs in Spanish are considered as stative in the literature. However, there are some verbs that are difficult to classify into any of Vendler's (1967) four aspectual classes. Moreover, Spanish reflexive psych verbs (e.g. *asustarse* 'get surprised') appear to consist of two aspectually different classes, and the same can be said for the related ExpObj variants.

### 3.2.1. ExpNOM Verbs and ExpDAT Verbs

We will first examine the aspectual nature of ExpNOM verbs (e.g. *odiar* 'hate', *temer (por)* 'fear (for)') and ExpDAT verbs (e.g. *agradar* 'please,' *gustar* 'please, like'). As most researches assert, it seems uncontroversial that these predicates are stative (De Miguel 1999, Marín 2000, Vanhoe 2002, Di Tullio 2004, among many others). More concretely, ExpNOM verbs and ExpDAT verbs display the 'Individual-level' stativity (Marín 2000, Vanhoe 2002).

(i) *ocurrió que* 'it occurred that'

The predicates can be classified into those that describe dynamic events and those that describe nondynamic situations such as states. While dynamic events happen or occur, states obtain or hold. This intuitive distinction is often tested by the acceptability of the *ocurrió que* construction: dynamic predicates can appear in this construction, whereas nondynamic predicates cannot. This test indicates that ExpNOM verbs and ExpDAT verbs are stative predicates.

(161) a. *Ocurrió que la fruta maduró.*

occurred that the fruit matured

'It occurred that the fruit ripened.'

b. \**Ocurrió que la fruta estuvo verde.*

occurred that the fruit was green

'It occurred that the fruit was unripe.' (De Miguel 1999:3012; translation mine)

(162) a. \**Ocurrió que Ana aborreció la comida vegetariana.*

occurred that Ana abhorred the food vegetarian

'It occurred that Ana abhorred vegetarian food.'

b. \**Ocurrió que me agradó que te entendieras bien con tu madrastra.*

occurred that DAT pleased that REFL understood.SJV well with you step mother

'It occurred that it pleased me that you were in good terms with your stepmother.'

(Vanhoe 2002:158,163; translation mine)

(ii) *parar/dejar* ‘stop’

Another diagnostic for the stativity is the incompatibility with *parar* ‘stop.’ A state holds throughout a period of time and it cannot stop unless ceased by some external elements (e.g. *la edad* ‘the age’ in (163b)) (De Miguel 1999:3012). Therefore, while dynamic predicates can be the complement of *parar*, stative predicates cannot, although they accept *dejar*. ExpNOM verbs and ExpDAT verbs are statives because they are incompatible with *parar*, though compatible with *dejar*.

(163) a. Julia paró de {andar/construir la casa}.

Julia stopped of walk/ build the house

‘Julia stopped {walking/building the house}.’

b. Julia \*paró de ser alta/dejó de ser alta con la edad.

Julia stopped of be tall/ left of be tall with the age

‘Julia stopped being tall/stopped being tall by aging’

(164) a. Ana \*paró/dejó de odiar la comida vegetariana.

Ana stopped/left of hate the food vegetarian

‘Ana stopped hating vegetarian food.’

b. La música clásica \*paró/dejó de gustar a Lucía.

the music classical stopped/left of please to Lucia

‘Classical music stopped pleasing Lucía.’

(iii) The simple present tense interpretation

Moreover, it is often assumed that stative predicates in the simple present tense have a nonhabitual interpretation, while dynamic predicates typically have a habitual interpretation or other special reading, such as historical present or immediate future (Marín 2000, Marín and McNally 2011). Note, however, that the simple present tense in Spanish has a use called ‘progressive present’ (RAE 2009:1710), which makes reference to a situation that is in process at the time of utterance, just like the progressive form does: e.g. *me haces daño* ≈ *me estás haciendo daño* ‘You are hurting me.’ In this respect, dynamic predicates in the simple present tense may have a nonhabitual reading.

(165) a. Su hermano trabaja (cada día). [habitual] (unless in the ‘progressive present’ use)

her/his brother works each day

‘Her/His brother works (every day).’

b. Rocío corta el cesp ed (todos los d ıas). [habitual] (unless in the ‘progressive present’ use)

Roc ıo cuts the lawn all the days

‘Roc ıo mows the lawn (every day).’

(Mar ın 2000:38; translation and parentheses mine)

ExpNOM verbs and ExpDAT verbs in the simple present tense yield a nonhabitual interpretation, and therefore they are stative predicates.

- (166) a. Ana odia la comida vegetariana (#todos los días). [nonhabitual]  
 Ana hates the food vegetarian all the days  
 ‘Ana hates vegetarian food (every day).’
- b. A Lucía le gusta la música clásica (\*todos los días). [nonhabitual]  
 to Lucía DAT pleases the music classical all the days  
 ‘Lucía loves classical music (\*every day)’

Furthermore, stative predicates are divided into Individual-level predicates and Stage-level predicates (Carlson 1977). Individual-level predicates are those that denote permanent properties of the subjects (e.g. *be altruistic, know French, have red hair*), while Stage-level predicates are those that denote episodic states (e.g. *be available, be speaking French, be hungry*). In Spanish linguistics, this distinction closely relates to the *ser/estar* copula selection. De Miguel (1999) distinguishes “*los predicados que definen o caracterizan al individuo con independencia de la información espacio-temporal* (the predicates that define or characterize the individual independently of the spatiotemporal information)” (e.g. *ser madrileño* ‘be from Madrid’) from “*los predicados que describen el estado en que el individuo se encuentra en una determinada situación espacio-temporal* (the predicates that describe the state in which the individual is in a particular spatiotemporal situation)” (e.g. *estar enfermo* ‘be ill’) (De Miguel 1999:3012, translation mine). The difference lies in that, in the states described by the latter, “*se pueden acotar los límites externos del periodo en que se dan* (it is possible to assign limits external to the period of time in which the states hold)” (e.g. #*Él es madrileño hoy* ‘He is from Madrid today’/*Ella está enferma hoy* ‘She is unwell today.’).

Marín (2000) calls the Individual-level states ‘*estados no acotados*’ and the Stage-level states, ‘*estados acotados*,’ and psych verbs such as *odiar* ‘hate’ and *gustar* ‘please, like’ are considered as predicates of ‘*estados no acotados*.’ For instance, ‘*estados no acotados*’ generally cannot appear in a temporally delimited context, while ‘*estados acotados*’ can.

- (167) a. \*Siempre que/Cuando María es alegre, todo le sale muy bien.  
 always that/ when María is cheerful all DAT go out very well  
 ‘Every time/When María is cheerful, everything goes well for her.’
- b. \*Siempre que/Cuando María sabe inglés, lo sabe muy bien.  
 always that/ when María knows English ACC knows very well  
 ‘Every time/When María knows English, She knows it well.’
- c. Siempre que/Cuando María está alegre, todo le sale muy bien.  
 always that/ when María is cheerful all DAT go out very well  
 ‘Every time/When María feels happy, everything goes well for her.’
- d. Siempre que/Cuando María habla inglés, lo habla muy bien.  
 always that/ when María speaks English ACC speaks very well  
 ‘Every time/When María speaks English, she speaks very well.’

(Marín 2000:97, translation mine)

The psych verbs just mentioned pattern like ‘*estados no acotados*.’ He notes that (168b) sounds relatively well, but this is an exceptional case (Marín 2000:75-76, translation mine):

- (168) a. \*Siempre que Juan detesta/odia las acelgas, se deprime.  
 always that Juan detests/ hates the chards REFL depresses  
 ‘Every time Juan detests/hates Swiss chard, he gets depressed.’
- b. ?Siempre que a Juan le apetece/gusta/repugna algo, se pone insoportable.  
 always that to Juan DAT fancies/ pleases/ disgusts something REFL puts unbearable  
 ‘Every time Juan feels like/loves/detests something, he becomes unbearable.’

### 3.2.2. ExpACC Verbs and Reflexive Psych Verbs

Unlike ExpNOM verbs and ExpDAT verbs, the aspectual classification of ExpACC verbs (e.g. *asustar* ‘frighten’) and their reflexive variants (e.g. *asustarse* ‘get surprised’) is still debatable. Some would say that psych verbs are stative across classes, although states consist of different types (Marín 2000, cf. Arad 1998), while others would distinguish ExpACC verbs from ExpNOM verbs by the dynamic/stative distinction (De Miguel 1999:3013f), or even support the position that ExpACC verbs describe accomplishments (Grimshaw 1990). Further studies claim that these psych verbs are a type of inchoative predicates, ‘*verbos ingresivos*’ (Vanhoe 2002, cf. Van Voorst 1992). Related to the last assertion, there is a recent view that reflexive psych verbs comprise two aspectually different classes, stative inchoatives (e.g. *aburrir(se)* ‘be/become bored’) and truly punctual inchoatives (e.g. *enfadar(se)* ‘become angry’) (Marín and McNally 2011), and their ExpObj variants mostly maintain the same classes (cf. Fabregas et al. 2012).

According to (i) the incompatibility with *ocurrió que*, ExpACC verbs and their reflexive variants appear to display dynamicity (Vanhoe 2002:166,169 translation mine).

- (169) a. Ocurrió que me enfadó mucho tu comportamiento.  
 occurred that ACC angered much your behavior  
 ‘It occurred that your behavior angered me so much.’
- b. Ocurrió que me molestó mucho tu comportamiento.  
 occurred that ACC bothered much your behavior  
 ‘It occurred that your behavior bothered me so much.’
- (170) a. Ocurrió que Juan se enfadó con su vecina por una tontería.  
 occurred that Juan REFL angered with his neighbor for a foolishness  
 ‘It occurred that Juan became angry with his neighbor about something stupid.’
- b. Ocurrió que me preocupé por este chico.  
 occurred that ACC worried for this boy  
 ‘It occurred that I became worried about this boy.’

However, (ii) the incompatibility with *parar* indicates that ExpObj verbs and reflexive psych verbs are nondynamic predicates. The example (b) is only acceptable in the meaning that *el ruido paró y Ana dejó de asustarse* ‘the thunder stopped and Ana stopped being frightened.’

(171) a. El futuro de su hijo \*paró/dejó de preocupar a María.

the future of her son stopped/left of worry ‘to’ María  
 ‘The future of her son stopped worrying María.’

b. El ruido #paró/dejó de asustar a Ana.

the noise stopped/left of frighten ‘to’ Ana  
 ‘The noise stopped frightening Ana.’

(172) a. Ha \*parado/dejado de {aburrirse/agobiarse}.

has stopped/ left of bore-REFL/ overwhelm-REFL  
 ‘S/he has stopped being bored/being overwhelmed.’

b. Ha \*parado/dejado de {enfadarse/asustarse}.

has stopped/ left of anger-REFL/ frighten-REFL  
 ‘S/he has stopped getting angry/frightened.’

(Marín & McNally 2011:15)

Moreover, (iii) the interpretation in the simple present tense may divide reflexive psych verbs into two classes. Some reflexive psych verbs can have a nonhabitual interpretation just like stative predicates, while the others have a habitual reading.

(173) a. Se preocupa por el futuro de sus hijos.

REFL worries for the future of her/his sons  
 ‘S/he is (now) worried about the future of her/his children.’ [nonhabitual]

b. Se asombra/asusta de los fuegos artificiales.

REFL astonishes/ frightenes of the fires artificial  
 ‘S/he is (generally) amazed/frightened by fireworks.’ [habitual]

(Not: ‘S/he is amazed/frightened (now) by fireworks.’) (Marín & McNally 2011:16)

Marín and McNally (2011) propose that Spanish reflexive psych verbs consist of two classes, *aburrirse* ‘to be/become bored’ class and *enfadarse* class ‘to become angry.’ Both classes are inchoative predicates, but the former is stative and the latter is truly punctual.

(174) a. Nonpunctual (*aburrirse* ‘to be/become bored’ class):

*agobiarse* ‘to get/feel overwhelmed,’ *angustiar* ‘to get/be distressed,’ *avergonzarse* ‘to get/feel ashamed,’ *confundirse* ‘to get/be confused,’ *distraerse* ‘to get/be distracted,’ *entretenerse* ‘to get/be entertained,’ *interesarse* ‘to get/be interested in,’ *molestarse* ‘to get/be bothered,’ *obsesionarse* ‘to get/be obsessed,’ *preocuparse* ‘to get/be worried.’

- b. Punctual (*enfadarse* ‘to become angry’ class):  
*asombrarse* ‘to be amazed,’ *asustarse* ‘to get frightened,’ *cabrearse* ‘to get really mad,’  
*enfurecerse* ‘to get furious,’ *enojarse* ‘to get annoyed,’ *excitarse* ‘to get excited,’  
*indignarse* ‘to become indignant,’ *mosquearse* ‘to get irritated,’ *ofenderse* ‘to get  
offended,’ *sorprenderse* ‘to be surprised.’ (Marín & McNally 2011:7)

Interestingly, their non-reflexive variants, i.e. ExpACC verbs, show a similar behavior in the simple present tense. (Remember that ExpACC verbs can also appear in the ExpDAT construction. The reflexive psych verbs are derived from the verb root of these verbs, not from the ACC variant.) Fabregas et al. (2012) mentions that the *aburrir(se)* class is stative and the *enfadar(se)* class is nonstative, whether with *se* or without *se* (except that *fascinar(se)* and *indignar(se)* are stative without *se* and nonstative with *se*)

- (175) a. Se interesa por la política. [nonhabitual]  
REFL interests for the politics  
‘S/he is interested in the politics.’  
b. Le interesa la política. [nonhabitual]  
DAT interests the politics  
‘S/he is interested in the politics.’ (Fábregas et al. 2012:166)

- (176) a. Se asombra con los fuegos artificiales. [habitual]  
REFL astonishes with the fires artificial  
‘S/he is (generally) amazed by fireworks.’ (Fábregas et al. 2012:169)  
b. Le asombran los fuegos artificiales. [habitual]  
DAT astonish the fires artificial  
‘Fireworks (generally) amaze her/him.’

According to Marín and McNally (2011), Spanish reflexive psych verbs, whether *aburrirse* class or *enfadarse* class, are atelic predicates.

(iv) The temporal adverbials *en* ‘in’ and *durante* ‘for’

For instance, telic predicates are compatible with *en* adverbials, while atelic verbs are not. Durative predicates are compatible with *durante* adverbials, whereas punctual predicates are not, unless in an iterative reading. Both *aburrirse* class and *enfadarse* class are incompatible with *en* adverbials. The *aburrirse* class is also durative, while the *enfadarse* class is punctual.

- (177) a. Escribió su tesis #durante/en nueve meses.  
wrote her/his thesis for/ in nine months  
‘S/he wrote her/his thesis in nine months.’  
b. Paseó durante/\*en una hora.  
strolled for/ in a hour  
‘S/he strolled for an hour’

- (178) a. Se {aburrió/divirtió} \*en/durante toda la tarde.  
 REFL bored/ amused in/ for all the afternoon  
 ‘S/he was bored/amused (continuously) the whole afternoon.’
- b. Se {asustó/enfadó} \*en/#durante toda la tarde.  
 REFL frightened/ angered in/ for all the afternoon  
 ‘S/he got frightened/angry (repeatedly) the whole afternoon.’

(Marín & McNally 2011:8-9)

Note that the ‘*en x time*’ adverbial can express “*el tiempo que tardó el sujeto en completar el evento* (the time taken for the subject to complete the event)” with telic predicates: e.g. *El secretario leyó el informe en una hora* ‘The secretary read the report in an hour’; or “*el momento en el cual el evento comienza* (the moment the event begins)” with atelic predicates: e.g. *El secretario leyó (informes) en una hora* ‘The secretary read (reports) in (=after) an hour’ (De Miguel 1999:3001, translation mine). In the latter interpretation almost any aspectual class of predicates, except Individual-level statives, are compatible with *en* adverbials (Vanhoe 2002), since they can be associated with an implicit beginning of the described event or state. In such case, Spanish reflexive psych verbs may be compatible with *en* adverbials as below:

- (179) a. Juan se aburrió de la película en diez minutos.  
 Juan REFL bored of the movie in ten minutes  
 ‘Juan became bored with the movie in (=after) 10 minutes.’
- b. María se enfadó con el comportamiento de su hijo en dos minutos.  
 María REFL angered with the behavior of her son in two minutes  
 ‘María became angry with her son’s behavior in (=after) two minutes.’

Regarding ExpACC verbs, *aburrir* class and *enfadar* class are incompatible with *en*, unless in the ‘after x time’ reading just mentioned. Both classes seem compatible with *durante*, although the *enfadar* class may yield an iterative interpretation. That is, the *aburrir* class is durative atelic, while the *enfadar* class is punctual atelic.

- (180) a. El ruido molestó a María #en/durante dos horas.  
 The noise bothered ‘to’ María in/ for two hours  
 ‘The noise bothered María in/for two hours.’
- b. Su voz sorprendió a Ana #en/#durante dos horas.  
 her/his voice surprised ‘to’ Ana in/ for two hours  
 ‘Her/his voice surprised Ana in/for two hours.’

- (181) a. \*En una hora, me interesaron la poesía y la música.  
 in a hour ACC interested the poetry and the music  
 ‘In an hour, poetry and music interested me.’

- b. ?Que pienses así, me enfadó en cinco minutos.  
 that think so ACC angered in five minutes  
 ‘(The fact) that you think so angered me in five minutes.’

(182) a. Durante dos horas, sus disquisiciones me aburrieron.

for two hours her/his disquisitions ACC bored

‘For two hours, his/her disquisition bored me.’

b. Durante dos horas, me enfadó que pensaras así de mí.

for two hours ACC angered that think.SJV so of me

‘For two hours, (the fact) that you think so of me angered me.’

(Vanhoe 2002:167, translation mine)

(v) The entailment in the progressive

Moreover, the atelicity of reflexive psych verbs can be attested in the entailment of the progressive forms. Atelic predicates (i.e. activities) in the progressive entail a perfective meaning ((183a)), while telic predicates (i.e. accomplishments) do not ((183b)). Achievements pattern like accomplishments ((184)), although achievements in the progressive have a special reading such as “preliminary circumstance” interpretation (Kearns 2003), as mentioned in 3.1.1.

(183) a. Juan está caminando. → a’. Juan ha caminado.

Juan is walking

‘Juan is walking.’

Juan has walked

‘Juan has walked.’

b. Juan está escribiendo una carta. ⇨ b’. Juan ha escrito una carta.

Juan is writing a letter

‘Juan is writing a letter.’

Juan has written a letter

‘Juan has written a letter.’

(184) Juan está llegando a la estación. (⇨) Juan ha llegado a la estación.

Juan is arriving to the station

‘Juan is arriving at the station.’

Juan has arrived to the station

‘Juan has arrived at the station.’

The *aburrirse* verbs in the progressive entail a perfective meaning, and therefore they are atelic ((185a)). The *enfadarse* verbs pattern like the achievements just mentioned, i.e. they have a preliminary circumstance interpretation in the progressive ((185b)). Actually, (186a) sounds redundant because the subject is already bored, whereas (186b) does not sound tautological because the subject is not yet angry but “s/he is getting there.”

(185) a. Juan se está aburriendo. → a’. Juan se ha aburrido.

Juan REFL is boring

‘Juan is bored.’

Juan REFL has bored

‘Juan has gotten bored.’

b. Ana se está enfadando. (⇨) b’. Ana se ha enfadado.

‘Ana is getting angry.’

‘Ana has become angry.’

- (186) a. \*Se está aburriendo y se va a aburrir.  
 REFL is boring and REFL go to bore  
 ‘S/he is bored, and she is going to get bored.’
- b. Se está enfadando y se va a enfadar.  
 REFL is angering and REFL go to anger  
 ‘S/he is getting angry, and she is going to be angry.’ (Marín & McNally 2011:17-18)

Notice also that *enfadarse* verbs in the progressive with durative expressions manifest an iterative interpretation, which is characteristic of punctual predicates.

- (187) a. Se estuvo aburriendo durante un rato.  
 REFL was boring for a while  
 ‘S/he was (continuously) bored for a while.’
- b. Se estuvo enfadando durante un rato.  
 REFL was angering for a while  
 ‘S/he was (repeatedly) getting angry for a while.’ (Marín & McNally 2011:18)

With respect to the corresponding ExpACC verbs, the *aburrir* class in the progressive entails what is expressed in the perfective. The *enfadar* class in the progressive seems to entail the perfective meaning because it has an iterative interpretation.

- (188) a. El trabajo está aburriendo a María. → a'. El trabajo ha aburrido a María.  
 the work is boring 'to' María the work has bored 'to' María  
 ‘The work is boring María.’ ‘The work has bored María.’
- b. Su actitud está enfadando a Ana. →/↔ b'. Su actitud ha enfadado a Ana.  
 her/his attitude is angering 'to' Ana her/his attitude has angered 'to' Ana  
 ‘Her/His attitude is angering Ana.’ ‘Her/His attitude has angered Ana.’

So far we have seen how Spanish reflexive verbs are mostly nondynamic and atelic. Among them, the *aburrir(se)* class is stative and the *enfadar(se)* class is punctual. Now, we will turn our attention to the argument that these predicates are inchoatives.

According to De Miguel (1991), inchoative verbs are those that describe a change of state (physical or psychical) that the subject undergoes. An inchoative predicate can focus either on the initial phase (*‘ingresivos’*: e.g. *amanecer* ‘begin to get light,’ *floreecer* ‘bloom,’ *marearse* ‘get sick’), the intermediate phase (*‘progresivos’*; e.g. *envejecer* ‘grow old,’ *adormecerse* ‘fall sleep’) or possibly the final phase (*‘terminativos’*; e.g. *encanecer* ‘turn gray’) of an event or state. A difference between them can be seen in the (in)compatibility of punctual temporal adverbials such as *a las tres* ‘at 3 o’clock’: *‘verbos ingresivos’* are compatible with such adverbials ((189a)), while *‘verbos incoativos progresivos’* and *‘verbos incoativos terminativos’* are typically not ((189b,c)).

- (189) a. Amaneció a las seis.  
 dawned at the six  
 ‘The day broke at 6 o’clock’
- b. \*Envejeció a las tres.  
 aged at the three  
 ‘S/he grew old at 3 o’clock’
- c. \*Juan encaneció a las diez.  
 Juan turned gray at the ten  
 ‘Juan turned gray at 10 o’clock’ (De Miguel 1999:3024-3025, translation mine).

Vanhoe (2002) proposes that *preocupar(se)*-type psych verbs are, with or without *se*, ‘*verbos ingresivos*.’ Nevertheless, his motivation for this proposal appears to lie in that these predicates are neither traditional accomplishments nor achievements (e.g. *preocupar(se)*-type verbs are incompatible with *en* adverbials), and not in that these psych verbs are not other inchoatives. For instance, *preocupar(se)*-type psych verbs are mostly incompatible with punctual temporal adverbials, which contradicts the De Miguel’s (1999) description. Notice, however, that the examples Vanhoe (2002) shows actually suggest that *preocupar(se)*-type psych verbs comprise aspectually different types, and this coincides with the division that Marín and McNally (2011) made. That is to say, the punctual *enfadarse*-class are compatible with the ‘at x o’clock’ phrase, while the stative *aburrirse* class are not.

- (190) a. ??A las tres de la tarde, me preocupó el problema de cambiar de casa.  
 at the three of the afternoon ACC worried the problem of change of house  
 ‘At 3 pm, the problem about moving house worried me.’
- b. ?A las tres de la tarde, sus disquisiciones me aburrieron.  
 at the three of the afternoon her/his disquisitions ACC bored  
 ‘At 3 pm, his/her disquisition bored me.’
- c. A las tres de la tarde, el trueno asustó a Juan.  
 at the three of the afternoon the thunder frightened ‘to’ Juan  
 ‘At 3 pm, the thunder frightened Juan.’ (Vanhoe 2002:167, translation mine)

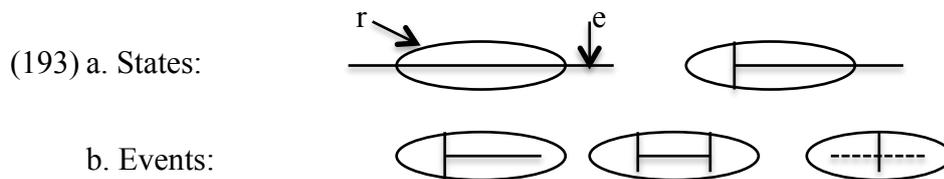
- (191) a. \*A las tres, el director se interesó por los nuevos productos.  
 at the three the director REFL interested for the new products  
 ‘At 3 o'clock, the director was interested in the new products.’
- b. \*A las tres, Juan se afectó con la muerte de su padre.  
 at the three Juan REFL affected with the death of his father  
 ‘At 3 o’clock, Juan was deeply affected by his father’s passing.’
- c. A las tres, Juan se enfadó con su vecina.  
 at the three Juan REFL angered with his neighbor  
 ‘At 3 o’clock, Juan became angry with his neighbor.’  
 (Vanhoe 2002:170, translation mine)

Finally, Marín and McNally (2011) reinforce the inchoative stativity of the *aburrirse* class by presenting the interpretation of reference time modifiers, which differs from that of ordinary statives.

(vi) Reference time modifiers

In Reichenbach's (1947) terms, a 'reference time' is a time which can be identified from context or from certain adverbials, and it provides a reference point to calculate the location of the 'event time,' which is, in turn, the time in which the event occurs or over which the state holds (Kearns 2011:189). Some adverbials provide a reference time interval for the clause's interpretation, and the interpretation seems to vary depending on the denoted eventualities. With a reference time adverbial, such as *hace unos días* 'a few days ago' and *mañana* 'tomorrow,' an event is interpreted as being contained within the reference time (' $e \subseteq r$ '), while a state is regarded as containing the reference time (' $r \subseteq e$ '). Regarding the statives that can have an inchoative reading, they appear to manifest an interpretation such as 'the event begins within the reference time.'

- (192) a. Juan estará en casa mañana. [r  $\subseteq$  e]  
 'Juan will be home tomorrow.'  
 b. Juan sabrá la realidad mañana. [(the beginning of) e  $\subseteq$  r]  
 'Juan will know the truth tomorrow.'  
 c. Juan correrá mañana. [e  $\subseteq$  r]  
 'Juan will run tomorrow.'  
 d. Juan escribirá una carta mañana. [e  $\subseteq$  r]  
 'Juan will write a letter tomorrow.'  
 e. Juan llegará a Japón mañana. [e  $\subseteq$  r]  
 'Juan will arrive at Japan tomorrow.'



According to this test, *aburrirse* verbs in a context with a reference time modifier manifest a '(the beginning of) e  $\subseteq$  r' interpretation, while their '*estar* + participle' variants have a ' $r \subseteq e$ ' interpretation. In other words, these predicates differ from ordinary statives in that they denote a state that includes the beginning of the state, i.e. inchoative predicates.

- (194) a. Mañana los estudiantes se aburrirán en clase.  
 tomorrow the students REFL will.bore in class  
 'Tomorrow the students will get bored in the class.'

b. Mañana los estudiantes estarán aburridos en clase.

tomorrow the students will.be bored in class

‘Tomorrow the students will be bored in the class.’ (Marín & McNally 2011: 21)

The variant without *se* appears to have the ‘(the beginning of)  $e \subseteq r$ ’ interpretation as well.

(195) La película aburrirá a María mañana.

the movie will.bore ‘to’ María tomorrow

‘The movie will bore María tomorrow.’

To sum up, Spanish reflexive psych verbs are divided into *aburrir(se)* ‘be/become bored’ class and *enfadar(se)* ‘become angry’ class with respect to their aspectual difference, and this division seems applicable to the variants without *se*. The former is stative inchoative, while the latter is truly punctual inchoative, according to the following diagnostics: (i) the acceptability of *ocurrir que* ‘it occurred that’ construction suggests that the *aburrir(se)* class and the *enfadar(se)* class appear dynamic at first sight, but (ii) the incompatibility with *parar* ‘stop’ indicates that both classes are nondynamic; (iii) the nonhabitual interpretation in the simple present tense characterizes the *aburrir(se)* class as stative, whereas the *enfadar(se)* class is nonstative; (iv) the incompatibility with *en* ‘in’ adverbials suggests the atelicity of both classes, and the compatibility with *durante* ‘for’ adverbials detects the durativity of *aburrir(se)* class and the punctuality of *enfadar(se)* class (because of the iterative interpretation); (v) the entailment in the progressive demonstrates the atelicity of the *aburrir(se)* class and the punctuality of the *enfadar(se)* class (again, because of the iterative interpretation); (vi) finally, the interpretation with reference time modifiers provides further evidence for the inchoative stativity of the *aburrir(se)* class.

Drawing from Piñón’s (1997) terminology for event ontology, Marín and McNally (2011) propose that *aburrirse* verbs are predicates that describe a state happening that includes the beginning of the state, while *enfadarse* verbs are predicates that are themselves a left boundary happening, i.e. the beginning of a state. More precisely, the difference between these two classes is that the event  $e$  that *aburrirse* class verbs describe is the sum of a left boundary happening  $e'$  and a state happening  $e''$ , as described in (196a), while the event  $e$  of *enfadarse* class verbs is itself the left boundary of a state happening  $e'$ , as shown in (196b), and therefore they are truly punctual.

(196) a. *aburrirse*:=

$$\lambda x \lambda e \exists e', e'' [\text{Beg}(e', e'', \lambda e''' [\text{bored}(e''') \wedge \text{Happening}(e''') \wedge \text{EXPERIENCER}(e''', x)]) \wedge e = (e'' \oplus e')]$$

b. *enfadarse*:=

$$\lambda x \lambda e \exists e' [\text{Beg}(e, e', \lambda e'' [\text{angry}(e'') \wedge \text{Happening}(e'') \wedge \text{EXPERIENCER}(e'', x)])]$$

These formalizations can be roughly schematized as below:

- (197) a. *aburrirse* ‘to be/become bored’ class: [—————]  
 b. *enfadarse* ‘to become angry’ class: [-----]

Moreover, the fact that these psych predicates are inchoatives but they are atelic may suggest that inchoativity does not imply telicity. Inchoative predicates are those that describe “an eventuality which necessarily is or includes the beginning of happening,” while telic predicates are those that “necessarily make reference to the ending of some happening” (Marín & McNally 2011:23).

Furthermore, the aspectual analysis we have conducted in this section also indicates that ExpACC verbs and their reflexive variants are divided into stative inchoative *aburrir(se)* class and punctual inchoative *enfadar(se)* class, and most of them maintain the aspectual properties regardless of the derivation. If this is true, the derivation of reflexive psych verbs from ExpACC verbs may not change much the lexical representation of the predicates, described as below (the details will be discussed in Chapter 4):

- (198) a.  $aburrir := \lambda y \lambda x \lambda e \exists e' [Beg(e', e'', \lambda e''' [bored(e''') \wedge Happening(e''') \wedge STIMULUS(e''', x) \wedge EXPERIENCER(e''', y)]) \wedge e = (e'' \oplus e')]$   
 b.  $aburrirse := \lambda x \lambda e \exists e' [Beg(e', e'', \lambda e''' [bored(e''') \wedge Happening(e''') \wedge EXPERIENCER(e''', x)]) \wedge e = (e'' \oplus e')]$
- (199) a.  $enfadar := \lambda y \lambda x \lambda e \exists e' [Beg(e, e', \lambda e'' [angry(e'') \wedge Happening(e'') \wedge STIMULUS(e'', x) \wedge EXPERIENCER(e'', y)])]$   
 b.  $enfadarse := \lambda x \lambda e \exists e' [Beg(e, e', \lambda e'' [angry(e'') \wedge Happening(e'') \wedge EXPERIENCER(e'', x)])]$

### 3.2.3. Summary

Spanish psych verbs are not aspectually homogeneous. ExpNOM verbs (e.g. *odiar* ‘hate’) and ExpDAT verbs (e.g. *agradar* ‘please, like’) are stative, or more concretely ‘Individual-level’ predicates (‘*verbos no acotados*’). ExpACC verbs and their reflexive variants, on the other hand, can be aspectually divided into two classes, stative inchoatives (e.g. *aburrir(se)*) and punctual inchoatives (e.g. *enfadar(se)*). The stativity of the *aburrir(se)* class differs from the ordinary one in that the state described by the *aburrir(se)* class includes a left boundary (i.e. the beginning of the state). This suggests that the *aburrir(se)* class does not share the same kind of stativity with ExpNOM verbs and ExpDAT verbs. ExpNOM verbs and ExpDAT

verbs are ‘*verbos no acotados*’ and do not involve any boundary in the described states. The *enfadar(se)* class is punctual because it describes an eventuality that is itself a left boundary happening of a state. In brief, Spanish psych verbs are all related to a state, but in different ways: ExpNOM verbs and ExpDAT verbs describe a state with no boundary, the *aburrir(se)* class describes a state with a left boundary, and the *enfadar (se)* class describes a left boundary of a state. Moreover, if ExpACC verbs differ from ExpDAT verbs in the presence/absence of a boundary in the described eventualities, the ACC-DAT alternation can be explained in a similar way. In the previous chapter, we mentioned that most ExpACC verbs can appear in the ExpDAT construction and this ACC-DAT alternation might reflect the aspectual difference of the described situations. An ExpACC verb in the ExpDAT construction tends to describe a state in the same way ExpDAT verbs do: e.g. *Los perros la asustaron* ‘The dogs frightened her’/ *Le asustan los perros* ‘Dogs frighten her (=She fears dogs)’/ *Le agradan los perros* ‘Dogs please her (=She like dogs).’

### 3.3. Aspectual Nature of Japanese Psych Verbs

This section will demonstrate that the notions of ‘boundary’ and its types can also describe efficiently the aspectual nature of psych verbs of Japanese. Moreover, the same analysis provides a clue to account for the peculiar behaviors of Japanese *-te i-* aspect.

#### 3.3.1. Two Classes of ExpSubj verbs

First, we examine the aspectual properties of the two classes of ExpSubj verbs that differ in the case markings of the Stimulus arguments, i.e. ExpSubj-*O* verbs and ExpSubj-*NI* verbs. Are these classes aspectually distinct?

##### (i) Nonpast tense interpretation

In Japanese, the tense marked in the verb endings is either past or nonpast. According to Kudo (1995), the verbal ending *-(r)u* is a nonpast tense marker, *-ta* is a past tense marker, *-te iru* is a nonpast imperfective aspect marker, and *-te ita* is a past imperfective aspect marker.

(200) Japanese tense/aspect system (Kudo 1995:36):

Tense Aspect	Non-past	Past
Perfective	<i>-(r)u</i>	<i>-ta</i>
Imperfective	<i>-te iru</i>	<i>-te ita</i>

Stative verbs in the nonpast tense *-(r)u* can yield a ‘right now’ reading that describes a present situation, whereas nonstative predicates in the nonpast tense cannot refer to a present situation, but refer to a future situation or bear other readings such as a generic interpretation, e.g. *Inu-wa hoeru* ‘Dogs bark.’

- (201) a. Taro-ga niwa-ni iru. Present situation  
 Taro-NOM yard-at exist.NPST  
 ‘Taro is in the yard.’
- b. Taro-ga hasiru/ tegami-o kaku/ eki-ni tuku. \*Present situation  
 Taro-NOM run.NPST/ letter-ACC write.NPST/ station-at arrive.NPST  
 ‘Taro will start to run/will write a letter/will arrive at the station.’

ExpSubj verbs are not stative, since these predicates in the nonpast tense cannot refer to a present situation. Some verbs cannot refer to a future situation either.

- (202) a. Taro-ga Hanako-o nikumu. \*Present situation  
 Taro-NOM Hanako-ACC hate.NPST  
 \*‘Taro hates Hanako.’/?‘Taro will start to hate Hanako.’
- b. Taro-ga kaminari-ni odoroku. \*Present situation  
 Taro-NOM thunder-NI ‘get surprised’.NPST  
 ‘Taro will get surprised at thunders.’

According to Kudo (1995), if there is a meaning contrast between the forms with *-(r)u* and *-te iru*, or between *-ta* and *-te ita*, the verb in those forms is a dynamic predicate; and if not, it is a static predicate. By this definition, ExpSubj verbs are dynamic because there is a contrast of meaning between these forms. We will discuss the details of the *-te i-* forms in Section 3.3.3.

(ii) Temporal adverbials

Japanese *-de* ‘in’ temporal adverbials only indicate the time taken for a (possible) process leading up to the end, unlike English *in* and Spanish *en*: i.e. these can also have a reading indicating the moment in which the event begins, as noted previously. Therefore, in Japanese, only telic predicates that denote a natural endpoint are compatible with *-de*, while durative atelic verbs are compatible with *-kan*.

- (203) a. Kodomo-ga sanjyu-pun {\*-de/-kan} niwa-ni i-ta.  
 child-NOM thirty-minute -in/-for yard-at be-PST  
 ‘A/The child was in the yard {\*in/for} half an hour.’
- b. Kodomo-ga sanjyu-pun {\*-de/-kan} hasit-ta.  
 child-NOM thirty-minute -in/-for run-PST  
 ‘A/The child ran {\*in/for} half an hour.’
- c. Kodomo-ga sanjyu-pun {-de/\*-kan} iti-mai-no e-o kai-ta.  
 child-NOM thirty-minute -in/-for one-CL-GEN picture-ACC draw-PST  
 ‘A/The child painted a picture {in/#for} half an hour.’
- d. Kodomo-ga sanjyu-pun {-de/\*-kan} eki-ni tui-ta.  
 child-NOM thirty-minute -in/-for station-at arrive-PST  
 ‘A/The child arrived at the station {in/\*for} half an hour.’

ExpSubj-*O* verbs are compatible with *-kan*, and not *-de*. They are durative atelic verbs.

- (204) Maki-wa Taro-o san-nen {-kan/\*-de} aisi-ta/ nikum-da/ osore-ta.  
 Maki-TOP Taro-ACC three-year -for/-in love-PST/ hate-PST/ fear-PST  
 ‘Maki loved/ hated/ feared Taro {for/?in} three years.’

ExpSubj-*NI* verbs are ambiguous in this test. Some verbs may be durative atelic ((205a)), others are telic ((205c)), but there are also verbs that disallow both *-kan* and *-de* adverbials ((205b)). Japanese *odorok-* ‘get surprised’-type verbs can be truly punctual inchoative just like Spanish *enfadar(se)*-class verbs, which are also not compatible with either *durante* or *en*

adverbials. Another interesting point here is that Japanese *aki-* ‘get tired/bored’ is a telic predicate while Spanish *aburrir(se)* ‘get bored’ is a stative inchoative predicate.

(205) a. Taro-ga souon-ni mikka{-kan/\*-de} nayam-da.

Taro-NOM noise-NI three days -for/-in suffer-PST

‘Taro suffered the noise for/\*in three days.’

b. Taro-ga sono sirase-ni san-pun{#-kan/\*-de} odoroi-ta.

Taro-NOM that news-NI three-minute -for/-in ‘get surprised’-PST

‘Taro got surprised at the news \*for/?in three minutes.’

c. Taro-ga sono eiga-ni jyu-pun{\*kan/-de} aki-ta.

Taro-NOM that movie-NI ten-minute -for/-in ‘get tired’-PST

‘Taro got tired of the movie \*for/in ten minutes.’

(iii) Iterative reading

Some punctual predicates in the *-te i-* form have an iterative reading in Japanese (Shirai 2000). Some ExpSubj verbs can have an iterative interpretation in the *-te i-* form. These predicates may have punctuality.

(206) Taro-ga Maki-no koudou-ni (nijikan) odoroi-te i-ta.

Taro-NOM Maki-GEN conduct-NI for two hours ‘get surprised’-ASP-PST

‘Taro was getting surprised (repeatedly) (for two hours) at Maki’s behavior.’

ExpSubj-*O* verbs (e.g. *nikum-* ‘hate’) are durative atelic predicates, some ExpSubj-*NI* verbs (e.g. *nayam-* ‘be bothered’) are also durative atelic, and other ExpSubj-*NI* verbs (e.g. *odorok-* ‘get surprised’) are punctual atelic, except some telic ones (e.g. *aki-* ‘get bored/tired’).

(207) ExpSubj verbs:

i) ExpSubj-*O* verbs: durative atelic

ii) ExpSubj-*NI* verbs:

a. durative atelic: *nayam*-type: *nayamu* ‘suffer’, *komaru* ‘be bothered’, *kurusimu* ‘suffer’, ‘worry’, *obieru* ‘be scared’, *urotaeru* ‘be upset’.

b. punctual atelic: *odoroku*-type: *odoroku* ‘get surprised’, *ikaru* ‘get angry’, *iradatu* ‘get irritated’, *meiru* ‘get depressed’, *okoru* ‘get angry’, *syogeru* ‘get depressed’.

c. punctual telic: *akiru*-type: *akireru* ‘get disgusted’, *akiru* ‘get tired’, *koriru* ‘learn a lesson’, *mairu* ‘feel beaten’, *megeru* ‘lose hope’, *sirakeru* ‘become chilled’.

ExpSubj-*O* verbs and ExpSubj-*NI* verbs differ in the case marking for the Stimulus argument. If the former are durative atelic and the latter also include some durative atelic ones, ExpSubj-*O* verbs and ExpSubj-*NI* verbs are not aspectually separated. However, there is an aspectual difference between ExpSubj-*O* verbs (e.g. *nikum-* ‘hate’) and ExpSubj-*NI* verbs that are durative atelic (e.g. *nayam-* ‘be bothered’).

(iv) Reference time modifiers

With a reference time adverbial, such as *tomorrow*, an event is interpreted as being contained within the reference time ( $e \subseteq r$ ), while a state is regarded as containing the reference time ( $r \subseteq e$ ), except that the stative verbs that can have an inchoative reading yield an interpretation such as ‘the event begins within the reference time.’ ExpSubj-O verbs may be incompatible with reference time modifiers, though tolerable in an inchoative reading. ExpSubj-NI verbs are compatible with reference time modifiers and will have an  $e \subseteq r$  interpretation.

(208) #?Taro-wa asita Hanako-o nikum-u(-darou).

Taro-TOP tomorrow Hanako-ACC hate-NPST(-maybe)

‘Taro will start to hate Hanako tomorrow.’

(209) a. Taro-wa asita sono mondai-ni nayam-u(-darou). [e  $\subseteq$  r]

Taro-TOP tomorrow that problem-NI suffer-NPST(-maybe)

‘Taro will suffer that problem tomorrow.’

b. Taro-wa asita sono sirase-ni odorok-u(-darou). [e  $\subseteq$  r]

Taro-TOP tomorrow that news-NI ‘get surprised’-NPST(-maybe)

‘Taro will get surprised at the news tomorrow.’

c. Taro-wa asita sono eiga-ni akiru(-darou). [e  $\subseteq$  r]

Taro-TOP tomorrow that movie-NI ‘get tired’-NPST(-maybe)

‘Taro will get tired at the movie tomorrow.’

(210) i) ExpSubj-O verbs:



ii) ExpSubj-NI verbs:

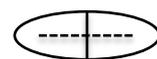
a.



b.



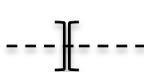
c.



That is to say, although ExpSubj-O verbs (e.g. *nikum-* ‘hate’) and some ExpSubj-NI (e.g. *nayam-* ‘be bothered’) are similarly durative atelic predicates, the former are more like unbounded predicates, while the latter are bounded.

We have examined so far the aspectual properties of the two classes of ExpSubj verbs. As many of these psych verbs cannot be classified into any of the well-known aspectual classes, we need other notions to describe them. Most Japanese ExpSubj verbs are inchoative atelic but not ordinary stative. Applying Piñón’s (1997) semantics, ExpSubj-O verbs and some ExpSubj-NI verbs denote a ‘happening’ that involves a left boundary, while other ExpSubj-NI verbs denote ‘boundary happenings’ whose boundary is a left one or ‘boundary happenings’ whose boundary is a left boundary of a state and a right boundary of another state at the same time. As for the aspectual difference between ExpSubj-O verbs and some ExpSubj-NI verbs,

although both are predicates that denote a state type happening with a possible left boundary, i.e. the beginning of the state, the left boundary of ExpSubj-*O* verbs is not so clear, whereas that of ExpSubj-*NI* verbs is explicit.

- (211) a. ExpSubj-*O* verbs: 
- b. ExpSubj-*NI* verbs
- (i) atelic durative (e.g. *nayamu* ‘be bothered’): 
- (ii) atelic punctual (e.g. *odoroku* ‘get surprised’): 
- (iii) telic punctual (e.g. *akiru* ‘get bored’): 

(212) Aspectual properties of ExpSubj verbs:

a. ExpSubj-*O* verbs (e.g. *nikumu* ‘hate’):=

$$\lambda y \lambda x \lambda e \exists e', e'' [\text{Beg}(e', e'', \lambda e''' [\text{hate}(e''') \wedge \text{Happening}(e''') \wedge \text{EXPERIENCER}(e''', x)] \wedge \text{STIMULUS}(e''', y)) \wedge e = (e'' \oplus e')]$$

b. ExpSubj-*NI* verbs

(i) *nayamu* ‘be bothered’:=

$$\lambda y \lambda x \lambda e \exists e', e'' [\text{Beg}(e', e'', \lambda e''' [\text{bothered}(e''') \wedge \text{Happening}(e''') \wedge \text{EXPERIENCER}(e''', x)] \wedge \text{STIMULUS}(e''', y)) \wedge e = (e'' \oplus e')]$$

(ii) *odoroku* ‘get surprised’:=

$$\lambda x \lambda e \exists e' [\text{Beg}(e, e', \lambda e'' [\text{surprised}(e'') \wedge \text{Happening}(e'') \wedge \text{EXPERIENCER}(e'', x)])]$$

(iii) *akiru* ‘get bored’:=

$$\lambda x \lambda e [\exists e' [\text{End}(e, e', \lambda e'' [\neg \text{bored}(e'') \wedge \text{Happening}(e'') \wedge \text{EXPERIENCER}(e'', x) \wedge \exists e''' [\text{Beg}(e, e''', \lambda e'''' [\text{bored}(e''''') \wedge \text{Happening}(e''''') \wedge \text{EXPERIENCER}(e''''', x)])]]]]]$$

### 3.3.2. ExpObj causatives

Now, let us examine the aspectual nature of ExpObj causatives. As repeatedly mentioned hereinbefore, ExpObj verbs are derived from ExpSubj-*NI* verbs. In the section just above, we proposed that ExpSubj-*NI* verbs are divided into three types with respect to finer-grained aspectual differences. Therefore, we are interested in verifying whether ExpObj causatives formed from these three subclasses of ExpSubj-*NI* verbs are also aspectually different.

(i) Nonpast tense interpretation

ExpObj causatives in the nonpast tense cannot refer to a present situation but may have a future reading. This indicates that these are dynamic predicates.

- (213) a. Sono uwasa-ga Taro-o nayam-ase-ru. \*Present situation  
that rumor-NOM Taro-ACC 'be bothered'-CAUS-NPST  
'The rumor will bother Taro.'
- b. Sono kekka-ga Taro-o odorok-ase-ru. \*Present situation  
that result-NOM Taro-ACC 'get surprise'-CAUS-NPST  
'The result will surprise Taro.'
- c. Sono hanasi-ga Taro-o aki-sase-ru. \*Present situation  
that story-NOM Taro-ACC 'get bored'-CAUS-NPST  
'The story will bore Taro.'

(ii) Temporal modifiers

ExpObj causatives are ambiguous in the temporal adverbial test. Some ExpObj causatives pattern like their ExpSubj variants. However, most of them seem to gain some durativity because they become possible or at least more acceptable with *-kan* 'for' adverbials.

- (214) a. Souon-ga Maki-o mikka {-kan/\*-de} nayam-ase-ta.  
noise-NOM Maki-ACC three days -for/-in suffer-CAUS-PST  
'The noise made Maki suffer for/?in three days.'
- b. Taro-ga/ Sono sirase-ga Maki-o san-pun {#-kan/?-de} odorok-ase-ta.  
Taro-NOM that news-NOM Maki-ACC three-minute -for/-in 'get surprised'-CAUS-PST  
'Taro/ The news surprised Maki for/?in three minutes.'
- c. Taro-ga/ Sono eiga-ga Maki-o san-pun {#-kan/-de} aki-sase-ta.  
Taro-NOM that movie-NOM Maki-ACC three-minute -for/-in 'get tired'-CAUS-PST  
'Taro/ The movie tired Maki for/in three minutes.'

Moreover, many ExpObj causatives also seem to gain some telicity that their ExpSubj variants did not have, because they become compatible or more acceptable with *-de*.

- (215) a. Maki-wa Taro-no kimagure-ni hutuka {-kan/??-de} komat-ta.  
Maki-TOP Taro-GEN caprice-NI two days {for/in} 'be bothered'-PST  
'Maki was bothered by Taro's caprice {for/\*in} two days.'
- b. Taro-no kimagure-wa Maki-o hutuka {-kan/?-de} komar-ase-ta.  
Taro-GEN caprice-TOP Maki-ACC two days {for/in} 'be bothered'-CAUS-PST  
'Taro's caprice bothered Maki {for/in} two days.'

- (216) a. Taro-ga sono hanasi-ni san-pun{\* -kan/??-de} syoge-ta/ okot-ta.  
Taro-NOM that story-NI three -minute {for/in} 'get depressed'-PST/ 'get angry'-PST  
'Taro got depressed/got angry at that story {\*for/\*in} three minutes.'

- b. Sono hanasi-ga Taro-o san-pun{-kan/-de} shoge-sase-ta/okor-ase-ta.  
 that story-NOM Taro-ACC three-minute {for/in} 'get depressed'-CAUS-PST/ 'get angry'-CAUS-PST  
 'That story depressed/angered Taro {for/in} three minutes.'

(iii) Iterative reading

The iterative reading in the contexts with durative adverbials indicates that the punctuality of some ExpSubj-*NI* verbs appears to remain in the ExpObj causative variants.

- (217) Kaminari-ga Taro-o sanjyu-pun-kan odorok-ase-ta.  
 thunder-NOM Taro-ACC 30-minute-for 'get surprised'-CAUS-PST  
 'The thunders (repeatedly) surprised Taro for thirty minutes.'

(iv) Reference time modifiers

ExpObj causatives are compatible with reference time modifiers and will have an 'e ⊆ r' interpretation. This means that ExpObj causatives denote an event.

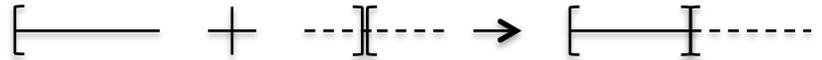
- (218) a. Sono uwasa-ga asita Taro-o nayam-ase-ru(-darou). [e ⊆ r]  
 that rumor-NOM tomorrow Taro-ACC 'be bothered'-CAUS-NPST(-maybe)  
 'The rumor will bother Taro tomorrow.'
- b. Sono kekka-ga asita Taro-o odorok-ase-ru(-darou). [e ⊆ r]  
 that result-NOM tomorrow Taro-ACC 'get surprise'-CAUS-NPST(-maybe)  
 'The result will surprise Taro tomorrow.'
- c. Sono hanasi-ga asita Taro-o aki-sase-ru(-darou). [e ⊆ r]  
 that story-NOM tomorrow Taro-ACC 'get bored'-CAUS-NPST(-maybe)  
 'The story will bore Taro tomorrow.'

To sum up, these tests indicate that ExpObj causatives mostly maintain aspectual properties of the ExpSubj variants, although they seem to gain some durativity and telicity. The causativization in question may be an operation to add another happening to the happening or boundary happening that the base predicate describes, and therefore some base happenings or boundary happenings as a whole may become an endpoint of the added happening. That is how ExpObj causatives gain durativity and telicity through the derivation from ExpSubj verbs. This aspectual composition is roughly schematized as below:

(219) ExpObj causatives:

- a. 'nayam-ase-' type: [———— + [———— → [———— [————  
 ('bother')
- b. 'odorok-ase-' type: [———— + [----- → [———— [-----  
 ('surprise')

c. ‘*aki-sase-*’ type:  
 (‘bore’)



(220) Aspectual properties of ExpObj cauatives:

(i) *nayam-ase-* ‘bother’ type:=

$\lambda x \lambda e [\exists e', e'', e'''' [CAUSE(e''', e) \wedge STIMULUS(e''', x) \wedge Beg(e', e'', \lambda e'' [bothered(e'') \wedge Happening(e'') \wedge EXPERIENCER(e'', x)]) \wedge e=(e'' \oplus e')]]]$

(ii) *odorok-ase-* ‘surprise’ type:=

$\lambda y \lambda x \lambda e [\exists e', e'''' [CAUSE(e''', e) \wedge STIMULUS(e''', x) \wedge Beg(e, e', \lambda e'' [surprised(e'') \wedge Happening(e'') \wedge EXPERIENCER(e'', y)])]]]$

(iii) *aki-sase-* ‘bore’ type:=

$\lambda y \lambda x \lambda e [\exists e', e'''' [CAUSE(e''''', e) \wedge STIMULUS(e''''', x) \wedge End(e, e', \lambda e'' [\neg bored(e'') \wedge Happening(e'') \wedge EXPERIENCER(e'', x) \wedge \exists e'''' [Beg(e, e''', \lambda e'''' [bored(e''') \wedge Happening(e''') \wedge EXPERIENCER(e''''', y)])]]]]]$

### 3.3.3. The *-te i-* Aspect

The imperfective aspect form such as the progressive in English is frequently used to examine certain aspectual property of the predicates. For instance, most stative verbs cannot appear in the progressive, while dynamic verbs can, although achievements have a special reading. Moreover, the progressives bear different entailments depending on the telicity of the predicates. In Japanese, one would use the *-te i-* form for the same purpose. However, this form behaves so uniquely as to require a careful treatment. The peculiarity of the *-te i-* form is that this single form can yield multiple interpretations such as progressive, resultative perfect, and experiential perfect, at least. The variation in reading seems to depend on the aspectual property of the predicate, but this is still a debatable topic in Japanese linguistics. In this section we will discuss the problems surrounding the *-te i-* aspect, and demonstrate how to obtain multiple interpretations from a single form. The aspectual analysis of psych verbs just performed above provides a clue to this task.

The morpheme *-te i-* is considered an aspect marker as a whole, composed of two parts, *-te-* and *-i-*. The part *-i-* came from a lexical verb of animate existence *i-* ‘be, exist,’ although its lexical meaning is bleached somewhat: i.e. the selectional restriction on the subject of the lexical verb *-i-* does not apply to *-i-* of the *-te i-* (Shirai 2000). Although *-te i-* consists of two different parts, they are not so highly merged that they can be split by the topic marker *-wa* (Nishiyama 2006).

- (221) a. Inu-ga/\*Booru-ga niwa-ni i-ru.  
 dog-NOM/ball-NOM yard-at be-NPST  
 ‘A/The dog/ball is in the yard.’  
 b. Inu-ga/Booru-ga niwa-de hane-te i-ru.  
 dog-NOM/ball-NOM niwa-in bounce-ASP-NPST  
 ‘A/The dog/ball is bouncing in the yard.’

- (222) Booru-wa hane-te-wa-i-nai. Koroga-te i-ru.  
 ball-TOP bounce-TE-TOP-I-NEG roll-ASP-NPST  
 ‘The ball is not bouncing, but rolling’

Kindaichi (1950) classified Japanese verbs into ‘stative,’ ‘durative,’ ‘instantaneous,’ and ‘the fourth category’ depending on the compatibility with the *-te i-* form and the aspectual interpretation the verbs may have in this form. Verbs that cannot appear in *-te i-* form are ‘stative verbs’ (e.g. *iru* ‘be, exist’, *aru* ‘be, exist’, *ataisuru* ‘deserve’). Verbs that can appear in this form to yield a progressive reading are ‘durative verbs’ (e.g. *aruku* ‘walk’, *naku* ‘cry’, *kaku* ‘write’). Verbs that can appear in this form to present a resultative interpretation are ‘instantaneous verbs’ (e.g. *sinu* ‘die’, *tuku* ‘arrive’, *todoku* ‘reach’). Finally, there are verbs that must appear in this form, except when they appear in an embedded clause, and they are called ‘the fourth category’ (e.g. *sugure-teiru* ‘excel’, *ni-teiru* ‘resemble’, *arihure-teiru* ‘be common’).

- (223) a. Taro-wa ie-ni i-ru/\*i-te i-ru. ‘Stative verbs’  
 Taro-TOP home-at be-NPST/ be-ASP-NPST  
 ‘Taro is at home.’  
 b. Akanboo-ga arui-te i-ru. ‘Durative verbs’ --- Progressive reading  
 baby-NOM walk-ASP-NPST  
 ‘A/The baby is walking.’  
 c. Kingyo-ga sin-de iru. ‘Instantaneous verbs’ --- Resultative reading  
 goldfish-NOM die-ASP-NPST  
 ‘A/The goldfish is dead.’  
 d. Taro-wa suugaku-ni \*sugure-ru/sugure-te i-ru. ‘The fourth category’  
 Taro-TOP math-at ‘excel’-NPST/‘excel’-ASP-NPST  
 ‘Taro excels at mathematics.’

Regarding stative verbs, however, later studies pointed out that there are some cases where they can appear in the *-te i-* form, although there is little difference of meaning between forms with and without *-te i-*; if any, the state described by the *-te i-* variant can be interpreted as more vivid or temporal (Shirai 2000).

- (224) a. Sore-wa tigau/ tigat-te i-ru.  
 that-TOP 'be different'.NPST/ 'be different'-ASP-NPST  
 'That's wrong.'
- b. Fujisan-ga mieru/ mie-te i-ru.  
 Mt. Fuji-NOM 'be visible'.NPST/ 'be visible'-ASP-NPST  
 'We can see Mt. Fuji.'

The verbs in 'the fourth category,' on the other hand, always appear in the *-te i-* form to describe states. Nevertheless, these predicates can be included in 'instantaneous verbs' because they behave similarly in some respects (Ogihara 1998, Shirai 2000). For instance, the verbs in 'the fourth category' must appear with *-te i-* in a simple clause but can appear without it in a relative clause to describe a current state ((255)). 'Instantaneous verbs' in the simple past tense in relative clauses describe a current state ((226a)), while 'durative verbs' and 'stative verbs' only refer to a past event ((226b,c)). That is, 'the fourth category' patterns like 'instantaneous verbs.'

- (225) a. Biru-ga takaku sobie-te i-ru/\*sobie-ru.  
 building-NOM high tower-ASP-NPST tower-NPST  
 'A building stands tall.' (≈ 'There is a tall building in sight.')
- b. Taroo-wa [takaku sobie-ta yama]-o mi-te i-ru.  
 Taro-TOP high tower-PST mountain-ACC see-ASP-NPST  
 'Taro is looking at a mountain that stands tall.' (Ogihara 1998:25)

- (226) a. Taroo-wa [hyoosi-no yabure-ta hon]-o mot-te i-ru.  
 Taro-TOP cover-GEN tear-PST book-ACC have-ASP-NPST  
 'Taro has a book the cover of which is torn.'
- b. Taroo-wa [butai-de odot-ta hito]-o sit-te i-ru.  
 Taro-TOP stage-at dance-PST person-ACC learn-ASP-NPST  
 'Taro knows a person who danced on the stage.'
- c. Taroo-wa [heya-ni i-ta hito]-o sit-te i-ru.  
 Taro-TOP room-at be-PST person-ACC learn-ASP-NPST  
 'Taro knows the person who was in the room.' (Ogihara 1998:27)

Another point to add to Kindaichi's generalization is that the *-te i-* form of verbs can also have an experiential perfect interpretation. Unlike progressive and resultative readings, this reading seems to occur with almost any aspectual class of verbs (Shirai 2000).

- (227) Taro-wa jyukken-mo ie-o tate-te i-ru. Experiential perfect  
 Taro-TOP ten.CL-as many as house-ACC build-ASP-NPST  
 'Taro has built as many as ten houses.'

The resultative reading differs from the experiential perfect reading in that the former entails that the described state still holds at the time of utterance, while the latter does not bear such entailment (cf. Comrie 1976, Bybee et al. 1994, Shirai 2000, Nishiyama 2006).

- (228) a. Maki-wa kekkon-si-te i-ru.  
 Maki-TOP marriage-do-ASP-NPST  
 ‘(Maki has got married and) Maki is married.’  
 (→She is married now.)
- b. Maki-wa jyuunen-mae-ni kekkon-si-te i-ru.  
 Maki-TOP ten.years-ago-in marriage-do-ASP-NPST  
 ‘Maki has got married ten years ago (though it is not grammatical in English).’  
 (→She can be married or unmarried now.)

Summarizing the points so far, the *-te i-* forms of verbs have multiple interpretations: progressive, resultative, and experiential perfect. The progressive reading generally occurs with ‘durative verbs;’ and the resultative reading, with ‘instantaneous verbs.’ The experiential reading is possible with any class of verbs. Stative verbs, with some exceptions, are mostly incompatible with *-te i-*. Regarding the terminology, Kindaichi’s (1950) ‘durative verbs’ mostly correspond to Vendler’s (1967) activities and accomplishments, and ‘instantaneous verbs’ to Vendler’s achievements. The verbs of ‘the fourth category’ are also included in achievements. The interaction between the aspectual class of verbs and the interpretations of their *-te i-* forms, then, can be described as below:

- (229) The *-te i-* form interpretations:
- a. Stative verbs: generally \**-te i-*; the *-te i-* form presents some vividness or temporality in the described states *if* the verbs will allow such reading.
  - b. Dynamic verbs:
    - i) Activities ([+durative]) + *-te i-* → Progressive
    - ii) Accomplishments ([+durative]) + *-te i-* → Progressive
    - iii) Achievements ([+punctual]) + *-te i-* → Resultative

However, there are some kinds of counterexamples to this generalization. This led some researchers to discard the aspectual account of the multiple interpretations of *-te i-* aspect (Washio and Mihara 1997, Aono 2007). In this study, nevertheless, we demonstrate that the problematic cases for the aspectual approach to the issue can be resolved by analyzing the predicates in terms of ‘boundaries.’ The relationship between the aspectual nature of the predicates and the interpretation of the *-te i-* forms is, then, accountable in a systematic way. We propose that the interpretation of *-te i-* depends on which type of boundary is present in the denotation of the predicate.

First, psych verbs in the *-te i-* form yield an interpretation that is difficult to identify whether it is progressive or resultative (cf. Yoshinaga 2008). However, if we describe the aspectual properties of psych verbs with the help of the notion of ‘boundary’ and its types, the interpretations of their *-te i-* forms become recognizable.

(230) a. Maki-ga sore-ni aki-te i-ru.

Maki-NOM that-NI ‘get bored’-ASP-NPST

‘Maki is tired of that.’

b. Maki-ga sore-ni odoroi-te i-ru.

Maki-NOM that-NI ‘get surprised’-ASP-NPST

‘Maki is (looking) surprised by that.’

As we have summarized in the previous section, while the *aki*-‘get bored’-type verbs are predicates that describe a ‘left=right’ boundary happening, the *odorok* ‘get surprised’-type verbs are punctual predicates that describe a ‘left’ boundary happening. Thus, the former yield a resultative interpretation in the *-te i-* form, and the latter have an interpretation that resembles both progressive and resultative ones. Let’s call it here ‘state continuative’ interpretation for convenience.

(231) a.  e.g. *aki*-‘get tired/bored’ → resultative reading

b.  e.g. *odorok*-‘get surprised’ → ‘state continuative’ reading

The ‘state continuative’ interpretation differs from normal progressive readings in that it does not express a motion but rather a state, and differs from ordinary result state readings in that its state is a result of an onset of that state itself and not of a change. The difference between *aki*-‘get bored’-type verbs and *odorok*-‘get surprised’-type verbs may be clearer in the following examples:

(232) a. Maki-ga sore-ni mou aki-te i-ru.

Maki-NOM that-NI already ‘get bored’-ASP-NPST

‘Maki (has been losing interest in that and) is already tired of that.’

b. Maki-ga sore-ni mou odoroi-te i-ru.

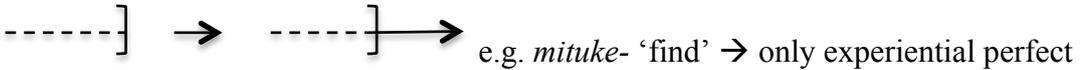
Maki-NOM that-NI already ‘get surprised’-ASP-NPST

‘Maki (has already started getting surprised by that and) is now surprised by that.’

The other problematic cases can also be explained in a similar manner. For instance, there are some punctual verbs that have only an experiential perfect reading and neither resultative nor progressive interpretations, which contradicts Kindaichi's generalization.

- (233) Taro-ga takaramono-o mituke-te i-ru./ Maki-ga tikamiti-o hakken-si-te i-ru.  
 Taro-NOM treasure-ACC find-ASP-NPST/ Maki-NOM shortcut-ACC discovery-do-ASP-NPST  
 'Taro has (already) found the treasure.'/'Maki has discovered a shortcut.'

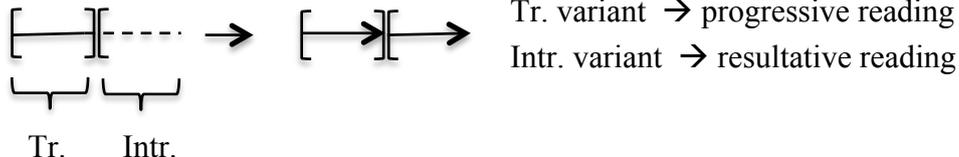
For these cases, we would say that such punctual predicates may denote a 'right' boundary happening, and then have only an experiential perfect interpretation in the *-te i-* form. Whether a predicate can have a resultative reading in the *-te i-* form seems to relate to whether the predicate makes a reference to a result state after the boundary.

- (234)  e.g. *mituke-* 'find' → only experiential perfect

Moreover, there are cases that seem to be better explained by the transitive/intransitive distinction than by the aspectual distinction. That is, the *-te i-* forms of the transitive variants have a progressive reading, while those of the intransitive variants yield a resultative reading even though both variants seem to describe the same situations.

- (235) a. Kodomo-tati-ga ensoku-no ikisaki-o kime-te i-ru.  
 child-PL-NOM excursion-GEN destination-ACC decide-ASP-NPST  
 i) 'The children are deciding the destination of the trip.' (Progressive )  
 ii) 'The children have decided the destination of the trip.' (Experiential perfect)  
 b. Ensoku-no ikisaki-ga kima-te i-ru.  
 excursion-GEN destination-NOM 'be decided'-ASP-NPST  
 'The destination of the trip is (already) settled.' (Resultative)

Nevertheless, the transitive variant and the intransitive variant indeed describe different subparts of an event: the former expresses a process part and the latter, a change at the end of the process.

- (236)  Tr. variant → progressive reading  
 Intr. variant → resultative reading

In fact, the transitivity/intransitivity cannot explain the whole phenomenon. Some transitive verbs in a reflexive use will have a resultative reading in the *-te i-* form, in addition to a progressive one, while in a non-reflexive use they will only have a progressive interpretation.

Assuming that in reflexives the subject is an agent and a patient at the same time, and that agents participate in the process part of an event; and patients, in the change part, the *-te i-* forms of reflexive transitives can have both progressive and resultative readings because they denote these two subparts of an event.

- (237) a. Taro-wa atama-o so-te i-ru.  
           Taro-TOP head-ACC shave-ASP-NPST  
           i) ‘Taro is shaving his head.’ (Progressive)  
           ii) ‘Taro’s head is shaved.’ (Resultative)
- b. Taro-ga Jiro-no atama-o so-te i-ru.  
           Taro-NOM Jiro-GEN head-ACC shave-ASP-NPST  
           ‘Taro is shaving Jiro’s head.’ (Progressive)

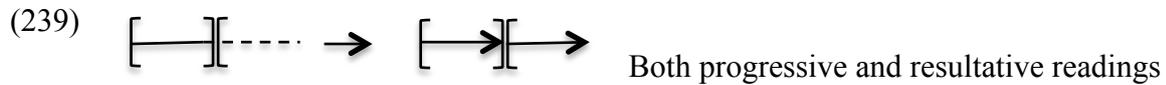
Furthermore, there are some verbs whose *-te i-* forms can have both progressive and resultative interpretations (other than an experiential perfect reading).

- (238) a. Gomu-ga nobi-te i-ru.  
           elastic-NOM stretch-ASP-NPST  
           i) ‘The elastic band is stretching.’ (Progressive)  
           ii) ‘The elastic band is stretched.’ (Resultative)
- b. Basu-ga ki-te i-ru.  
           bus-NOM come-ASP-NPST  
           i) ‘The bus is coming.’ (Progressive)  
           ii) ‘The bus is here.’ (Resultative)
- c. Oya-ga Amerika-ni i(k)-te i-ru.  
           parents-NOM America-to go-ASP-NPST  
           i) ‘My parents are on their way to America.’ (Progressive)  
           ii) ‘My parents are in America.’ (Resultative)
- d. Kuruma-ga ugoi-te i-ru.  
           car-NOM move-ASP-NPST  
           i) ‘A/The car is moving.’ (Progressive)  
           ii) ‘A/The car is not at the same location as before.’ (Resultative)
- e. Konoha-ga (hirahirato/jimen-ni) ti-te i-ru.<sup>13</sup>  
           leaf-NOM flaking ground-at fall-ASP-NPST  
           i) ‘The leaves are flaking off.’ (Progressive)  
           ii) ‘The leaves are on the ground.’ (Resultative)

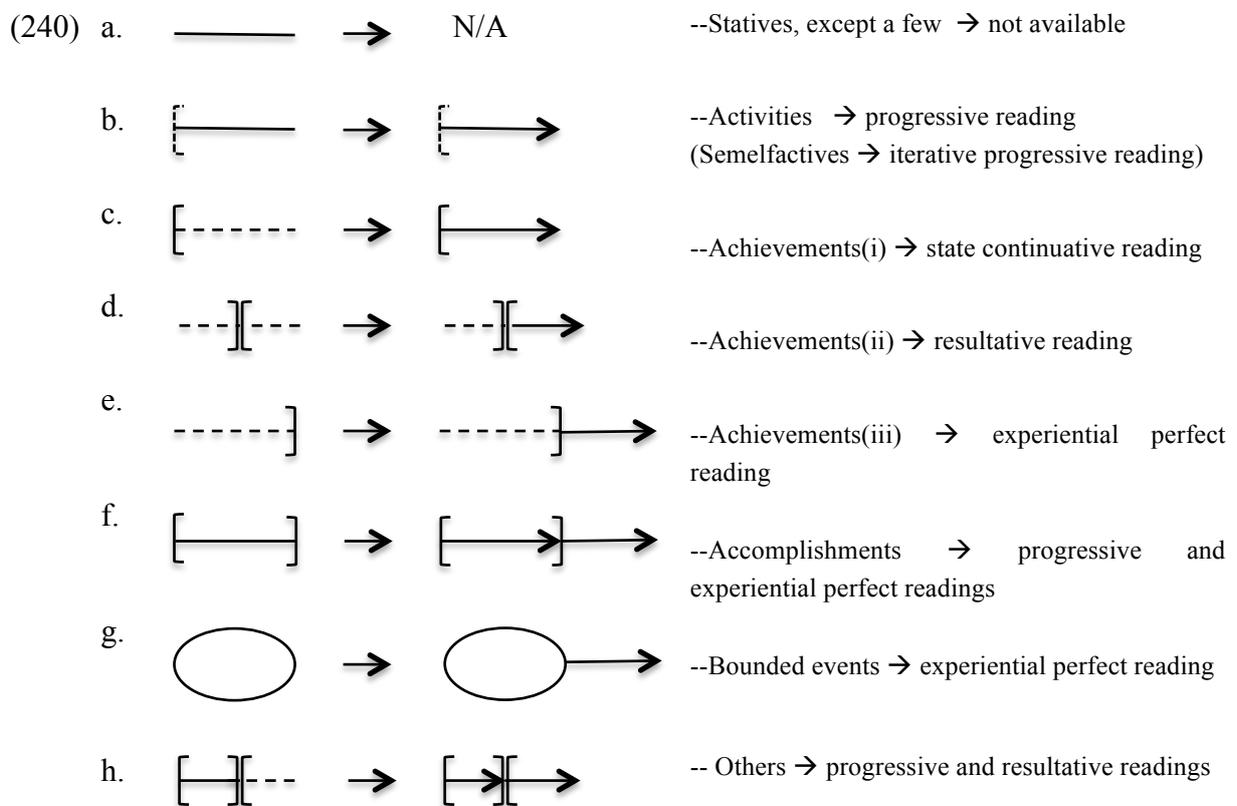
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<sup>13</sup> The expression *hirahirato* is an onomatopoeia for flaking motion.

These predicates can be viewed as denoting two different subparts of an event, a subpart that is a process and another that is a change, and the *-te i-* form yields a progressive reading with the former, a resultative with the latter.



To sum up, the interpretation of a *-te i-* form depends on which type of boundary or boundaries the form detects in the predicate. The relation between the denotation of a predicate and the interpretation of its *-te i-* form is described as below.



Note that activity predicates here are analyzed as denoting a happening that can involve a left boundary ((240b)), although it is often argued that these predicates should not be inchoatives, i.e. they may be associated with an onset but not entail it. In (241a), *John ran yesterday* does not entail that *John* started running yesterday because he could have been running since before yesterday. Nevertheless, Japanese activities may entail an onset (241b).

(241) a. John ran yesterday, but he didn't start running yesterday.

b. ??Taro-wa kinou hasi-ta. Sikasi, kinou hasiri-hajime-naka-ta.

Taro-TOP yesterday run-PST but yesterday run-start-NEG-PST

'Taro ran yesterday. But he didn't start running yesterday.'

Regarding semelfactive predicates (e.g. *tatak-* ‘knock’), their *-te i-* forms yield an iterative progressive reading. The point here is that they are not truly punctual predicates in a sense that we could assume from Piñón (1997). Semelfactives do not denote a boundary happening but a happening that is temporally very short and repeatable, which causes iteration.

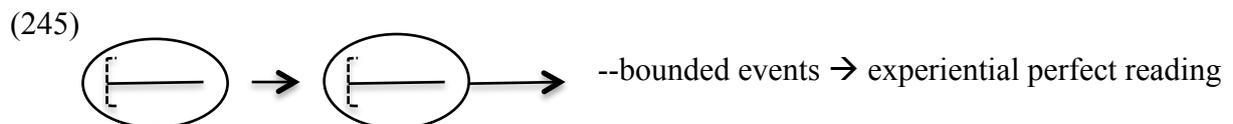
- (242) Ken-ga tobira-o tatai-te i-ru.  
 Ken-NOM door-ACC knock-ASP-NPST  
 ‘Ken is knocking at the door.’

As for stative verbs, the *-te i-* form is not acceptable with some (e.g. *i-* ‘exist,’ *a-* ‘exist,’ *ataisu-* ‘deserve’) but is available with others (e.g. *tiga-* ‘be different,’ *mie-* ‘be visible’). The difference may lie in that the latter can be associated with a boundary while the former cannot.

- (243) a. Kare-no kouji-wa syousan-ni ataisu-ru/\*ataisi-te i-ru.  
 3SG-GEN act-TOP praise-DAT deserve-NPST/deserve-ASP-NPST  
 ‘His acts are worthy of praise.’  
 b. Fuji-san-ga mie-ru/ mie-te i-ru.  
 Fuji-Mt.-NOM ‘be visible’-NPST/‘be visible’-ASP-NPST  
 ‘We can see Mt. Fuji (always from here/now).’

Finally, an experiential perfect interpretation is possible not only with accomplishments but also with any aspectual class of predicate, if the event is interpreted as bounded in the context, e.g. even atelic predicates can be bounded in certain types of contexts.

- (244) Taro-wa mou nijikan hasi-te i-ru.  
 Taro-TOP already two.hours run-ASP-NPST  
 ‘Taro has already run (been running) for two hours.’



This section has given an aspectual account for multiple interpretations of the Japanese aspect marker *-te i-*. The interpretations of the *-te i-* forms of verbs seem to depend on the type of boundaries found in the denotation of the predicate: with a left boundary, a progressive reading (if the boundary is followed by a motion-type eventuality) or a ‘state-continuative’ reading (if the boundary is followed by a state-type eventuality); with a left=right boundary, a resultative reading; and with a right boundary, an experiential perfect reading. The *-te i-* form is sensitive to the boundaries in the denotation of the predicate. What *-te i-* does is, then,

identifying a situation that follows right after a boundary associated with an eventuality, and linking the subject with that situation.<sup>14</sup>

(246) The semantics of *-te i-*:

$$\begin{aligned}
 -te- &:= \lambda P \lambda x \lambda e'' [\exists e, e' [\text{Boundary-Happening}(e') \wedge P(e) \wedge [\text{Beg}(e', e, P) \vee \text{End}(e', e, P)]] \wedge \\
 &\exists Q [\text{Beg}(e', e'', Q) \wedge \text{ThematicRole}(x, e'')] \\
 -i- &:= \lambda P \lambda x \lambda e [P(x, e)]
 \end{aligned}$$

### 3.3.4. Summary

Japanese psych verbs are not statives, at least not ordinary ones (this may relate to the fact that Japanese preferably employs psych adjectives to express mental states). ExpSubj-*O* verbs (e.g. *nikum-* ‘hate’) are atelic durative inchoatives, while ExpSubj-*NI* verbs include (i) atelic durative inchoatives (e.g. *nayam-* ‘be bothered’), (ii) atelic punctual inchoatives (e.g. *odorok-* ‘get surprised’), and (iii) telic punctual predicates (e.g. *aki-* ‘get bored’). Applying Piñon’s (1997) terminology, ExpSubj-*O* verbs are predicates that describe a state happening that may include a left boundary, ExpSubj-*NI* verbs are predicates that describe (i) a state happening with a left boundary, (ii) a left boundary happening, or (iii) a left=right boundary happening. The difference between ExpSubj-*O* verbs and ExpSubj-*NI* verbs ((i)) is that the boundary of the latter is more explicit than that of the former. The presence/absence or explicit presence/implicit presence of a boundary may be a relevant notion to the argument realization. Regarding ExpObj causatives, they seem to maintain aspectual nature of their ExpSubj-*NI* variants, but also gain some durativity and telicity. We have also proposed that the *-te i-* aspect form varies its interpretation depending on which type of boundary the predicates denote.

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<sup>14</sup> Some studies argue that there are two types of *-te i-* (Ogihara 1998), and others claim that there are two different *-i-* (Washio and Mihara 1997) or two different *-te-* (Aono 2007). This study, nevertheless, supports the idea that *-te i-* is monosemous (Nishiyama 2006). According to Nishiyama (2006), *-te i-* consists of an imperfective operator *-te-* and a stativizer *-i-*. The function of *-te-* is to “take an eventuality as its argument and output a (not necessarily proper) subpart of the eventuality, which precedes a reference time interval”; and the function of *-i-* is to “map the subpart of the eventuality, i.e. *-te-*’s output, onto a state which overlaps with reference time and whose category is semantically underspecified and is determined via pragmatic inference.” My proposal differs from Nishiyama’s in the fact that this dissertation takes into consideration the important fact that there are subclasses of achievements depending on which the interpretation of *-te i-* varies.

## Chapter 4. (Anti-)Causativization in Psych Verbs

In this chapter we will discuss the causativization in Japanese ExpObj causatives and the anticausativization in Spanish ExpNOM reflexives. Japanese ExpObj verbs are morphologically overt causatives that are formed by suffixing a morpheme *-(s)ase* to a particular type of ExpSubj verb roots. Spanish ExpNOM reflexives, on the other hand, can be outputs of an anticausative operation via a reflexive morphology. First, we will examine the nature of causativization found in Japanese ExpObj causatives and tackle the question as to whether these really correspond to ExpObj lexical verbs of other languages. Second, we will explain the details of the anticausativization operation and apply it to the reflexive psych verbs in question. Finally, some semantic consequences of the typological contrast between Japanese and Spanish will be discussed.

### 4.1. Causativization in Japanese Psych Verbs

#### 4.1.1. ExpObj causatives

In Japanese there are very few lexical ExpObj verbs like English *annoy* or Spanish *asustar* ‘frighten,’ but the language uses a causative construction to express corresponding meaning. Japanese ExpObj verbs are mostly derived from ExpSubj verbs by suffixing a causative morpheme *-(s)ase*. However, not all ExpSubj verbs form an ExpObj causative variant. Most ExpSubj-*NI* verbs ((247)), including ExpSubj-*O/-NI* ones ((248)), can form an ExpObj causative variant, whereas ExpSubj-*O* verbs generally cannot ((249)), although a “regular” causative construction may be tolerable ((249c)).

(247) a. Taro-ga kaminari-ni odoroi-ta.

Taro-NOM thunder-*NI* ‘get surprised’-PST  
‘Taro got surprised at the thunder.’

b. Kaminari-ga Taro-o odorok-ase-ta.

thunder-NOM Taro-ACC ‘get surprised’-CAUS-PST  
‘The thunder surprised Taro.’

(248) a. Taro-ga purezento-o/-ni yorokon-da.

Taro-NOM present-ACC/*-NI* ‘get pleased’-PST  
‘Taro got pleased at the present.’

- b. Purezento-ga Taro-o yorokob-ase-ta.  
 present-NOM Taro-ACC 'get pleased'-CAUS-PST  
 'The present pleased Taro.'

(249) a. Taro-ga Hanako-o nikum-da.

Taro-NOM Hanako-ACC hate-PST

'Taro hated Hanako.'

b. \*Hanako-ga Taro-o nikum-ase-ta.

Hanako-NOM Taro-ACC hate-CAUS-PST

Intended: 'Hanako caused hatred in Taro.'

c. ?Sono hanasi-ga Taro-ni Hanako-o nikum-ase-ta.

that story-NOM Taro-DAT Hanako-ACC hate-CAUS-PST

'Those stories made Taro hate Hanako.'

Notice, however, that not all ExpSubj-*NI* verbs form an ExpObj causative variant. Some *ni*-marked elements are 'Object of Emotion' rather than 'Cause of Emotion,' and ExpSubj verbs with such a *ni*-marked 'Object of Emotion' cannot form ExpObj causative variant. Their "regular" causative construction may be tolerable ((250d)), unless rejected for a phonological reason ((250c)).

(250) a. Taro-ga sensei-ni akogare-ta.

Taro-NOM teacher-*NI* long-PST

'Taro longed for the teacher.'

b. ??Sensei-ga Taro-o akogare-sase-ta.

teacher-NOM Taro-ACC long-CASE-PST

Intended: 'The teacher attracted Taro.'

c. \*Sono hanasi-ga Taro-**ni** Sensei-**ni** akogare-sase-ta.

teacher-NOM Taro-DAT teacher-*NI* long-CASE-PST

Intended: 'Those stories made Taro long for his teacher.'

d. ?Sono hanasi-ga Taro-o Sensei-ni akogare-sase-ta.

that story-NOM Taro-ACC teacher-*NI* long-CASE-PST

'Those stories made Taro long for his teacher.'

In other words, ExpSubj verbs with a 'Cause of Emotion' can form an ExpObj causative variant, whereas those with 'Object of Emotion,' whether marked by *-ni* or *-o*, cannot. The ExpSubj-*O* verb *tanosim*- 'enjoy' is the only exception for this generalization.

(251) a. Taro-ga eiga-o tanosim-da.

Taro-NOM movie-ACC enjoy-PST

'Taro enjoyed the movie.'

b. Eiga-ga Taro-o tanosim-ase-ta.

movie-NOM Taro-ACC enjoy-CAUS-PST

'The movie entertained Taro.'

ExpObj causatives seem different from “regular” causative constructions. ExpObj causatives appear to derive from corresponding ExpSubj verbs simply by switching the position of subject and object (i.e. valence-unchanging causativization), while the regular causativization adds an external causer (i.e. valence-increasing causativization). The next section will summarize the nature of Japanese *-(s)ase* causativization and consider whether the causativization in psych predicates is a valence-unchanging operation or not.

#### 4.1.2. Causativization: Valence-Increasing vs. Valence-Unchanging

We will first describe the basic nature of causativization in Japanese. A causative construction is formed by attaching a causative morpheme *-(s)ase* to the verb root. The original subject of transitive or ditransitive verbs changes the case marking from nominative to dative.

(252) a. Taro-ga ringo-o tabe-ta.

Taro-NOM apple-ACC eat-PST

‘Taro ate an apple.’

b. Maki-ga Taro-ni ringo-o tabe-sase-ta.

Maki-NOM Taro-DAT apple-ACC eat-CAUS-PST

‘Maki made Taro eat an apple.’

(253) a. Taro-ga tegami-o kai-ta.

Taro-NOM letter-ACC write-PST

‘Taro wrote a letter.’

b. Maki-ga Taro-ni tegami-o kak-ase-ta.

Maki-NOM Taro-DAT letter-ACC write-CAUS-PST

‘Maki made Taro write a letter.’

For intransitives, on the other hand, the accusative or dative case marking seems to cause a different interpretation of the causee. Some intransitive verbs can mark the causee by accusative or dative, and the dative causee is more volitional than the accusative one. That is, the accusative causee is interpreted as being forced to do the denoted action, while the dative causee has some volition to do so ((254b)). Other intransitive verbs do not allow dative causees because these predicates are inherently nonagentive ((255)).

(254) a. Taro-ga arui-ta.

Taro-NOM walk-PST

‘Taro walked.’

b. Maki-ga Taro-o/-ni aruk-ase-ta.

Maki-NOM Taro-ACC/-DAT walk-CAUS-PST

‘Maki made Taro walk.’

(255) a. Hana-ga sai-ta.

flower-NOM blossom-PST

‘The flower came out.’

b. ?Maki-ga sono hana-o/\*-ni sak-ase-ta.

Maki-NOM that flower-ACC/-DAT blossom-CAUS-PST

‘Maki made the flower blossom.’

In summary, a standard causative construction requires the subject of the base verb to be agentive participant, and then the causee can be interpreted more volitional or less volitional depending on the case marking by dative or accusative.

(256) Causative construction:

a.  $x$ -NOM  $y$ -ACC Vtr. →  $w$ -NOM [ $x$ -DAT  $y$ -ACC V]-CAUS

b.  $x$ -NOM  $y$ -DAT  $z$ -ACC Vditr. →  $w$ -NOM [ $x$ -DAT  $y$ -DAT  $z$ -ACC V]-CAUS

c.  $x$ -NOM Vintr.( [+agentive]) →  $w$ -NOM [ $x$  {-DAT/-ACC} V]-CAUS

d.  $x$ -NOM Vintr.( [-agentive]) →  $w$ -NOM [ $x$  {\*-DAT/?-ACC} V]-CAUS

Applying this to psych verbs, ExpSubj-*O* verbs allow to a certain extent the formation of a standard causative construction, although it may sound odd when the causer forces the causee to feel the denoted emotion.

(257) a. Taro-ga sensou-o nikum-da.

Taro-NOM war-ACC hate-PST

‘Taro hated wars.’

b. Sono keiken-ga/(?)Maki-ga [Taro-ni sensou-o nikum]-ase-ta.

that experience-NOM/ Maki-NOM Taro-DAT war-ACC hate-CAUS-PST

‘That experience/Maki made Taro hate wars.’

(258) a. Taro-ga eiga-o tanosim-da.

Taro-NOM movie-ACC enjoy-PST

‘Taro enjoyed the movie.’

b. Sono funiki-ga/??Maki-ga Taro-ni eiga-o tanosim-ase-ta.

that atmosphere-NOM/ Maki-NOM Taro-DAT movie-ACC enjoy-CAUS-PST

‘That atmosphere/Maki made Taro enjoy the movie.’

For ExpSubj-*NI* verbs (including ExpSubj-*O*/*NI* ones), on the other hand, this standard causative construction seems impossible. It seems that the reason for this impossibility is that the experiencer cannot be a causee of a standard causative construction due to the lack of volitional control over the emotion triggered by the stimulus.

- (259) a. Taro-ga kaminari-ni odoroi-ta.  
 Taro-NOM thunder-*NI* ‘get surprised’-PST  
 ‘Taro got surprised at the thunder.’
- b. \*Sono gouon-ga/\*Maki-ga [Taro-ni/-o Kaminari-ni odorok]-ase-ta.  
 that roar-NOM/ Maki-NOM Taro-DAT/-ACC thunder-*NI* ‘get surprised’-CAUS-PST  
 ‘The loud sound/Maki made Taro get surprised at the thunder.’
- (260) a. Taro-ga purezento-o/-ni yorokon-da.  
 Taro-NOM present-ACC/-*NI* ‘get pleased’-PST  
 ‘Taro got pleased about/at the present.’
- b. \*Maki-ga [Taro-ni/-o purezento-o yorokob]-ase-ta.  
 Maki-NOM Taro-DAT/-ACC present-ACC ‘get pleased’-CAUS-PST  
 ‘Maki made Taro get pleased about the present.’
- b’. \*Maki-ga [Taro-ni/-o purezento-ni yorokob]-ase-ta.  
 Maki-NOM Taro-DAT/-ACC present-*NI* ‘get pleased’-CAUS-PST  
 ‘Maki made Taro get pleased at the present.’

We have seen so far the nature of standard causative construction. We call it “regular” or “standard” because it seems different from ExpObj causatives, which are apparently derived from ExpSubj verbs simply by switching the position of subject and object. There are actually some languages that have such type of causativization (‘valence-unchanging’), e.g. Finnish. Is the causativization in Japanese ExpObj causatives the ‘valence-unchanging’ type, as it seems? We argue that it could be the ‘valence-increasing’ type of causativization, if the *ni*-marked elements of ExpSubj-*NI* verbs are adjuncts, as discussed in Chapter 2.

- (261) a.  $\text{Pred}(x, y) \rightarrow z \text{ CAUSE} [\text{Pred}(x, y)]$  ‘valence-increasing’  
 b.  $\text{Pred}(x, y) \rightarrow \text{CAUSE-Pred}(y, x)$  ‘valence-unchanging’

According to Pykkänen (2000), in Finnish there are stative ExpSubj verbs and nonstative ExpSubj verbs, and they differ in the case-marking of their objects, partitive or elative ((262a, 263a)). ExpObj causatives can be formed from both classes, but there is an important difference between stative pairs and nonstative pairs. While the selectional restriction of the object of ExpSubj verbs does apply to the subject of the ExpObj causatives in the stative pairs, it does not apply in the nonstative pairs. For instance, a stative ExpSubj verb *sääli* ‘pity’ does not admit an inanimate object ((262b)) and its causative ExpObj variant does not admit an animate subject ((262c)). A nonstative ExpSubj verb *viha-stu* ‘become angry,’ on the other hand, precludes an animate object ((262b)), but its causative ExpObj counterpart admits an animate subject ((263c)).

- (262) a. Minna sääli-i Matti-a.  
 Minna.NOM pity-3SG Matti-PAR  
 ‘Minna pities Matti.’

- b. ??Minna sääli uutisi-a.  
 Minna.NOM pity-PST.3SG news-PAR  
 ‘Minna pities the news.’
- c. ??Untiset sääli-tt-i-vät Minna-a.  
 news.NOM pity-CAUS-PST-3PL Minna-PAR  
 ‘The news caused pity in Minna.’

- (263) a. Maija viha-stu-i Jussi-n kommenti-sta.  
 Maija.NOM anger-INCH-PST Jussi-GEN comment-ELA  
 ‘Maija became angry because of Jussi’s comment.’
- b. ??Maija viha-stu-i Jussi-sta.  
 Maija.NOM anger-INCH-PST Jussi-ELA  
 ‘Maija became angry because of Jussi.’
- c. Jussi viha-stu-tti Maija-n.  
 Jussi.NOM anger-INCH-CAUS-PST Maija-ACC  
 ‘Jussi caused Mari to become angry.’

(Pylkkänen 2000:434-436)

This suggests that the causativization in the stative pairs may be the subject-object switching (‘valence-unchanging’) type, while the causativization in the nonstative pairs is the ‘valence-increasing’ type. The latter makes sense since the elative objects of nonstative ExpSubj verbs can be seen as adjuncts (Pylkkänen 2000:438).

(264) ExpObj causatives in Finnish:

- a. Stative:  $\text{Pred}(x, y) \rightarrow \text{CAUSE-Pred}(y, x)$  ‘valence-unchanging’  
 b. Nonstative:  $\text{Pred}(x) \rightarrow y \text{ CAUSE} [\text{Pred}(x)]$  ‘valence-increasing’

Applying this to Japanese psych verbs, the causativization in ExpObj causatives may not be the subject-object switching type (‘valence-unchanging’). The selectional restriction that ExpSubj-*NI* verbs show, albeit limited to a few instances, seems to disappear in their ExpObj causative variants. For example, an ExpSubj-*NI* verb *meir-* ‘get depressed’ disallows an animate object, but its ExpObj causative variant allows an animate subject.

- (265) a. Taro-ga warui sirase-ni meit-ta.  
 Taro-NON bad news-*NI* ‘get depressed’-PST  
 ‘Taro got depressed at the bad news.’
- b. ??Taro-ga Maki-ni meit-ta.  
 Taro-NON Maki-*NI* ‘get depressed’-PST  
 ‘Taro got depressed at Maki.’
- c. Maki-ga Taro-o meir-ase-ta.  
 Maki-NOM Taro-ACC ‘get depressed’-CAUS-PST  
 ‘Maki depressed Taro.’

ExpObj causatives formed from ExpSubj-*NI* verbs in Japanese could result from a ‘valence-increasing’ type of causativization, despite appearances, because the *ni*-marked objects are added elements and ExpSubj-*NI* verbs are one-place predicates.

(266) ExpObj causatives in Japanese: Pred(x) → y CAUSE [Pred(x)]

### 4.1.3. Causativization: Lexical Formation vs. Syntactic Operation

Japanese ExpObj predicates are formed morphologically from ExpSubj verbs by suffixing a causative morpheme *-(s)ase*. Given this fact, Pesetsky (1995) proposes that English ExpObj verbs such as *annoy* and *depress* are also bimorphemic, containing a bound root that expresses an ExpSubj predicate and a phonologically null causative morpheme. In other words, morphologically overt causatives such as Japanese *kanasim-ase-* ‘cause x to be sad’ and lexically causatives such as English *depress* are treated as identical.

(267) a. The news depressed Bill.

b. The news [[[ $\sqrt{\text{depress}}_v$ ]CAUS<sub>v</sub>] -ed<sub>v</sub>] Bill.

c. Sono sirase-ga Tanaka-o kanasim-ase-ta.  
 that news-NOM Tanaka-ACC ‘feel sad’-CAUS-PST  
 ‘The news saddened Tanaka.’

However, do ExpObj causatives in Japanese have completely the same grammatical status as the lexical ExpObj verbs in other languages? In fact, Japanese *-sase* causatives are often regarded as corresponding to English periphrastic causatives constructed with verbs like *have*, *make*, *cause*, and *let* (Katada 1994; cf. Kuroda 1965). Similarly, there are arguments that make a distinction between lexical and syntactic causatives (Horvath and Siloni 2011a).

Horvath and Siloni (2011a) claim that Japanese *-sase* causativization is a syntactic formation while Hungarian productive causativization is a formation in the lexicon. According to them, there are three types of causatives: causatives which are subject to decausativization (e.g. transitive verbs such as *break*), causatives formed in the lexicon (e.g. Hungarian *-(t)at/- (t)et* causativization), and causatives formed in the syntax (e.g. Japanese *-(s)ase* causativization).

(268) a. Transitive-unaccusative alternation:

e.g. John broke the window/The window broke.

b. Hungarian productive causativization:

e.g. Az edző ugrál-**tat**-ja Mari-t.  
 the coach.NOM jump-CAUS-PRES.DEF.DO Mari-ACC

‘The coach makes Mari jump.’

(Horvath and Siloni 2011a:663)

c. Japanese productive causativization:

- e.g. Taro-wa kodomo-o gakkou-ni ik-**ase**-ta.  
Taro-NOM child-ACC school-to go-CAUS-PST  
'Taro made his child go to the school.'

The difference between Japanese and Hungarian productive causatives is that the former consist of two predicates, a cause predicate and an embedded predicate, while the latter involve only one predicate. For instance, negation in Japanese must follow the transitive morpheme to negate the whole transitive predicate, and cannot intervene between the base verb and the transitive morpheme to negate the base verb ((269)). In productive causative constructions, however, negation can either follow the causative morpheme *-(s)ase* to negate the causative predicate or intervene between the base verb and the causative morpheme to negate the base verb ((270)).

- (269) a. Taro-ga omocha-o kow-asa-**naka**-ta.  
Toro-NOM toy-ACC break-TRANS-NEG-PST  
'Taro did not break the toy.'  
b. \*Taro-ga omocha-o kow-**anak**-asa-ta.  
Toro-NOM toy-ACC break-NEG-TRANS-PST

- (270) a. Taro-wa kodomo-o gakkou-ni ik-ase-**naka**-ta.  
Taro-NOM child-ACC school-to go-CAUS-NEG-PST  
'Taro did not make his child go to the school.'  
b. Taro-wa kodomo-o gakkou-ni ik-**anak**-sase-ta.  
Taro-NOM child-ACC school-to go-NEG-CAUS-PST  
'Taro made his child not go to the school.'

In Hungarian productive causatives, on the other hand, negation unambiguously scopes over the causative, and not over the base verb ((271)). Note, however, that the negative morpheme *nem* in this language must appear in a verb-external position, and this nature may force the negation to scope over the causative, and not the verb. Hungarian has a periphrastic (permissive) causative construction, which is a syntactic formation. In this case, the negation can indeed scope either over the whole causative predicate or over the lexical verb ((272)).

- (271) Nem énekel-tet-t-em a gyerekek-et.  
not sing-CAUS-PST-1SG the kids-ACC  
'I didn't make the kids sing.'  
Narrow scope impossible: 'I made the kids not sing.'

- (272) a. Nem enged-t-em a gyerekek-et énekel-ni  
not let-PST-1SG the kids-ACC sing-INF  
'I didn't let the kids sing.'

b. Enged-t-em a gyerekek-et nem énekel-ni  
 let-PST-1SG the kids-ACC not sing-INF

‘I let the kids not sing.’

(Horvath and Siloni 2011a:665)

Among other diagnostics, Agent-oriented adverbials detect two Agents, thus two predicates, in Japanese productive causatives ((273a)), while they detect only one predicate in Hungarian ones ((273b)) (Horvath and Siloni 2011a:669):

(273) a. Sono bengoshi-wa {tyuchonaku/yorokonde} John-ni keiyakusyo-ni sain-s-ase-ta.  
 that lawyer-TOP {without hesitation/ with pleasure} John-DAT contract-DAT sign-do-CAUS-PST

(i) ‘The lawyer made [John sign the contract] {without hesitation/with pleasure}.’

(ii) ‘The lawyer made [John sign the contract {without hesitation/with pleasure}].’

b. Az ügyvéd {készség-gel/ habozás nélkül} alá-ír-ta jános-sal a szerződés-t.  
 the lawyer.NOM {readiness-INSTR/hesitation without} under-write-CAUS-PST.DEF.DO János-INSTR the contract-ACC

(i) ‘The lawyer made [János sign the contract] {readily/without hesitation}.’

(ii) \*‘The lawyer made [János sign the contract {readily/without hesitation}].’

VP-ellipsis construction can also detect two predicates in Japanese causatives, and not in Hungarian ones (Horvath and Siloni 2011a:666).

(274) a. Yoko-ga [musuko-ni [huku-o ki]-sase]-ru to Junko-mo soo si-ta.  
 Yoko-NOM son-DAT clothes-ACC wear-CAUS-NPST and Junko-also so do-PST

(i) ‘Yoko made her son wear clothes, and Junko made her son wear clothes, too.’

(ii) ‘Yoko made her son wear clothes, and Junko wore clothes, too.’

b. Fel-olvas-tat-t-am Mari-val egy vers-et mert János is az-t csinálta.  
 up-read-CAUS-PST-1SG Mari-INSTR a poem-ACC because János.NOM too that-ACC did

(i) ‘I made Mari read out a poem because János also made her.’

(ii) \*‘I made Mari read out a poem because János read out a poem too.’

Applying these diagnostics to ExpObj causatives in Japanese, they may also comprise two predicates, although some tests are not entirely applicable to psych verbs due to their nonagentivity. Firstly, the negation test can successfully detect two predicates in ExpObj causatives, i.e. the negation can scope over either the causative predicate or the base verb.

(275) a. Taro-wa kodomotati-o odorok-ase-**naka**-ta.

Taro-TOP children-ACC ‘get surprised’-CAUS-NEG-PST

‘Taro didn’t cause children to get surprised (didn’t surprise children).’

b. Taro-wa kodomotati-o odorok-**anak**-sase-ta.

Taro-TOP children-ACC ‘get surprised’-NEG-CAUS-PST

‘Taro caused children not to get surprised.’

(276) a. Taro-wa kodomotati-ni si-o osore-sase-**naka**-ta.  
 Taro-TOP children-DAT death-ACC fear-CAUS-NEG-PST  
 ‘Taro didn’t cause children to fear death.’

b. Taro-wa kodomotati-ni si-o osore-**nak**-sase-ta.  
 Taro-TOP children-DAT death-ACC fear-NEG-CAUS-PST  
 ‘Taro caused children not to fear death.’

Other diagnostics like Agent-oriented adverbials and VP-ellipsis (*do so* reduction), however, have no use here, since the causee of ExpObj causatives is not Agent but Experiencer.

(277) Taro-ga kodomotati-o koini/yorokonde odorok-ase-ta.  
 Taro-NOM children-ACC intentionally/ with pleasure ‘get surprised’-CAUS-PST  
 (i) ‘Taro surprised children intentionally/with pleasure.’  
 (ii) \*‘Children got surprised intentionally/with pleasure.’

(278) Taro-ga Maki-o odorok-ase-ru to, Jiro-mo soo si-ta.  
 Taro-NOM Maki-ACC ‘get surprised’-CAUS-NPST and Jiro-also so do-PST  
 (i) ‘Taro surprised Maki, and Jiro surprised Maki too.’  
 (ii) \*‘Taro surprised Maki, and Jiro got surprised too.’

Is there any adverb that is oriented to both agent and experiencer? For instance, *zombunni* ‘to one’s heart’s content’ may detect both agent and experiencer in ExpObj causatives.

(279) Maki-ga Taro-o zombunni obie-sase-ta/ odorok-ase-ta.  
 Maki-NOM Taro-ACC ‘to her/his heart’s content’ ‘be scared’-CAUS-PST/ ‘get surprised’-CAUS-PST  
 (i) ‘Maki scared/surprised Taro to her heart’s content.’  
 (ii) ‘Taro got scared/surprised to his heart’s content.’

The results of some tests above indicate that Japanese *-(s)ase* causatives involve two predicates, while Hungarian productive causatives consist of a single predicate. Therefore, while Hungarian causativization is an operation in the lexicon, Japanese *-(s)ase* causativization is a syntactic formation.

In these sections, we have examined the nature of the causativization in Japanese ExpObj causatives. The causativization by *-(s)ase* morpheme in Japanese is a ‘valence-increasing’ operation, and this is applicable to ExpObj causatives if their ExpSubj variants, ExpSubj-*NI* verbs, are one-place predicates. Moreover, the *-(s)ase* causativization can be a syntactic formation because it comprises two predicates, causative portion and embedded portion. Consequently, Japanese ExpObj causatives can be distinguished from ExpObj lexical verbs in English or Spanish. ExpObj lexical verbs are subject to detransitivization, or anticausativization, a reverse operation to causativization. In the next section, we will discuss the treatment of Spanish reflexive psych verbs as anticausative variants of ExpACC verbs.

## 4.2. Anticausativization in Spanish Psych Verbs

### 4.2.1. Reflexive Psych Verbs

Spanish *se* constructions are used in grammatically manifold ways. There are anaphoric uses of the clitic *se*, e.g. reciprocal (*Los hermanos se miraron* ‘The brothers looked at each other’), (true) reflexive (*Los niños se lavaron* ‘The kids washed themselves’), pseudo-reflexive (*Ana se desmayó* ‘Ana fainted’), unaccusative (*El cristal se rompió* ‘The glass broke’); arbitrary uses, e.g. impersonal or passive (*Se observan cambios de economía* ‘They observe changes of economy’), middle (*Las casas prefabricadas se construyen fácilmente* ‘Prefabricated houses are easy to construct’); and aspectual use (*Juan se comió las manzanas* ‘Juan ate up the apples’) (Mendikoetxea 2012:477; for the aspectual *se*, see Sanz 1995, Sanz and Laka 2002; for the impersonal/passive *se*, see Takagaki 1981).

The ExpNOM reflexive verbs we will discuss here are associated with the anaphoric *se*. That is, the clitic *se* (i.e. *me/nos* ‘1SG/1PL,’ *te/os* ‘2SG/2PL,’ *se* ‘3SG, 3PL’) is bound with the expressed argument by an anaphoric reference. There are several types of reflexive psych verbs in Spanish. Some are inherently reflexive (e.g. *arrepentirse* ‘regret,’ *jactarse* ‘boast’) and others are seemingly derived from ExpNOM verbs (e.g. *compadecer(se)* ‘feel pity,’ *lamentar(se)* ‘feel sorry’) or ExpACC verbs (e.g. *asustar(se)* ‘get frightened,’ *preocupar(se)* ‘get worried’). In this section, we will especially deal with the last ones.

(280) (Yo) **me** arrepiento de haber mentido.

I REFL regret of have lie

‘I regret having lied.’

(281) a. (Tú) **compadeces** siempre a los pobres.

you feel sorry always ‘to’ the poor

‘You always pity the poor.’

b. (Tú) **te** **compadeces** siempre de los pobres.

you REFL feel sorry always of the poor

‘You always feel pity for the poor.’

(282) a. El trueno **la** **asustó** (a María).

the thunder ACC frightened ‘to’ María

‘The thunder frightened María.’

b. María **se** **asustó** del trueno.

María REFL frightened of the thunder

‘María got frightened at the thunder.’

Among anaphoric *se* constructions, ExpNOM reflexive verbs are close to unaccusatives. Unaccusatives are traditionally distinguished from “true” reflexives (and reciprocals), calling the former as ‘quasi-reflexives’ or ‘Romance reflexives’ against the ‘regular reflexives’ (cf. García 1975). In brief, the subject acts on itself in true reflexives, while it does not in unaccusatives. This intuitive difference can be observed in the (in)compatibility with *a sí mismo* ‘oneself.’ ExpNOM reflexives pattern like unaccusatives in this respect.

- (283) a. Los niños se lavaron a sí mismos. [True reflexive]  
 the children REFL washed ‘to’ them self  
 ‘The kids washed themselves.’  
 b. \*El cristal se rompió a sí mismo. [Unaccusative]  
 the glass REFL broke ‘to’ it self  
 ‘The glass broke itself.’

- (284) a. Los niños se lavaron a sí mismos.  
 the children REFL washed ‘to’ them self  
 ‘The children washed themselves.’  
 b. \*Mi amiga se asustó a sí misma.  
 my friend REFL frightened ‘to’ her self  
 ‘My girlfriend frightened herself.’

This study analyzes some ExpNOM reflexive verbs as anticausatives. ‘Anticausatives’ refer to outputs of anticausativization, or detransitivizing operation, such as unaccusative variants of the transitive-unaccusative alternation in change-of-state verbs. That is, the derivation from ExpACC verbs to reflexive variants resembles the transitive-unaccusative alternation. Some studies group both reflexive psych verbs and unaccusatives under the same category (Mendikoetxea 1999b, 2012) while others see a difference between them with respect to the acceptance of a propositional phrase, i.e. reflexive psych verbs accept a prepositional phrase, while unaccusatives do not (Masullo 1992); although the latter do accept a prepositional phrase that refers to a cause, and not an agent.

- (285) a. Juan/El viento rompió la ventana.  
 Juan/ the wind broke the window  
 ‘Juan/The wind broke the window.’  
 b. El vaso se rompió (#por Juan/por el viento/\*del viento).  
 the glass REFL broke by Juan/ by the wind/ of the wind  
 ‘The glass broke by Juan/ by the wind/of the wind’

- (286) a. Juan/El trueno asustó a María.  
 Juan/ the thunder frightened ‘to’ María  
 ‘Juan/The thunder frightened María.’

b. María se asustó (#por Juan/ por el trueno/ del trueno)

María REFL frightened by Juan/ by the thunder/ of the thunder

‘María became frightened by Juan/by the thunder/of the thunder.’

In the next sections, we will explain the operation of anticausativization and apply it to Spanish reflexive psych verbs.

#### 4.2.2. Anticausativization

Verbs of ‘change of state’ such as *break*, *open*, *close* and *melt* are characterized by the transitive-unaccusative alternation, e.g. *John broke the toy/The toy broke* (a.k.a. causative-inchoative alternation). This phenomenon has been accounted for in various ways: the transitive variants are formed from the unaccusative variants by causativization (Pesetsky 1995, Pylkkänen 2008); the unaccusatives are derived from the transitives by anticausativization (Grimshaw 1982, Chierchia 1989[2004], Levin and Rappaport Hovav 1995, Reinhart 2002, Reinhart and Siloni 2004, 2005, Koontz-Garboden 2009); both unaccusative and transitive variants come from a single abstract root (Doron 2003, Alexiadou et al. 2006); or languages may differ in which strategy they use (Haspelmath 1990, 1993, Piñón 2001).

The anticausativization approach to the transitive-unaccusative alternation is convenient for Romance languages such as Italian and Spanish. That is, *si/se* unaccusatives are derived from the causative transitives by reducing or deleting causative portion of meaning. For instance, Grimshaw’s (1984) ‘inchoativization rule’ clearly shows how the causative meaning is reduced from the causative variants to produce the inchoative variants: “Pred<sub>CAUSE</sub>: CAUSE (x BECOME(Pred (y))) → Pred<sub>INCH</sub>: BECOME(Pred (y))” (Grimshaw 1984:104). Chierchia (1989[2004]), in turn, considering the fact that those languages use the same morphology for both unaccusatives and reflexives, proposes that *si/se* unaccusatives are a special type of reflexives formed by a lexical reduction operation, and the clitic *se* is regarded as a trace of a reduction operation that took place. However, it is controversial whether the anticausativization really reduces or deletes the causative meaning to produce the unaccusatives from the transitives. For instance, Levin and Rappaport Hovav (1995) argue that only verbs that denote ‘externally caused’ eventuality participate in the transitive-unaccusative alternation, and such ‘externally caused’ verbs imply the existence of an external cause (e.g. agent, instrument, natural force, or circumstance), even when used as intransitives (i.e. unaccusatives) without the expression of an external cause (Levin and Rappaport Hovav 1995:92-93).

Reinhart (2002) proposes a clear reduction operation. According to her, only transitive verbs that involve an external cause role ([+c]) are subject to the reduction operation that produces unaccusatives. Other verbs with an agent role ([+c+m], where ‘m’ stands for ‘mental state’), then, are subject to the other operation that produces reflexives. Unaccusatives are outputs of a reduction of an external cause argument ([+c]), as described in (288), while reflexives are results of a reduction of an internal theme argument ([-c-m]), as shown in (289) (Reinhart 2002, Reinhart and Siloni 2004, 2005, Horvath and Siloni 2011b, 2013).

(287) Reinhart (2002) and Reinhart and Siloni’s (2004) Reduction operation:

- (i) External reduction (Expletivization):  $V(\theta_{I[+c]}, \theta_2) \rightarrow R_E(V)(\theta_2) = \lambda x(V(x)(\theta_2))$
- (ii) Internal reduction (Reflexivization):  $V(\theta_1, \theta_2) \rightarrow R_R(V)(\theta_1) = \lambda x(V(x,x)(\theta_1))$

(288) *open* ([+c],[ -c-m])  $\rightarrow R_E(open)([-c-m])$

- a. The key/The wind/Max opened the door.
- b. The door opened. [Unaccusative]

(289) *shave*([+c+m], [-c-m])  $\rightarrow R_R(shave)([+c+m])$

- a. Lucie shaved Max.
- b. Max shaved. [Reflexive]

However, consider the following examples in Spanish. The verb *matar* ‘kill’ has [+c] role because it allows causers other than the agent to be the subject ((290)). However, *matarse* can yield both true reflexive and unaccusative readings depending on the context ((291a)) or on other elements in the sentence ((291b)).

(290) a. {Juan/el veneno/el huracán/la explosión} mató a Ana.

Juan/ the poison/ the hurrican/ the explosion kill ‘to’ Ana

‘Juan/The poison/The hurrican/The explosion killed Ana.’

b. *matar*([+c],[ -c-m])  $\rightarrow R_E(matarse)([-c-m])$  [Unaccusative]

(291) a. ¡Dios mío, nos vamos a matar! (García 1975:9)

God mine REFL ‘be going’ to kill

i) ‘We are going to kill ourselves!’ [True reflexive]

ii) ‘We are going to die!’ (e.g. when a plane is about to crush) [Unaccusative]

b. Se mató tirándose desde el balcón. [True reflexive]

REFL killed throwing.REFL from the balcony

‘S/he committed suicid by jumping from the balcony.’

b’. Se mató con el coche. [Unaccusative]

REFL killed with the car

‘S/he got killed by a car.’

Recall, again, that true reflexives and unaccusatives in Spanish use the same morphology. It is not efficient to propose two different operations for them.

- (292) a. *lavar* ‘wash’([+c+m],[−c-m]) --->  $R_R(\textit{lavarse})([+c+m])$   
 b. *abrir* ‘open’([+c],[−c-m]) --->  $R_E(\textit{abrirse})([−c-m])$

Koontz-Garboden (2009), on the other hand, claims that anticausativization is an operation that does not involve any deletion of the CAUSE portion of meaning (see also Koontz-Garboden 2012, Beavers and Koontz-Garboden 2013a, 2013b, Beavers and Zubair 2013). The operation “takes a relation as an argument, setting both arguments of the relation to be the same” (Koontz-Garboden 2009, Chierchia 1989[2004]), and this single operation can produce both true reflexives and unaccusatives in Spanish.

(293) The reflexivization operator (Koontz-Garboden 2009:6):

$$[[se]] = \lambda \mathfrak{R} \lambda x [\mathfrak{R}(x,x)]$$

For instance, transitive verbs such as *asesinar* ‘assassinate’ can form a true reflexive, but not an unaccusative, unlike change-of-state verbs such as *romper* ‘break.’

- (294) a. Kim asesinó al senador.  
 Kim assassinated ‘to’ the senator  
 ‘Kim assassinated the senator.’  
 b. El senador se asesinó (a sí mismo)/(\*por sí solo). [true reflexive /\*unaccusative]  
 the senator REFL assassinated ‘to’ him self/ by him alone  
 ‘The senator killed himself/\*by himself.’

- (295) a. Juan rompió el vaso.  
 Juan broke the glass  
 ‘Juan broke the glass.’  
 b. El vaso se rompió (\*a sí mismo)/(por sí solo). [\*true reflexive /unaccusative]  
 the glass REFL broke ‘to’ it self/ by it alone  
 ‘The glass broke \*itself/by itself’

The difference between true reflexives and unaccusatives lies in which thematic relations the predicate holds. The verb *asesinar* has two arguments that are AGENT and PATIENT, while the verb *romper*, EFFECTOR and THEME. ‘EFFECTOR’ is a label for nonagentive causers such as instrument, natural force, and causing event (Van Valin and Wilkins 1996).

- (296) a. {La terrorista/\*El hacha/\*El huracán/\*La explosión} asesinó al senador.  
 the terrorist/ the axe/ the hurrican/ the explosion assassinated ‘to’ the senator  
 ‘The terrorist/\*The axe/\*The hurricane/\*The explosion assassinated the senator.’

- b. {Juan/El hacha/El huracán/La explosion} rompió el coche.  
 Juan/ the axe/ the hurrican/ the explosion brole the car  
 ‘Juan/The axe/The hurricane/The explosion broke the car.’

- (297) a.  $\llbracket asesinar \rrbracket = \lambda x \lambda y \lambda s \lambda e [\exists v [\text{CAUSE}(v,e) \wedge \text{AGENT}(v,y) \wedge \text{BECOME}(e,s) \wedge \text{PATIENT}(s,x) \wedge \text{not-whole}(s)]]$   
 b.  $\llbracket romper \rrbracket = \lambda x \lambda y \lambda s \lambda e [\exists v [\text{CAUSE}(v,e) \wedge \text{EFFECTOR}(v,y) \wedge \text{BECOME}(e,s) \wedge \text{THEME}(s,x) \wedge \text{not-whole}(s)]]$  (Koontz-Garboden 2009:11)

After applying Koontz-Garboden’s (2009) anticausativization operation, the only argument of *asesinarse* bears a role that is a combination of AGENT and PATIENT roles, while that of *romperse* is interpreted as EFFECTOR and THEME simultaneously. This is actually a common intuition in the literature: “*en las oraciones reflexivas, el sujeto se interpreta a la vez como agente (o experimentante) y tema. Una similar interpretación se puede aplicar a las oraciones inacusativas con el sujeto como causa y tema* (in the reflexives, the subject is interpreted at the same time as agent (or experiencer) and theme. A similar interpretation applies to the unaccusatives with the subject as cause and theme)” (Mendikoetxea 1999a:1590, translation mine). Therefore, the true reflexive reading can be identified with the AGENT=PATIENT interpretation of the only argument, while the unaccusative reading, with the EFFECTOR=THEME interpretation.

- (298) a.  $\llbracket asesinarse \rrbracket = \lambda x \lambda s \lambda e [\exists v [\text{CAUSE}(v,e) \wedge \text{AGENT}(v,x) \wedge \text{BECOME}(e,s) \wedge \text{PATIENT}(s,x) \wedge \text{not-whole}(s)]]$   
 b.  $\llbracket romperse \rrbracket = \lambda x \lambda s \lambda e [\exists v [\text{CAUSE}(v,e) \wedge \text{EFFECTOR}(v,x) \wedge \text{BECOME}(e,s) \wedge \text{THEME}(s,x) \wedge \text{not-whole}(s)]]$  (Koontz-Garboden 2009:8,12)

Summarizing this section, the transitive-unaccusative alternation is analyzed as anticausativization, which can be an operation that does not literally reduce or delete the causative meaning from the denotation of the transitive variants. In the following section, we will conduct an anticausative analysis on Spanish reflexive psych verbs such as *asustarse* ‘get surprised,’ examining whether the CAUSE portion is really present in the lexical representation of the outputs of the operation.

### 4.2.3. Reflexive Psych Verbs as Anticausatives

The reflexive psych verbs that we deal with here are those that are derived from the verbs classified as ExpACC verbs in this study, e.g. *asustar(se)*. The derivation from ExpACC verbs to ExpNOM reflexives looks just like the transitive-unaccusative alternation of change-

of-state verbs, e.g. *romper(se)*. For instance, the transitive variants of psych verbs allow nonagentive causers to be the subjects, just like change-of-state verbs.

- (299) a. {Juan/La noticia/La traición de su amiga} enfadó a María.  
 Juan/ the news/ the treachery of his girlfriend angered 'to' María  
 'Juan/The news/The treacheries of her friend angered María.'
- b. {José/El trueno/El accidente} asustó a Ana.  
 José/ the thunder/ the accident frightened 'to' Ana  
 'José/The thunder/The accident frightened Ana.'
- c. {Juan/El fútbol/La lectura} aburrió a María.  
 Juan/ the soccer/ the reading bored 'to' María  
 'Juan/Soccer/Reading bored María.'
- d. {José/La noticia/La ausencia de su marido} preocupó a Ana.  
 José/ the news/ the absence of her husband worried 'to' Ana  
 'José/The news/The absence of her husband worried Ana.'

Therefore, ExpACC verbs hold an EFFECTOR role besides the EXPERIENCER role in the lexical representation. After the proposed anticausativization, then, we expect to get a reflexive variant whose only argument holds a combination of EFFECTOR and EXPERIENCER roles.

- (300) a.  $[[asustar]] = \lambda x \lambda y \lambda s \lambda e [\exists v [CAUSE(v,e) \wedge EFFECTOR(v,y) \wedge BECOME(e,s) \wedge EXPERIENCER(s,x) \wedge frightened(s)]]$
- b.  $[[asustarse]] = \lambda x \lambda s \lambda e [\exists v [CAUSE(v,e) \wedge EFFECTOR(v,x) \wedge BECOME(e,s) \wedge EXPERIENCER(s,x) \wedge frightened(s)]]$

As the lexical representation of *asustarse* 'get frightened' displays, the proposed anticausativization does not delete the CAUSE meaning from the lexical representation of *asustar* 'frighten.' Following diagnostics seem to reflect the presence of CAUSE in the denotation of the anticausative outputs.

i) Compatibility with *por sí solo* 'by itself'

The compatibility with the adverbial *por sí solo* 'by itself' (in the sense of 'without outside help') presupposes the presence of a CAUSE in the denotation of the verb (Chierchia 1989[2004]). For instance, the unaccusative variants of change-of-state-verbs are compatible with this adverbial because, as claimed by Levin and Rappaport Hovav (1995), these verbs describe 'externally caused' events, i.e. they imply an external causation. The intransitive verbs that describe 'internally caused' events, on the other hand, cannot appear with this adverbial because these events require no external causation, but "some property inherent to the argument of the verb is responsible for bringing about the eventuality" (Levin and Rappaport Hovav 1995:91).

Therefore, *se* unaccusatives such as *romperse* ‘break’ are compatible with *por sí solo* because they are ‘externally caused’ verbs, which are characterized by the presence of CAUSE in the lexical representation ((301a, 302a)). The other intransitives such as *empeorar* ‘worsen,’ *hervir* ‘boil’ and *crecer* ‘grow,’ are mostly incompatible with this adverbial because they describe ‘internally caused’ events, which lack a CAUSE portion in the denotation ((301b, 302b)) (Mendikoetxea 1999a:1598). More clearly, stative predicates are incompatible with *por sí solo* because they typically lack a CAUSE in the lexical representation ((301c, 302c)).

(301) a. La puerta se abrió por sí sola.

the door REFL opened by it alone

‘The door opened by it self.’

b. ??La paciente empeoró por sí sola.

the patient worsened by her alone

‘The patient worsened by himself.’

e. \*El carro es rojo por sí solo.

the cart is red by it alone

‘The cart is red by itself.’

(302) a.  $[[abrirse]] = \lambda x \lambda s \lambda e [\exists v [CAUSE(v,e) \wedge EFFECTOR(v,x) \wedge BECOME(e,s) \wedge THEME(s,x) \wedge open(s)]]$

b.  $[[empeorar]] = \lambda x \lambda s \lambda e [BECOME(e,s) \wedge THEME(s,x) \wedge worse(s)]$

c.  $[[red]] = \lambda x [red(x)]$

There are cases where the verbs like *crecer* ‘grow,’ *hervir* ‘boil,’ and *empeorar* ‘worsen,’ can appear with *por sí solo* ((303)). However, for a native speaker, these verbs are compatible with *por sí solo* only when it is presupposed that the subject cannot *crecer* ‘grow,’ *empeorar* ‘worsen,’ or *hervir* ‘boil’ without outside help. In other words, even ‘internally caused’ verbs “occasionally they can be [brought about by an external cause], and in such instances causative uses of these verbs are found” (Levin and Rappaport Hovav 1995:97). Actually, *empeorar* and *hervir* present causative uses ((304)). The verb *crecer* also accepts this adverbial: e.g. *El árbol creció por sí solo* ‘The tree grew by itself,’ although it has no causative use. I posit that the growing event can be brought about by an external cause, but the verb accidentally lacks a causative use.

(303) a. La situación del paciente empeoró por sí sola, (el médico no tiene la culpa).

the situation of the patient worsened by it alone the doctor no have the fault

‘The patient’s situation worsened by itself (it isn’t the doctor’s fault).’

b. Hacía un calor increíble ayer; el agua que dejé en el alféizar de la ventana hirvió por sí sola.

was a heat incredible yesterday; the water that left in the sill of the window boiled by it alone

‘It was incredibly hot yesterday; the water I left on the windowstill actually boiled by itself.’

(Horvath and Siloni 2013:5)

(304) a. {El médico/El tratamiento} empeoró la situación del paciente.

The doctor/ the treatment worsened the situation of the patient

‘The doctor/The treatment worsened the patient’s situation.’

b. {El cocinero/El calor} hirvió el agua.

the cook/ the heat boiled the water

‘The cook/The heat boiled the water.’

Regarding reflexive psych verbs, they are apparently compatible with *por sí solo*; the degree of acceptability may depend on the predicates. For example, natives would judge that *aburrir(se)* with *por sí solo* sounds more forced or redundant. Note that reflexive psych verbs with *por sí solo* bear an interpretation such as: “the subject got angry (frightened, surprised, etc.) arbitrarily and without a proper reason, from the speaker’s point of view.”

(305) a. María se enfadó por sí sola/ se asustó por sí sola/ se sorprendió por sí sola.

María REFL angered by her alone/ REFL frighned by her alone/ REFL surprised by her alone

‘María got angry by herself/ got frightened by herself/ got surprised by herself.’

b. ??Juan se aburrió por sí solo/ ?se preocupó por sí solo/ se molestó por sí solo.

Juan REFL bored by him alone/ REFL worried by him alone/ REFL bothered by hin alone

‘Juan got bored by himself/ got worried by himself/ got bothered by himself.’

## ii) Ambiguity in negation

Negation with *se* unaccusatives is ambiguous between two readings ((306)), but such ambiguity does not occur with other intransitives such as *empeorar*, or with stative predicates ((307, 308)). This also seems to reflect the presence/absence of CAUSE in the lexical representation. If the CAUSE portion is present, the negation can scope either over the CAUSE part or over the rest.

(306) a. El vaso no se rompió sino que se quemó. [no se rompió]

the glass NEG REFL broke but that REFL burned

‘The glass did not break, but it burned.’

b. El vaso no se rompió sino que lo rompiste tú. [se rompió]

the glass NEG REFL broke but that ACC broke you

‘The glass did not break, but you broke it.’

(307) a. La paciente no empeoró sino que mejoró. [no empeoró]

the patient NEG worsened but that got better

‘The patient did not worsen, but she got better.’

b. ??La paciente no empeoró sino que la empeoró el tratamiento. [\*empeoró]

the patient NEG worsened but that ACC worsened the treatment

‘The patient did not worsen, but the treatment worsened her.’

- (308) a. Juanito no tiene miedo a los insectos sino que los odia. [no tiene miedo]  
 Juanito NEG have fear to the insects but that ACC hate  
 ‘Juanito does not fear insects, but hates them.’
- b. ??Juanito no tiene miedo a los insectos sino que tú se lo haces tener. [\*tiene miedo]  
 Juanito NEG have fear to the insects but that you DAT ACC make have  
 ‘Juanito does not fear insects, but you make him.’

Note that this is not a case of metalinguistic negation. A metalinguistic negation does not license *Negative Polarity Items (NPI)*, e.g. *any* in English ((309a)) and *ningún* in Spanish ((309b)) (Koontz-Garboden 2009:33-34, following Horn 1985:135). Negation with *se* unaccusatives does license NPI ((309c)).

- (309) a. John didn’t manage to solve {some/\*any} of the problems-- he managed to solve all of them.
- b. No consiguió resolver {algún/\*ningún} problema-- consiguió solucionarlos todos.  
 NEG obtained solve some/ any problem obtaine solve.them all  
 ‘S/he did not manage to solve some problems/\*any of the problems-- s/he managed to solve them all.’
- c. No se rompió ningún vaso; los rompió Andrés.  
 NEG REFL broke any glass; ACC broke Andrés  
 ‘Any glass didn’t break (by itself); Andrew broke them all.’

With ExpNOM reflexive verbs, negation can be ambiguous in the interpretation, and thus accept sentences like (310). This is not a case of metalinguistic negation because they do license NPI, *ningún*, as in (311). These indicate that reflexive psych verbs may also involve a CAUSE in the denotation, although some of the examples sound forced without certain contexts.

- (310) a. Ana no se enfadó (sola), sino que la enfadaste tú.  
 Ana NEG REFL angered alone but that ACC angered you  
 ‘Ana did not get angry by herself, but you angered her.’
- b. Ana no se sorprendió (sola), sino que la sorprendiste tú.  
 Ana NEG REFL surprised alone but that ACC surprised you  
 ‘Ana did not get surprised by herself, but you surprised her.’
- c. María no se aburrió (sola), sino que la aburriste tú.  
 María NEG REFL bored alone but that ACC bored you  
 ‘María did not get bored by herself, but you bored her.’
- d. María no se preocupó (sola), sino que la preocupaste tú.  
 María NEG REFL worried alone but that ACC worried you  
 ‘María did not get worried by herself, but you worried her.’

- (311) a. No se enfadó ningún bebé, sino que tú enfadaste a todos.  
 NEG REFL angered any baby but that you angered 'to' all  
 'Any baby did not get angry (by itself), but you angered them all.'
- b. No se sorprendió ningún niño, sino que tú sorprendiste a todos.  
 NEG REFL surprised any boy but that you surprised 'to' all  
 'Any child did not get surprised (by itself), but you surprised them all.'
- c. No se aburrió ninguna mujer, sino que tú aburraste a todas.  
 NEG REFL bored any woman but that you bored 'to' all  
 'Any woman did not get bored (by herself), but you bored them all.'
- d. No se preocupó ninguna chica, sino que tú preocupaste a todas.  
 NEG REFL worried any girl but that you worried 'to' all  
 'Any girl did not get worried (by herself), but you worried them all.'

iii) Prepositional cause phrases

The unaccusative variants of change-of-state verbs cross-linguistically do not license 'by-agent' phrases, but do license other prepositional phrases that refer to a causer ((312)). This indicates that the license of a causer phrase reflects the presence of an implicit causer in the denotation (Alexiadou et al. 2006, Schäfer 2008). Spanish *se* unaccusatives allow a prepositional phrase if it refers to a causer and not an agent ((313)). Therefore, *se* unaccusatives involve an implicit causer in the denotation (Schäfer 2008:125).

- (312) a. \*The window broke/shattered {by John/by a storm/by Will's banging.}  
 a. The window cracked/broke {from the pressure/from the explosion.}

- (313) La ventana se rompió {#por Juan/por el viento/por el golpe/por la explosion}.  
 the window REFL broke by Juan/ by the wind/ by the hit/ by the explosion  
 'The window broke by Juan/from the wind/from the hit/from the explosion.'

Verbs like *empeorar* 'worsen,' *hervir* 'boil,' and *crecer* 'grow,' accept causer *por* phrases, but not agent *por* phrases. As noted above, these predicates can occasionally be associated with an external cause, and such implicit causer can be expressed as a causer subject in a causative use or a causer *por* phrase.

- (314) a. La paciente empeoró por el tratamiento/#por el medico.  
 the patient worsened by the treatment/ by the doctor  
 'The patient worsened from the treatment/\*by the doctor.'
- b. El agua hirvió por el calor que hacía/#por el cocinero.  
 the water boiled by the heat that was/ by the cook  
 'The water boiled because it was hot/ \*by the cook.'
- c. El niño creció por la nutrición/#por María.  
 the boy grew by the nutrition/ by María  
 'The child grew with nutrition/\*by María.'

As for ExpNOM reflexive verbs, they are compatible with causer *por* phrases. Notice, however, that most of them allow other prepositions, e.g. *de* ‘of/from,’ *en* ‘in,’ *con* ‘with.’ A possible explanation is that these prepositional phrases reflect different implicit meanings of these predicates, just like the compatibility with causer phrases reflects the presence of an implicit causer.

- (315) a. María se enfadó por la infidelidad de Juan.  
 María REFL angered by the infidelity of Juan  
 ‘María got angry from the infidelity of Juan.’
- b. Ana se sorprendió por el regalo.  
 Ana REFL surprised by the present  
 ‘Ana got surprised at the present.’
- c. Juan se aburríó {del fútbol/por el partido sin goles}.  
 Juan REFL bored of the soccer/ by the game without goals  
 ‘Juan got bored of soccer/at the game without goals.’
- d. José se preocupó {por/de} su futuro.  
 José REFL worried by/of his future  
 ‘José got worried by/of his future.’

In summary, Spanish *se* unaccusatives such as *romperse* ‘break(intr.)’ are formed by anticausativization, which can be an operation that does not involve any reduction or deletion of causative meaning. Some grammatical diagnostics indicate the presence of CAUSE in the lexical representation of *se* unaccusatives. This study analyzes Spanish reflexive psych verbs such as *asustar(se)* ‘get frightened’ as results of the same anticausativization. The tests indicate that these predicates retain the CAUSE part in the denotation, although the results are not so clear for some verbs unless specific contexts are provided. For instance, *por sí solo* is possible with *enfadar(se)*-type verbs, while it does not sound natural with *aburrir(se)*-type verbs. This relates to the aspectual difference between them. As mentioned in Chapter 3, *enfadar(se)* class is “truly punctual inchoative,” while *aburrir(se)* class is “stative inchoative” (Marín and McNally 2011). If *aburrirse* verbs involve a CAUSE but are not compatible with *por sí solo*, the compatibility with *por sí solo* does not only reflect the presence of a CAUSE but also the eventivity.

Taking the aspectual differences between *enfadar(se)*-class and *aburrir(se)*-class verbs into account, the denotations of these verbs can be represented as below:

- (316) a.  $[[enfadar]] = \lambda y \lambda x \lambda e \exists e', e'' [CAUSE(e''', e) \wedge EFFECTOR(e''', x) \wedge Beg(e, e', \lambda e'' [angry(e'') \text{ Happening}(e'') \wedge EXPERIENCER(e'', y)])]$
- b.  $[[enfadarse]] = \lambda x \lambda e \exists e', e'' [CAUSE(e''', e) \wedge EFFECTOR(e''', x) \wedge Beg(e, e', \lambda e'' [angry(e'') \text{ Happening}(e'') \wedge EXPERIENCER(e'', x)])]$

- (317) a.  $\llbracket aburrir \rrbracket = \lambda y \lambda x \lambda e \exists e', e'', e''' [\text{CAUSE}(e''', e) \wedge \text{EFFECTOR}(e''', x) \wedge \text{Beg}(e', e'')$   
 $\lambda e''' [\text{bored}(e''') \wedge \text{Happening}(e''') \wedge \text{EXPERIENCER}(e''', y)] \wedge e = (e'' \oplus e')]$
- b.  $\llbracket aburrirse \rrbracket = \lambda x \lambda e \exists e', e'', e''' [\text{CAUSE}(e''', e) \wedge \text{EFFECTOR}(e''', x) \wedge \text{Beg}(e', e'')$   
 $\lambda e''' [\text{bored}(e''') \wedge \text{Happening}(e''') \wedge \text{EXPERIENCER}(e''', x)] \wedge e = (e'' \oplus e')$

Before closing this section, we give an alternative account to other reflexive psych verbs such as *compadecer(se)* ‘feel pity’ and *lamentar(se)* ‘feel sorry,’ which present difficulties when applying the anticausative analysis just performed. These verbs are not derived from ExpACC verbs, but from ExpNOM verbs. That is, they appear in the ExpNOM construction with or without *se*.

- (318) a. [...] y **compadezco** a los niños de hoy, alimentados con productos artificiales, [...] (Carlos Fisas, *Historias de la Historia*, 1983:39)  
 ‘I pity the children of today, who are fed on artificial products.’
- b. A veces los verdugos **se compadecen** de sus víctimas, [...] (Jorge Martínez Reverte, *Demasiado para Gálvez*, 1979:52)  
 ‘Sometimes, persecutors feel pity for their victims.’

- (319) a. Yo **lamento** mucho la alegría precipitada de algunos, [...] (*ABC*, 24/12/1983)  
 ‘I deeply regret the premature euphoria exhibited by some.’
- b. Pero por lo menos yo soy consecuente con mis ideas y no **me lamento** de mi suerte. (Lola Beccaria, *La luna en Jorge*, 2001:217)  
 ‘But at least I am consistent with my ideas and I don’t complain about my fortune.’

Masullo (1992) analyzes reflexive verbs such as *confesar(se)* and *compadecer(se)* (and even *preocupar(se)*) as ‘antipassives.’ Antipassives are detransitivized constructions whose otherwise object is realized as an oblique complement or suppressed. If the passive formation is about the demoting of an Agent-like argument, the antipassive formation is about the demoting of a Patient-like argument. For instance, in Chukchi language, an ergative-absolutive language, the antipassive displays a demotion from absolutive-case-marked object to an instrument-case-marked complement ((320)). Applying this antipassive view to Spanish reflexive verbs, the direct object seems indeed to undergo a demotion to an oblique complement ((321)).

- (320) a. *ʔaaček-a kimitʔ-ən ne-nlʔetət-ən*  
 youth-ERG load-ABS 3PL.SUBJ-carry-AOR.3SG.OBJ  
 ‘The young men carried away the/a load.’ (transitive)
- b. *ʔaaček-ət ine-nlʔetət-gʔe-t kimitʔ-e*  
 youth-ABS ANTIP-carry-AOR.3SG.SUBJ-PL load-INTR  
 ‘The young men carried away the/a load.’ (antipassive) (Kozinsky et al. 1988:652)

(321) a. (Yo) compadezco a los pobres.

I pity 'to' the poor  
'I pity the poor.'

b. (Yo) me compadezco de los pobres.

I REFL 'feel pity' of the poor  
'I feel pity for the poor.'

According to Masullo (1992), the clitic *se* of these reflexive verbs substitutes the demoted Theme argument. The direct object is demoted to an oblique complement, requiring a preposition, because this *se* absorbs the accusative case. The antipassive operation for *confesar(se)* is described as following:

(322) The derivation of *confesarse*:

- 1) D-Structure: Juan confiesa **se<sub>i</sub>** sus pecados<sub>i</sub>
- 2) Incorporation: Juan confiesase<sub>i</sub> t<sub>i</sub> sus pecados<sub>i</sub>
- 3) Cliticization: Juan **se<sub>i</sub>** confiesa t<sub>i</sub> t<sub>i</sub> sus pecados<sub>i</sub>
- 4) Case-marking: Juan **se<sub>i</sub>** confiesa t<sub>i</sub> t<sub>i</sub> **de** sus pecados<sub>i</sub>

Masullo (1992) extends this analysis to reflexive psych verbs such as *sorprender(se)*. However, this approach presupposes that the transitive variant *sorprender* is an unaccusative verb, i.e. its surface subject is an underlying object, which is now often denied.

(323) The derivation of *sorprenderse*:

- 1) D-Structure: e sorprender **se<sub>i</sub>** Juan las noticias<sub>i</sub>
- 2) Incorporation: e sorprenderse<sub>i</sub> t<sub>i</sub> Juan las noticias<sub>i</sub>
- 3) NP-movement: Juan<sub>j</sub> sorprenderse<sub>i</sub> t<sub>i</sub> t<sub>j</sub> las noticias<sub>i</sub>
- 4) Cliticization: Juan<sub>j</sub> **se<sub>i</sub>** sorprende t<sub>i</sub> t<sub>i</sub> t<sub>j</sub> las noticias<sub>i</sub>
- 5) Case-marking: Juan<sub>j</sub> **se<sub>i</sub>** sorprende t<sub>i</sub> t<sub>i</sub> t<sub>j</sub> **de** las noticias<sub>i</sub>

### 4.3. Typology and Semantics

#### 4.3.1. Causative-Anticausative Contrast

There is a notable typological contrast between psych verbs of Japanese and Spanish. Japanese is one of the languages that derive ExpObj verbs from ExpSubj verbs by a morphological strategy. As Japanese ExpObj verbs involve a causative morpheme *-(s)ase*, they can be seen as results of a type of causativization. Spanish, on the other hand, presents many psych verbs that appear with a reflexive morphology. Although they differ from “true” reflexive constructions both semantically and grammatically, most reflexive psych verbs can be results of a neutral sense of reflexivization, or anticausativization. In other words, these languages appear to derive certain types of psych verbs with procedures that reversely mirror each other.

(324) Causativization in Japanese psych verbs:

- |                                               |                   |
|-----------------------------------------------|-------------------|
| a. Maki-ga kaminari-ni odoroi-ta.             | ExpSubj verbs     |
| Maki-NOM thunder-NI ‘get surprised’-PAST      |                   |
| ‘Maki got surprised at the thunder.’          |                   |
| b. Kaminari-ga Maki-o odorok-ase-ta.          | ExpObj causatives |
| thunder-NOM Maki-ACC ‘get surprised’-CAUS-PST |                   |
| ‘The thunder surprised Maki.’                 |                   |

(325) Anticausativization in Spanish psych verbs:

- |                                       |                   |
|---------------------------------------|-------------------|
| a. El trueno asustó a María.          | ExpACC verbs      |
| the thunder frightened ‘to’ María     |                   |
| ‘The thunder frightened María.’       |                   |
| b. María se asustó (por el trueno).   | ExpNOM reflexives |
| María REFL frightened by the thunder  |                   |
| ‘María got surprised at the thunder.’ |                   |

This is not a phenomenon limited to psych verbs, but it is also a part of a more general trend that could characterize these two languages as a typologically opposing pair. According to Talmy (1985), languages may differ in the lexicalization patterns of certain domains of meanings. For instance, ‘posture’ notions are generally lexicalized in the ‘being-in-a-state’ type of verbs in English (e.g. *lie, sit, stand*), whereas they tend to be lexicalized in the ‘putting-into-a-state’ type in Spanish (e.g. *acostar* ‘lay someone down’) and in the ‘getting-into-a-state’ type in Japanese (e.g. *tatu* ‘stand up,’ *suwaru* ‘sit down’). In Talmy’s terms, ‘being-in-a-state,’ ‘getting-in-a-state’ and ‘putting-into-a-state’ are *stative, inchoative* and *agentive* types of lexicalization, respectively. Once lexicalized in a certain type, the other

types are derived from it by different grammatical strategies, as roughly schematized below (V= verb root, SAT= satellite,<sup>15</sup> pp= past participle, arrows = derivational directions):

(326) Lexicalization patterns for ‘posture’ verbs (Talmy 1985: 87):

	‘be in a posture’ (‘STATIVE’)	‘get into a posture’ (‘INCHOATIVE’)	‘put into a posture’ (‘AGENTIVE’)
English	V (e.g. <i>lie</i> )	V + SAT (e.g. <i>lie down</i> )	V + CAUS + SAT (e.g. <i>lay down</i> )
Spanish	‘be’ + V <sub>PP</sub> (e.g. <i>estar acostado</i> )	V + REFL (e.g. <i>acostarse</i> )	V (e.g. <i>acostar</i> )
Japanese	‘be’ + V <sub>PP</sub> (e.g. <i>tat-tei-ru</i> ‘stand’)	V (e.g. <i>tatu</i> ‘stand up’)	V + CAUS (e.g. <i>tat-ase-ru</i> )

Applying this to a certain type of psych verbs, Spanish and Japanese show a similar contrast in the lexicalization patterns. Mental states tend to be lexicalized in the ‘getting-into-a-state’ type of verbs in Japanese, while the corresponding notions are lexicalized in the ‘putting-into-a-state’ type in Spanish, so as in English this time.

(327) Lexicalization patterns for psych verbs (ExpObj ones):

	‘be in a mental state’	‘get into a mental state’	‘put into a mental state’
English	be + V <sub>PP</sub> (e.g. <i>be frightened</i> )	get/become + V <sub>PP</sub> (e.g. <i>get frightened</i> )	V (e.g. <i>frighten</i> )
Spanish	‘be’ + V <sub>PP</sub> (e.g. <i>estar asustado</i> )	V + REFL (e.g. <i>asustarse</i> )	V (e.g. <i>asustar</i> )
Japanese	‘be’ + V <sub>PP</sub> (e.g. <i>odoroi-tei-ru</i> )	V (e.g. <i>odoroku</i> )	V + CAUS (e.g. <i>odorok-ase-ru</i> )

Note that we are not saying that all verbs in a language are lexicalized in a single pattern. A language can have all *stative*, *inchoative* and *agentive* types of verbs. What we are talking about is a typological observation of derivational relationship between expressions of a particular domain of meaning in two or more languages.

As a related phenomenon to this, languages seem to differ in which type of expression they preferably use in order to describe a particular situation. This is widely known as Ikegami’s (1981) distinction between “do” languages and “become” languages. Namely, some languages preferably use a ‘someone does (causes someone to do) something’ type of expression to describe an actual situation, while others show a tendency to describe the same situation in a ‘something becomes so (by itself)’ type of construction. In other words,

<sup>15</sup> ‘Satellites’ refer to elements like *down* in *lie down* or *up* in *stand up*. “Satellites are certain immediate constituents of a verb root other than inflections, auxiliaries, or nominal arguments” (Talmy 1985:102).

languages seem to describe a situation from different perspectives, focusing on the doing/causing part of the event or only on its result portion.

In this respect, Spanish and Japanese are representative of “do” languages and “become” languages, respectively (Deguchi 1982, Fukushima 1990, cf. Noda 1997). For instance, Spanish tends to use an *agentive/causative* expression to express a change of psychological state or mental reaction, i.e. ExpObj constructions, while Japanese prefers describing the same situation in an *inchoative* expression, i.e. ExpSubj-*NI* verbs. However, again, note that Spanish also has ExpSubj reflexives as *inchoative* expressions while Japanese also has ExpObj causatives as *agentive/causative* expressions. What interests us here is whether the corresponding expressions in these languages can be grammatically and semantically treated equally, e.g. ExpObj verbs in Spanish (e.g. *asustar* ‘get frighten’) vs. ExpObj causatives in Japanese (e.g. *odorok-ase-* ‘surprise’), ExpSubj-*NI* verbs in Japanese (e.g. *odorok-* ‘get surprised’) vs. ExpSubj reflexives in Spanish (e.g. *asustarse* ‘get frightened’).

#### 4.3.2. Typological contrast and Semantic Consequences

Spanish and Japanese are a pair of languages that show a clear typological contrast in the lexicalization patterns of psych verbs. Spanish forms ExpNOM reflexive verbs from ExpACC verbs by anticausativization, while Japanese forms ExpObj causatives from ExpSubj-*NI* verbs by causativization. In Section 4.1, we demonstrated that Japanese ExpObj causatives are results of a ‘valence-increasing’ syntactic causativization. In Section 4.2, in turn, we analyzed Spanish ExpNOM reflexive verbs as outputs of an anticausativization that does not delete the causative meaning from the ExpACC variants.

What we attempt to do in this section is to determine whether there is any semantic difference between Spanish ExpACC verbs and Japanese ExpObj causatives, and between Japanese ExpSubj-*NI* verbs and Spanish ExpNOM reflexives, or whether the typological contrast, lexical verbs or derived verbs, affects the semantics.

- |                                                                                                                                     |                                   |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| (328) a. El trueno asustó a María.<br>the thunder rightened María<br>‘The thunder frightened María.’                                | Spanish ExpObj verbs              |
| b. Kaminari-ga Maki-o odorok-ase-ta.<br>thunder-NOM Maki-ACC ‘get surprised’-CAUS-PAST<br>‘The thunder surprised Maki.’             | Japanese ExpObj causatives        |
| (329) a. Maki-ga kaminari-ni odoroi-ta.<br>Maki-NOM thunder- <i>NI</i> ‘get surprised’-PAST<br>‘Maki got surprised at the thunder.’ | Japanese ExpSubj- <i>NI</i> verbs |

b. María se asustó (por el trueno).

Spanish ExpNOM reflexives

María REFL frightened by the thunder

‘María got surprised at the thunder.’

For instance, between Japanese ExpObj causatives and Spanish ExpObj lexical verbs there may be an aspectual difference, as concluded in Chapter 3. According to the aspectual analysis performed there, Japanese ExpSubj verbs are mostly atelic but their causative variants can be telic ((331)), while Spanish ExpACC verbs and their reflexive variants are both atelic ((330)).

(330) a. La noticia preocupó a María {#en/durante} dos horas.

the news worried ‘to’ María in/for two hours

‘The news worried María \*in/for two hours.’

b. María se preocupó {#en/durante} dos horas.

María REFL worried in/for two hours

‘María was worried \*in/for two hours.’

(331) a. Taro-ga sono sirase-ni san-pun{\*kan/\*-de} odoroi-ta.

Taro-NOM that news-*NI* three-minute -for/-in ‘get surprised’-PST

‘Taro got surprised at the news \*for/?in three minutes.’

b. Taro-ga/ Sono sirase-ga Maki-o san-pun {#kan/(?)-de} odorok-ase-ta.

Taro-NOM that news-NOM Maki-ACC three-minute -for/-in ‘get surprised’-CAUS-PST

‘Taro/ The news surprised Maki for/?in three minutes.’

The anticausative derivation from ExpACC verbs to ExpNOM reflexive verbs in Spanish is a lexical operation, while the causative derivation from ExpSubj-*NI* verbs to ExpObj causatives in Japanese is a syntactic formation. From these observations, we could assume that the aspectual difference reflects the typological contrast, and that syntactic causativization alters the aspectual nature of the base predicate, while lexical anticausativization does not.

Moreover, between Japanese ExpSubj-*NI* verbs and Spanish ExpNOM reflexives there is a causal difference. Spanish reflexive psych verbs can be viewed as anticausatives that retain CAUSE meaning in the lexical representation, whereas Japanese ExpSubj verbs appear not to entail such causal meaning because they are lexical verbs that lack a CAUSE. Actually, the negation with Japanese ExpSubj-*NI* verbs does not yield the reading ambiguity ((333)) that the negation with Spanish ExpNOM reflexive verbs does ((332)). So, the following sentences are acceptable in Spanish, whereas they are odd in Japanese.

(332) a. La puerta no se abrió, sino que la abriste tú.

the door NEG REFL opened but that ACC apened you

‘The door did not opened (by itself), but you opened it.’

- b. María no se enfadó, sino que la enfadaste tú.  
 María NEG REFL angered but that ACC angered you  
 ‘María did not get angry (by herself), but you angered her.’

- (333) a. ??Mado-wa ak-anaka-ta. Taro-ga ake-ta-noda.  
 window-TOP open(intr)-NEG-PST Taro-NOM open(tr.)-PST-NODA  
 ‘The window did not open. Taro opened it.’  
 b. ??Maki-wa okor-anaka-ta. Taro-ga okor-ase-ta-noda.  
 Maki-TOP ‘get angry’-NEG-PST Taro-NOM ‘get angry’-CAUS-PST-NODA  
 ‘Maki did not get angry. Taro angered her.’

This observation is enforced by the fact that the entailment relations are not identical between ExpObj causatives and ExpSubj verbs in Japanese and between ExpObj verbs and ExpSubj reflexive verbs in Spanish. For instance, (334a) entails (334b) ( $a \rightarrow b$ ). (334c) cannot be said because the entailment is not cancelable ( $a \not\rightarrow \neg b$ ). (334d) is not acceptable because the negation of (334b) must entail the negation of (334a) ( $\neg b \rightarrow \neg a$ )

- (334) a. Shelby is a dog.  
 b. Shelby is a mammal.  
 c. \*Shelby is a dog, but it is not a mammal.  
 d. \*Shelby is not a mammal, but it is a dog.

It is usually assumed that the transitive variants of the transitive-unaccusative alternation entail the unaccusative variants ((335)). It is actually the case for Japanese transitive-unaccusative pairs ((336)), whereas it is not entirely true for Spanish pairs, as you see in (337).

- (335) a. John broke the vase.  
 b. The vase broke.  
 c. \*John broke the vase, but the base did not broke.  
 d. \*The vase did not break, but John broke it.

- (336) a. Taro-ga kabin-o kow-asi-ta.  
 Taro-NOM vase-ACC break-TRANS-PST  
 ‘Taro broke the vase.’  
 b. Kabin-ga kow-are-ta.  
 vase-NOM break-INTR-PST  
 ‘The vase broke.’  
 c. \*Taro-wa kabin-o kow-asi-ta ga, kabin-wa kow-are-naka-ta.  
 Taro-TOP vase-ACC break-TRANS-PST but vase-TOP break-INTR-NEG-PST  
 ‘Taro broke the vase, but the vase did not break.’

- d. \*Kabin-wa kow-are-naka-ta ga, Taro-wa kabin-o kow-asi-ta.  
 vase-TOP break-INTR-NEG-PST but Taro-TOP vase-ACC break-TRANS-PST  
 ‘The vase did not break, but Taro broke it.’

(337) a. Juan rompió el vaso.

Juan broke the glass  
 ‘Juan broke the glass.’

b. El vaso se rompió.

the glass REFL broke  
 ‘The glass broke.’

c. \*Juan rompió el vaso, pero el vaso no se rompió.

Juan broke the glass but the glass NEG REFL broke  
 ‘Juan broke the glass, but it did not broke (by itself).’

d. El vaso no se rompió, sino que lo rompiste tú.

the glass NEG REFL broke but that ACC broke you  
 ‘The glass did not break (by itself), but you broke it.’

Following this, there is an entailment relation between ExpObj causatives and ExpSubj verbs in Japanese ((338)), whereas there is no such entailment between ExpACC verbs and ExpREF verbs in Spanish, as especially shown in (339d).

(338) a. Kaminari-ga Maki-o odorok-ase-ta.

thunder-NOM Maki-ACC ‘get surprised’-CAUS-PST  
 ‘The thunder surprised Maki.’

b. Maki-ga (kaminari-ni) odoroi-ta.

Maki-NOM thunder-NI ‘get surprised’-PST  
 ‘Maki got surprised by the thunder.’

c. \*Kaminari-wa Maki-o odorok-ase-ta ga, Maki-wa odorok-anaka-ta.

thunder-TOP Maki-ACC ‘get surprised’-CAUS-PST but Maki-TOP ‘get surprised’-NEG-PST  
 ‘The thunder surprised Maki, but Maki did not get surprised.’

d. \*Maki-wa odorok-anaka-ta. Kimi-ga odorok-ase-ta-noda.

Maki-TOP ‘get surprised’-NEG-PST you-NOM ‘get surprised’-CAUS-PST-NODA  
 ‘Maki did not get surprised. You surprised her.’

(339) a. El trueno asustó a María.

the thunder frightened ‘to’ María  
 ‘The thunder frightened María.’

b. María se asustó (por el trueno).

María REFL frightened by the thunder  
 ‘María got frightened (at the thunder).’

c. \*El trueno asustó a María, pero María no se asustó.

The thunder frightened ‘to’ María but María NEG REFL frightened  
 ‘The thunder frightened María, but María did not got surprised (by herself).’

d. *María no se asustó, sino que la asustaste tú.*

MAría NEG REFL frightened but that the frightened you

‘María did not get frightened (by herself), but you frightened her.’

To sum up, the derivational procedures appear to relate to semantic differences. Japanese ExpObj causatives and Spanish ExpObj verbs are not semantically the same because the former are derived verbs resulting from syntactic causativization while the latter are lexical verbs. Spanish ExpNOM reflexives and Japanese ExpSubj-*NI* verbs are not semantically identical because the former are derived verbs resulting from anticausativization whereas the latter are lexical verbs.

## Chapter 5. Conclusion

This dissertation has performed a cross-linguistic analysis of the semantics-syntax interface of psych verbs in Japanese and Spanish. Psych predicates are usually associated with two arguments, which are often labeled as Experiencer and Stimulus, and include verbs that lexicalize the Experiencer argument as subject and those that express it as object. The existence of ExpSubj verbs and ExpObj verbs has been considered problematic for the theories of argument structure based on the assumption that there is a uniform and universal mapping of thematic roles to syntactic configurations. That is, it has been questioned why and how psych verbs realize their arguments in different syntactic forms if they are all associated with the same pair of thematic roles. From a cross-linguistic perspective, the problem seems more complicated because it involves various morphosyntactic phenomena, such as case alternations and (anti-)causative derivations. This study tackled this problem by adopting the position that these predicates are not semantically homogeneous and the variations in the argument realization of verbs are reflections of certain semantic differences of the predicates. The problem posed by psych verbs is ascribed to the interactions between three semantic properties of the predicates: the thematic relation, the lexical aspect, and the (anti-)causativity.

First, we classified psych verbs of Spanish and Japanese on the basis of the mapping of thematic roles, i.e. Experiencer and Stimulus, to syntactic forms including case markings. The problem is that both languages display different kinds of case alternations that interact with different thematic interpretations of the arguments. Spanish presents ExpNOM verbs (e.g. *temer* ‘fear,’ *confiar en* ‘trust in’), ExpACC verbs (e.g. *enfadar* ‘anger,’ *aburrir* ‘bore’), ExpDAT verbs (e.g. *gustar* ‘please, like,’ *repugnar* ‘disgust, detest’), and various types of reflexive psych verbs (e.g. *enfadar(se)* ‘become angry,’ *aburrir(se)* ‘become bored’). Nevertheless, the classification blurs with different case alternations that most psych verbs participate in, i.e. ACC-DAT alternation and DAT-NOM alternation for the Experiencer arguments and DO-OBL alternations for the Stimulus arguments. Japanese, on the other hand, displays two classes of ExpSubj verbs that differ in the case marking of the Stimulus arguments, i.e. ExpSubj-*O* verbs (e.g. *nikum-* ‘hate’) and ExpSubj-*NI* verbs (e.g. *odorok-* ‘get surprised’), although there are some verbs that admit both case markings (e.g. *yorokob-* ‘get pleased’). The ExpObj verbs of this language are formed from ExpSubj-*NI* verbs via causativization (e.g. *odorok-ase-* ‘surprise’). In both languages, the different case markings interact with the different thematic interpretations of the arguments. In Spanish, for instance, the dative Experiencer can be less physically affected than the accusative Experiencer and less volitional than the nominative Experiencer. In Japanese, the *o*-marked Stimulus is usually interpreted as the ‘Object of Emotion,’ while the *ni*-marked one is mostly considered as the

‘Cause of Emotion.’ In order to describe the interaction between thematic roles and case markings efficiently, we applied the proto-role entailments as coarser-grained but systematically organized thematic notions. Most psych constructions could be explained successfully in terms of the paradigmatic argument realization based on the proto-role entailments. However, some constructions, such as Spanish ExpDAT ones, could not be fully explained in the same fashion possibly due to the stative nature of the predicates. This indicates that the linking between thematic roles and case markings in turn interacts with the aspectual interpretation of the predicates in question.

Second, motivated by the observation just mentioned, we carried out the aspectual analysis of psych verbs. As some psych verbs are difficult to classify into any of the renowned four aspectual classes, we took the notion of ‘boundary happening’ and its types as relevant components to the lexical aspect. In Spanish, psych verbs have often been considered stative. Actually, some tests indicate that ExpNOM verbs and ExpDAT verbs are stative, or more specifically, Individual-level predicates (*‘estados no acotados’*). Nevertheless, ExpACC verbs and their reflexive variants consist of aspectually different members. Reflexive psych verbs are atelic predicates, and some of these are durative and others, punctual. In other words, they can be divided into stative inchoatives (e.g. *aburrir(se)* ‘be bored’) and punctual inchoatives (e.g. *enfadar(se)* ‘get angry’). Precisely, the former are predicates describing a state that includes the beginning of the state (i.e. a state happening involving a left boundary), while the latter are themselves the beginning of the state (i.e. a left boundary happening). Interestingly, the same classification applies to their non-reflexive variants, i.e. ExpACC verbs (e.g. *aburrir* ‘bore,’ *enfadar* ‘anger’). If ExpDAT verbs are *‘estados no acotados,’* that do not involve any boundary in the denoted eventualities, and ExpACC verbs are those that involve certain type of boundary, the ACC-DAT alternation could be accounted for by the presence/absence of a boundary in the eventualities denoted by the ACC and DAT variants. In Japanese, on the other hand, psych verbs are not stative predicates, at least not ordinary ones. ExpSubj-*O* verbs are atelic durative predicates, while ExpSubj-*NI* verbs can be further divided into atelic duratives (e.g. *nayam-* ‘be bothered’), atelic punctuals (e.g. *odorok-* ‘get surprised’), and telic punctuals (e.g. *aki-* ‘get bored’). In other words, ExpSubj-*O* verbs are predicates describing a state happening involving a left boundary, while ExpSubj-*NI* verbs are either predicates describing a state happening involving a left boundary, predicates describing a left boundary happening, or predicates describing a left=right boundary. The difference between ExpSubj-*O* verbs and ExpSubj-*NI* verbs is that the latter involve a more explicit boundary than the former. Regarding ExpObj causatives, they seem to gain telicity and durativity through the derivation from ExpSubj-*NI* verbs. We also demonstrated that this aspectual analysis of psych verbs could account for the long-discussed peculiarity of Japanese *-te i-* aspect. That is, the multiple interpretations of *-te i-* come from the types of the boundary that the predicates involve in the denotation. To sum up, the aspectual analysis of psych verbs in Spanish and Japanese indicates that in both languages certain aspectual property such as the presence/absence or

explicitness/implicitness of boundary in the denoted eventualities is relevant to the variations of argument realization. It is also observed that the morphological operation found in Japanese psych verbs (e.g. *okor-* → *okor-ase-*) alters the aspectual classification of the predicates, while the morphological operation found in Spanish psych verbs (e.g. *aburrir* → *aburrirse*) apparently does not. This suggests that morphological derivations may or may not affect the aspectual property of the predicates depending on the type of operation the language employs.

Finally, then, we devoted the last chapter to the examinations of Japanese ExpObj causatives and of Spanish reflexive psych verbs. Japanese and Spanish are a pair of languages that show a clear typological contrast in the derivation of certain verbs. Japanese forms ExpObj verbs from ExpSubj-*NI* verbs by causativization, while Spanish derives ExpNOM reflexives from ExpACC verbs via an operation involving the reflexive clitic *se*. The causativization in Japanese psych verbs is a ‘valence-increasing’ type of syntactic operation. Spanish reflexive psych verbs, on the other hand, can be analyzed as outputs of lexical anticausativization. The anticausativization we applied to this study is a reflexive operation that crucially does not delete the CAUSE meaning from the denotation of the base verbs. This causative-anticausative contrast between Japanese and Spanish has semantic effects on the corresponding expressions of these languages, i.e. between Japanese ExpObj causatives (e.g. *odorok-ase-* ‘surprise’) and Spanish ExpACC verbs (e.g. *asustar* ‘frighten’) and between Japanese ExpSubj-*NI* verbs (e.g. *odorok-* ‘get surprised’) and Spanish ExpNOM reflexives (e.g. *asustarse* ‘get frightened’). For instance, as previously mentioned, there is an aspectual difference between Japanese ExpObj causatives and Spanish ExpACC verbs. Japanese psych verbs gain telicity and durativity through the causativization because the causativization in Japanese can be seen as an operation that adds another happening to the happening or boundary happening that the base predicate describes. In Spanish, in contrast, the operation to turn the verb into a reflexive does not change the aspectual class of the verb: psych verbs can be classified into the same aspectual class with or without *se*. Moreover, there is a logical entailment difference between Japanese ExpSubj-*NI* verbs and Spanish ExpNOM reflexives. Namely, Spanish *asustar* does not entail *asustarse*, while Japanese *odorok-ase-* entails *odorok-*. This semantic difference has to do with the derived/lexical status of the words. Japanese *odorok-* is a lexical verb, while Spanish *asustarse* is a derived verb that retains the CAUSE in the denotation. In summary, a typological contrast in morphological derivation between languages signals a different semantics of their corresponding words.

This dissertation conducted thematic, aspectual and (anti-)causative analyses on psych verbs of Japanese and Spanish, expanding previous studies on the interactions between thematic and aspectual features in two novel ways: on the one hand, incorporating the notion of boundary to the aspectual analysis of the verbs in question. This notion helps explaining some of the phenomena related to psych verbs in Spanish and Japanese that were otherwise unaccounted

for. On the other hand, the current study contributes to the field the insight that different morphological operations shape those interactions in systematic and predictable ways. In other words, this study suggests that the aspectual interpretation of the predicates (which in turn interacts with the thematic interpretations of their arguments) can or cannot be altered depending on a derivational procedure of the predicates, namely, whether an (anti-)causative operation changes the aspectual class of the verb by adding an extra boundary or not, and therefore changing the valence or not. In Japanese, the causative operation alters the aspectual class of the verb, whereas in Spanish, the anticausative does not, since it does not remove the CAUSE operation from the denotation of verbs.

A salient feature of this work lies in its cross-linguistic nature and in the fact that, to our knowledge, Japanese and Spanish have not been contrasted before with regards to these constructions. The conclusions extracted from this pair of unrelated languages make the proposals highly applicable to many other languages. These two languages show a clear typological contrast in the lexicalization pattern of certain verbs, which proves to be crucial in allowing or disallowing some constructions and in provoking certain interpretations of the psych verbs that we have described in this work. The interactions that we have analyzed between thematic and aspectual properties and the mechanisms of (anti-)causative operations can throw some light on similar phenomena in other languages. In particular, the fact that the notion of boundary is closely related to variations in argument realization, and the fact that in a language a morphological operation related to causation may increase a boundary, whereas in another, a similar operation does not alter the boundary structure of the predicate, presents an interesting theoretical contrast to be tested in other languages.

## Bibliography

- Ackerman, Farrel and Moore, John (2001): *Proto-Properties and Grammatical Encoding: A Correspondence Theory of Argument Selection*. Stanford, California: CSLI Publications.
- Alarcos Llorach, Emilio (1968): “Verbo transitivo, verbo intransitivo, y estructura del predicado.” In: *Estudios de gramática funcional del español*, 2<sup>nd</sup> ed. 1978. Madrid: Gredos. 109-123.
- Alexiadou, Artemis; Anagnostopoulou, Elena; and Schäfer, Florian (2006): “The properties of anticausatives crosslinguistically.” In: Frascarelli, M. (ed.) *Phases of interpretation*. Berlin: Mouton de Gruyter. 187–211.
- Alcina Franch, Juan and Blecua, José Manuel (1975): *Gramática española*. Barcelona: Ariel.
- Andrews, Avery (1985): “The Major Functions of the Noun Phrase.” In: Shopen, Timothy (ed.) *Language Typology and Syntactic Description, vol.1: Clause Structure*. Cambridge: Cambridge University Press. 62-154.
- Arad, Maya (1998): “Psych-notes.” *UCL Working Papers in Linguistics*, 10. 203-223.
- Aono, Masumi (2007): “Derivational Theta-marking and a Uniform Analysis of the Progressive/Perfective -te iru.” *Nanzan Linguistics Special Issue, 1 vol.1*. Nanzan University, Nagoya, 1-21.
- Bach, Emmon (1981): “On Time, Tense, and Aspect: An Essay in English Metaphysics.” In: Cole, Peter (ed.) *Radical Pragmatics*. New York: Academic Press. 62-81.
- Baker, Mark C. (1988): *Incorporation: A Theory of Grammatical Function Changing*. Chicago: The University of Chicago Press.
- Bando, Michiko (1996): “Semantic properties of -Ni NP and -O NP of Japanese psych-verbs.” *Oosaka daigaku gengobunkagaku*, 5, 165-177.
- Bando, Michiko and Matsumura, Hiromi (2011): “Shinridoushi to Shinrikeiyoushi” (Psych verbs and Psych adjectives). In: Kageyama, Taro (ed.) *Doushi no imi to koubun* (Semantics and Syntax of Verbs). Tokyo: Taishukan. 69-97.
- Beavers, John and Koontz-Garboden, Andrew (2013a): “In defence of the reflexivization analysis of anticausativization.” *Lingua*, 131. 191-216.
- Beavers, John and Koontz-Garboden, Andrew (2013b): “Complication in diagnosing lexical meaning: A rejoinder to Horvath and Sioni (2013).” *Lingua*, 134. 210-218.
- Beavers, John and Zubair, Cala (2013): “Anticausatives in Sinhala: involitivity and causer suppression.” *Natural Language and Linguistic Theory*, 31. 1-46.
- Belletti, Adriana and Rizzi, Luigi (1988): “Psych verbs and  $\theta$ -theory.” *Natural Language and Linguistic Theory*, 6, 291-352.

- Bouchard, Denis (1992): "Psych constructions and linking to conceptual structures." In: Hirschbühler, Paul and Koerner, Konrad (eds.) *Romance Language and Modern Linguistic Theory*. Amsterdam: John Benjamins. 25-44.
- Burzio, Luigi. (1986): *Italian Syntax: A Government-binding Approach*. Dordrecht: Reidel.
- Bybee, Joan L.; Perkins, Revere; and Pagliuca, William (1994): *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago, IL: University of Chicago Press.
- Cann, Ronnie (1993): *Formal Semantics: An Introduction*. Cambridge, UK: Cambridge University Press.
- Cano Aguilar, Rafael (1999): "Los complementos de régimen verbal." In: Bosque, Ignacio and Demonte, Violeta (eds.) *Gramática descriptiva de la lengua española*, Madrid: Espasa Calpe. 1807-1857.
- Carlson, Gregory Norman (1977): *Reference to Kinds in English*. New York: Garland.
- Carlson, Gregory Norman (1984): "On the Role of Thematic Roles in Linguistic Theory." *Linguistics*, 22. 259-279.
- Chierchia, Gennaro (2004) (written in 1989): "A semantics for unaccusatives and its syntactic consequences." In: Alexiadou, A.; Anagnostopoulou, E.; and Everaert, M. (eds.) *The Unaccusativity Puzzle*. Oxford: Oxford University Press. 22-59.
- Comrie, Bernard (1976): *Aspect*. Cambridge, UK: Cambridge University Press.
- Croft, William (1986): "Surface Subject Choice of Mental Verbs." Paper presented at the 1986 Annual Meeting of the Linguistic Society of America.
- Croft, William (1993): "Case marking and the semantics of mental verbs." In: Pustejovsky, James (ed.) *Semantics and the Lexicon*. Dordrecht: Kluwer. 55-72.
- Cuervo Rufino, José (1874): "Notas a la Gramática de la lengua castellana de Andrés Bello." In: Bello, Andrés (ed.) (1847) *Gramática de la lengua castellana destinada al uso de los americanos*. Alicante: Biblioteca Virtual Miguel de Cervantes. 2002.  
<[http://homepages.wmich.edu/~ppastran/etexts/ABello/Gramatica\\_Bello.pdf](http://homepages.wmich.edu/~ppastran/etexts/ABello/Gramatica_Bello.pdf)> (Last access: 14/May/2015)
- Deguchi, Atsumi (1982): "Supeingo: Saiki keishiki o megutte (Spanish: on reflexive forms)." In: Teramura, Hideo et al. (eds.) *Kouza Nihongo 10: Gaikokugo to no taishou I* (Lecture on Japanese 10: contrast with other languages I). Tokyo: Meiji-Shoin. 305-318.
- De Miguel, Elena (1999): "El aspecto léxico." In: Bosque, Ignacio and Demonte, Violeta (eds.) *Gramática descriptiva de la lengua española*. Madrid: Espasa Calpe. 2977-3060.
- Di Tullio, Ángela (1996): "Verbos Psicológicos en español." *Signo y Señal*, 5, 219-238
- Di Tullio, Ángela (2004): "Los verbos psicológicos y la estatividad: realizaciones del español." *Cuaderno de Lingüística del Instituto Universitario Ortega y Gasset*, 11, 23-43.
- Doron, Edit (2003): "Agency and voice: The semantics of Semitic templates." *Natural Language Semantics*, 11. 1-67.
- Dowty, David (1979): *Word meaning and Montague Grammar*. Dordrecht: Reidel.

- Dowty, David (1989): "On the Semantic Content of the Notion of 'Thematic Role.'" In: Chierchia, Gennaro; Partee, Barbara H.; and Turner, Raymond (eds.) *Properties, Types and Meaning*. Dordrecht: Kluwer. 69-130.
- Dowty, David (1991): "Thematic Proto-Roles and Argument Selection." *Language*, 67:3, 547-619.
- Endo, Yoshio and Zushi, Mihoko (1993): "Stage/Individual-level psychological predicates." Nakajima, Hizo and Otsu, Yukio (eds.) *Argument Structure: Its Syntax and Acquisition*. Tokyo: Kaitakusya. 17-34.
- Fábregas, Antonio; Marín, Rafael; and McNally, Louise (2012): "From Psych Verbs to Nouns." In: Demonte, Violeta and McNally, Louise (eds.) *Telicity, Change, and State: A cross-categorial view of event structure*. Oxford: Oxford University Press. 162-184.
- Fernández-Ordóñez, Inés (1993): "Leísmo, laísmo y loísmo: Estado de la cuestión." In: Fernández Soriano, Olga (ed.) *Los pronombres átonos*. Madrid: Taurus. 63-96.
- Fernández-Ordóñez, Inés (1999): "Leísmo, laísmo y loísmo." In: Bosque, Ignacio and Demonte, Violeta (eds.) *Gramática descriptiva de la lengua española*. Madrid: Espasa Calpe. 1316-1397.
- Fillmore, Charles (1968): "The Case for Case." In: Bach, Emmon and Harms, Robert H. (eds.) *Universal of Linguistic Theory*. New York: Holt, Rinehart and Winston. 1-88.
- Filip, Hana (2011): "Aspectual Class and Aktionsart." In: Maienborn, Claudia; Heusinger, Klaus von; and Portner, Portner (eds.) *Semantics: An International Handbook of Natural Language Meaning*. Berlin and New York: Mouton de Gruyter. 1186-1217.
- Filip, Hana (2012): "Lexical Aspect." In: Binnick, Robert I. (ed.) *The Oxford Handbook of Tense and Aspect*. Oxford: Oxford University Press. 721-751.
- Fukushima, Noritaka (1990): "Supeingo to Nihongo: Kansetsu-eikyō-hyōgen no taisyō (Spanish and Japanese: A contrast between indirect passive expressions)." In: Miyaji, Yutaka and Kondo, Tatsuo (eds.) *Kouza Nihongo to Nihongo Kyōiku* (Lecture on Japanese and Japanese Pedagogy). Tokyo: Meiji-Shoin. 197-218.
- García, Erica C. (1975): *The role of theory in linguistic analysis: the Spanish pronoun system*. Amsterdam: North-Holland Publishing Company.
- Grimshaw, Jane (1982): "On the lexical representation of Romance reflexive clitics." In: Bresnan, Joan (ed.) *The mental representation of grammatical relations*. Cambridge, MA: MIT Press. 87-148.
- Grimshaw, Jane B. (1990): *Argument structure*, Cambridge, Mass.: MIT Press.
- Gruber, Jeffrey S. (1965): *Studies in Lexical Relations*. Doctoral dissertation, MIT.
- Gutiérrez Ordóñez, Salvador (1999): "Los dativos." In: Bosque, Ignacio and Demonte, Violeta (eds.) *Gramática descriptiva de la lengua española*. Madrid: Espasa Calpe. 1855-1930.
- Haspelmath, Martin (1990): "The grammaticization of passive morphology." *Studies in Language*, 14. 25-72.

- Haspelmath, Martin (1993): "More on the typology of inchoative/causative verb alternations." In: Comrie, Bernard and Polinsky, Maria (eds.) *Causatives and transitivity*. Amsterdam: John Benjamins. 87-120.
- Horn, Laurence (1985): "Metalinguistic negation and pragmatic ambiguity." *Language* 61. 21-174.
- Horvath, Julia and Siloni, Tal (2011a): "Causatives across components." *Natural Language and Linguistic Theory*, 29. 657-704.
- Horvath, Julia and Siloni, Tal (2011b): "Anticausatives: against reflexivization." *Lingua*, 121. 2176-2186.
- Horvath, Julia and Siloni, Tal (2013): "Anticausatives have no Cause(r): a rejoinder to Beavers & Koontz-Garboden." *Lingua*, 131. 217-230.  
<<http://humanities.tau.ac.il/segel/siloni/files/2013/03/Rejoinder-to-BKG-Lingua-Horvath-and-Siloni-30-1-132.pdf>> (Last access: 14/May/2015)
- Ikegami, Yoshihiko (1981): *Suru to Naru no Gengogaku* (Linguistics of *Suru* 'do' and *Naru* 'become'). Tokyo: Taishukan.
- Isse, Yoko (2008): "On psych verbs in English and Japanese." *Fukuoka daigaku jinbun ronsou*, 39:4. 967-984.
- Jackendoff, Ray (1972): *Semantic Interpretation in Generative Grammar*. Cambridge, MA: MIT Press.
- Kageyama, Taro (1993): *Bumpo to gokeisei* (Grammar and Word formation), Tokyo: Hitsuji shobo.
- Katada, Fusa (1994): "Pseudo intransitives and weak transitives." In: Makamura, M. (ed.) *Current Topics in English and Japanese*, Tokyo: Hitsuji shobo. 53-77.
- Kearns, Kate (2003): "Durative achievements and individual-level predicates on events." *Linguistics and Philosophy*, 26. 595-635.
- Kearns, Kate (2011): *Semantics*. Palgrave Macmillan. 2<sup>nd</sup> ed.
- Kenny, Anthony (1963): *Action, Emotion and Will*. London: Routledge & Kegan Paul.
- Kindaichi, Haruhiko (1950): "Kokugo doushi no ichi bunrui" (A classification of Japanese verbs). *Gengo kenkyu*, 15. 48-63.
- Kindaichi, Haruhiko (ed.) (1976): *Nihongo doushi no asupekuto* (Aspect of Japanese verbs). Tokyo: Mugi-Shobou.
- Koontz-Garboden, Andrew (2009): "Anticausativization." *Natural Language and Linguistic Theory*, 27. 77-138. <<http://ling.auf.net/lingbuzz/000746>> (Last access: 14/May/2015)
- Koontz-Garboden, Andrew (2012): "The monotonicity hypothesis." In: McNally, Louise and Demonte, Violeta (eds.) *Telicity, Change, and State: A Cross-categorical view of Event Structure*. Oxford: Oxford University Press. 139-161.
- Kozinsky, Isaac; Nedjalkov, Vladimir; and Polinskaja, Maria (1988): "Antipassive in Chukchee." In: Shibatani, Masayoshi (ed.) *Passive and Voice*. Amsterdam: John Benjamins. 651-706.

- Kratzer, Angelika (1995): "Stage-level and individual-level predicates." In: Carlson, G. N. and Pelletier, F. J. (eds.) *The Generic Book*. Chicago: Chicago University Press. 125-175.
- Kudo, Mayumi (1995): *Aspect-Tense taikai to text* (Aspect-Tense system and text). Tokyo: Hitsuji-Shobo.
- Kuroda, Sigeyuki (1965): "Causative forms in Japanese." *Foundations of Language*, 1. 30-50.
- Levin, Beth and Rappaport Hovav, Malka (1995): *Unaccusativity*. Cambridge, Mass.: MIT Press.
- Levin, Beth and Rappaport Hovav, Malka (2005): *Argument Realization*. Cambridge, UK: Cambridge University Press.
- Marín, Rafael Gálvez (2000): *El complement aspectual de la predicación*. PhD dissertation. Universitat Autònoma de Barcelona.
- Marín, Rafael Gálvez (2011): "Casi todos los predicados psicológicos son estativos." *Sobre estodos y estatividad*. Munich: Lincom. 26-44.
- Marín, Rafael and McNally, Louise (2011): "Inchoativity, change of state, and telicity: Evidence from Spanish reflexive psychological verbs." *Natural Language and Linguistic Theory*, 29, 467-502. <[http://www.upf.edu/pdi/louise-mcnally/\\_pdf/publications/Marin\\_McNally\\_SRPVs\\_9\\_09.pdf](http://www.upf.edu/pdi/louise-mcnally/_pdf/publications/Marin_McNally_SRPVs_9_09.pdf)> (Last access: 12/May/2015)
- Masullo, Pascual (1992): "Antipassive constructions in Spanish." In: Hirschbühler, Paul and Koerner, Konrad (eds.) *Romance Language and Modern Linguistic Theory: Papers from the 20<sup>th</sup> Linguistics Symposium on Romance Languages (LSRL XX), Ottawa, 10-14 April 1990*. Amsterdam: John Benjamins. 175-194.
- Matsumura, Hiromi (1996): "On psych verbs in Japanese." *Toronto Working Papers in Linguistics*, 15, 123-140.
- Mendikoetxea, Amaya (1999a): "Construcciones inacusativas y pasivas." In: Bosque, Ignacio and Demonte, Violeta (eds.) *Gramática descriptiva de la lengua española*. Madrid: Espasa Calpe. 1575-1629.
- Mendikoetxea, Amaya (1999b): "Construcciones con *se*." In: Bosque, Ignacio and Demonte, Violeta (eds.) *Gramática descriptiva de la lengua española*. Madrid: Espasa Calpe. 1631-1722.
- Mendikoetxea, Amaya (2012): "Passives and *se* constructions." In: Hualde, José I.; Olarrea, Antxon; and O'Rourke, Erin. (eds.) *The Handbook of Hispanic Linguistics*. West Sussex, UK: Willy-Blackwell. 477-502.
- Miyagawa, Shigeru (1989a): *Structure and Case Marking in Japanese*, New York: Academic Press. Syntax and Semantics, 22.
- Miyagawa, Shigeru (1989b): "Light verbs and the ergative hypothesis." *Linguistic Inquiry*, 20. 659-668.
- Mohanan, Tara (1994): *Argument Structure in Hindi*. Stanford: CSLI Publications.
- Nishiyama, Atsuko (2006): "The meaning and interpretations of Japanese aspect marker *-te-i-*" *Journal of Semantics*, 23. 185-216.

- Noda, Hisashi (1997): “Nihongo to Supeingo no Boisu (Voice in Japanese and Spanish).” In: *Nihongo to Supeingo* (Japanese and Spanish), 2. National Institute for Japanese Language and Linguistics. 83-113.
- Ogihara, Toshiyuki (1998): “The ambiguity of the -te iru form in Japanese.” <[http://faculty.washington.edu/ogihara/papers/Ogihara\\_teiru.pdf](http://faculty.washington.edu/ogihara/papers/Ogihara_teiru.pdf)> (Last access: 14/May/2015)
- Perlmutter, David M. (1978): “Impersonal passives and unaccusative hypothesis.” *Proceedings of the annual meeting of the Berkeley Linguistics Society*, 4. 157-189.
- Perlmutter, David and Postal, Paul (1984): “The 1-advancement exclusive law.” In: Perlmutter, David and Rosen, Carol (eds.) *Studies in Relational Grammar*, 2. Chicago: Chicago University Press. 81-125.
- Pesetsky, David (1995): *Zero Syntax: Experiencers and Cascades*. Cambridge, Mass: MIT Press.
- Piñón, Christopher (1997): “Achievements in an event semantics.” In: Lawson, Aaron and Cho, Eun (eds.) *Proceedings of Semantics and Linguistic Theory VII*. Ithaca, NY: CLC Publications. 273-296. <<http://elanguage.net/journals/salt/article/viewFile/7.276/1669>> (Last access: 14/May/2015)
- Piñón, Christopher (2001): “A finer look at the causative-inchoative alternation.” In: Hastings, R.; Jackson, B.; and Zvolenszky, Z. (eds.) *Proceedings of Semantics and Linguistic Theory*, vol. 11. Ithaca, NY: CLC Publications. 346–364.
- Pylkkänen, Liina (2000): “On Stativity and Causation.” In: Tenny, Carol and Pustejovsky, James (eds.) *Events as Grammatical Objects*. CSLI Publications. 417-445.
- Pylkkanen, Liina (2008): *Introducing Arguments*. MIT Press, Cambridge, MA.
- Real Academia Española (2009): *Nueva gramática de la lengua española*, Madrid: Espasa Libros.
- Reichenbach, Hans (1947): *Elements of Symbolic Logic*. London: Macmillan.
- Reinhart, Tanya (2002): “The theta system: An overview.” *Theoretical Linguistics*, 28:229–290.
- Reinhart, Tanya and Siloni, Tal (2004) (written 1999): “Against the Unaccusative Analysis of Reflexives.” In: Alexiadou, A.; Anagnostopoulou, E.; and Everaert, M. (eds.) *The Unaccusativity Puzzle*. Oxford: Oxford University Press. 288-331.
- Reinhart, Tanya and Siloni, Tal (2005): “The lexicon-syntax parameter: reflexivization and other arity operations.” *Linguistic Inquiry*, 36. 389-436.
- Romero Morales, Juan (2008): *Los dativos en el español*. Madrid: Arco Libros. Cuaderno de lengua Española, 101.
- Saeed, John I. (2008): *Semantics*. 3<sup>rd</sup> ed. Wiley-Blackwell.
- Sanz, Montserrat (1995): “Telic clitics in Spanish.” Ms., University of Rochester.
- Sanz, Montserrat and Laka, Itziar (2002): “Oraciones transitivas con *se*: el modo de acción en la sintaxis.” In: Sánchez López, Cristina (ed.) *Las construcciones con se*. Madrid: Visor.

- Schäfer, Florian (2008): *The syntax of (anti-)causatives*. Amsterdam: John Benjamins Publishing Company.
- Shibatani, Masayoshi (2000): “Non-canonical constructions in Japanese.” *Kobe papers in linguistics*, 2, 181-218.
- Shibatani, Masayoshi (2001): “Non-canonical constructions in Japanese.” In: Aikhenvald, Alexandra Y.; Dixon, Robert M. W.; and Onishi, Masayuki (eds.) *Non-canonical marking of subjects and objects*. Amsterdam: John Benjamins Publishing. 307-354.
- Shimizu, Yasuyuki (2007): “Shinridousi no kaku to imiyakuwari no taiou-zure” ((Dis)Agreement between cases and semantic roles of psych verbs). *Nihon bungei kenkyu*, 58:4, A23-A39.
- Shirai, Yasuhiro (2000): “The semantics of the Japanese imperfective *-teiru*: An integrative approach.” *Journal of Pragmatics*, 32. 327-361.
- Takagaki, Toshihiro (1981): “Se hininsyoubun saikou (A review on *Se* impersonals).” *HISPÁNICA*, 25. 93-111.
- Talmy, Leonard (1985): “Lexicalization patterns: Semantic Structure in Lexical Forms.” In: Shopen, Timothy (ed.) *Language typology and Syntactic Description III: Grammatical Categories and the Lexicon*. Cambridge: Cambridge University Press. 57-149.
- Talmy, Leonard (2000): *Toward a Cognitive Semantics*. Cambridge, MA: MIT Press.
- Teramura, Hideo (1982): *Nihongo no syntax to imi, I* (Japanese Syntax and Semantics). Tokyo: Kuroshio.
- Tsujimura, Natsuko (1996): *An Introduction to Japanese Linguistics*. Cambridge, MA: Blackwell.
- Vanhoe, Henk (2002): *Aspectos de la sintaxis de los verbos psicológicos en español: un análisis léxico funcional*. PhD dissertation. University of Gent.
- Van Valin, Robert D., and Wilkins, David P (1996): “The case for “effector”: Case roles, agents and agency revisited.” In: Shibatani, Masayoshi and Thompson, Sandra A. (eds.) *Grammatical constructions: Their form and meaning*. Oxford: Oxford University Press. 289–322.
- Van Voorst, Jan (1992): “The Aspectual Semantics of Psychological Verbs.” *Linguistics and Philosophy*, 15, 338-345.
- Vázquez Rozas, Victoria (1995): *El complemento indirecto en español*. Universidad de Santiago de Compostela, Colección Lalia, Series Maior, 1.
- Vázquez Rozas, Victoria (2006): “Gustar-type verbs.” In: Clements, J. C. and Yoon, J. (eds.) *Functional Approaches to Spanish Syntax*. New York: Palgrave MacMillan, 80-114. <[http://gramatica.usc.es/~vvazq/pdf\\_public/VazquezRozas\\_2006a.pdf](http://gramatica.usc.es/~vvazq/pdf_public/VazquezRozas_2006a.pdf)> (Last access: 14/May/2015)
- Vendler, Zeno (1967): *Linguistics in philosophy*. Ithaca, NY: Cornell University Press
- Washio, R. and Mihara, K. (1997): *Boisu to Asupekuto* (Voice and Aspect). Tokyo: Kenkyusha.

- Whitley, Stanley M. (1995): “*Gustar* and Other Psych Verbs: A Problema in Transitivity.” *HISPANIA*, 78. 573-585.
- Whitley, Stanley M. (1998): “Psych-verbs: transitivity adrift.” *Hispanic Linguistics*, 10:1, 115-153.
- Yamakawa, Futoshi (2004): “On Case Marking by Psych Verbs in Japanese.” *Nihongo-Nihonbunka*, 30, 1-20.
- Yoshinaga, Nao (2008): *Shinridoushi to dousadaushi no intaafaisu* (Interface between psych verbs and activity verbs). Osaka: Izumishoin.

### **Corpus**

Real Academia Española: Banco de datos (CREA) [on-line]. *Corpus de referencia del español actual*. <<http://www.rae.es>> (Last access: 14/May/2015)