Psych Verbs in Spanish and Japanese

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To Artur and Ric

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Abstract

Psych verbs display variations in the argument realization and this has been problematic for the theories that assume a uniform relationship between semantic properties and syntactic configurations. This dissertation conducts a cross-linguistic analysis of psych verbs in Spanish and Japanese, and illustrates how semantic properties such as thematic relation, lexical aspect and causativity interact with each other and correlate to morphosyntactic phenomena, such as case alternations and (anti)causativizations. The variations of argument realization, including case alternations linked with thematic relations of arguments, are accounted for by the aspectual differences described in terms of the notion of 'boundary.' Semantic variations found between certain verbs of these languages, including aspectual ones, are ascribed to the anticausative-causative contrast characterizing this pair of languages and to the nature of the (anti)causative operations these languages employ. This thematic-aspectual-causative analysis of psych verbs not only provides support for a systematic semantic-(morpho)syntax relationship but also offers insights into cross-linguistic semantic variations caused by typological contrast.

Resumen

Los verbos psicológicos varían en la realización argumental y esto ha resultado problemático para las teorías que asumen una relación uniforme entre propiedades semánticas y configuraciones sintácticas. Esta tesis realiza un análisis interlingüístico sobre los verbos psicológicos del español y el japonés, e ilustra el modo en que propiedades semánticas como relación temática, aspecto léxico y causatividad interactúan entre ellas y se relacionan con fenómenos morfosintácticos como las alternancias de caso y (anti)causativizaciones. Las variaciones de la realización argumental, incluidas las alternancias de caso que se vinculan con las relaciones temáticas de los argumentos, se explican por las diferencias aspectuales descritas a partir de la noción de "*boundary*." Las variaciones semánticas entre ciertos verbos de estas lenguas, incluso las diferencias aspectuales, se atribuyen tanto al contraste anticausativo-causativo que caracteriza a esta pareja de las lenguas como a la naturaleza de sus operaciones (anti)causativas. Este análisis temático-aspectual-causativo de los verbos psicológicos no sólo presenta resultados que apoyan una relación semántica-(morfo)sintáctica sistemática, sino que también amplía el conocimiento de las variaciones semánticas interlingüísticas determinadas por contraste tipológico.

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Chapter 1. Introduction

1.1. Topic of Research

This dissertation offers a cross-linguistic analysis of the syntax-semantics 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, like, frighten,* and *please* in English, as in (1). These verbs display a variety of argument realization patterns both within- and cross-linguistically. That is, psych verbs are often characterized by the same pair of thematic roles (i.e. Experiencer and Stimulus), but they do not lexicalize such roles into the same syntactic forms (i.e. subject, object, etc.). This poses a problem for theories of argument structure that assume a uniform and universal mapping between semantic relations and syntactic configurations.

(1) a. She likes/fears that.

     b. That pleases/frightens her.

In a cross-linguistic view, the problem seems more puzzling since many languages involves different types of morphosyntactic phenomena that correlate with semantic properties of the predicates. For instance, psych verbs in Spanish (e.g. *odiar* 'to hate,' *gustar* 'to please,' *asustar* 'to frighten,' *asustarse* 'to get frightened', see (2)) and Japanese (e.g. *nikum-* 'to hate,' *yorokob-* 'to get pleased,' *yorokob-ase-* 'to please', see (3)), our subjects of inquiry in this study, show various types of case alternations and (anti)causative derivations. Concretely, Spanish presents accusative-dative alternation (hereafter 'ACC-DAT alternation'), among others, as shown in (2c). Japanese, on the other hand, displays accusative-oblique alternation (hereafter 'ACC-OBL alternation'), as in (3b). Moreover, in Spanish there are reflexive psych verbs, as in (2d), which we analyze in this study as a type of anticausative variant. Japanese, in contrast, shows morphologically overt causative psych verbs, as in (3c).

(2) a. Ella odia eso.

      she hates that

     'She hates that.'

   b. A ella le gusta eso.

      to she DAT pleases that

     'That pleases her (She likes that).'

   c. Eso **la/le** asustó.

      that ACC/DAT frightened

    'That frightened her/That was frightening for her.'

   d. Ella **se** asustó de eso.

      she SE frightened of that

    'She got frightened of that.'

(3) a. Kanojyo-ga kare-o nikumda.

      she-NOM he-ACC hate.PST

     'She hated him.'

   b. Kanojyo-ga sore-**o**/-**ni** yorokonda.

      she-NOM that-ACC/-*NI* (OBL) get pleased.PST

    'She felt happy about/because of that.'

   c. Sore-ga kanojyo-o yorokob-**ase**-ta.

      that-NOM she-ACC get pleased-CAUS-PST

    'That pleased her.'

There have been many attempts to explain the mechanism of argument realization of psych verbs from both syntactic and semantic perspectives. However, it has been a complex task to capture the whole picture of the relationship between semantic properties and (morpho)syntactic realizations of the predicates in question. In this study, we focus on three distinct semantic properties of psych verbs: thematic relations, lexical aspect and causativity. These three notions are independent but closely related to each other. The variations of (morpho)syntactic realization of psych verbs can be efficiently accounted for by the correlation of these properties.

We first attempt to classify psych verbs according to the linking patterns between the thematic roles and the syntactic forms, including the morphological cases, of their

arguments. However, this typological classification is not so simple because there are case alternations, as we noted, and the case alternations correlate with different interpretations of the thematic relations. In chapter 2, we try to account for the correlation between case alternations and thematic relations, using the ideas of proto-role entailments (Dowty 1991, Ackerman and Moore 2001), and also point out the connection between the thematic relations that correlate with morphological cases and the other properties, aspect and causativity. In chapter 3, the aspectual properties of psych verbs are discussed. Psych verbs are difficult to classify into any of Vendler's (1967) four aspectual categories, and the proposed classifications vary from author to author. In this study, we take 'beginning' and 'ending' (or 'left boundary' and 'right boundary' in Piñón 1997) as relevant aspectual notions to describe successfully the aspectual properties of psych verbs. This aspectual analysis of psych verbs also reveals how the aspectual properties are affected by (anti)causative derivations. In chapter 4, then, we try to determine the nature of causativization and anticausativization found in psych verbs in Spanish and Japanese to explain their semantic effects on the verbs in question. Finally, in chapter 5, we synthesize the results of these analyses on the three distinct properties of psych verbs: thematic relations, lexical aspect and causativity.

In the following sections, we will introduce the details of the problem of psych verbs, outline several landmark proposals, and put forward the relevance of our thematic-aspectual-causative approach to the issue.

1.2. Background

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').[1]

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[1] In this study, we 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' (e.g. Belletti and Rizzi 1988, Grimshaw 1990, among others). As we will see in 2.1.1, with psych verbs, this 'Theme' refers to the content or object of the described mental 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).

(4)   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)

b. *Stimulus*: a participant that "causes some emotional reactions or cognitive

judgments in the Experiencer" (Dowty 1991:579, following Talmy 1985)

The peculiarity of this class of verbs is that some verbs express the Experiencer argument as the subject ('ExpSubj verbs'), as shown in (5a), and others lexicalize it as the object ('ExpObj verbs'), as in (5b).

(5)   a. The children {like/hate/fear…} ghosts.   ExpSubj − StimulusObj

b. Ghosts {please/disgust/frighten…} 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 the *Universal Alignment Hypothesis* and the *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.

(6)   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).[2]

The argument realizations of psych verbs are also problematic for theories in which subject selection is realized according to a 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

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[2] In the Chomskyan tradition, d(eep)-structure is the underlying syntactic structure of a sentence from which the s(urface)-structure is derived.

argument (i.e. Theme) (Grimshaw 1990; cf. Jackendoff 1972), as shown in (7), since ExpObj verbs do not select the Experiencer but the Theme as the subject. [3]

(7)   (*Agent (Experiencer (Goal/Source/Location (Theme))))* (Grimshaw 1990:8)

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 (Belletti and Rizzi 1988, cf. Postal 1971), [4] 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 (Grimshaw 1990) or thematically (Pesetsky 1995) homogeneous because of the causativity (aspectual or morphological) of certain verbs, and that such semantic divergence causes the different syntactic realizations. In the rest of this section, we summarize three landmark proposals on this field and we will highlight some relevant points for the approach we employ in this study.

Firstly, Belletti and Rizzi (1988) propose a syntactic analysis of psych verbs, where the surface subject of ExpObj verbs originates in the internal object position. In other

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[3] Jackendoff's (1972) Thematic Hierarchy was only missing the thematic role label 'Experiencer,' since it was considered as Goal in the localist view. The localism as a linguistic term refers to "the belief that there is a general human tendency to extend spatial terms […] to a range of other linguistic domains." For instance, spatial deixis terms are used to refer to time in many languages and semantic notions of possession and states (physical or emotional) are also expressed spatially in Irish (Saeed 2009:195-196).

[4] Early studies provided transformational analyses to account for the syntactic peculiarities of psych verbs. According to Postal (1971), among others, *frighten* undergoes a transformation from a D-structure which looks like the configuration of *fear* by means of a special movement called 'psych movement.' However, with the advent of Government and Binding framework (Chomsky 1981) this approach was no longer possible because it violated the framework's Theta Criterion, which states that each argument must be assigned one and only one theta-role and each theta-role must be assigned to one and only one argument: the Experiencer role is assigned to the subject argument in *fear* verbs while the same role is assigned to the object argument in *frighten* verbs.

   a. DS: John *frightens* Mary/your decision/the storm →
   b. SS: Mary/Your decision/The strom *frightens* John   (Bouchard 1992: 27)

Belletti and Rizzi (1988), working in a version of that framework, proposed another type of "transformation," where *frighten* verbs are formed from a D-structure that is based on the structure of unaccusative verbs. In their proposal, the verb phrases assign theta-roles in a unified way in both *fear* verbs and *frighten* verbs, as we will explain more about it later in the text.

   c. DS: [[*frightens* Mary/your decision/the storm $_{VP}$] John $_{VP}$]→
   d. SS: Mary/Your decision/The storm [[*frightens* t $_{VP}$]] John $_{VP}$]   (Bouchard 1992:27)

words, ExpObj verbs are unaccusatives.[5] Their proposal had a great influence on subsequent studies, especially because it appears to successfully explain some syntactic peculiarities characterizing these verbs.

According to Belletti and Rizzi (1988), psych verbs have a uniform θ(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, there are three classes of psych verbs in Italian: (i) *temere* 'to fear,' (ii) *preoccupare* 'to worry,' and (iii) *piacere* 'to please.' Regarding the *piacere* class, the Experiencer can appear both pre-verbally and post-verbally, as in (8c) and (8d) respectively, although the former is the unmarked one.

(8) a. Gianni teme questo.   ExpNOM – ThemeACC   (i) ExpNOM verbs
         Gianni fears this
         'Gianni fears this.'

     b. Questo preoccupa Gianni.   ThemeNOM – ExpACC   (ii) ExpACC verbs
         this   worries   Gianni
         'This worries Gianni.'

     c. A Gianni piace   questo.   ExpDAT – ThemeNOM   (iii) ExpDAT verbs
         to Gianni pleases this
         'This pleases Gianni.'

     d. Questo piace   a Gianni.   ThemeNOM – ExpDAT
         this   pleases to Gianni
         'This pleases Gianni.'   (Belletti and Rizzi 1988:291-292)

The main proposal is that ExpObj verbs (both ii and iii) are a type of unaccusative that has a d-structure close to that of double-object constructions. While the subject of ExpSubj verbs is an inherently external argument, as described in (9a), the subject of

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[5] According to Perlmutter (1978) and Burzio (1986), 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.
  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)

ExpObj verbs originates in the internal position and then undergoes a movement to the external position, as in (9b). These apparently different d-structures share the point that "the verb directly θ-marks the Theme, and the constituent 'V+Theme' compositionally θ-marks the Experiencer" (Belletti and Rizzi 1988:293). Therefore, this proposal does not contradict the hypothesis of a uniform thematic-syntactic mapping.

(9)   D-structures of Italian psych verbs (Belletti and Rizzi 1988:293):
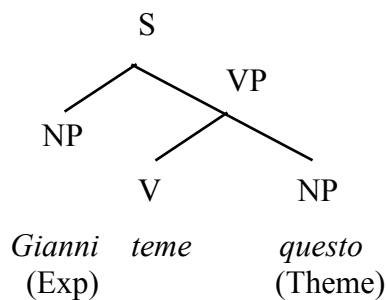
    a. (i) *Temer*   b. (ii) *Preoccupare* and (iii) *Piacere*

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            S                                       S
         /     \                               /        \
        /       VP                            /          VP
      NP       /  \                         NP          /   \
             /     \                                   /     \
            V       NP                      ec       V'       NP
                                                    /  \
     Gianni  teme    questo                        V    NP
     (Exp)          (Theme)              preoccupa  questo  Gianni
                                         piacere    questo  a Gianni
                                                   (Theme)   (Exp)
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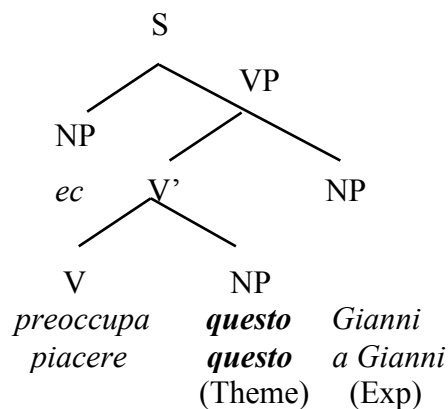
The unaccusative analysis of ExpObj verbs seems to account for some syntactic behaviors that have been considered typical of these verbs. For instance, the object of *frighten* verbs can bind an anaphor contained within the subject. This backward binding is normally impossible, as in (10a), because the antecedent must c(onstituent)-command the anaphor, as illustrated in (11a). The *frighten* verbs allow backward binding, as in (10b), because, if they are unaccusatives, the c-command relation properly occurs at the d-structure, as sketched in (11b).[6]

(10)   a. *These gossips of himself$_i$ describe John$_i$ better than any official biography.

    b. These gossips of himself$_i$ worry John$_i$ more than anything else.

    ← [[*worry* [these gossips [of himself$_i$]]] John$_i$]   (Belletti and Rizzi 1988:312)

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[6] C-command is a relationship between nodes in a syntactic tree in Chomskyan grammars such as Government and Binding Theory. It is defined that "the c-command domain of an element is of necessity a constituent, given that it consists of all the material dominated by one node," and that "node A c-commands node B iff A does not dominate B and B does not dominate A [i.e. neither A nor B is higher up than the other in the tree]; and the first branching node dominating A also dominates B" (Haegeman 1994:134). In brief, a node in a tree c-commands its sibling node and all the decendants of such sibling node. In the text, the NP *John* c-comands the NP *gossips of himself* in (11b) while it does not in (11a), since these NPs are siblings in (11b) while they are not in (11a).

(11) a.

(*c-command)

b.

(c-command)
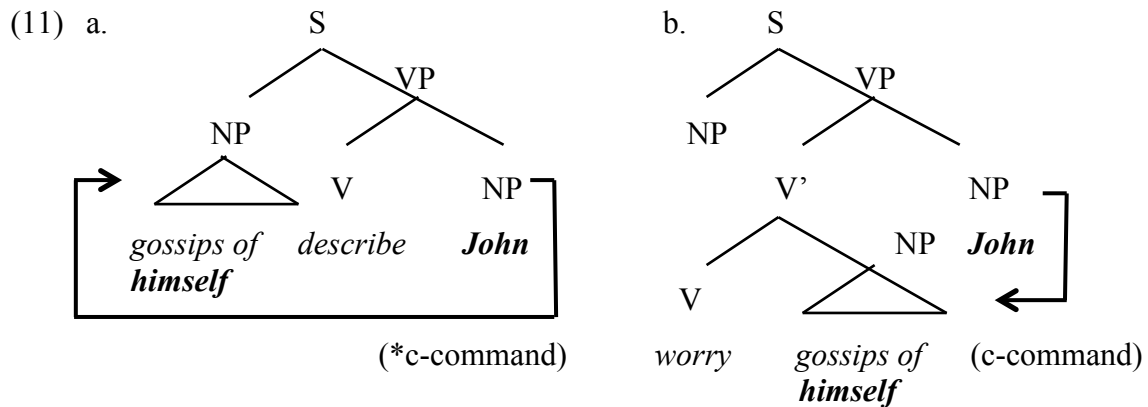
The unaccusativity of *preocupare* class verbs is corroborated by the nature of their subjects and objects. First, the subject of this class is not an inherent subject but a derived subject. For instance, the examples (12a) and (12b) indicate that the inherent subjects can bind a reflexive clitic whereas the derived subjects of some constructions, such as passives, cannot. The *preoccupare* class does not have the ability of this anaphoric cliticization, as in (13b), while the *temere* class does, as in (13a). This is accounted for if 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, as shown in (13c).

(12) a. Gianni   si   è fotografato.

Gianni himself photographed

'Gianni photographed himself.'

b. *Gianni   si   è stato affidato.

Gianni to himself   was entrusted

'Gianni entrusted to himself.'   (Belletti and Rizzi 1988:295, traslation mine)

(13) a. Gianni   si   teme.

Gianni himself fears

'Gianni fears himself.'

b. *Gianni si   preoccupa.

Gianni himself worries

'Gianni worries himself.'

c. Gianni   si preoccupa   per/di questo.

   Gianni   worries   for/of this

   'Gianni worries about this.'   (Belletti and Rizzi 1988:296, f2, translation mine)

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, as in (14b), while the Theme object of *temere* class does, as in (14a). The extraction of material is only possible for an NP in the direct object position of V, and impossible for an 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.

(14) a. La ragazza di cui   Gianni teme il padre.

      the girl   of whom Gianni fears the father

      'The girl whose father Gianni fears.'

   b. *La ragazza di cui   Gianni preoccupa il padre

      the girl   of whom Gianni worries   the father

      'The girl whose father Gianni worries.'

                                      (Belletti and Rizzi 1988:325, traslation mine)

Nevertheless, not all ExpObj verbs are unaccusatives in a traditional sense. According to the unaccusativity test involving 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 θ-role is assigned to the subject" (Belletti and Rizzi 1988:332 after Burzio 1986), *preoccupare* verbs present an exceptional case: the object is assigned accusative case even though there is no argument in the subject position to assign a θ-role. That is, the accusative case of their object must be inherently assigned in the lexicon.

Therefore, the difference between *preoccupare* class and *piacere* class is that the former is an inherent accusative case assigner while the latter is an inherent dative case assigner.[7]

To sum up, according to Belletti and Rizzi (1988), psych verbs have a θ-grid of the form [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:

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

    (i) *temere* class:
$$\begin{bmatrix} \text{θ-grid [Experiencer, Theme]} \\ \text{Case-grid [-, -]} \end{bmatrix}$$

    (ii) *preoccupare* class:
$$\begin{bmatrix} \text{θ-grid [Experiencer, Theme]} \\ \text{Case-grid [\textbf{Acc}, -]} \end{bmatrix}$$

    (iii) *piacere* class:
$$\begin{bmatrix} \text{θ-grid [Experiencer, Theme]} \\ \text{Case-grid [\textbf{Dat}, -]} \end{bmatrix}$$

Belletti and Rizzi's (1988) unaccusative analysis of ExpObj verbs had a great impact on the study of psych verbs, mostly because it seemed to account for some syntactic peculiarities associated with these verbs, such as the backward binding phenomenon. However, it also has to be mentioned that there are some alternative views to this analysis. Bouchard (1992) argues that not only ExpObj verbs but also non-psych verbs show 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 backward binding only occurs in the 'representational' interpretation (i.e. the subject NP refers to what is represented in the *picture*), as in (16i), and it does not occur with the 'individual' reading (i.e. when the subject NP refers to the *picture* itself), as in (16ii).

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[7] 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).

(16) #That picture of herself struck Mary as funny.   (*strike* in a psych use)[8]

    (i) ok: because of what she looked like in it.

    (ii) ??: because it had an odd frame.   (Bouchard 1992:40)

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 a '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 'property of an individual,' and in the latter case a type mismatch occurs.

(17) a. They   fear   themselves.

     'Individual' = 'Individual'

    b. ?*They   frighten   themselves.

     i) 'Individual'   =   'Individual'

     ii) 'Properties of the individual' ≠ 'Individual '   (Bouchard 1992:36)

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 and extraction of material pointed out by Belletti and Rizzi (1988: 296, 325), as repeated in (18a) and (19a) respectively, would disappear in the agentive reading, as shown in (18b, 19b).

(18) a. *Gianni   si   preoccupa/ ??Gianni   si   spaventa.

     Gianni himself worries   Gianni himself frightens

     'Gianni worries himself'/ 'Gianni frightens himself.'

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[8] Arad (1998), following Bouchard (1995), 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 fascine 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' (i.e. ExpObj predicates that are formed out of a verb with a noun or an adjective as its complement: e.g. *shock, agitate, disturb, hit, strike, move, hurt,* and *bother*), 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 student themselves frighten before of the exam for induce to study   more

  'The students frighten themselves before exams in order to urge themselves to

   study hard.'   (Arad 1998:7, translation mine)

(19) a. *La ragazza di cui   Gianni preoccupa il padre.

       the girl   of whom Gianni worries   the father

      'The girl whose father Gianni worries.'

   b. La ragazza di cui   Gianni ha spaventato i genitori perchè gliela

      the girl   of whom Gianni frightened   the parents so that him her

      facessero sposare.

       make   marry

     'The girl whose parents Gianni frightened so that they will allow him to marry

      her.'   (Arad 1998:8-9, translation mine)

There is another landmark approach to the puzzling argument realization of psych verbs. Grimshaw (1990) argues that ExpObj verbs and ExpSubj verbs are aspectually different even though they are associated with the same set of thematic roles. While ExpSubj verbs are stative, ExpObj verbs are "causative" (causativity is not an aspectual notion, as Pylkkänen (2000) pointed out. We will discuss this in chapter 3).

According to Grimshaw (1990), argument structure is a representation of the prominence relations determined by the thematic and the aspectual properties of the predicates. Thematic prominence is provided via thematic hierarchy described in (20a), while aspectual prominence corresponds to the causal hierarchy sketched in (20b). The causal hierarchy is defined by the event structure associated with the predicate. For instance, when the event described by the predicate comprises several subevents, the argument that participates in the first subevent, i.e. Cause, is more prominent than the arguments that partipate in the other subevents.

(20) 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 Experiencer, and therefore the Theme argument turns out to be aspectually more prominent than the Experiencer argument, as shown in (21b). The aspectual prominence is more decisive than the thematic one for 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, as in (21a).

(21) a. John fears ghosts.
$$\begin{bmatrix} \text{Thematic dimension: (Experiencer (Theme))} \\ \text{Aspectual dimension:} \qquad 1(?) \qquad 2(?) \end{bmatrix}$$

b. Ghosts frighten John.
$$\begin{bmatrix} \text{Thematic dimension: (Experiencer (Theme))} \\ \text{Aspectual dimension:} \qquad 2 \qquad 1 \end{bmatrix}$$

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 by 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. Unaccusative: ((Theme)).

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, as sketched in (22a), while the *frighten* verbs have no external argument, as in (22b), unless used with an agentive reading, as in (22c). ExpObj verbs are not completely unaccusatives because they lack an external argument for different reasons.

(22) a. Psychological state
(e.g. *fear*):
$$\begin{bmatrix} \text{(Experiencer (Theme))} \\ 1(?) \qquad 2(?) \end{bmatrix}$$

b. Psychological causative $\begin{bmatrix} \text{(Experiencer (Theme))} \\ \quad\;\; 2 \qquad\quad 1 \end{bmatrix}$
(e.g. *frighten*):

c. Agentive psychological causative $\begin{bmatrix} \text{(Agent (Experiencer))} \\ \quad 1 \qquad\quad 2 \end{bmatrix}$
(e.g. *frighten* in an agentive use):

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, causativity must be separated from the notion of aspect. From the fact that the proposals for the aspectual classification of psych verbs vary from author to author, we assume the necessity of finer-grained but systematic notions to discern aspectual differences between the predicates in question (see chapter 3). Moreover, the review casted on the notion of causativity leads us to conduct a separate analysis regarding the causativity of psych verbs (see chapter 4).

Finally, Pesetsky (1995), another landmark work to mention here, regards certain psych verbs as causatives from a morphological perspective. According to Pesetsky (1995), ExpObj verbs differ from ExpSubj verbs in their thematic roles because ExpObj verbs are morphological causatives that embed an ExpSubj predicate. For 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, as shown in (24).

(23)   a. John {fears/be angry at/worries about} ghosts.   Experiencer – T/SM

    b. Ghosts {frighten/anger/worry} John.   Causer – Experiencer

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

It is not so surprising to propose two distinct thematic roles for the object of ExpSubj verbs and the subject of ExpObj verbs. Some early studies assumed that ExpSubj verbs and ExpObj verbs have the same set of thematic roles, 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, as one would assume from (23) above. However, this is not always the case, as shown in (25). Bouchard (1992), therefore, argued that there is actually no crossing of thematic roles between *frighten* verbs and *fear* verbs.

(25) a. The brown spots on Ronald's skin frighten Nancy.

    b. #Nancy fears the brown spots on Ronald's skin.   (Bouchard 1992:28)

Besides, Kenny (1963) already pointed out the distinction betweem the target and the cause of the described emotion. The object of ExpSubj verbs and the subject of ExpObj verbs are different in their lexical entailments. For example, in (26a) *the article* is evaluated negatively by the Experiencer, while in (26b) 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).

(26) a. Bill was very angry at the article in *The Times*.

    b. The article in *The Times* angered/enraged Bill.

Pesetsky (1995), then, observes that an ExpObj verb cannot assign both Causer and T/SM roles in the same sentence, while its periphrastic variant can ('T/SM restriction').

(27) a. *The article in *The Times* angered Bill at the government.

    b. The article in *The Times* made [Bill angry at the government].

He explains this phenomenon by the morphological causativity of ExpObj verbs. According to him, ExpObj verbs in English are bimorphemic, consisting of a phonologically null causative morpheme and a bound root that corresponds to an ExpSubj predicate, as described in (28). 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, as shown in (29).

(28)   a. The news [*CAUS* [depressed $_v$]$_v$] Bill.

b. *depress* : [[√*depress*$_v$]*CAUS* $_v$]   (√*depress* = 'be (become) depressed')

(29)   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 causative (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 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 (Katada 1994; cf. Katada 1995, 1997, Kuroda 1965). There may be different types of causatives, e.g. lexically causative predicates, causatives formed in the lexicon, and causatives formed in the syntax (Horvath and Siloni 2011a). We will tackle the issue of causatives in chapter 4.

So far we have summarized three important 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. Their proposals are roughly summarized as below:

(30) Belletti and Rizzi (1988):   <u>Subject</u>   <u>Object</u>

    a. ExpSubj verbs: Experiencer   Theme

    b. ExpObj verbs: Theme   Experiencer

  → They vary in the underlying structures.

   Grimshaw (1990):   <u>Subject</u>   <u>Object</u>

  c. ExpSubj verbs: Experiencer   Theme

  d. ExpObj verbs: Theme   Experiencer

  → They are aspectually distinct

   Pesetsky (1995):   <u>Subject</u>   <u>Object</u>

  e. ExpSubj verbs: Experiencer   T/SM

  f. ExpObj verbs: Causer   Experiencer

  → They differ in the morphological causativity.

Even though there are some debatable points in each of these proposals, these three works still provide us guidelines for the study of psych verbs. Belletti and Rizzi's (1988) 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 causativity. From these proposals we conclude that a study of psych verbs must examine, at least, the thematic roles that psych predicates could be associated with, the aspectual properties 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. It is important to reveal how these different properties interact with each other.

1.3. Goal of Research

The syntactic variations observed with psych verbs are considered problematic for theories of argument realization. This problem, however, would disappear if psych verbs were in fact not semantically homogeneous. Assuming that argument realizations are projections of certain semantic information stored in the lexicon (Grimshaw 1990, Levin and Rappaport Hovav 2005, and many others), the variations in the argument realizations could then be ascribed to certain semantic differences between the predicates. In this study, we 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 manifest many different morphosyntactic phenomena pertinent to the topic and they constitute a pair of languages that display a typological contrast that could relate to cross-linguistic semantic variation in the predicates in question.

In chapter 2, we will present a typological classification of psych verbs of Spanish and Japanese on the basis of the mapping of thematic roles to syntactic forms based on morphological case. 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 one, 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 classes. 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 the thematic role-case relation and the aspectual properties 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 Vendler's (1967) four aspectual classes fall short for capturing the aspectual nature of psych verbs. There are a number of studies of the aspectual classification of these verbs, but the proposals 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 variation in 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 with psych verbs in Spanish and Japanese. There is a clear typological contrast between Spanish and Japanese psych verbs. While Japanese forms ExpObj causatives from certain ExpSubj verbs via overt causativization, Spanish derives ExpNOM reflexive verbs (or 'reflexive psych 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 uniform class, the variation in argument realization goes against 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, we defend the view that psych verbs are rather not semantically homogeneous and certain semantic properties such as thematic relations, 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 is an Experiencer. There are both cross- and within-linguistically different patterns of mapping of this thematic role to syntactic forms, both in terms of grammatical relations (e.g. subject, direct object, indirect object) and morphological cases (e.g. nominative, accusative, dative). In the following sections, after introducing a cross-linguistic overview of different types of psych verbs (section 2.1), we will classify psych verbs of two different languages, Spanish (section 2.2) and Japanese (section 2.3), with respect to the mapping of thematic roles to syntactic forms. However, this is not a simple task since psych verbs in these languages present case alternations that correlate with variations of thematic relations. In this chapter, we will account for such relationship between thematic roles and morphological cases associated with psych verbs in terms of 'proto-role' entailments (Dowty 1991) and an argument realization mechanism based on them (Ackerman and Moore 2001).

2.1. Psych Verbs and Argument Realization

2.1.1. Psych Verbs: A Cross-Linguistic Overview

As noted in the previous chapter, psych verbs are those that denote a mental state or a change of mental state, so they are often associated with two arguments, one of which typically is the Experiencer. The Experiencer is defined as "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). The peculiarity of this class of verbs is that some verbs express the Experiencer argument, e.g. *the children* in (31), as subject ('ExpSubj verbs') and other verbs lexicalize it as object ('ExpObj verbs').

(31) a. The children {like/hate/fear} ghosts.   ExpSubj verbs

      b. Ghosts {please/disgust/frighten} the children.   ExpObj verbs

As for the other argument associated with psych verbs, e.g. *ghosts* in (31), it has been labeled in various ways: 'Stimulus' (Talmy 1985, Dowty 1991); 'Theme' (Belletti and Rizzi 1988, Grimshaw 1990); 'Causer' or 'Target or Subject Matter (T/SM)' (Pesetsky 1995); among others.

	<u>Subject</u>	<u>Object</u>
(32) a. ExpSubj verbs:	Experiencer	Stimulus, Theme, T/SM, etc.
b. ExpObj verbs:	Stimulus, Theme, Causer, etc.	Experiencer

The *Stimulus* is a participant that "causes some emotional reactions or cognitive judgments in the Experiencer" (Dowty 1991:579, following Talmy 1985). *Theme*, when used with psych verbs, refers to the content or object of the described mental 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). Moreover, the non-Experiencer argument of ExpSubj verbs is sometimes discriminated from that of ExpObj verbs. For instance, as we mentioned in the previous chapter, Pesetsky (1995) labeled the former as *T/SM* and the latter as *Causer*. In this study, we use 'Stimulus' as a label that designates the non-Experiencer argument of psych verbs except where the quoted source favors other designations.

Psych verbs display a variety of argument realization patterns both within- and cross-linguistically. Psych verbs in many languages show variations in the case marking of their arguments. For instance, Italian has at least three classes of psych verbs: some express the Experiencer argument as the nominative subject ('ExpNOM verbs'), others as the accusative object ('ExpACC verbs'), or the dative object ('ExpDAT verbs') (Belletti and Rizzi 1988:291-292), as already shown in (8a-c) in the previous chapter.

(8) a. Gianni teme questo.   ExpNOM – ThemeACC   (i) ExpNOM verbs
         Gianni fears this
         'Gianni fears this.'
     b. Questo preoccupa Gianni.   ThemeNOM – ExpACC   (ii) ExpACC verbs
         this   worries   Gianni
         'This worries Gianni.'

c. A Gianni piace   questo.   ExpDAT – ThemeNOM   (iii) ExpDAT verbs

   to Gianni pleases this

   'This pleases Gianni.'

Moreover, languages exhibit various types of derivational relationships between psych verbs. According to Croft (1993), Russian presents ExpNOM verbs (e.g. *xotet-* 'to want,' *bojat-sja* 'to fear'), ExpACC verbs (e.g. *udivljat-* 'to surprise,' *pugat* 'to frighten') and ExpDAT verbs (e.g. *nado* 'to need, be needed,' *nravit-sja* 'to like'). An interresting point is that some of ExpNOM verbs and ExpDAT verbs involve a detransitivizing ('reflexive') suffix *-sja*. In Lakhota and Classical Nahuatl, on the other hand, some ExpObj verbs (e.g. *inihą-ya* 'to astonish,' *phila-ya* 'to please' in Lakhota, mauh-tia 'to frighten' in Classical Nahuatl) consist of ExpSubj verb roots (e.g. *inihą* 'to fear,' *phila* 'to be glad' in Lakhota, *mahu-i* 'to fear' in Classical Nahuatl) and causative suffixes *-ya* and *-tia*. In Classical Nahuatl, there are also some ExpSubj verbs (e.g. *m-izahuia* 'to be amazed') and ExpObj verbs (e.g. *te-izahuia* 'to amaze') that contrast in the detransivizing ('reflexive') prefix *m-* and the transitivizing prefix *te-*. In other words, some ExpSubj verbs derive from ExpObj verbs by certain morphological strategy, while some ExpObj verbs morphologically derive from ExpSubj verbs, and languages may differ in which derivational strategy they employ for their psych verbs: detrantivization ('reflexivization') (e.g. Russian), causativization (e.g. Lakhota, Classical Nauhatl), or both detransitivization and transitivization (e.g. Classical Nauhatl).

(33) a. ExpSubj variant ⬅ ExpObj verb + detransitive or reflexive morpheme

      b. ExpObj variant ⬅ ExpSubj verb + transitive or causative morpheme

This study deals with Spanish and Japanese, which involve both the phenomena just mentioned, i.e. case marking differences between psych verbs and different types of derivational operations on certain psych verbs. A contrastive study between these languages will therefore lead us to a better understanding of this class of verbs.

In Spanish, similarly to those three classes proposed for Italian, there are at least three constructions where psych verbs typically appear. Some psych verbs can lexicalize the Experiencer argument as the nominative subject ('ExpNOM') and others can express it

in the accusative ('ExpACC') or the dative ('ExpDAT'), as seen by the choice of clitic pronoun.

(34) a. María odia las guerras.   ExpNOM – StimulusACC

María hates the wars

'María hates wars.'

    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* (for the particle *-ni*, see section 2.3), as shown in (35a,b). Regarding ExpObj verbs, the language derives them from certain types of ExpSubj verbs by suffixing a causative morpheme *-(s)ase*, as described in (35c).

(35) 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. Namely, most ExpACC verbs can also appear in the ExpDAT construction, as shown in (36a). Japanese, on the other hand, displays an ACC-OBL alternation for the Stimulus argument. That is, some ExpSubj verbs can occur with an *o*-marked object or a *ni-*

marked element, as in (36b). Notice that case alternations in both languages show interesting interactions with different semantic interpretations between the variants.

(36) 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* 'to surprise') form an ExpSubj reflexive variant (e.g. *sorprenderse* 'to get surprised'), as shown in (37). In Japanese, in contrast, some ExpSubj verbs (e.g. *odorok-* 'to get surprised') form an ExpObj causative variant (e.g. *odorok-ase-* 'to surprise'), as in (38).

(37) Spanish: ExpSubj reflexives ← ExpObj verbs + clitic *se*

a. El trueno la asustó (a María).

the thunder ACC frightened to María

'The thunder frightened María.'

b. María se asustó del trueno.

María SE frightened of the thunder

'María got frightened at the thunder.'

(38) Japanese: ExpObj verbs ← ExpSubj verbs + causative morpheme *-(s)ase*

a. Maki-ga kaminari-ni odoroi-ta.

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.'

In this chapter, we will perform a descriptive analysis of psych verbs in each of this ideal pair of languages, Spanish and Japanese. Especially their case alternation phenomena will be discussed. We will first attempt to classify Spanish and Japanese psych verbs in terms of linking patterns between thematic roles and syntactic forms. We will soon find that case alternation phenomena in both languages correlate with different thematic labels for the arguments. As we need to explain such interaction in a systematic way, this study calls the idea of proto-role entailments into play. The following section briefly summarizes Dowty's (1991) proposal of proto-role entailments and his Argument Selection Principle and Ackerman and Moore's (2001) extended version of proposal.

2.1.2. Proto-Role Entailments and Argument Realization

Thematic roles are relations between predicates and their arguments in sentences, or relations between an event described by a verb and a participant in that event (Carlson 1984). It is widely assumed that verbs have particular requirements for the number of arguments and for the thematic roles of the arguments. Thematic roles are useful tools for explaining different kinds of grammatical phenomena, especially those related to voice. However, controversy remains over the tendency that the inventory of thematic roles varies from author to author and that the more fine-grained semantics the linguistic tasks require, the higher the number of thematic roles we need. In this study, we adopt Dowty's (1991) proposal, in which argument realization such as subject-object selection can be efficiently described in terms of two proto-roles, Proto-Agent and Proto-Patient.

Dowty (1991) defines thematic roles as sets of entailments a predicate imposes on its arguments. A predicate entails a set of Proto-Agent properties listed in (39a) and/or Proto-Patient properties listed in (39b) 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. In other words, the more Proto-Agentive argument will be the subject and the more Proto-Patientive argument will be the direct object.

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

　　　a. Proto-Agent 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

　　　b. Proto-Patient properties:

　　　　(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,' specifically 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*) (Dowty 1991:567-568, see also Krifka 1989). Moreover, some properties bear a converse relationship. Namely, if a verb entails a Proto-Patient property like 'causally affected,' 'stationary' or 'dependent existence' for one of its arguments, it necessarily has the corresponding Proto-Agent properties like 'causation,' 'movement' or 'independent existence' for the other argument: e.g. *Smoking causes cancer; The bullet entered the target; John built a house* (Dowty 1991:574).

Dowty (1991) accounts for the argument realization of predicates in terms of an Argument Selection Principle. The Argument Selection Principle, including Corollaries 1 and 2, enables us to predict the argument realization of many types of predicates.

(40)　a. *Argument Selection Principle*: "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" (Dowty 1991:576).

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)" (Dowty 1991:576).

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)" (Dowty 1991:576).

For instance, a two-place predicate *build* may entail 'Volition,' 'Causation,' 'Movement' and 'Independent existence' for the builder argument, and 'Change of state,' 'Incremental Theme,' 'Causally affected,' 'Stationary' and 'Dependent existence' for the other argument, i.e. the thing built by the builder. Adding up these proto-role entailments, the builder argument is obviously the more Proto-Agentive, and therefore it will be lexicalized as the subject, while the other argument is the more Proto-Patientive, and thus it will appear as the object.

Corollary 1 implies that arguments of a predicate could "tie" for the subject-object selection if their proto-role entailments are balanced; and when they "tie," its subject-object selection remains unpredictable. Applying Corollary 1, the verbs *sell* and *buy* could been seen as "lexical doublets" because these verbs entail the same (or almost the same) proto-roles properties sets for their arguments (and they are balanced) but lexicalize them into reverse configurations: e.g. *John sold a car to Mary/Mary bought a car from John*.

Corollary 2 predicts how ditransitive verbs lexicalize their arguments as direct and oblique objects. This can be applied to the direct-oblique object selection of ditransitive verbs like *load* and *spray,* which present syntactic alternations between direct and oblique objects: e.g. *Mary loaded {the hay onto the truck/the truck with (the) hay}/ Mary sprayed {(the) paint onto the wall/the wall with (the) paint}* (Dowty 1991:587).

Dowty (1991) also makes an insightful remark on the argument configurations of psych verbs. Psych verbs such as *like* and *please* have also been considered "lexical doublets" (e.g. *Mary likes classical music*/*Classical music pleases Mary*). However, these predicates actually differ in 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 should be unpredictable, as schematized below.

(41) Subject-Object Selection for Psych Verbs in general:

Predicate	< arg$_1$ (Experiencer),	arg$_2$ (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 Croft (1986, 1993), ExpSubj verbs are always stative while ExpObj verbs can be either stative or inchoative. The inchoativity associated with psych predicates is defined as "describing the coming about of the perception and the consequent emotional or cognitive reaction" (Dowty 1991:580). Therefore, 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 could be successfully predicted as below, although the argument realization of ExpSubj verbs is still unexplained.

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

Predicate	< arg$_1$ (Experiencer),	arg$_2$ (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 subject-object selection but also to the argument alternation of direct and oblique objects, as we mentioned already. In Ackerman and Moore's (2001) terms, subject-object selection is a 'syntagmatic argument realization,' as schematized in (43a), and direct object-oblique object selection is a 'paradigmatic argument realization,' as described in (43b(i)). The paradigmatic argument realization also includes alternation between subjects and oblique subjects (a.k.a. 'quirky subjects,' subjects expressed in the case other tha the nominative), as represented in (43b(ii)).

(43) Argument Realization

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

Pred.	arg$_1$ most Proto-Agentive $\rightarrow$ SUBJ	arg$_2$ most Proto-Patientive $\rightarrow$ DO

    b. Paradigmatic Argument Realization:

    (i) Direct Object-Oblique Object Selection:

Pred.	arg$_1$	arg$_2$ most Proto-Patientive $\rightarrow$ DO
	arg$_1$	arg$_2$ less Proto-Patientive $\rightarrow$ OBL

    (ii) Subject-Oblique Subject Selection:

Pred.	arg$_1$ most Proto-Agentive $\rightarrow$ SUBJ	arg$_2$
	arg$_1$ less Proto-Agentive $\rightarrow$ OBL	arg$_2$

These argument realizations can be explained in terms of proto-role properties as follows. The syntagmatic argument realization of a predicate, as in (43a), relies on the Proto-Agentivity and Proto-Patientivity of its arguments. Among paradigmatic argument realizations, the alternation between direct object and oblique object, as in (43b(i)), reflects the Proto-Patientivity of the argument. Namely, the argument lexicalized as direct object is more Proto-Patientive than that lexicalized as oblique object. Finally, the alternation between subject and oblique subject, as shown in

(43b(ii)), interacts with the Proto-Agentivity of the argument. That is, the arguemnt expressed as nominative subject is more Proto-Agentive than the subject in the other cases.

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

(44) 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 on objects. The examples below illustrate that a genitive-marked object requires a secondary resultative predicate that specifies a change of state, as in (45), while a partitive-marked object may not, as in (46). 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.

(45) a. *Ta lõi paku.   b. 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.'
                                                          (Ackerman and Moore 2001:98)

(46) a. 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 2001:99)

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In addition, Hindi offers examples of dative subjects, a case of oblique subjects. Dative subjects are dative-marked nominal elements that grammatically behave like subjects. Some predicates inherently require a dative-marked subject, as shown in (47), or appear in a nominative-dative case alternation of the subjects, as in (48). The nominative-marked subject is regarded as more Proto-Agentive than the dative-marked subject because the former involves 'volition' while the latter 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.

(47)   Tuṣaar-ko   kitaab   milii.
        Tushar-**DAT** book-NOM receive-PERF
        'Tushar received a book.' (Ackerman and Moore 2001:162 after Mohanan 1994)

(48)   a. Tuṣaar-ko k^h šii   huii.
          Tushar-**DAT** happiness-NOM happen-PERF
          'Tushar became happy.'
       b. Tuṣaar k^huš   huaa.
          Tushar-**NOM** happy become-RERF
          '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 relationship between case alternations and different thematic interpretations observed in psych verbs of Japanese and Spanish can be efficiently described. For instance, as we mentioned above, Spanish shows ACC-DAT alternation for the Experiencer argument and Japanese displays ACC-OBL alternations for the Stimulus argument. These phenomena can be analyzed as paradigmatic argument realizations that depend on the Proto-Patientivity of the arguments in question. However, the languages actually involve an even greater variety of case alternations and these also need analysis.

In the next sections, after classifying the psych verbs of these languages, we will tackle the case alternation phenomenon in terms of an argument realization mechanism based on proto-role entailments.

2.2. Psych Verbs in Spanish

2.2.1. Classification

Spanish appears to present three classes of psych verbs that are similar to the three classes proposed for Italian (cf. Belletti and Rizzi 1988), as already mentioned in section 2.1.1. There are: psych verbs whose Experiencer argument appears as the nominative subject ('ExpNOM verbs'), as in (49a); others whose Experiencer is interpreted in the accusative case clitic ('ExpACC verbs') as in (50); and others whose Experiencer is assigned the dative case ('ExpDAT verbs'), as in (51). ExpNOM verbs include those that express the Stimulus in an oblique complement, i.e. a prepositional phrase that is lexically selected by the verb (a.k.a. '*suplemento*' in Alarcos Llorach 1968 or '*complemento de régimen verbal*' in Cano Aguilar 1999, RAE[9] 2009), as in (49b).

(49) 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.'

(50) El perro   la   asustó   (a María).   ExpACC – StimulusNOM

        the dog   ACC frightened to María

        'The dog frightened María.

(51) A María   le   gusta   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 both as a direct object and as an oblique complement ('DO-OBL alternation'), e.g. *temer (por)* 'to

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[9] *Real Academia Española.*

fear (for),' *disfrutar (de)* 'to enjoy (of)'. Some ExpACC verbs can also assign the dative case to the Experiencer ('ACC-DAT alternation'), e.g. *asustar* 'to frighten,' *enfadar* 'to anger.' Some verbs can appear with the Experiencer in the dative clitic or as the nominative subject ('DAT-NOM alternation'), e.g. *repugnar* 'to disgust,' *apetecer* 'to feel like.' There are differences of meaning between the variants, as we discuss later on.

(52) 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/ **María** repugna} las guerras.   DAT-NOM alternation
        to María DAT disgust 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 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 verbs that always appear with this clitic (e.g. *arrepentirse* 'to regret'), as in (53), and verbs that have a variant without it, as in (54, 55).

(53) (Yo)   **me**   arrepiento de haber mentido.
     NOM.1SG SE.1SG regret.1SG of have lied
     'I regret having lied.'

(54) a. (Tú)   **te**   compadeces   siempre de los pobres.
       NOM.2SG SE.2SG feel pity.2SG always   of the poors
       'You always feel pity for the poor.'

     b. (Tú)   compadeces   siempre a los pobres.
       NOM.2SG feel pity.2SG   always to the poors
       'You always pity the poor.'

(55) a. María **se** asustó   del   trueno.
         María SE.3 frightened.3SG 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.'

Notice that those reflexive verbs that have variants without *se* consist of two different classes, for one of which the appearance with *se* involves no change in the selection of subject argument (e.g. *compadecer(se)* 'to feel pity') and the other of which does involve it (e.g. *asustar(se)* 'to get frightened'). That is, for the first class, both variants with and without *se* lexicalize the Experiencer argument as the subject, as shown in (54a,b) above. For the second one, on the other hand, the variant with *se* lexicalizes this participant as the subject while the variant witout *se* lexicalizes the same participant as the object, as in (55a,b).

Furthermore, there are psych verbs that appear in the double clitic construction, e.g. *antojár(se)(le)* 'to feel like,' *ocurrír(se)(le)* 'to come to mind,' and *olvidar(se)(le)* 'to forget.' A notable difference from the reflexive psych verbs mentioned just above is that these predicates express the Experiencer argument in the dative clitic. In other words, in these doble clitic constructions, the Stimulus, and not the Experiencer, appears as the subject.

(56) a. Se **me**   antoja   una botella de vino.
          SE.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.
         SE.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.
         SE.3 DAT.1SG have.3SG forgotten his/her name
       'I have forgotten his/her name.'

The verb *antojar* 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 (57a), tends to imply that the person expressed in the dative clitic is not to blame for the described forgetting event.

(57) a. Se   **me**   ha olvidado   su   nombre.
          SE.3 DAT.1SG have.3SG forgotten his/her name
          'I forgot his/her name.'

     b. **Me**   he olvidado   de su   nombre.
          SE.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.'

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. There are also 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 can be divided into ExpNOM and ExpDAT constructions depending on the case assignment to the Experiencer arguments.

(58) 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 (in) her memory.'
     c. ExpACC – StimulusNOM:
       e.g. *El trueno **la** asustó* 'The thunder frightened her.'
     d. ExpDAT – StimulusNOM:
       e.g. *Le gusta **la música clásica*** 'She loves classical music.'

(59) Reflexive Psych Verbs (contructions):

    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.'

Psych verbs of each type are listed below (collected from Cano Aguilar 1999, Gutiérrez 1999, De Miguel 1999, Vanhoe 2002, Romero 2008, RAE 2009, Marín 2011, Marín and McNally 2011).

(60) Psych verbs in Spanish

    a. ExpNOM verbs:

    i) *aborrecer* 'to abhor,' *admirar* 'to admire,' *adorar* 'to adore,' *amar* 'to love,' *apreciar* 'to appreciate,' *despreciar* 'to depreciate,' *detestar* 'to detest,' *idolatrar* 'to idolize,' *lamentar* 'to be sorry for,' *odiar* 'to hate,' *querer* 'to like,' *respetar* 'to respect,' *temer* 'to fear,' *venerar* 'to worship,' etc.

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

    b. ExpACC verbs: *aburrir* 'to bore,' *agobiar* 'to overwhelm,' *alegrar* 'to make happy,' *angustiar* 'to upset,' *apasionar* 'to inspire,' *asombrar* 'to astonish,' *asustar* 'to frighten,' *aterrorizar* 'to terrorize,' *cabrear* 'to piss off,' *complacer* 'to please,' *confundir* 'to confuse,' *contentar* 'to satisfy,' *deprimir* 'to depress,' *desanimar* 'to discourage,' *desesperar* 'to exasperate,' *desilusionar* 'to disappoint,' *desmotivar* 'to discourage,' *disgustar* 'to upset,' *distraer* 'to distract,' *divertir* 'to amuse,' *encantar* 'to please, to bewitch,' *enfadar* 'to make angry,' *enfurecer* 'to infuriate,' *enojar* 'to anger,' *entretener* 'to distract,' *entristecer* 'to sadden,' *espantar* 'to scare,' *excitar* 'to excite,' *extrañar* 'to puzzle,' *entusiasmar* 'to excite,' *fascinar* 'to fascinate,' *fastidiar* 'to disgust,' *horrorizar* 'to horrify,' *humillar* 'to humiliate,' *ilusionar* 'to inspire to hope,' *impresionar* 'to impress,' *indignar* 'to outrage,' *interesar* 'to interest,' *inquietar* 'to worry,' *irritar* 'to

irritate,' *molestar* 'to bother,' *mosquear* 'to annoy,' *obsesionar* 'to obsess,' *ofender* 'to offend,' *ofuscar* 'to bewilder,' *satisfacer* 'to satisfy,' *preocupar* 'to worry,' *sorprender* 'to surprise,' etc.

c. ExpDAT verbs: *agradar* 'to please,' *apetecer* 'to feel like,' *desagradar* 'to annoy,' *gustar* 'to please, to like,' *importar* 'to matter,' *placer* 'to please, to enjoy,' *repugnar* 'to disgust,' etc.

d. Reflexive psych verbs:

i) Inherently reflexive: *arrepentirse* 'to regret,' *atreverse* 'to dare,' *despreocuparse* 'to stop warrying, to ignore,' *jactarse* 'to boast,' *resentirse* 'to resent,' etc.

ii) Reflexive variants of ExpNOM verbs: *admirar(se)* 'to be amazed,' *compadecer(se)* 'to feel sorry for,' *desesperar(se)* 'to despair of' *lamentar(se)* 'to grumble,' *gozar(se)* 'to enjoy,' etc. (*admirar(se)* and *desesperar(se)* also have ExpObj uses.)

iii) Reflexive variants of ExpACC verbs: *aburrir(se)* 'to be bored,' *acongojar(se)* 'to become distressed,' *afligir(se)* 'to be bothered', *agobiar(se)* 'to be overwhelmed,' *alegrar(se)* 'to be pleased,' *aliviar(se)* 'to feel releaf,' *amedrentar(se)* 'to get scared,' *angustiar(se)* 'to become anxious,' *animar(se)* 'to be motivated,' *anonadar(se)* 'to be overwhelmed,' *apaciguar(se)* 'to calm down,' *apasionar(se)* 'to be crazy about,' *apenar(se)* 'to be sad,' *apesadumbrar(se)* 'to be saddened by,' *apiadar(se)* 'to pity,' *asombrar(se)* 'to be astonished,' *asustar(se)* 'to get frightened,' *aterrorizar(se)* 'to be terrified,' *atemorizar(se)* 'to be terrified,' *avergonzar(se)* 'to be ashamed,' *cabrear(se)* 'to get furious,' *complacer(se)* 'to be pleased,' *compungir(se)* 'to feel remorseful,' *confundir(se)* 'to get confused,' *conmocionar(se)* 'to be shocked,' *consternar(se)* 'to be dismayed,' *contentar(se)* 'to be content,' *convencer(se)* 'to be sure,' *deprimir(se)* 'to become depressed,' *desanimar(se)* 'to become discouraged,' *desesperar(se)* 'to despair,' *desilusionar(se)* 'to be disappointed,' *deshonrar(se)* 'to disgrace oneself,' *desmotivar(se)* 'to become discouraged,' *disgustar(se)* 'to get annoyed,' *distraer(se)* 'to keep oneself amused,' *divertir(se)* 'to enjoy,' *encantar(se)* 'to be

entranced,' *enfadar(se)* 'to get angry,' *enfurecer(se)* 'to become furious,' *enamorar(se)* 'to fall in love,' *enojar(se)* 'to get mad,' *enorgullecer(se)* 'to feel proud,' *entretener(se)* 'to have fun,' *entristecer(se)* 'to get sad,' *escandalizar(se)* 'to be shocked,' *espantar(se)* 'to get scared,' *excitar(se)* 'to get excited,' *extrañar(se)* 'to be surprised,' *entusiasmar(se)* 'to get excited,' *fascinar(se)* 'to be fascinated,' *fastidiar(se)* 'to get annoyed,' *frustrar(se)* 'to become frustrated,' *honrar(se)* 'to feel honored,' *horrorizar(se)* 'to be horrified,' *humillar(se)* 'to humble onself,' *ilusionar(se)* 'to have a fancy,' *impresionar(se)* 'to be impressed,' *indignar(se)* 'to be outraged,' *interesar(se)* 'to be interrested in,' *inquietar(se)* 'to worry,' *irritar(se)* 'to get irritated,' *molestar(se)* 'to be offended,' *mortificar(se)* 'to mortify(intr.)' *mosquear(se)* 'to get irritated,' *obnubilar(se)* 'to be captivated,' *obsesionar(se)* 'to get obsessed,' *ofender(se)* 'to take offense,' *ofuscar(se)* 'to be bewildered,' *olvidar(se)* 'to forger,' *satisfacer(se)* 'to be satisfied,' *perturbar(se)* 'to go crazy,' *preocupar(se)* 'to worry'*, sorprender(se)* 'to be surprised,' etc.

iv) Double clitic psych verbs: *antojár(se)(le)* 'to feel like,' *ocurrír(se)(le)* 'to come to mind,' and *olvidar(se)(le)* 'to forget,' etc.

Psych verbs in Spanish display some types of case alternation, as already mentioned. Concretely, most of the verbs classified as ExpACC verbs above can appear in the ExpDAT construction (i.e. ACC-DAT alternation), some of the ExpDAT verbs can be used in the ExpNOM construction as well (i.e. DAT-NOM alternation), and many of the ExpNOM verbs can lexicalize their Stimulus argument as oblique objects (i.e. ACC-OBL alternation). Indeed, the verb *admirar* 'to admire' is a good example. This verb can appear in all ExpNOM, ExpDAT and ExpACC constructions (though rare in the last), as respectively shown in (61a,b,c), and also in a reflexive construction, as in (61d).

(61) a. **Sábato admira** la literatura rusa, […].

    Sábato admires the literature Russian

    'Sábato admires Russian literature, […]'

    (Juan Ignacio Hernáiz, *Teoría, historia y sociología del arte*, 1986;

    from CREA[10])

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[10] *Corpus de Referencia del Español Actual*. All examples from CREA are translated by the author.

b. a Víctor   **le   admiró** más que nunca   el sutil equilibrio conseguido

　to Víctor DAT admired more than never the subtle harmony obtained

　por el pintor y, […].

　by the painter and

　'This subtle harmony provided by the painter amazed Víctor more than never.'

　(Rafael Argullol, *La razón del mal,* 1993; from CREA)

c. Aquellas palabras **lo admiraron** más aún.

　those   words   ACC   admired more still

　'Those words amazed him even more.'

　(Jesús Torbado, *El peregrino,* 1993; from CREA)

d. Él **se admiró** de la metáfora.

　he SE admired of the metaphor

　'He was amazed by the metaphor.'

　(José Luis Martín Vigil, *En defensa propia,* 1985; from CREA)

The case alternations mentioned in this section seem to affect the thematic roles of the involved arguments. Before we tackle such case alternations, the next section will summarize some important remarks on the dative experiencers of psych verbs.

2.2.2. Treatment of the 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, while other verbs can alternate between the ExpDAT construction and others, such as the ExpACC construction and ExpNOM construction. We would like to devote this section to discuss the treatment of the dative experiencers of psych verbs, becasue dative experiencers are seemingly mixed in their grammatical status: they resemble both indirect objects and subjects in some respects. First, we will demonstrate that the dative experiencers are not cases of *leísmo* because they are grammatically indirect objects. Second, we will illustrate the fact that dative experiencers behave like subjects as well.

The dative variants of ExpACC verbs are sometimes considered as instances of *leísmo*. However, there are crucial differences between dative experiencers and *leísmo*. *Leísmo* is a dialectal use of the dative clitic *le* as a substitute for the accusative *lo* to refer to the direct object. This phenomenon is more widely reported in the Spanish of Spain (except some regions like Aragón and Andalucía) than in the Spanish of the Americas. There are: (i) *leísmo* for singular/plural masculine person, as shown in (62); (ii) *leísmo* for singular/plural masculine thing, as in (63); and (iii) *leísmo* for feminine singular/plural person, as in (64), (Fernández-Ordóñez 1993, 1999, RAE 2009).

(62) 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 boys ACC/DAT rewarded in the school
        'They praised the boys in school.'

(63) 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.'

(64) 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 *leísmo* of the type (i), especially for the singular, is the most extended one. The others, i.e. *leísmo* for thing, *leísmo* for plural (person or thing), and *leísmo* for feminine person (singular or plural), show reduced or rare instances, and they are not considered standard in Spanish grammar (RAE 2009). In order to avoid confusion with *leísmo,* this

study preferably uses Spanish examples where the dative clitic refers to a feminine person or persons.

The dative clitic *le* that appears with psych verbs differs from the form *le* of *leísmo* in 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,' as shown in (65a), and neither can the form *le* of *leísmo*, as in (65b).[11] The dative *le* referring to an indirect object of ditransitive verbs, on the other hand, can appear with such phrase, as in (65c). The clitic *le* of psych verbs behaves just like such indirect object in this test, as shown in (66).

(65) a. **Lo**   vi (*a Juan) ayer   en la biblioteca.
          ACC saw (to Juan) yesterday in the liblary
        'I saw him yesterday in the library.'
      b. **Le**   vi (*a Juan) ayer   en la biblioteca.
          DAT saw (to Juan) yesterday in the liblary
        '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).'

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

Besides the grammatical difference we have just seen, the accusative and dative variants of an ACC-DAT alternation differ in semantic interpretation as well (see the next section for the details) and speakers seem to choose between the constructions to

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[11] 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*.

express different meanings. This is what discriminates the ACC-DAT alternation from the *leísmo*, since the latter is merely a formal phenomenon with no semantic effect.

Taking that the dative experiencers of psych verbs are not cases of *leísmo*, now let us see more details of their grammatical status. Regarding the dative experiencers of ExpDAT verbs such as *agradar* 'to please, to like' and *gustar* 'to please, to like,' they are indeed indirect objects on some grammatical tests, or more concretely, verb-selected indirect objects. However, they also show some subject-like behaviors, and therefore, dative experiencers are sometimes regarded as dative subjects.

According to Gutiérrez (1999), there are two kinds of indirect objects: (i) the ones that are arguments selected by the verb, as in (67a), and (ii) the ones that were originally adjuncts but are incorporated into a verb phrase, as shown in (68a). One of the grammatical differences between them is that the indefinites referring to verb-selected indirect objects cannot be omitted in a certain type of conditionals, as in (67c), whereas such omission seems acceptable for the indefinites refering to the incorporated ones in the presence of the dative clitic, as shown in (68c, cf.68d).

(67) a. Escribió unas cuartillas a su novia.

      wrote   some sheets to his girlfriend

    'He wrote some pages to his girlfriend.'

   b. Si a alguien escribió unas cuartillas, fue a su novia.

     if to someone wrote some sheets   was to his girlfriend

    'If he wrote some pages to someone, it was to his girlfriend.'

   c. *Si Ø escribió unas cuartillas, fue a su novia.

      if   wrote some sheets   was to his girlfriend

    'If he wrote some pages, it was to his girlfriend.'

(68) a. Les asaré un pollo a los invitados. (⬅ Asaré un pollo para los invitados.)

      DAT roasted a chicken to the guests   roasted a chicken for the guests.

    'I will roast a chicken for the guests.'

   b. Si a algunos les aso un pollo, sería a los invitados.

     If to some DAT roast a chicken be.will to the guests

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

c. .??Si Ø les aso un pollo, sería a los invitados.

    If   DAT roast a chicken will.be to the guests

    'If I roast a chicken, it will be for the guests.'

d. *Si Ø aso un pollo, sería a los invitados.

    If roast a chicken will.be to the guests

    'If I roast a chicken, it will be for the guests.'

<div align="right">(Gutiérrez 1999:1875, 1885; translation mine)</div>

The dative experiencers of ExpDAT verbs are verb-selected indirect objects because the indefinites cannot be omitted in the conditionals even in the presence of the dative clitic.

(69) a. A Luís le gusta el dinero.

     to Luís DAT pleases the money

    'Luís loves money.'

   b. Si a alguien le gusta el dinero, es a Luís.

    if to someone DAT pleases the money is to Luís

    'If (there is) someone (who) loves money, it is Luís.'

   c. *Si Ø le gusta el dinero, es a Luís.

     if DAT pleases the money is to Luís

<div align="right">(Gutiérrez 1999:1883; translation mine)</div>

Related to this, it is observed that the verb-selected indirect objects do not require the cooccurence with the dative clitic, while the incorporated ones do.

(70) a. (Les) transmitió la noticia a los oyentes.

     DAT transmitted the news to the listeners

    'S/he relayed the news to the listeners.'

   b. ?(Le) cantó un aria al público.

     DAT sang a aria to the public

    'S/he sang an aria for the public.' (Gutiérrez 1999:1872,1876; translation mine)

As for the experiencers of ExpDAT verbs, they can appear without the dative clitic, as shown in (71a), unless the indirect object appears in a preverbal position, as in (71b).

These experiencers are verb-selected arguments, and ExpDAT verbs are two-place-predicates with a subject and an indirect object.

(71) a. El fútbol (les) gusta   a los hombres.

        the soccer (DAT) pleases to the men

     'Soccer pleases men.'

     b. A los hombres les gusta   el fútbol.

       to the men   DAT pleases the soccer

     'Men love soccer.'

However, the dative Experiencers of ExpDAT verbs are not canonical indirect objects. Rather, in some ways they behave like subjects. For instance, while the null subject of an embedded infinitive normally refers to the subject of the matrix verb, as shown in (72a, 73a), it refers to the dative Experiencer in sentences with ExpDAT verbs, as in (72b, 73b). That is to say, the dative Experiencer argument controls the subject position of infinitives just like the subjects normally do (Vázquez Rozas 2006, RAE 2009).

(72) a. Lulú$_i$ prefiere e_i nadar en el mar.

       Lulu prefers   swim in the sea

     'Lulu prefers to swim in the sea.'

     b. A Lulú$_i$ 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)'

                                    (RAE 2009:2689; translation mine)

(73) a. A Luci$_i$ le   escribía Ronny$_j$ antes de $e_{*i/j}$ conocer a Otto.

       to Lulu DAT wrote   Ronny before of   get-to-know to Otto

      'With regard to Luci, <u>Ronny</u> was writing to her before <u>he</u> knew Otto.'

     b. A Luci$_i$ le   gustaba Ronny$_j$ 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 <u>to her</u> before <u>she</u> knew Otto.'

      ('With regard to Luci, <u>Luci</u> loved Ronny before <u>she</u> knew Otto.')

                                  (Vázquez Rozas 2006:14, translation mine)

Some ExpDAT verbs can appear in the ExpNOM construction as well. In those cases, the dative and nominative variants behave just alike.

(74) a. A María$_i$ le   repugnaba   su suegra$_j$ antes de e $_{i/*j}$ darse cuenta de
    to María DAT disgusted   her mother-in-law before of   become aware of
    su soledad.
    her loneliness
    'To María, her mother-in-law was disgusting before <u>she</u> noticed her loneliness.'
  b. María$_i$ repugnaba su suegra$_j$ 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 <u>she</u> noticed her loneliness.'

In summary, the dative experiencers of psych verbs are not cases of *léismo* since they are not direct objects but indirect objects. Among indirect objects, moreover, the dative experiencers are verb-selected ones. However, they have subject-like properties as well. Spanish psych verbs present some case alternations, and the ACC-DAT one and the DAT-NOM one involve dative experiencers. In other words, the accusative and dative variants in the former alternation are more grammatically distinctive than the dative and nominative variants of the latter alternation. Now, what about the meaning difference between the variants in the case alternations? The following section will discuss it.

2.2.3. Case Alternations and Thematic Relations

2.2.3.1. The ACC-DAT Alternation for the Experiencer

Most psych predicates listed above as ExpACC verbs actually appear in the ExpDAT construction as well. That is, the Experiencer argument can be expressed both with accusative and dative case clitics. This ACC-DAT alternation is distinguished from *léismo,* 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 others).

Traditionally, the ACC-DAT alternation has been accounted for by the notion of the animacy of the subjects (Cuervo 1874, Alcina and Blecua 1975).[12] 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.

(75) a. A la niña *la* asustó <u>Pedro</u>.   [+animate]
            to the girl ACC frightened Pedro
        'To the girl, Pedro gave her a fright.'
      b. A la niña *le* asustó <u>el portazo</u>. [-animate]
            to the girl DAT frightened the slam
        'To the girl, the slam of the door gave her a fright.'

However, there are counterexamples to this generalization: even with an animate subject, the Experiencer can be expressed in the dative case, as shown below:

(76) a. A la niña *le* asustó <u>Pedro</u>.
            to the girl DAT frightened Pedro
        'To the girl, Pedro gave her a fright.'
      b. <u>Su   hija</u>   *le* tranquilizó.
          her/his daughter DAT calmed
        'Her/His daughter reassured her/him.'
        (Luisa Castro, *La fiebre amarilla*, 1994; from CREA)
      c. A Sofian *le* impresiona <u>esa mujer</u>,
          to Sofian DAT impresses that woman
        'To Sofian, that woman struck him as impressing.'
        (Patricia de Souza, *La mentira de un fauno*, 1998; from CREA)

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[12] The ACC-DAT alternation closely relates to a postverbal/preverbal word order distinction, which is not discussed in this study. Alcina and Blecua (1975) indeed assert that in '*verbos pseudo-impersonales*' (including psych verbs) "*no hay agente que realice la acción*" (there is no agent who realizes the action), "*su sujeto suele ser o puede ser un nombre inanimado que se pospone al verbo y semánticamente puede ser tomado como complemento directo*" (its subject tends to be or can be an inanimate nominal which is put postverbally and it can semantically be taken as direct object)*,* and "*suelen admitir un complemento indirecto pronominal*" ([these verbs] tend to admit a pronominal form of indirect object) (Alcina and Blecua 1975: 895, translation mine).

Moreover, even with an inanimate subject, the Experiencer can appear in the accusative:

(77) 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

       to Teresa ACC bored   Paris   ACC disappointed Rome

   y   *la*   fascinó   Venecia.

    and ACC fascinated Venice

   'Paris bored Teresa, Rome let her down and Venice captivated her.'

   (Arturo Pérez-Reverte, *La Reina del Sur*, 2002; from CREA)

   c. [...], pero sigue pensando que siempre precisará un hombre a su lado y

       but keeps thinking that always need.FUT a man   at her side and

    la   aterroriza la idea de vivir sola.

    ACC terrorizes the idea of live alone

   '[...], 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.'

   (Enrique González Duro, *Las neurosis del ama de casa*, 1989; from CREA)

This suggests that the ACC-DAT alternation cannot be explained by the notion of animacy only. Rather, the phenomenon is associated with the agentivity of the subjects. Briefly, the accusative variant occurs with an agentive subject, while the dative variant occurs with a nonagentive subject (Fernández-Ordóñez 1999, Gutiérrez 1999, Romero 2008, RAE 2009). By resorting to the notion of agentivity, we could explain the examples where the Experiencer is expressed in the dative case even with an animate subject, as mentioned above. For instance, as Romero (2008) noted, *Pedro* in (78b) did not willingly set out to frighten the children, but rather his look, loud voice or something similar caused fright in the children. In other words, the dative variant can occur with an animate subject, if the subject is not an agent but merely a cause of the denoted emotional reaction.

(78) a. A la niña   *la*   asustó Pedro.   [+animate] [+agentive]

    to the girl ACC frighned Pedro

   'To the girl, Pedro (intentionally) gave her a fright.'

b. A la niña   *le*   asustó   <u>Pedro</u>.   [+animate][-agentive]

　　to the girl DAT frightned Pedro

　　'To the girl, Pedro (unintentionally) gave her a fright.'

Nevertheless, there are still those cases where the Experiencer appears in the accusative case even with an inanimate subject, which is automatically nonagentive. To give a better account of ACC-DAT alternation, we must look for another semantic notion. For instance, looking directly at the accusative or dative marked elements, there seems to be a difference of meaning between them with respect to affectedness. The Experiencer argument will appear in accusative case when the referent is directly affected or physically affected by the situation, as described in (79b), and in dative case when it is less directly or only psychologically affected, as in (79a).

(79) a. <u>A la niña</u>   *le*   asustó   el portazo.   [- physically affected]

　　　　to the girl DAT frightened the slam

　　　　'To the girl, the slam of the door gave her a fright.'

　　b. <u>A la niña</u> *la*   asustó   el portazo.   [+physically affected]

　　　　to the girl ACC frightened the slam

　　　　'To the girl, the slam of the door gave her a jump.'

That is to say, the accusative variant can occur with an inanimate nonagentive subject if the Experiencer can be interpreted as physically affected, or reacting physically, as shown in (80a), (81a) and (82a).

(80) a. A ella   *la*   irritaba el roce   de la cinta.

　　　　to she ACC irritated the chafing of the ribbon

　　　　'The chafing of the ribbon irritated her skin.'

　　b. A ella   *le*   irritan mis atenciones.

　　　　to she DAT irritate my attentions

　　　　'My attentions annoy her.'

(81) a. Al   ladrón   *lo*   sorprendió la policía en el interior de la vivienda.

　　　　to the thief ACC surprised   the police in the inside of the house

　　　　'The police surprised the burglar inside of the house.'

b. Al   ladrón no   *le*   sorprendió la actuación   de la policía.

   to the thief no DAT surprised the intervention of the police

   'The police intervention did not surprise the thief.'

(82) a. El hada   *la*   encantó   (a Cenicienta).

   the fairy ACC enchanted (to Cinderella)

   'The fairy put a spell on her.'

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

   the fairy DAT enchanted (DAT pleased much)

   'S/he loved the fairy.'

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

Summarizing so far, the ACC-DAT alternation interacts with the agentivity of the subjects and/or the affectedness of the objects, as described below.

		Subject	Object
(83)	a. A la niña *la* asustó Pedro.	[+animate][**+agentive**]	
	b. A la niña *le* asustó Pedro.	[+animate][**-agentive**]	
	c. A la niña *le* asustó el portazo.	[-animate][-agentive]	[**-physically affected**]
	d. A la niña *la* asustó el portazo.	[-animate][-agentive]	[**+physically affected**]

Adittionally, 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, as shown in (84a), while the dative variant tends to denote a state, as in (84b). Similarly, as seen in those examples, 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.

(84) 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 Jusús never DAT disappoint his friend María/ the work

  '{His friend María/His work} never lets Jesús down.'

<div align="right">(Fernández-Ordóñez 1999:1324, translation mine)</div>

Taking these remarks into consideration, we will now try to apply the idea of proto-role entailments to the ACC-DAT alternation phenomenon. In the ACC-DAT alternation, the differences of meaning between the variants have been described by agentivity and affectedness, as we have just mentioned.

(85) a. Los payasos la sorprendieron.   [+agentive]

      the clowns ACC surprised

    'The clowns surprised her (on purpose).'

    b. Los payasos le sorprendieron.   [-agentive]

      the clowns DAT surprised

    'The clowns surprised her (unintentionally).'

(86) a. Los perros la asustaron.   [+physically affected]

      the dogs ACC frightened

    'The dogs frightened her (and she was stunned for a moment).'

    b. Los perros le asustaban.   [-physically affected]

      the dogs DAT frightened

    'The dogs frightened her (She feared the dogs)'

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 the Proto-Agent property of 'volition,' as shown in (87a-i). Moreover, the accusative Experiencer is interpreted physically affected, whereas the dative Experiencer is only psychologically affected. Related to the notion of affectedness, Ackerman and Moore (2001) propose, based on Croft's (1986) generalization that ExpObj verbs can be either stative or inchoative, and that Spanish the ACC-DAT alternation correlates with the inchoative-stative distinction. As we mentioned in section 2.1.2, the inchoative reading is characterized by the presence of a Proto-Patient property of 'change of state,' the ACC variant of the alternation can also be described as (87a-ii).

(87) 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, but why?	→ DAT, but why?

The only problem here is that the realization of the ExpDAT variant cannot be explained because the two arguments "tie" in the proto-role entailments, as described in (87b). 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, as we will see just below, some ExpDAT verbs in Spanish can appear in the ExpNOM construction (and some ExpNOM verbs can appear in the ExpDAT construction). This is what we call DAT-NOM alternation in this study.

2.2.3.2. The DAT-NOM Alternation for the Experiencer

There are psych verbs that can express the Experiencer either with a dative case clitic or as the nominative subject. Some are listed as ExpDAT verbs in (60c) above, e.g. *apetecer* 'to feel like,' *repugnar* 'to disgust, to detest,' *gustar* 'to please, to like'; and

others are listed as ExpNOM verbs in (60a) above, e.g. *admirar* 'to admire,' *desesperar (de)* 'to despair of.' The dative and nominative variants grammatically behave alike, as we discussed above, but the alternation seems to cause a certain difference of meaning, albeit a very small 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 (Vázquez Rozas 1995, Whitley 1995, 1998, and Gutiérrez 1999). In other words, when the situation is under volitional control of the Experiencer, the Experiencer appears in the nominative subject, as shown in (88a), (89a) and (90a); otherwise, in the dative, as in (88b), (89b) and (90b) (These examples are extracted from Gutiérrez 1999:1881, though translation is mine.)

(88) a. Lucas admira   tu   valentía.
         Lucas admires your bravery
        'Lucas admires your bravery.'
      b. A Lucas   *le*   admira   tu   valentía.
         to Lucas DAT amazes your bravery
        'Your bravery produces admiration in Lucas'

(89) a. Apetece una casa   propia.
         feel like   a   house one's own
        'S/he wants to have 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.'

(90) a. Ana repugna el olor   de la gasolina.
         Ana detests the smell of the gasoline
        'Ana detests the smell of gasoline.'
      b. 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.'

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,' as in (91a). Related to this, psych verbs do not allow the imperative form either, as shown in (91b). 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), as in (91c).

(91) a. *Quise deliberadamente a Tomás desde que le conocí.
          liked deliberately   to Tomás since that him knew
         'I deliberately liked Tomás since I met him.'
      b. *¡Odia a tu   primo!; *¡Sabe   la verdad!
          hate to your cousin   know the truth
         'Hate your cousin!'; 'Know the truth!'
      b. ¡Quiere a tus semejantes! ('Haz un esfuerzo por querer')
          like   to your similar   do   a effort   for like
         'Love your peers!' ('Try to love.')   (De Miguel 1999:3015; translation mine)

To sum up, in the DAT-NOM alternation the nominative Experiencer is regarded as having slightly more volitional control towards the denoted emotion than the dative Experiencer. In the following examples, therefore, *María* has less control over the admiration she feels for her husband's bravery in (92a) than in (92b)

(92) a. A María   le admira la valentía de su marido.
          to María DAT amaze the brabery of her husband
         'The bravery of her husband fascinates her.'
      b. María admira   la valentía   de su marido.
          María admire the bravery of her husband
         'María admires the bravery of her husband.'

In terms of proto-role entailments, then, the realization of the ExpNOM variant could be described as (93b) below. The Experiencer will be the nominative subject because it has a Proto-Agentivity of 'volition.' A possible question here is whether the Stimulus arguments in the DAT-NOM alternation really has the Proto-Agentivity property of 'causation.' A similar problem is found in the DO-OBL alternation, as we will see in the following section.

(93) DAT-NOM alternation for the Experiencer:

a. ExpDAT variant

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

b. ExpNOM variant

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

So far we have seen two different case alternations related to the Experiencer argument, the ACC-DAT alternation and the DAT-NOM alternation. The ExpDAT variant is something between the ExpACC variant and the ExpNOM variant with respect to semantic properties. The dative experiencer is unspecified in either 'volition' or 'change of state'.

(94) a. ExpACC   [-volition] [+change of state]

b. ExpDAT   [-volition] [-change of state]

c. ExpNOM [+volition] [-change of state]

Now we turn to the DO-OBL alternation. Unlike the case alternations we have seen so far, this is for the Stimulus argument.

2.2.3.3. The DO-OBL Alternation for the Stimulus

Among psych verbs, there are ExpNOM verbs that can express their Stimulus both as direct object and as oblique complement, e.g. *temer (por/de)* 'to fear,' *disfrutar (de/con)* 'to enjoy,' *gozar (con/de)* 'to enjoy,' *padecer (de/con/por)* 'to suffer,' *recelar (de)* 'to suspect,' *sospechar (de)* 'to suspect,' *sufrir (de)* 'to suffer.' This oblique complement, as we mentioned in 2.2.1, is a prepositional phrase lexically selected by the verb.

Some verbs show a clear meaning difference between the two variants, but others do not. For instance, the verb *temer* 'to fear' can appear with a direct object or a *por* 'for, by' phrase. The Experiencer in the DO variant is regarded as evaluating the object as fearsome, as described in (95a), while the Experiencer in the OBL variant worries about someone or something, as in (95b). In other words, the direct object is a target of the fear, while the *por* phrase is not a target but rather a source of the fear.

(95) a. María teme a sus hijos.

      María fears to her sons

     'María fears her sons.'

    b. María teme por sus hijos.

      María fears for her sons

     'María fears for her sons.'

The verb *sospechar* 'to suspect' means 'to imagine or suppose something' with a direct object, as in (96a), but it can also mean 'to feel distrust toward someone or something' with a *de* 'of, from' phrase, as in (96b). The difference between these meanings lies in that the former is more about the existence of the object itself, while the latter is about its qualities. The verb *recelar* 'to suspect' is used preferably in the latter meaning.

(96) 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* 'to enjoy' and *padecer/sufrir* 'to suffer,' both the DO and OBL variants mean more or less the same: 'to perceive a pleasure or benefit' or 'to have a physically or psychologically good condition' for the former pair, as in (97), and 'to feel or endure a physical or psychological pain' for the latter, as in (98).

(97)   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.'

(98)   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.'

Summarizing the points so far, the DO and OBL variants seem to present following meaning differences: with a direct object the experiencer is evaluating the object as fearsome, enjoyable, or painful, while with an oblique complement the experiencer feels fear, pleasure, suspicion or pain because of or due to something, although not all cases show a clear meaning difference between the variants. In the following examples, then, the difference between the DO variant in (99a) and the OBL variant in (99b) depends on whether the Stimulus is evaluated by the Experiencer or not.

(99)   a. Juan teme los fantasmas.

     Juan fear the phantoms

     'Juan fears ghosts.' (Juan sees ghosts as something terrifying.)

    b. Juan teme por los fantasmas.

     Juan fear for the phantoms

     'Juan fears for the ghosts.' (Juan worries about the ghosts he met.)

As for the proto-role entailments, if the ExpNOM construction is described as (93b) above, which proto-role property makes the DO variant and the OBL variant different? A possible problem here is that it is not certain that the Stimulus argument always contains a Proto-Agentive property of 'causation,' if it is not a cause of emotion but rather is a target of the emotional evaluation. As a solution, we put a property of 'stationary' to use instead of inventing something new. Recall that this is a Proto-Patient property for the argument that is stationary relative to the movement of another argument. We consider the emotional evaluation as an emotional movement from the Experiencer to the evaluated object, and the evaluated object has a property of 'stationary.' The DO variant, then, could be described by means of 'stationary' without 'causation,' as in (100a). The OBL variant, on the other hand, is sometimes interpreted as a source of emotion. This could be described by 'causation' with 'stationary,' as in (100b): the source of emotion is something causing the emotion but stationary relative to the emotional movement.

(100) DO-OBL alternation for the Stimulus:

 a. StimulusDO variant:

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

 b. StimulusOBL variant:

Pred.	< x,	y >
Proto-role entailment:	'Sentience' (P-A)	'Causation' (P-A)
	('Volition' (P-A))	'Stationary' (P-P)
Argument Selection:	→ NOM	→ OBL

Related to this view, Croft (1993) asserts that mental verbs, especially stative ones (e.g. *like, hate*), actually denote a "two-way causal relation" and involve no inherent directionality of causation in the denotation (Croft 1993:64). 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. This seems to allow some psych verbs to alternate between two different constructions. Speakers can select one of these constructions to express one of the intuitive courses of the denoted emotion.

(101) Experiencer   Stimulus

direct attention to

cause mental state

To sum up, Spanish has ExpNOM verbs, including those with StimulusACC (e.g. *odiar* 'to hate') and StimulusOBL (e.g. *confiar en* 'to trust in'), ExpACC verbs (e.g. *asustar* 'to get frightened'), and ExpDAT verbs (e.g. *agradar* 'to please'). 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 psychologically 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 difference, but if any, the DO variant is positively or negatively evaluated while the OBL variant is not a target of evaluation but rather a source of emotion.

We have explained the interaction between case alternations and thematic relations by means of proto-role properies and argument realization mechanism based on them. The ACC-DAT alternation can be accounted for either by the presence/absence of a Proto-Agent property 'volition' in the Stimulus argument or a Proto-Patient property 'change of state' in the Experiencer argument. The DAT-NOM alternation is explained by the absence/presence of a Proto-Agent property 'volition' in the Experiencer argument. In both alternations, the realization of the ExpDAT construction is related to the lack of 'volition' and 'change of state.' The DO-OBL alternation is described by a Proto-

Patient property 'stationary' without or with 'causation.' The property of 'causation' seems a problematic notion, since "Stimulus" does not always cause an emotion in the Experiencer, but it is a target of the Experiencer's evaluation. Similarly, the stativity of the predicates seems to cause problems. That is, stative predicates tend to "tie" in the proto-role properties, and thus the argument realization remains unpredictable (for more detailed aspectual analysis, see chapter 3).

In the next section, we deal with the psych verbs of Japanese. The psych verbs of Spanish and Japanese display some typological contrast. For instance, while Spanish has two classes of ExpObj verbs, i.e. ExpACC verbs and ExpDAT verbs, Japanese presents two classes of ExpSubj verbs. The following section will also tackle the relationship between the morphological case and thematic relations of the arguments of Japanese psych predicates, in the similar way we have just done for Spanish.

2.3. Psych Verbs in Japanese

2.3.1. Classification

In Japanese, psych verbs are typically expressed in 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'), as shown in (102a), while others mark their object by *-ni* ('ExpSubj-*NI* verbs'), as in (102b). There are also some verbs that can mark their objects both by *-o* and *–ni,* as described in (103) (for different remarks on Japanese psych verbs, see Teramura 1982, Bando 1996, Bando and Matsumura 2001, Endo and Zushi 1993, Matsumura 1996, Yamakawa 2004, Shimizu 2007, Yoshinaga 2008, and Isse 2008, among others).

(102) a. Maki-ga   Taro-**o**   nikumda.   ExpSubj – Stimulus-*O*

       Maki-NOM Taro-ACC hate.PST

       'Maki hated Taro.'

b. Maki-ga   kaminari-**ni** odoroita.   ExpSubj – Stimulus-*NI*

    Maki-NOM thunder-*NI* get surprised.PST

  'Maki got surprised by the thunder.'

(103) Maki-ga   purezento{-**o**/-**ni**} yorokonda.   ExpSubj – Stimulus{-*NI*/-*O*}

    Maki-NOM present-ACC/-*NI* be/get pleased.PST

  'Maki got pleased about/because of the present.'

The particle *-ni* can mark many different types of elements: e.g. indirect objects (≈ dative case or 'to') ((104a)), location (≈ 'at, in') ((104b)), direction (≈ 'to') ((104c)), purpose (≈ 'to, for') ((104d)), passive agent (≈ 'by') ((104e)), etc. For convenience, we gloss the particle *-ni* as '*NI*' in this study, unless its use is easily identifiable.

(104) a. Hanako-ga   Taro-**ni**   tegami-o   kaita.

      Hanako-NOM Taro-DAT letter-ACC write.PST

    'Hanako wrote Taro a letter (wrote a letter to Taro).'

  b. Hanako-ga   niwa-**ni** iru.

     Hanako-NOM yard-in   be.PRES

   'Hanako is in the yard.'

  c. Taro-ga   gakkou-**ni** itta.

     Taro-NOM school-to   go.PST

   'Taro went to the school.'

  d. Taro-ga   kaimono-**ni** dekaketa.

     Taro-NOM shopping-for go out.PST

   'Taro went out to do some shopping.'

  e. Hanako-ga   Taro-no   tataita/   Taro-ga   Hanako-**ni** tatak-are-ta

     Hanako-NOM Taro-ACC slap.PST/ Taro-NOM Hanako-by slap-PASS-PST

   'Hanako slapped Taro (in the face)'/ 'Taro was slapped by Hanako (in the face).'

The case marking by *-o* or *-ni* varies the interpretation of the Stimulus argument. The *o*-marked objects are interpreted as the 'Object of Emotion,' as in (105a), while most *ni*-marked ones refer to the 'Cause of Emotion,' as in (105b); although, as Teramura (1982) noted, there are a few exceptions when *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,' as shown in (106).

(105) a. Maki-wa <u>sono sirase-**o**</u> kanasimda.   'Object of Emotion'

      Maki-TOP that news-ACC feel sad.PST

    'Maki felt sad about the news.'

    b. Maki-wa <u>sono sirase-**ni**</u> kanasimda.   'Cause of Emotion'

      Maki-TOP that news-*NI*   feel sad.PST

     'Maki felt sad because of the news.'

(106) Taro-wa   sensei-**ni**   akogareta/ horeta.   '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's (1995) 'Target or Subject Matter (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 in Japanese both 'Object of Emotion' and 'Cause of Emotion' appear as object elements of ExpSubj verbs, as just seen in (105) above; while Pesetsky's 'T/SM' and 'Causer' are coined to differentiate the objects of ExpSubj verbs as the former, as in (107), from the subjects of ExpObj verbs as the latter, as in (108).

(107) a. Bill was very angry <u>at the article in the Times.</u>   'Target of Emotion'

    b. John worried <u>about Mary's poor health</u>   'Subject Matter of Emotion'

(108) a. <u>The article in the Times</u> angered Bill greatly.   'Causer'

    b. <u>Mary's poor health</u> worried John   'Causer'

These two classes of ExpSubj verbs consist of following verbs, including some that belong to both classes:

(109) Japanese ExpSubj verbs:[13]

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').

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[13] The verbs listed here are in the nonpast form, a.k.a. 'dictionary form.'
There are also psych predicates that are made of psych nouns or onomatopoeia with a light verb *-sur-* 'to do,' e.g. *koukai-sur-* 'to regret(v.)' ('regret(n.)'+'do'), *bikkuri-sur-* 'to 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.'

c. ExpSubj – Stimulus-*O*/-*NI*: *kanasimu* 'be sad,' *yorokobu* 'be/get pleased,' etc.

(Note that some of ExpSubj verbs listed above also vary between -*o* and -*ni* depending on the contexts and the users.)

Regarding ExpObj verbs in Japanese, they are morphologically derived from ExpSubj verbs by suffixing a causative morpheme -(*s*)*ase*.[14] However, not all ExpSubj verbs have ExpObj variants. Most ExpSubj-*NI* verbs, including those that alternate between -*o* and -*ni*, appear to productively form ExpObj causatives, as shown in (110).

(110) 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 pleased-CAUS-PST
        'The present pleased Maki.'

Most ExpSubj-*O* verbs, on the other hand, seem not to produce natural ExpObj variants, as in (111a); although a "regular" causative construction like (111b) below may be tolerable instead.

(111) 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.'

Nevertheless, there is an exception: an ExpSubj-*O* verb, *tanosim-* 'to enjoy,' can form an ExpObj variant without problems.

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[14] In Japanese there are some different morphemes that produce causative variants from noncausative predicates, e.g. -*su/-seru, -sasu/-saseru,* and -*simu/-simeru* (literary or archaic/colloquial), and there are a few ExpObj causatives that end with another causative morpheme than -(*s*)*ase*-, e.g. *hazukasimeru* 'humiliate,' *korasimeru* 'teach a lesson,' *kurusimeru* 'torment.' It would be interesting to compare the semantics of these different types of causatives, but we leave this for future studies.

(112) a. Maki-ga   sono hanasi-o   tanosimda.

      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.'

There are exceptions in ExpSubj-*NI* verbs as well. As we noted above, there are a few ExpSubj verbs whose *ni*-marked objects are rather interpreted 'Object of Emotion' than 'Cause of Emotion,' as shown in (113a). Unlike other ExpSubj-*NI* verbs, they seem unable to form ExpObj variants, as in (113b); although, again, a "regular" causative construction may be tolerable, as in (113c). In other words, these verbs behave just like ExpObj-*O* verbs. (The details of causative constructions will be discussed in chapter 4.)

(113) a. Taro-ga   Hanako-ni akogareta.

      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.'

Summarizing, Japanese presents ExpObj verbs in the following manner:

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

Additionally, Japanese preferably employs adjectival predicates to describe psychological states. We would like to devote some space to mention these psych adjectives (although we do not conduct detailed analysis on them in this study), because they actually behave as if they were verbal ones.

(115) Psych adjectives in Japanese:

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* 'derirable,' *osii* 'regrettable,' *osorosii* 'terrible,' *sukida* 'like,' *tanosii* 'pleasant, enjoyable,' *toutoi* 'venerable,' *utagawasii* 'doubtful,' *utomasii* 'desagreeable,' *uyauyasii* 'reverent,' *uramesii* 'reproachful,' *urayamasii* 'enviable,' *kanasii* 'sad,' *yorokobasii* 'glad,' etc.

Most of psych adjectives are morphologically related to ExpSubj-*O* verbs; namely, they share the same root, as shown in (116).[15]

(116) a. Maki-wa   Taro-o   nikumda   (ExpSubj-*O* verb)

    Maki-TOP Taro-ACC hate.PST

  'Maki hated Taro.'

  b. Maki-wa   Taro-ga   nikui.   (Psych adjective)

    Maki-TOP Taro-NOM hateful

  'Maki hates Taro.' (Lit. 'To Maki Taro is (a) hateful (person).')

Psych adjectives behave just like their verbal counterparts in the sense that these adjectives are typically used to express the Experiencer's mental states toward the Stimulus, as shown in (117). Actually, most psych adjectives can also be used to express the Stimulus's attributes, as show in (118a), but there are some that lack of this use, as in (118b) (for more details of psych adjectives, see Shibatani 2000[2001]).

(117) a. Maki-(ni)wa   obake-ga   osorosii.

    Maki-(DAT)TOP ghost-NOM terrible

  'Maki fears ghosts (Lit. For Maki ghosts are frightening)'

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[15] Even psych adjectives that have no verbal counterparts can form psych verbs by attaching *-garu*, e.g. *kowai* 'scary'/ *kowa-garu* 'look scared,' *uresii* 'glad'/ *uresi-garu* 'look happy.'

    a. Maki-wa   hebi-ga   kowai.   b. Maki-wa   hebi-o(?-ni)   kowa-garu.

      Maki-TOP snake-NOM scary   Maki-TOP snake-ACC/-*NI* look scared

      'Maki fears snakes.'   'Maki is scared of snakes.'

b. Maki-wa   inu-ga   sukida/kiraida/hosii.

Maki-TOP dog-NOM like/hate/want

'Maki likes/hates/wants dogs.'(There are no corresponding adjectives in English)

(118) a. Obake-wa osorosii.

ghost-TOP terrible

'Ghosts are frightening.'

b. *Inu-wa   sukida/kiraida/hosii.

dog-TOP like/hate/want

Intended: 'Dogs are pleasant/hateful/desirable.'

So far we have seen that Japanese displays two classes of ExpSubj verbs, ExpSubj-*O* verbs and ExpSubj-*NI* verbs. ExpObj verbs are formed from the latter class and a causative morphology. There are also many psych adjectives that are closely related to ExpSubj-*O* verbs. The two classes of ExpSubj verbs differ in the case marking of their arguments. 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.

2.3.2. Two Classes of ExpSubj Verbs

As noted in the previous section, the elements marked by -*o* or -*ni* in clauses with psych predicates vary in their thematic interpretation. The *o*-marked objects are interpreted as the 'Object of Emotion,' while the *ni*-marked elements, except in 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 interacts not only 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 can be omitted.

(119) a. Maki-ga   *(Taro-o)   nikumda.
          Maki-NOM Taro-ACC hate.PST
        'Maki hated Taro.'
      b. Maki-ga   (monooto-ni) odoroita.
          Maki-NOM noise-*NI*   get surprised.PST
        'Maki got surprised (at a noise).'

There is another related piece of evidence that the *ni*-marked elements of psych verbs are optional phrases. 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, just like floated NQs and case-marked NPs do in (120a,b). However, a floated NQ cannot be accepted in (120c,d), because the NP is within a postpositional phrase and the c-commanding relationship is blocked.

(120) a. Paul-wa   [hon-o]   <u>san-satu</u> yomda.
          Paul-TOP book-ACC three-CL read.PST   (CL=classifier)
        'Paul read three books.'
      b. Ruth-wa   [ayasii   otoko-ni] <u>hutari</u>   atta.
          Ruth-TOP suspiciout mam-DAT two.CL meet.PST
        'Ruth met two suspicious men.'
      c. *Ruth-wa [[tomodati]-ni] <u>hutari</u>   but-are-ta.
          Ruth-TOP   friends-by two.CL hit-PASS-PST
        'Ruth was hit by two friends.'
      d. *Gail-wa   [[bou]-de]   ni-hon   jyuuji-o   tukutta.
          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 (120b) is a dative case marker, while the same particle in (120c) is a postposition introducing the passive agent. In other words, a ni-marked element can be a case-marked object or a postpositional phrase, and only the case-marked one passes the floated NQ test.

Applying this test to the two classes of ExpSubj verbs, the o-marked elements allow a floated NQ, as in (121a), whereas the ni-marked elements do not, as in (121b). This indicates that the former are case-marked NPs, while the latter are NPs within a postpositional use of -ni. That is, the o-marked objects of ExpSubj verbs are verb-selected arguments whereas the ni-marked elements are adjuncts (for more detailed discussion see Matsumura 1996).

(121) a. Ruth-wa [otoko-o] san-nin   nikumda.
         Ruth-TOP man-ACC three-CL hate.PST
       'Ruth hated three men.'
      b. *Gail-wa [[ayasii   otoko]-ni] san-nin   obieta.
         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' than 'Cause of Emotion,' however, we could see that they pattern like ExpSubj-O verbs. The ellipsis test indicates that their ni-marked elements are verb-selected arguments, as shown in (122a), although the same cannot be said in the NQ test, as in (122b).

(122) a. Maki-ga   *(eiga sutaa-ni) akogareta.
         Maki-NOM movie star-*NI* long.PST
       'Maki longed for *(the movie star).'
      b. *Maki-ga   eiga sutaa-ni hutari   akogareta.
         Maki-NOM movie star-*NI* two.CL long.PST
       'Maki longed for two movie stars.'

Moreover, there is another grammatical difference between the o-marked objects and the ni-marked elements, regarding passive sentences. The o-marked objects can be the subjects of passives, as in (123), while the ni-marked elements cannot, as in (124).

Regarding the ExpSubj verbs that mark their objectcs by *-ni* but behave just like ExpSubj-*O* verbs, again, pattern like ExpSubj-*O* verbs in this test, as shown in (125). Notice also that the passives of ExpSubj verbs can mark the Experiencer complement by *-kara* 'from' (Teramura 1982). This may suggest that the Experiencer of these verbs can be the source of the described emotional reaction or judgment.

(123) 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.'

(124) a. Taro-ga   sono hanasi-**ni**   odoroita.   '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).'

(125) a. Taro-ga   Maki-**ni**   horeta.   'Object of Emotion'
         Taro-NOM Maki-*NI* fall in 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.'

Summarizing so far, ExpSubj verbs differ in case marking, which interacts with the different thematic interpretations of the Stimulus, 'Object of Emotion' or 'Cause of Emotion,' and which also relates to the different grammatical status of the same participant, verb-selected argument or verb-external adjunct. These points are summarized below:

(126) a. ExpSubj-*O* verbs (e.g. *nikum-* 'hate'):

the *o*-marked element expresses 'Object of Emotion' and it is an argument

b. ExpSubj-*NI* verbs ((i) e.g. *akigare-* 'long for,' (ii) e.g. *odorok-* 'get surprised'):

(i) the *ni*-marked element expresses 'Object of Emotion' and it is an argument

(ii) the *ni*-marked element expresses 'Cause of Emotion' and it is an adjunct

If the *ni*-marked elements (that are interpreted as 'Cause of Emotion') are adjuncts, ExpSubj-*NI* verbs are one-place intransitive predicates. Assuming that intransitive verbs are divided into unergatives and unaccusatives, ExpSubj-*NI* verbs seem to have properties of both. 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, as described in (127a), while the causee marked by the dative case marker is interpreted as following her or his own volition to carry out an act, as in (127b). In other words, agentive verbs have a choice of accusative case or dative case for the causee arguments in their causative constructions, whereas nonagentive verbs can mark the causee only by the accusative.

(127) a. Kanjya-ga   aruita.

    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).'

The subject of ExpSubj-*NI* verbs cannot be marked by the dative in a causative construction, as in (128b). This indicates that ExpSubj-*NI* verbs do not entail volition.

(128) a. Arisa-ga   odoroita.

   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, as shown in (129a), while that of an unaccusative cannot, as in (129b) (Kageyama 1993, Tsujimura 1996).

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

   Ruth-NOM sing-CAUS-PASS-PST

   'Ruth was made to sing.'

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

   flower-NOM bloom-CAUS-PASS-PST

   'The flower was made to bloom.'   (Matsumura 1996:129-130)

ExpSubj-*NI* verbs allow their subjects to be the subject of causative-passives, although the examples in (130a) sound a bit redundant (and one would use a simpler construction without causative or passive morpheme, as in (130b), since that would mean the same as the causative-passive construction).

(130) 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 {odoroita/   urotaeta/   yorokonda}.

   Lilian-TOP that news-by get surprised.PST/get upset.PST/get pleased.PST

   'Lilian got surprised/ got upset/ got pleased by the news.'

One assumed difference between unergatives and unaccusatives involves the presence/absence of an external argument, i.e. an inherent subject such as the Agent

argument. Given that ExpSubj-*NI* verbs behave like unergatives here, we conclude that they have an external argument.

In summary, Japanese has two classes of ExpSubj verbs that differ in the case marking for the Stimulus elements, ExpSubj-*O* verbs and ExpSubj-*NI* 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 verb-external adjuncts. Most ExpSubj-*NI* verbs are one-place predicates, and interestingly they 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 psychologically affected.

2.3.3. Case Marking and Thematic Relations

We have seen so far that 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.

(131) a. Maki-ga　　sono sirase{**-o/-ni**}　yorokonda.
　　　　Maki-NOM　that news-ACC/-*NI*　get pleased.PST
　　　'Maki felt happy about/ became pleased at (because of) the news.'
　　b. Maki-ga　　sono sirase{**-o/-ni**}　kanasimda.
　　　　Maki-NOM　that news-ACC/-*NI*　be sad.PST
　　　'Maki felt sad about/ became sad at (because of) the news.'

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 some ExpSubj verbs that can appear in both constructions (e.g. *kanasim-* 'to be sad,' *yorokob-* 'to become happy,' and possibly more), and their thematic interpretations correlate with the case marking of the arguments. For instance, *the news* in (131a) above is evaluated as something pleasing or sad by the Experiencer, while in (113b) it is merely a cause of the Experiencer's emotional states.

In terms of proto-role entailments, therefore, ExpSubj-*NI* verbs may 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 (132a). To solve this, 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. Taking this into account, the argument realization of ExpSubj-*NI* verbs can be schematized as in (132b).

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

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

b. ExpSubj (– Stimulus-*NI*):

Pred.	< x >
Proto-role entailment:	'Sentience' (P-A)
	'Change of state' (P-P)
Argument Selection:	→ SUBJ

What about ExpSubj-*O* verbs? The *o*-marked arguments are interpreted as 'Object of Emotion,' which is a target of emotional evaluation, and not a cause. Therefore, these predicates do not entail a property of 'causation,' and we need a different proto-role

property to fill this slot. As a solution, we could regard the 'Object of Emotion' as involving a Proto-Patient property of 'stationary,' as we proposed for some psych verbs in Spanish in section 2.2.3. The argument realization of ExpSubj-*O* verbs, then, can be sufficiently explained by the Proto-Agentivity of one argument, as in (133b).

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

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

b. ExpSubj – Stimulus-*O*:

Pred.	< x,	y >
Proto-role entailment:	'Sentience' (P-A)	'Stationary' (P-P)
Argument Selection:	→ SUBJ	→ OBJ

2.4. Summary: Psych Verbs and Case Alternation

In this chapter, 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. The classification of psych verbs based on the linking between thematic roles and case marking is not an absolute one because psych verbs present different kinds of case alternations in the two 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, this study defended the utility of proto-role entailments.

Spanish presents ExpNOM verbs, including those whose Stimulus argument appear as direct object or in a prepositional phrase, and two classes of ExpObj constructions, ExpACC and ExpDAT. (Note that there is also a view that the dative experiencers can be considered as 'dative subjects' rather than canonical indirect objects. In that case, ExpDAT verbs should be grouped together with ExpNOM verbs as ExpSubj

constructions.) There are also different types of reflexive psych verbs, one large group of which can be derived from ExpACC verbs.

(134) Psych verbs (constructions) in Spanish:

    a. ExpNOM(-StimulusDO/OBL):

      María odia/confía en los adultos.

      María hates/trusts in the adults

      'María hates/trusts adults.'

    b. ExpDAT:

      A María le gusta la opera.

      to María DAT pleases the opera

      'María likes the opera (The opera pleases María).'

    c. ExpACC:

      Juan asustó   a María (La asustó).

      Juan frighntened to María (ACC frightened)

      'Juan frightened María.'

    d. Reflexive Psych Verbs:

      María se asustó   por el ruido.

      María SE frightened by the sound

      'María got frightened by the sound'

Japanese, in contrast, has two classes of ExpSubj verbs that differ in the case marking of the Stimulus arguments, ExpSubj-*O* verbs and ExpSubj-*NI* verbs. ExpSubj-*NI* verbs are considered as one-place predicates because their *ni*-marked elements are rather verb-external adjuncts. They look similar to Spanish ExpNOM verbs whose objects appear as prepositional phrases (e.g. *confiar en* 'trust in'), but recall that such prepositional phrases in Spanish are oblique complements that are verb-selected. Regarding ExpObj verbs, Japanese uses a morphological strategy to produce them from ExpSubj verbs (as for the derivational contrast between Spanish and Japanese, we will discuss the details in chapter 4). In addition, Japanese has no verbs that correspond to Spanish ExpDAT verbs, but it does have psych adjectives. Most psych adjectives have ExpSubj-*O* verbal counterparts and behave just like them.

(135) Psych verbs (constructions) in Japanese:

    a. ExpSubj-Stimulus*O*:

      Maki-ga   hebi-o   osoreta.

      Maki-NOM snakes-ACC fear.PST

      'Maki feared snakes.'

    b. ExpSubj-Stimulus*NI*:

      Maki-ga   monooto-ni odoroita.

      Maki-NOM sound-*NI*   get srprised.PST

      'Maki got surprised by the sound.'

    c. ExpObj causatives:

      Taro-ga   Maki-o   odorok-ase-ta.

      Taro-NOM Maki-ACC get surprised-CAUS-PST

     'Taro surprised Maki.'

    (d. Psych adjectives:

      Maki-(ni)wa   hebi-ga   osorosii.

      Maki-(DAT)TOP snakes-NOM horrible

      'Maki fears snakes (For Maki snakes are scary).')

Psych verbs in both Spanish and Japanese show some types of case alternations. Spanish psych verbs display an ACC-DAT alternation (e.g. *Le/La asustó eso* 'That frightened her') and a DAT-NOM alternation (e.g. *A ella le repugna eso/Ella repugna eso* 'She detests that') for the Experiencer arguments and a DO-OBL alternation (e.g. *Ella teme eso/ teme por eso* 'She fears (for) that') for the Stimulus arguments. The meaning difference between the variants in the ACC-DAT alternation can be described in terms of the proto-role properties of 'volition' and /or 'change of state.' The meaning difference between the variants in the DAT-NOM alternation is that the NOM variant is interpreted more volitional than the DAT one. The DO-OBL alternation also shows minor meaning difference between the variants; if any, the Stimulus argument is rather a target of the emotional evaluation in the DO variant. In other words, the Stimulus arguments are not always characterized by the proto-role property of 'causation.' We instead defended the utility of a proto-property of 'stationary.' Japanese psych verbs also show *O*(ACC)-*NI*(OBL) alternation for the Stimulus arguments. The *o*-marked elements are interpreted as 'Object of Emotion,' while the *ni*-marked elements, except a few cases, are regarded 'Cause of Emotion.' This meaning difference indeed lies in

whether the object is a target of emotional evaluation or a mere cause of the denoted emotion. Again, the proto-role property of 'stationary' accounts for the 'target' interpretation of the elements.

Some psych constructions seem not easy to explain by means of the argument realization mechanism based on the traditional proto-role entailments. The source of the problem could be ascribed to the stativity of the predicates. 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 argument realization.

Chapter 3. The Aspectual Description of Psych Verbs

The argument realization of a predicate seems to be a reflection of the temporal properties of the predicate to some extent. There are a number of studies that discuss the relationship between aspectual classification and argument sturucture of psych verbs. However, it is difficult to classify psych verbs into any of Vendler's (1967) four aspectual classes; states, activities, accomplishments and achievements, since these verbs show various types of "inchoativity." In order to describe more efficiently the internal temporal structure of these verbs, this study takes the notion of 'boundary' (Piñón 1997) and its different types as relevant semantic components for the aspectual description of the predicates in question. After successively introducing basic ideas for the aspectual study of verbs, different views about the aspectual classification of psych verbs, and meaning of adopting the notion of boundary in section 3.1, we analyze the aspectual properties of psych verbs in Spanish and Japanese in sections 3.2 and 3.3 respectively. Psych verbs in the two languages vary in the case marking of arguments, as we saw in the previous chapter, and such variations in argument realization relate to the aspectual differences analyzed in terms of different types of boundaries.

3.1. Components of Lexical Aspect

3.1.1. Aspectual Classes and Diagnostics

A sentence presents temporal information about a situation via grammatical strategies such as 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 (for the fundamental distinction between tense and aspect, see Comrie 1976, Cann 1993, and Saeed 2009, among many others). 'Aspect' refers to two kinds of notions, grammatical aspect and lexical aspect. Grammatical aspect is expressed in syntactic or morphological forms to describe an event, for example, as complete or as ongoing or incomplete. 'Lexical aspect', on the

other hand, is usually used to refer to as aspectual categories (a.k.a. *Aktionsarten*) encoded in the meanings of 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 four aspectual classes: 'state,' 'activity,' 'accomplishment' and 'achievement' (Vendler 1967; cf. Dowty 1979, for an elaborated description; cf. Kearns 2011, Filip 2011, 2012, for updated descriptions). Some verbs for each class are listed below:

(136) 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.

The aspectual classes propossed in the literature are often characterized in terms of the semantic distinctions regarding dynamicity, durativity and telicity of the predicates.

(137) Semantic Distinctions between Four Aspectual Classes:

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

Dynamicity refers to 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 one. 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 (Kearns 2011, cf. Saeed 2009). Regarding achievements, they are often considered as genuinely punctual, although it has been a debatable issue (Vendler 1967, Dowty 1979, and many others). If achievements are instantaneous events that happen at a moment, the telicity of achievements may be different from that of accomplishments. That is, while accomplishments involve *telos* as a part, achievements are themselves the *telos* (for our discussion of achievements, see section 3.1.3).

The semantic differences between states, activities, accomplishments and achievements have been demonstrated by means of various types of grammatical tests (Dowty 1979, among many others). Firstly, dynamic predicates in the present tense normally yield a habitual interpretation or other "special" reading (a historical present, an immediate future, etc.). Stative predicates, on the other hand, can have a non-habitual interpretation, as seen by the acceptability of 'right now' as a modifier.

(138) a. John believes her story (right now).

b. John walks (every day/*right now).

c. John builds a house (every year/*right now).

d. John arrives in time (normally/*right now).

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

(139) a. She lived there {for/*in} two years.

b. She ran {for/*in} an hour.

c. She built a house {*for/in} a week.

d. She arrived at home {*for/in} 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 minute or so* (Kearns 2011:160). Some atelic predicates become 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 some statives accept an inchoative interpretation. 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': e.g. *The gang painted the wall for five years*; or an interpretation like 'the duration of the result state of an event': e.g. *He has left the office for a few minutes, but he will return soon* (for more details about different interpretations of temporal adverbials, see Dowty 1979 among others).

As another diagnostic of telicity, telic predicates in the progressive bear different entailments from atelic ones. With activities, the meaning of the form *be* V-*ing* entails the meaning of the form *have* V-*ed*; whereas with accomplishments, it does not (Kenny 1963). This phenomenon is also known as 'imperfective paradox' (Dowty 1979).

(140) a. He is walking.   → He has walked.
     b. He is baking a cake.   *→ He has baked a cake.
     c. She was running.   → She ran.
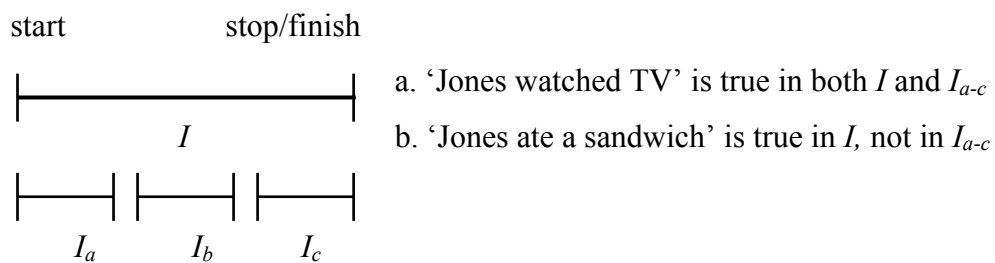   d. She was writing a letter. *→ She wrote a letter.

Achievements pattern like accomplishments on this test, as shown in (141). Note however, that achievements in the progressive have a "special" interpretation (Piñón 1997, Kearns 2003, 2011), called the "preliminary circumstance" interpretation by Kearns (2003). That is to say, 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 that "prelude" process (Kearns 2011). The "preliminary circumstance" reading of achievement verbs in the progressive form, such that described in (142a), seems not natural with accomplishment verbs, as in (142b).

(141) a. He is dying.   *→ He has died.
     b. She was arriving at home. *→ She arrived at home.

(142) 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). (Kearns 2011:165)

The entailment difference between activity verbs and accomplishment verbs has to do with the presence/absence of the 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.

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

start   stop/finish

|————————————————| a. 'Jones watched TV' is true in both *I* and I_{a-c}

        I   b. 'Jones ate a sandwich' is true in *I,* not in I_{a-c}

|——| |——| |——|

  I_a I_b I_c

In addition, the incompatibility with the progressive form apparently distinguishes stative predicates from the other aspectual classes. That is, as shown in (144), 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. 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, as described in (145).

(144) a. *John is knowing Mary.
     b. John is running.
     c. John is painting a picture.
     d. John is dying.

(145) a. We live in London.
     b. We are living in London.

To sum up, Vendler's (1967) four aspectual classes are distinguished in terms of dynamicity, durativity and telicity. Basically: (i) dynamicity/stativity is characterized by the habitual/non-habitual interpretation in the present tense; (ii) durativity appears as the compatibility with *for* adverbials, while telicity requires *in* adverbials instead; (iii) telicity is also reflected in entailment difference in the progressives; and (iv) the acceptability of the progressive form excludes statives with some exceptions. Although these aspectual diagnostics are proposed for English verbs in the literature, they are applicable to other languages with some modification. A language may also have some specific tests for its own.

(146) Aspectual classes and some diagnostics:

	State	Activity	Accomplishment	Achievement
i) The present tense	Non-habitual	Habitual	Habitual	Habitual
ii) *for* vs. *in*	*for/*in*	*for/*in*	**for/in*	**for/in* (!)
iii) 'be V-ing'				
→ 'have V-ed'	N/A	Entailed	Not entailed	Not entailed (!)
iv) The progressive	No/Yes	Yes	Yes	Yes (!)

(!: The test results with achievements require some explanation, as we have done above)

Taking all these points into account, we will analyze the aspectual nature of psych verbs of Spanish and Japanese later on. Before that, we will see how the proposals regarding the aspectual classification of psych verbs in general vary in the literature. In order to describe the temporal properties of these verbs, it seems indispensable to consider the notions of stativity, inchoativity and causativity.

3.1.2. Psych Verbs: Stativity, Inchoativity and Causativity

There are a number of attempts to explain variation in argument structure in terms of the aspectual differences between the predicates. 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 from a different perspective, i.e. in terms of 'causal chain.' Pylkkänen (2000), however, argues that ExpSubj verbs and ExpObj verbs do not differ in stativity/causativity but rather in the Individual-level/Stage-level stativity. There are also arguments that psych verbs do not vary in lexical aspect. Arad (1998) states that a verb can be a psych verb only on a stative reading, i.e. psych verbs are stative. Van Voorst (1992) claims that all classes of psych verbs are achievement predicates.

Grimshaw (1990), as we mentioned in chapter 1, proposes that ExpSubj verbs (e.g. *like, fear*) are stative, while ExpObj verbs (e.g. *please, frighten*) are nonstative causatives, and therefore accomplishments, because at the time 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 event complexity. According to Dowty (1979), stative predicates are semantically primitive and the other aspectual classes can be decomposed into a stative predicate plus a small set of abstract predicates such as DO (agentivity), BECOME (definite change of state) and CAUSE (causation), as represented in (147). Accomplishments are analyzed as having the logical structure 'φ CAUSE ψ,' where φ and ψ are sentences containing DO or BECOME. Therefore, while achievements are considered as BECOME ϕ ('single definite change of state'), accomplishments are represented as ψ CAUSE [BECOME ϕ] ('complex definite change of state'), as described in (148).

(147) a. Statives: e.g. $\pi_n(\alpha_1, ..., \alpha_n)$

b. Activities: e.g. DO $(\alpha_1, [\pi_n(\alpha_1, ..., \alpha_n)])$

c. Achievements: e.g. BECOME $[\pi_n(\alpha_1, ..., \alpha_n)]$

d. Accomplishments: e.g. [[DO $(\alpha_1, [\pi_n(\alpha_1, ..., \alpha_n)])]$] CAUSE [BECOME $[\rho_m(\beta_1, ..., \beta_m)]]]$

(148) 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]]]
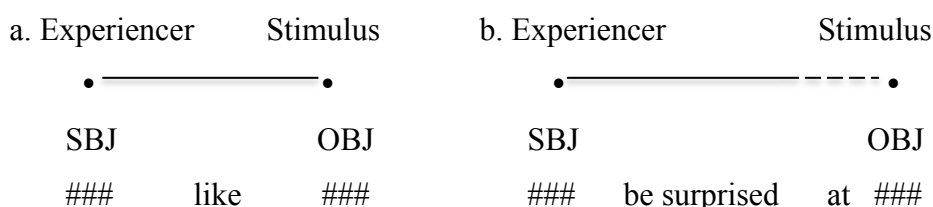
However, later studies revised the plausibility of this 'accomplishments=causative' view. For instance, there are accomplishments that are not causative, e.g. *John drove a car from Boston to Detroit,* and there are also causatives that are not accomplishments,

e.g. *The clowns walked the elephants around in a circle {for/#in} five minutes* (Filip 2011). Moreover, the notion of causativity actually should be separated from the notion of aspect (Pylkkänen 2000; see below for the details of her proposal).
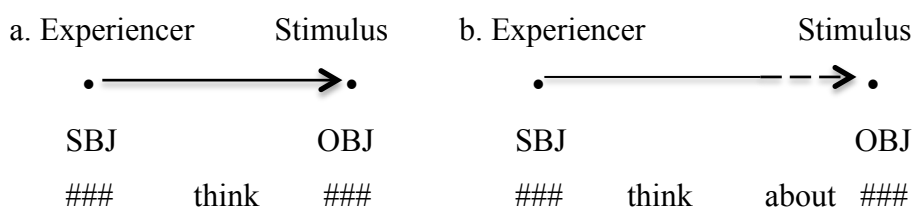
Croft (1993) also asserts, from a different perspective, that ExpSubj verbs are purely stative while ExpObj verbs are causative. More precisely, the Experiencer in ExpSubj verbs is characterized as "simply being in a mental state regarding the Stimulus," whereas the Stimulus in ExpObj verbs "causes the Experiencer to enter the mental state" (Croft 1993:56). According to him, 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*. Assuming that linguistic processes such as subject-object selection, surface case assignment and verbal voice can be accounted for by the cognitive conceptualization of events as 'causal chains,' Croft schematizes the causal chains of psych verbs as below:

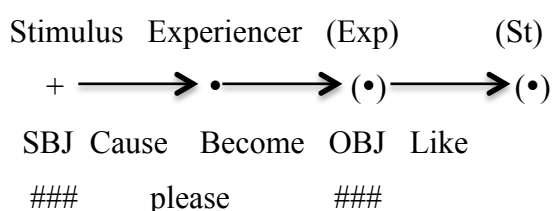(149) Causal chains of psych predicates:

(i) Stative mental verbs:

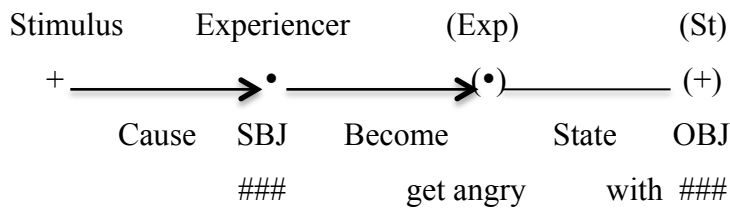a. Experiencer   Stimulus   b. Experiencer   Stimulus

    •————————•   •————————- - - -•

    SBJ   OBJ   SBJ   OBJ

    ###   like   ###   ###   be surprised   at   ###

(ii) Mental activity verbs:

a. Experiencer   Stimulus   b. Experiencer   Stimulus

    •————————▶•   •————————- -▶•

    SBJ   OBJ   SBJ   OBJ

    ###   think   ###   ###   think   about   ###

(iii) Causative mental verbs:

Stimulus Experiencer (Exp)   (St)

  +————▶•————▶(•)————▶(•)

  SBJ Cause Become OBJ Like

  ###   please   ###

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(iv) Inchoative mental verbs:

Stimulus   Experiencer   (Exp)   (St)

+ ——————→ • ——————→ (•)——————— (+)

     Cause   SBJ   Become   State   OBJ

     ###   get angry   with ###

That is to say, the causal chain associated with each class of psych verbs predicts their subject-object selection. However, as mentioned in 2.2.3 of the previous chapter, the subject-object selection of stative mental verbs is not universally predictable because it is difficult to specify any causal chain for stative predicates.

There are also some opinions that psych verbs do not vary in aspectual class. For instance, Van Voorst (1992) argues that psych verbs are not states, activities nor accomplishments; rather, they are achievements. First, he proposes that there are four classes in psych verbs as follow:

(150) (I) From action verb to psych verb

    a. *He struck me as rather odd.*

  (II) Psych verbs with an intentional subject

    b. *The clown tried to amuse me.*

  (III) Psych verbs with a non-intentional subject

    c. *The airplane crash upset me a lot.*

  (IV) Psych verbs of the dislike-type

    d. *We all detested the dirty streets in that area.*   (Van Voorst 1992:66-67)

Van Voorst (1992) argues that psych predicates are not stative because they describe eventualities that take place. Therefore, unlike other stative predicates as (151), they can appear in the pseudo-cleft construction, as in (152).

(151) *What the class did was matter a lot.

(152) 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)

Van Voorst claims that psych verbs are not accomplishments, either, according to the interpretation obtained in the context with the adverb *almost*. With accomplishment verbs, the adverb *almost* presents ambiguity between two readings, 'fail to begin' and 'fail to end'; while with the other aspectual classes, only one reading is possible, as shown in (153). This ambiguity is a reflection of the event complexity of accomplishments. That is, accomplishment verbs describe complex events that consist of a process and a change of state, and the adverb *almost* can scope over each of these subevents. In the case of psych verbs, none of the four classes are accomplishments because when modified by *almost* they can only have the interpretation that the situation in question failed to begin, as in (154).

(153) 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'

(154) 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'

<div align="right">(Van Voorst 1992:70)</div>

Psych verbs are not activities, either, due to the effect of the individuation (or 'quantization') of direct objects. Some activities can become accomplishments when the object is quantized. For instance, the verb *drink* with a mass noun describes an atelic event (i.e. activity), e.g. *He drank red wine {*in 15 minutes/for two hours}*; while with a quantized object the verb phrase becomes telic (i.e. an accomplishment), e.g. *He drank a bottle of red wine {in 15 minutes/*for two hours}*. The *almost* test just mentioned above also detects the aspectual change from an activity to an accomplishment, as shown in (155). Psych verbs on this test are not activity predicates since they do not behave as accomplishments even with quantized objects, as in (156).

(155) a. He almost drank red wine.   'almost started'

     b. He almost drank a bottle of red wine.   'almost started' or 'almost finished'

(156) 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'

<div align="right">(Van Voorst 1992:71-72)</div>

Taking these test results, Van Voorst (1992) concludes that psych verbs are more like achievements. Note, however, that his "achievements" seem to refer to inchoative predicates that describe the beginning of a state, such as *notice*.

In contrast to Van Voorst, Arad (1998) claims that verbs can be "psych" only on a stative reading. In other words, all verbs or uses that are psychological are stative. According to her, a verb can have three different readings that are characterized by the combinations of the semantic features of 'agentivity' and 'change of state,' as below:

(157) (i) agentive reading   [+Agent, +Change of state]   (e.g. 158a)

     (ii) eventive reading [-Agent, +Change of state]   (e.g. 158b, c)

     (iii) stative reading   [-Agent, -Change of state].   (e.g. 158d)

(158) a. Nina frightened Laura {deliberately/to make her go away}.

     b. Nina frightened Laura {unintentionally/accidentally}.

     c. {The explosion/The noise/the thunderstorm} frightenend Laura.

     d. John/John's behavior/Nuclear war frightened Nina.   (Arad 1998:3-4)

Arad defines the stative reading as follows: "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 the Stimulus in the stative reading is an inherent part of the mental state, while the Stimulus in the agentive and eventive readings is rather an Agent or Causer, which is not part of the mental state but merely brings it about.

Finally, Pylkkänen (2000) argues that ExpSubj verbs and ExpObj verbs are not in opposition in the stativity/causativity distinction; she claims that there are indeed stative ExpObj causatives in Finnish. According to her, Finnish displays two classes of ExpSubj verbs, stative ones and nonstative ones, as in (159a) and (160a) respectively. A morphological difference between them is that the nonstative ones involve the inchoative morpheme *-stu*. Moreover, stative ExpSubj verbs mark their objects in the partitive case, while nonstative ExpSubj verbs mark their objects in the elative case. Regarding ExpObj verbs in this language, they are morphologically causative because they are formed from ExpSubj verbs by suffixing the causative morpheme *-tta*. Both stative and nonstative classes of ExpSubj verbs can form ExpObj causative counterparts, as in (159b) and (160b) respectively.

(159) a. Mikko inhoa-a   hyttysi-ä.   (Stative ExpSubj verbs)
   MikkoNOM find disgusting-3SG mosquitos-PAR
  'Mikko finds mosquitos disgusting.'
  b. Hyttyset   inho-**tta**-vat   Mikko-a. (ExpObj causatives)
   mosquitosNOM find disgusting-**CAUS**-3PL Mikko-PAR
  'Mosquitos disgust Mikko.'

(160) 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. (ExpObj causatives)
   newsNOM angry-INCHO-**CAUS**.PST-3PL Mikko-PAR
  'The news made Mikko become angry.'

                 (Pylkkänen 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 (Pylkkänen 2000:420), as shown in (161a). Achievements are incompatible with partitive objects, as in (161b), since they inherently involve culmination. States are incompatible with accusative objects, as in (161c), since they are inherently atelic.

(161) 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.'   (Pylkkänen 2000:421)

Regarding ExpObj causatives, they are not compatible with accusative objects, just like their ExpSubj variants, as described in (162). In other words, ExpObj causatives derived from stative ExpSubj verbs are not accomplishments.

(162) 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 separate notion from aspectual class. ExpSubj verbs and ExpObj verbs should not be characterized by the stative/causative distinction, but rather by the Individual-level/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 spatiotemporally delimited property of an entity, e.g. *available, drunk, stand on a chair* (Carlson 1977, Kratzer 1995).

The incompatibility with temporal or locative adverbials, for instance, distinguishes Individual-level predicates from Stage-level ones, as in (163).

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(163) 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)

Moreover, bare plurals only yield a generic interpretation with Individual-level predicates, while they naturally have an existential (or arguably also universal) reading with Stage-level predicates.

(164) a. Eurooppalaiset   pohti-vat   tulevaisuu-tta.   (Only generic reading)
            Europeans.NOM wonder-3PL future-PAR
         '(All) Europeans wonder about the future.'
      b. Eurooppalaisi-a pohditu-tta-a   tulevaisuus. (Existential (and generic) reading)
         Europeans-PAR wonder-CAUS-3SG future.NOM
        'The future makes (all/some) Europeans wonder.'   (Pylkkänen 2000:427)

Furthermore, the unacceptability of quantificational adverbials such as *always* differentiates Individual-level predicates from Stage-level ones.

(165) 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 views on the aspectual classification of psych predicates. If we separate causativity from aspectual notions, as Pylkkänen (2000) suggests, 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 (e.g. *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 (for the variety of views on achievements, see Vendler 1967, Dowty 1979, Mittwoch 1988, Moen and Steedman 1988, and Piñón 1997, among many others). 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 achievements are truly instantaneous events that have no temporal duration. Among studies that defend the same position, Piñón (1997) sees achievements as 'boundary happenings,' since they describe the beginning or/and the ending of certain happenings. Applying his proposal, we will be able to posit some different types of 'boundary,' and hence, some subcategories under achievements. In this section, we summarize Piñón's ideas about the semantics of achievements, which will lead us a better understanding of the aspectual nature of psych verbs.

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 the latter usually correspond to the beginning or ending of a happening. "Eventualities" (Bach 1981,

1986) [16] such as states, activities and accomplishments are happenings, while achievements are boundary happenings.

(166) Happening and Boundaries:

z = happening (e.g. accomplishment)

x = left boundary (beginning)

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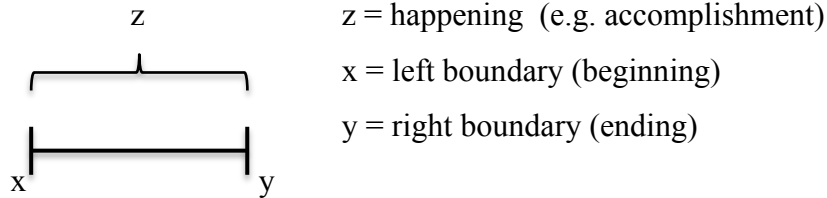
More precisely, "[a] boundary happening begins (ends) an eventuality of a particular type just in case no eventuality immediately preceding (following) it such that the sum of the two eventualities is of the same type" (Piñón 1997:289). Note especially that the beginnings and endings require reference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

(167) a. **Beg(inning)**:= λeλe′λP[Boundary-Happening(e) ∧ Eventuality(e′) ∧

  Left-Boundary(e, e′) ∧ P(e′) ∧ ¬∃e″[e″ « e′ ∧ P(e″⊕ e′)]]

  (i.e. boundary happening *e* begins eventuality *e'* of type *P*)

  b. **End(ing)**:= λeλe′λP[Boundary-Happening(e) ∧ Eventuality(e′) ∧

  Right-Boundary(e, e′) ∧ P(e′) ∧ ¬∃e″[e′ « e″ ∧ P(e′ ⊕ e″)]]

  (i.e. boundary happening *e* ends eventuality *e'* of type *P*)

  (Piñón 1997:289, Marín and McNally 2011: 491)[17]

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 (168a). 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 (168b). From this description, we could also infer another type. The verb *find*, for example,

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[16] Strictly, Bach's (1981,1986) 'eventualities' include states (e.g. *sit, stand, be in NY, love x*), processes (e.g. *walk, push a cart*) and events (e.g. *build x, walk to Baston, recognize, notice, die, reach the top*).
[17] In this study, we adopted Marín and McNally's (2011:491) notation, a slightly simplified version of Piñón's (1997:289), only for the convenience of our analysis on psych verbs.

describes a boundary happening that is the ending of a preceding event, as represented in (168c).

(168) a. *recognize*:= λ*y*λxλe[∃e′[**Beg**(e, e′, λe″[Recognize(e″) ∧ Happening(e″) ∧ Experiencer(e″, x) ∧ Theme(e″, y)])]]

b. *reach*:= λ*y*λxλe[∃e′[**End**(e, e′, λe″[Motion(e″) ∧ Happening(e″) ∧ Agent(e″, x) ∧ Goal(e″, y) ∧ ∃e‴[**Beg**(e, e‴, λe⁗[Be-On(e⁗) ∧ Happening(e⁗) ∧ Theme(e⁗, x) ∧ Location(e⁗, y)])]])]]

c. *find*:= λ*y*λxλe[∃e′[**End**(e, e′, λe″[Motion (e″) ∧ Happening(e″) ∧ Experiencer(e″, x) ∧ Theme(e″, y)])]]   (based on Piñón 1997:291)

Based on Piñón's (1997) descriptions of boundary happnings, we roughly schematize theeir subclasses 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*).

(169) Boundary happenings:

i) beginning ('left boundary happening'):

ii) ending=beginning ('left=right boundary happening'):

ii) ending ('right boundary happening'):

Consequently, achievements are distinguished from accomplishments for being truly instantaneous events. While accomplishments are events involving a process leading up to an end, achievements lack a process component 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 present 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' (Comrie 1976, Smith 1991). 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 that semelfactives with *for* adverbials yield an iterative interpretation, which is also observed in the progressive: e.g. *Jones was rapping the table*.

In summary, 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 will be able to see more clearly the semantic differences between aspectual classes and we can also offer a more successful account of the linguistic phenomena related to the aspectual nature of psych verbs.

In the next two sections, we will examine the aspectual nature of Spanish and Japanese psych verbs to see to what extent the aspectual nature of the predicates interacts with argument realization. The variations in argument realization of psych verbs correlate with different types of boundary, or more concretely, the presence/absence or the explicitness/implicitness of boundary the predicates denote.

3.2. The Aspectual Description 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. Spanish reflexive psych verbs (e.g. *asustarse* 'to get surprised') appear to consist of two aspectually different classes, and the same can be said for the related ExpObj variants. In this section, we perform an aspectual analysis on ExpNOM verbs, ExpDAT verbs, ExpACC verbs, and reflexive psych verbs, and describe them in terms of the notion of 'boundary' and its different types.

3.2.1. ExpNOM Verbs and ExpDAT Verbs

We will first examine the aspectual class of ExpNOM verbs (e.g. *odiar* 'to hate', *temer (por)* 'to fear (for)') and ExpDAT verbs (e.g. *agradar* 'to please,' *gustar* 'to please, to like'). As most researchers assert, it seems uncontroversial that these predicates are stative (see De Miguel 1999, Marín 2001, Vanhoe 2002, Di Tullio 2004, among others). More concretely, both ExpNOM verbs and ExpDAT verbs display 'Individual-level' stativity (see Marín 2001 and Vanhoe 2002).

Firstly, let us recall the dynamicity/stativity distinction in verbs. Basically, dynamic events happen or occur, while states are obtained or hold. This intuitive distinction is often demonstrated by the acceptability of the *ocurrió que* 'it occurred that' construction. Dynamic predicates can appear in this construction, whereas nondynamic predicates cannot, as shown below:

(170) 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)

On this test, ExpNOM verbs and ExpDAT verbs are indeed stative predicates due to the incompatibility with *ocurrió que*.

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

      occuered that Ana abhored the food vegetarian

    'It occurred that Ana abhorred vegetarian food.'

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

      Occuered that DAT pleased that SE understood.SJV well with your step mother

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

      stepmother.'   (Vanhoe 2002:158,163; translation mine)

Another diagnostic for stativity is incompatibility with the verb *parar* 'stop.' According to De Miguel (1999:3012), 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 (172b). Therefore, dynamic predicates can be the complement of *parar,* as shown in (172a); whereas stative predicates cannot (although they accept the verb *dejar* instead)*,* as in (172b).

(172) 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'

Regarding ExpNOM verbs and ExpDAT verbs, they cannot be the complement of *parar* (although they accept *dejar* just like other statives). Therefore, they are stative.

(173) 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.'

Moreover, as we noted in section 3.1.1, it is often assumed that stative predicates in the simple present tense have a non-habitual interpretation, while dynamic predicates typically have a habitual interpretation or other special reading, such as historical present, immediate future, etc. However, 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.' Taking this into account, we could say that stative predicates in the simple present tense have a non-habitual interpretation, as shown in (174a); while dynamic predicates typically yield a habitual reading and not a non-habitual one, as in (174b,c), unless in a 'progressive present' use of the simple present tense.

(174) a. Ella sabe inglés.   [non-habitual]
      she knows English
    'She knows English.'
   b. Su hermano trabaja (cada día).   [habitual]
    her/his brother works each day
    'Her/His brother works (every day).'
   c. Rocío corta el cesped (todos los días). [habitual]
    Rocío cuts the lawn all the days
    'Rocío mows the lawn (every day).'
       (b and c extracted from Marín 2001:38; translation and parentheses mine)

As for ExpNOM verbs and ExpDAT verbs, these verbs in the simple present tense yield a non-habitual interpretation. Therefore, they are stative predicates.

(175) a. Ana odia la comida vegetariana (*todos los días).   [non-habitual]
    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). [non-habitual]
    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, Kratzer 1995). In Spanish linguistics, this distinction closely correlates to the copula *ser/estar* 'to be' selection. According to De Miguel (1999), for instance, "*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* 'to be from Madrid') are distinguished 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* 'to 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'). Following this description, Marín (2001) calls the Individual-level states '*estados no acotados*' and the Stage-level states, '*estados acotados.*'

For instance, '*estados no acotados*' generally cannot appear in a temporally delimited context, such that expressed by *siempre que* 'every time' or *cuando* 'when,' as shown in (176a,b). '*Estados acotados,*' in contrast, can appear in such contexts, as in (176c,d).

(176) a. *Siempre que/Cuando María es alegre, todo le   sale   muy bien.
         always that/ when   María is cheeful 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 cheeful 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 2001:97, translation mine)

Regarding ExpNOM verbs and ExpDAT verbs, they pattern like '*estados no acotados,*' as shown below (although the example 177b may be tolerable, as noted by Marín 2001).

(177) a. *Siempre que Juan detesta/odia las acelgas, se deprime.

    always that Juan detests/hates the chards SE depresses

   'Every time Juan detests/hates Swiss chard, he gets depressed.'

  b. ?Siempre que a Juan le apetece/gusta/repugna algo,

    always that to Juan DAT fancies/pleases/disgusts something

   se pone insoportable.

   SE puts unbearable

  'Every time Juan feels like/loves/detests something, he becomes unbearable.'

<div align="right">(Marín 2001:75-76, translation mine)</div>

To sum up, ExpNOM verbs like *odiar* 'to hate' and ExpDAT verbs like *gustar* 'to please' can be considered as stative predicates according to the following aspectual diagnostics: (i) the incompatibility with *ocurrió que* 'it occurred that'; (ii) incompatibility with *parar* 'to stop'; and (iii) the non-habitual interpretation in the simple present tense. Moreover, these psych verbs behave like '*estados no acotados*' (Individual-level states) with respect to (iv) the incompatibility with a temporally delimited context. Now, we turn to the aspectual classification of the other psych verbs.

3.2.2. ExpACC Verbs and Reflexive Psych Verbs

Unlike ExpNOM verbs and ExpDAT verbs, the aspectual classification of ExpACC verbs (e.g. *asustar* 'to frighten') and their reflexive variants (e.g. *asustarse* 'to get surprised') have been the subject of more debate. Some argue that psych verbs are stative across classes (Arad 1998), although states consist of different types (Marín 2001), while others 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 predicate, or '*verbos ingresivos*' (Vanhoe 2002, cf. Van Voorst 1992).

In this section, we highlight the relevant points of this last characterization, on the basis of Marín and McNally's (2011) proposal that Spanish reflexive psych verbs comprise two aspectually different classes, stative inchoatives (e.g. *aburrir(se)* 'to be/become bored') and truly punctual inchoatives (e.g. *enfadar(se)* 'to become angry'). We then demonstrate that these aspectual subclasses of reflexive psych verbs could be extended to their ExpObj variants. In other words, ExpACC verbs and their reflexive psych verbs share their aspectual properties.

According to Marín and McNally (2011), Spanish reflexive psych verbs consist of two classes, the *aburrirse* 'to be/become bored' class and the *enfadarse* class 'to become angry.' Briefly put, both classes are inchoative predicates, but the former is stative and the latter is truly punctual.

(178) Spanish reflexive psych verbs (Marín and McNally 2011:474):

a. Nonpunctual (*aburrirse* 'to be/become bored' class):

agobiarse 'to get/feel overwhelmed,' *angustiarse* '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'

First, let us examine the dynamicity/stativity distinction of ExpACC verbs and their reflexive variants. These verbs compatible with *ocurrió que,* as shown in (179) and (180) respectively, and this indicates that they are dynamic.

(179) a. Ocurrió que   me enfadó   mucho tu comportamiento.

occuered that ACC angered much your behavior

'It occurred that your behavior angered me so much.'

b. Ocurrió que   me molestó   mucho tu comportamiento.

occuered that ACC bothered much your behavior

'It occurred that your behavior bothered me so much.'

(Vanhoe 2002:166; translation mine)

(180) a. Ocurrió que   Juan se enfadó   con su vecina   por una tontería.

occurred that Juan SE 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.'

(Vanhoe 2002:169; translation mine)

However, another dynamicity test contradicts this. ExpACC verbs and their reflexive variants cannot be the complement of the verb *parar*; they accept *dejar* instead, as shown in (181) and (180) respectively. This indicates that these predicates are nondynamic.

(181) 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.'

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

has stopped/left   of bore-SE/overwhelm-SE

'S/he has stopped being bored/being overwhelmed.'

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

has stopped/left   of anger-SE/frighten-SE

'S/he has stopped getting angry/frightened.'   (Marín and McNally 2011:483)

An intuitive interpretation of these test results is that ExpACC verbs and their reflexive variants describe an eventuality that can happen or occur (according to the compatibility with *occurió que*) but cannot be stopped in the middle of happning or ocurring (according to the incompatibility with *parar*).

Moreover, the interpretation in the simple present tense divides reflexive psych verbs into two classes. As Marín and McNally (2011) point out, some reflexive psych verbs can have a non-habitual interpretation, while the others typically have only a habitual reading. This suggests that some reflexive psych verbs are stative (e.g. *aburrir*(*se*) 'to be/become bored') and the others are nonstative (e.g. *enfadar*(*se*) 'to become angry').

(183) a. Se preocupa por el futuro de sus   hijos.   [non-habitual]
        SE worries   for the future of her/his sons
      'S/he is (now) worried about the future of her/his children.'
   b. Se asombra/asusta   de los fuegos artificiales.   [habitual]
        SE astonishs/frightenes of the fires   artificial
      'S/he is (generally) amazed/frightened by fireworks.'
      (Not: 'S/he is amazed/frightened (now) by fireworks.')

                                                        (Marín and McNally 2011:484-485)

Regarding their ExpACC variants, they show a similar behavior in the simple present tense. That is, some ExpACC verbs can have a non-habitual interpretation, while others typically yield a habitual reading (cf. Fabregas, et al. 2012).

(184) a. Se interesa   por la política.   [non-habitual]
          SE interests for the politics
       'S/he is interested in the politics.'
    b. Le   interesa   la política.   [non-habitual]
         DAT interests the politics
       'S/he is interested in the politics.'   (Fábregas, et al. 2012:166)

(185) a. Se asombra   con los fuegos artificiales.   [habitual]
           SE 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.'

Now, let us examine ExpACC verbs and their reflexive variants regarding (a)telicity by the (in)compatibility with temporal adverbials *durante/en* 'for/in.' Atelic verbs appear with *durante,* and not with *en,* to express the temporal duration of the denoted event, as shown in (186a). Telic verbs require *en,* and not *durante*, as in (186b).

(186) a. Paseó {*en/durante} una hora.

   strolled in/ for   a   hour

   'S/he strolled for an hour'

   b. Escribió su   tesis {en/*durante} nueve meses.[18]

   wrote her/his thesis in/ for   nine months

   'S/he wrote her/his thesis in nine months.'

On this test, both *aburrirse* class and *enfadarse* class are atelic, as described in (187). More precisely, the *enfadarse* class seems incompatible with both *en* and *durante,* as in (187b)*.* This class accepts *durante* adverbials only on an iterative reading; this indicates that the *enfadarse* class of verbs are punctual predicates.

(187) a. Se aburrió/divirtió {*en/durante} toda la tarde.

   SE 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.

   SE frightened/angered in/   for   all the afternoon

   'S/he got frightened/angry (repeatedly) the whole afternoon.'

      (Marín and McNally 2011:476; # is added to differentiate the iterative reading)

Note, however, that *en* adverbials have another reading, as we mentioned in 3.1.1 for English *in* adverbials. The *en* 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

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[18] For a native speaker, the example with *durante* would be fine in a reading that 'S/he wrote her/his thesis for nine months (and the thesis is not finished yet).'

predicates: e.g. *El secretatio 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, i.e. the 'after x time' reading, almost any aspectual class of predicates, except Individual-level ones, are compatible with *en* adverbials (Vanhoe 2002). The reason is that most predicates can be associated with an implicit beginning of the described event or state. In such a case, therefore, Spanish reflexive psych verbs could appear with *en* adverbials as below:

(188) a. Juan se aburrió de la película en diez minutos.

       Juan SE 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 SE 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, the *aburrir* class is durative atelic while the *enfadar* class is punctual atelic, just like their reflexive variants. Both the *aburrir* class and *enfadar* class looks incompatible with *en*, as shown in (189). However, there are cases where the *enfadar* class seems more tolerable with *en* adverbials than the *aburrir* class, as shown in (190b). This is probably because with the *enfadar* class it is easier to have the 'after x time' reading of *en* adverbials than with the *aburrir* class. Also there are cases where both classes seem compatible with *durante*. In such cases, the *enfadar* class yields an iterative interpretation, as in (191b), and this indicates that this class describes a punctual event.

(189) 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.'

(190) 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.'

<div align="right">(Vanhoe 2002:167, translation mine)</div>

(191) 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 thought.SJV so of me

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

<div align="right">(Vanhoe 2002:167, translation mine)</div>

Moreover, the atelicity of reflexive psych verbs can be attested in the entailments of the progressive forms. Atelic predicates (i.e. activities) in the progressive form entail a perfective meaning, as described in (192a), while telic predicates (i.e. accomplishments) do not, as in (192b).

(192) a. Juan está caminando.   →   Juan ha caminado.

     Juan is   walking   Juan has walked

     'Juan is walking.'   'Juan has walked.'

   b. Juan está escribiendo una carta. *→   Juan ha escrito una carta.

     Juan is   writing   a   letter   Juan has writen a letter

     'Juan is writing a letter.'   'Juan has written a letter.'

Achievements pattern like accomplishments, as shown in (193), although achievements in the progressive have the special 'preliminary circumstance' reading (Kearns 2003), as we already mentioned in 3.1.1.

(193) Juan está llegando a la estación. *→   Juan ha llegado a la estación.

     Juan is   arriving to the station   Juan has arrived to the station

     'Juan is arriving at the station.'   'Juan has arrived at the station.'

The *aburrirse* verbs in the progressive entail a perfective meaning, as in (194a), and therefore they are atelic. The *enfadarse* verbs, on the other hand, pattern like achievements, as in (194b). Namely, they have a 'preliminary circumstance' interpretation in the progressive.

(194) a. Juan se está aburriendo.   →   Juan se ha aburrido.

        Juan SE is boring   Juan SE has bored

        'Juan is bored.'   'Juan has gotten bored.'

    b. Ana se está enfadando.   *→   Ana se ha enfadado.

        Ana SE is angering   Ana SE has angered

        'Ana is getting angry.'   'Ana has become angry.'

The entailment difference between the progressives of *aburrirse* class and *enfadarse* class can be captured more clearly in the following examples. The sentence (195a) sounds contradictory because the subject is already bored, whereas (195b) sound fine (although it sounds a bit redundant) because the subject is not yet angry but rather is one the way to becoming angry.

(195) a. ??Se está aburriendo y se va a aburrir.

       SE is boring   and SE go to bore

     'S/he is bored, and she is going to get bored.'

   b. Se está enfadando y se va a enfadar.

      SE is angering   and SE go to anger

     'S/he is getting angry, and she is going to be angry.'

                                  (Marín and McNally 2011:486)

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

(196) a. Se estuvo aburriendo durante un rato.

       SE was boring   for   a while

     'S/he was (continuously) bored for a while.'

b. Se estuvo enfadando durante un rato.

   SE was   angering   for   a while

   'S/he was (repeatedly) getting angry for a while.'

<div align="right">(Marín and McNally 2011:486-487)</div>

Turning to their non-reflexive variants, the a*burrir* class in the progressive entails what is expressed in the perfective, as in (197a). The *enfadar* class in the progressive seems to entail the perfective meaning since it has an iterative interpretation, as in (197b).

(197) a. El trabajo está aburriendo a María.   →   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. *→   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 reflexive psych verbs are divided into *aburrir(se)* class and *enfadar(se)* class, as Marín and McNally (2011) argue. The *aburrir(se)* verbs are stative atelic predicates and the *enfadar(se)* verbs are atelic punctual predicates. Moreover, we have observed that this division could be applied to their non-reflexive variants, i.e. ExpACC verbs. Now we will turn our attention to the inchoativity of these predicates.

The notion of inchoativity is defined in the following manner. According to De Miguel (1991), inchoative verbs are those that describe a change of state (physical or psychological) that the subject undergoes. An inchoative predicate can focus either on the initial phase ('*verbos ingresivos*': e.g. *amanecer* 'to begin to get light,' *florecer* 'to bloom,' *marearse* 'to get sick'), the intermediate phase ('*verbos progresivos*'; e.g. *envejecer* 'to grow old,' *adormecerse* 'to fall sleep') or possibly the final phase ('*verbos terminativos*'; e.g. *encanecer* 'to turn gray') of an event or state. A difference between them can be captured by the (in)compatibility of punctual temporal adverbials such as *a las tres* 'at 3 o'clock.' That is, *verbos ingresivos* are compatible with such adverbials, as shown in (198a), while *verbos progresivos* and *verbos terminativos* are typically not, as in (198b,c).

(198) 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, translation mine)

Vanhoe (2002) proposes that *preocupar(se)*-type verbs (i.e. ExpACC verbs and their reflexive variants in general) are, with *se* or without *se, verbos ingresivos*. Nevertheless, his motivation for this proposal lies in that these predicates are neither traditional accomplishments nor achievements (since *preocupar(se)*-type verbs are incompatible with *en* adverbials), and not in that these psych verbs are not one of the other types of inchoatives mentioned just above. For instance, *preocupar(se)*-type verbs are mostly incompatible with punctual temporal adverbials, which contradicts De Miguel's (1999) description. Notice, however, that the examples Vanhoe (2002) shows actually suggest that *preocupar(se)*-type verbs fall into aspectually different types, and this coincides with the division that Marín and McNally (2011) made.

That is to say, the punctual *enfadar(se)* class are compatible with the 'at *x* o'clock' phrase, as shown in (199c, 200c), while the stative *aburrir(se)* class are not, as in (199a,b, 200a,b).

(199) 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)

(200) a. *A las tres,   el director   se   interesó   por los nuevos productos.

　　　　at the three the director SE interested for the new   products

　　　　'At 3 oclock, 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 SE 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 SE angered with his neighbor

　　　'At 3 o'clock, Juan became angry with his neighbor.'

<div align="right">(Vanhoe 2002:170, translation mine)</div>

The *aburrir(se)* verbs are not exactly De Miguel's *verbos ingresivos* since they do not pass the *a las tres* 'at 3 o'clock' test. In this respect, they are different from other inchoatives. The interpretation of contexts with reference time modifiers demonstrates that the *aburrir(se)* verbs are not ordinary stative predicates either. Rather, they are predicates that describe a state involving its own beginning.

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 interpretation of a sentence, and the interpretation seems to vary depending on the eventualities denoted by the sentence. With a reference time adverbial, such as *hace unos días* 'a few days ago' and *mañana* 'tomorrow,' a state is regarded as containing the reference time ($r \subseteq e$), as show in (201a); while other events are interpreted as being contained within the reference time ($e \subseteq r$), as in (201c,d,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,' as described in (201b).

(201) a. Juan estará en casa   mañana.　　　　　[$r \subseteq e$]

　　　Juan is.FUT in house tomorrow

　　　'Juan will be home tomorrow.'

b. Juan sabrá   la realidad mañana.   [(the beginning of) e ⊆ r]

    Juan knows.FUT the reality   tomorrow

   'Juan will know the truth tomorrow.'

c. Juan correrá   mañana.   [e ⊆ r]

    Juan runs.FUT   tomorrow

   'Juan will run tomorrow.'

d. Juan escribirá   una carta mañana.   [e ⊆ r]

    Juan writes.FUT a letter   tomorrow

   'Juan will write a letter tomorrow.'

e. Juan llegará   a Japón   mañana.   [e ⊆ r]

    Juan arrives.FUT   to Japan   tomorrow

   'Juan will arrive at Japan tomorrow.'

These interpretations are roughly schematized as below (where the circles represent r):

(202) States:

(203) Other events:
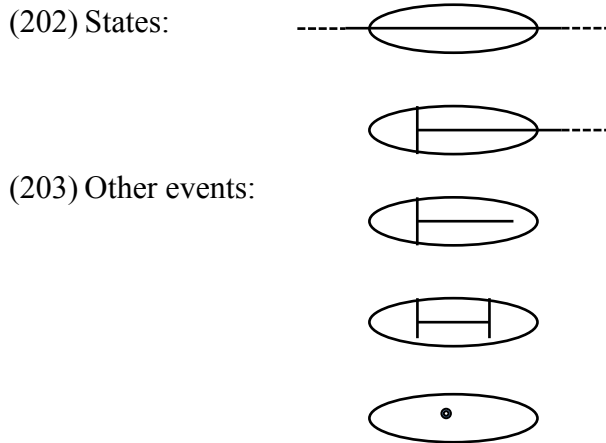
Applying this test, *aburrirse* verbs in a context with a reference time modifier manifest a '(the beginning of) e ⊆ r' interpretation, as shown in (204a). Now, compare with their '*estar* + participle' variants. They describe states, and they have a 'r ⊆ e' interpretation in a context with a reference time modifier, as in (204b). This suggests that *aburrirse* verbs differ from ordinary statives in that they denote a state that includes its beginning.

(204) a. Mañana   los estudiantes se aburrirán   en clase.

       tomorrow the students   SE bore.FUT in class

      'Tomorrow the students <u>will get bored</u> in the class.'

b. Mañana   los estudiantes estarán   aburridos en clase.

   tomorrow the students   are.FUT bored   in class

  'Tomorrow the students <u>will be bored</u> in the class.'

<div align="right">(Marín and McNally 2011:489)</div>

Regarding the variant without *se,* it appears to have the '(the beginning of) e ⊆ r' interpretation as well.

(205) La película aburrirá   a María mañana.

    the movie   bore.FUT to María tomorrow

    'The movie will bore María tomorrow.'
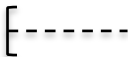
To sum up, Spanish reflexive psych verbs are divided into *aburrir(se)* 'be/become bored' class and *enfadar(se)* 'become angry' class with respect to their aspectual properties, and this division seems applicable to the variants without *se.* The former is stative inchoative, while the latter is truly punctual inchoative. The acceptability of the *ocurrir que* 'it occurred that' construction suggests that the *aburrir(se)* class and the *enfadar(se)* class appear dynamic at first sight, but the incompatibility with *parar* 'stop' indicates that both classes are nondynamic. The nonhabitual interpretation in the simple present tense characterizes the *aburrir(se)* class as stative, whereas the *enfadar(se)* class is nonstative. 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). 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). 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 describe 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 (206a),

while the event *e* of *enfadarse* class verbs is just the left boundary of a state happening *e′,* as shown in (206b), and therefore they are truly punctual.

(206) a. *aburrirse*:= λxλe∃e′,e″[Beg(e′, e″, λe‴[bored(e‴) ∧ Happening(e‴) ∧ EXPERIENCER(e‴, x)]) ∧ e = (e″⊕e′)]

    b. *enfadarse*:= λxλe∃e′[Beg(e, e′, λe″[angry(e″) ∧ Happening(e″) ∧ EXPERIENCER(e″, x)])]

We schematize these formalizations as below:

(207) 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 suggests that inchoativity does not imply telicity. In fact, Marín and McNally (2011) define that inchoative predicates are those that describe "an eventuality which necessarily is or includes the beginning of some happening," while telic predicates are those that "necessarily make reference to the ending of some happening" (Marín and McNally 2011:491).

Furthermore, the aspectual analysis we have presented 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 their aspectual properties regardless of the morphological variant. This observation suggests that the derivation of reflexive psych verbs from ExpACC verbs does not change much the lexical representation of the predicates, as described below (these representations will be revised in chapter 4):

(208) a. *aburrir*:= λyλxλe∃e′,e″[Beg(e′, e″, λe‴[bored(e‴) ∧ Happening(e‴) ∧ STIMULUS(e‴, x) ∧ EXPERIENCER(e‴, y)]) ∧ e = (e″⊕e′)]

    b. *aburrirse*:= λxλe∃e′,e″[Beg(e′, e″, λe‴[bored(e‴) ∧ Happening(e‴) ∧ EXPERIENCER(e‴, x)]) ∧ e = (e″⊕e′)]

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(209) a. *enfadar*:= λyλxλe∃e′[Beg(e,   e′,   λe″[angry(e″)   ∧   Happening(e″)   ∧ STIMULUS(e‴, x) ∧ EXPERIENCER(e″, y)])]

 b. *enfadarse*:= λxλe∃e′[Beg(e,   e′,   λe″[angry(e″)   ∧   Happening(e″)   ∧ EXPERIENCER(e″, x)])]

Summarizing the points of this section, Spanish psych verbs are not aspectually homogeneous. ExpNOM verbs (e.g. to *odiar* 'hate') and ExpDAT verbs (e.g. *agradar* 'to please, to like') are stative, more concretely 'Individual-level' predicates (*estados 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 ordinary stativity 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 manifest the same kind of stativity as ExpNOM verbs and ExpDAT verbs. ExpNOM verbs and ExpDAT verbs describe *estados 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.

(210) a. ExpNOM verbs: ———

 b. ExpDAT verbs: ———

 c. ExpACC verbs:
 (i) *aburrir* 'to bore' class: ⊢———

 (ii) *enfadar* 'to anger' class: ⊢ - - - - - -

 d. Reflexive psych verbs (ExpNOM reflexives):
 (i) *aburrirse* 'to be/become bored' class: ⊢———

 (ii) *enfadarse* 'to become angry' class: ⊢ - - - - - -

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Spanish psych verbs are thus all related to states, 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 reflects the aspectual difference in 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. The Aspectual Description of Japanese Psych Verbs

In Japanese there are two classes of ExpSubj verbs that differ in the case marking of their objects, and some ExpSubj verbs have morphologically formed ExpObj causative counterparts. In this section, we perform an aspectual analysis of ExpSubj verbs and ExpObj verbs in Japanese and demonstrate how these predicates are efficiently described by means of the notions of 'boundary' and its different types. We also tackle the long-discussed peculiarity of Japanese *-te i-* aspect by applying the fruits of the aspectual analysis of psych verbs. That is, verbs in the *-te i-* form can yield multiple interpretations including progressive, resultative, and experiential perfect, and this phenomenon can be ascribed to which types of boundary and/or happening the base verbs have in their denotation.

3.3.1. Two Classes of ExpSubj Verbs

In this section, we examine the aspectual properties of the two classes of ExpSubj verbs, ExpSubj-*O* verbs and ExpSubj-*NI* verbs, which differ in the case marking of the

Stimulus arguments. In the literature, it is mentioned that ExpSubj verbs in Japanese are not stative but more like activity-class predicates (Mihara 2004, Yosohinga 2008). Nevertheless, what we would like to demonstrate here is that ExpSubj-*O* verbs and ExpSubj-*NI* verbs are aspectually distinct. ExpSubj verbs are not stative, at least in an ordinary sense, and they can be subcategorized into different classes depending on which type of 'boundary' they denote, which is more accurate than classifying them as activity verbs.

First, let us examine the dynamicity/stativity of ExpSubj verbs. The dynamicity/stativity distinction of the predicates can be tested by the (im)possibility of nonhabitual interpretation in the simple present tense in English and Spanish, as shown in previous sections. There is a similar (but slightly different) test in Japanese. In Japanese, the tense marked on verb endings is either past or nonpast. In a widely accepted view, the verbal ending *-(r)u* is a nonpast tense marker, while *-ta* is a past tense marker; and *-te iru* is a nonpast imperfective aspect marker, while *-te ita* is a past imperfective aspect marker. According to Kudo (1995), Japanese tense/aspect markers are organized in the following system:

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

Aspect \ Tense	Nonpast	Past
Perfective	*-(r)u*	*-ta*
Imperfective	*-te iru*	*-te ita*

It seems that stative verbs in the nonpast tense *-(r)u* can yield a 'right now' reading, which describes a present situation, as shown in (212a). Nonstative predicates in the nonpast tense, on the other hand, cannot express a present situation; rather, they describe a future situation, as in (212b), or they have other readings such as a generic interpretation, as in (212c).

(212) 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}.'

c. Inu-wa hoeru./ Daiku-wa ie-o tateru./

  dog-TOP bark.NPST/ carpenter-TOP house-ACC build.NPST/

  Ikerumono-wa mina sinu. (*Present situation)

  beings-TOP all die.NPST

'Dogs bark/ Carpenters built houses/ All animate beings die.'

In this respect, both ExpSubj-*O* verbs and ExpSubj-*NI* verbs are not stative, since these predicates in the nonpast tense cannot describe a present situation; for some verbs, even future readings seem not easy to get.

(213) 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. As we need more detailed discussion about the grammatical phenomena of the *-te i-* forms, we will return to this topic in 3.3.3.

Now, we turn our attention to the (a)telicity and the durativity/punctuality of ExpSubj verbs. Such aspectual distinctions can be captured by the (in)compatibility with certain 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*: that is, English *in* and Spanish *en* can also have a reading indicating the moment in which the event begins. Therefore, in Japanese, only (telic) predicates that denote a natural

endpoint are compatible with -*de,* as shown (214c,d). Durative atelic verbs, on the other hand, are compatible with -*kan* 'for' instead, as in (214a,b).

(214) a. Kodomo-ga sanjyu-pun {*-de/-kan} niwa-ni ita.

    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} hasitta.

    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   kaita.

    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   tuita.

    child-NOM thirty-minute -in/-for   station-at arrive.PST

  'A/The child arrived at the station {in/*for} half an hour.'

Regarding ExpSubj verbs, ExpSubj-*O* verbs are compatible with -*kan* 'for', and not with -*de* 'in'. They are durative atelic predicates.

(215) Maki-wa   Taro-o   san-nen {-kan/*-de} aisita/ nikumda/ osoreta.

    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 on this test. According to the (in)compatibility with the temporal adverbials in question, some verbs are durative atelic (e.g. *nayam-* 'to be bothered'), as shown in (216a), while others are telic (e.g. *aki-* 'to get bored'), as in (216b). Notice that while Spanish *aburrir(se)* 'to get bored' is a stative inchoative predicate, as we discussed in 3.2.2, Japanese *aki-* 'to get bored' is a telic predicate.

(216) a. Taro-ga   souon-ni mikka   {-kan/*-de} nayamda.

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

    'Taro suffered the noise for/*in three days.'

b. Taro-ga   sono eiga-ni   jyu-pun{*-kan/-de} akita.

   Taro-NOM that movie-*NI* ten-minute -for/-in   get tired.PST

  'Taro got tired of the movie *for/in ten minutes.'

c. Taro-ga   sono sirase-ni san-pun   {#-kan/*-de} odoroita.

   Taro-NOM that news-*NI*   three-minute -for/-in   get surprised.PST

  'Taro got surprised at the news *for/?in three minutes.

Moreover, there are verbs that disallow both *-kan* and *-de* adverbials (e.g. *odorok-* 'to get surprised'), as shown in (216c). Recall that in Spanish also there are some verbs that are not compatible with either *durante* or *en,* i.e. *enfadar(se)* 'to become angry'-class verbs, and they are considered as truly punctual predicates, as we noted in 3.2.2. Japanese *odorok-* 'to get surprised'-type verbs seem indeed to describe truly punctual events. For instance, punctual predicates in the *-te i-* form normally have an iterative reading (Shirai 2000). The *odorok-* 'to get surprised'-type verbs have an iterative interpretation in the *-te i-* form, as described below:

(217) 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.'

Summarizing, ExpSubj-*O* verbs (e.g. *nikum-* 'to hate') are durative atelic predicates, while ExpSubj-*NI* verbs consist of some aspectually different groups: some are also durative atelic (e.g. *nayam-* 'to be bothered') and others are punctual atelic (e.g. *odorok-* 'to get surprised'), though there are some telic ones (e.g. *aki-* 'to get bored/tired').

(218) ExpSubj verbs:

    a. ExpSubj-*O* verbs: atelic durative

    b. ExpSubj-*NI* verbs:

    (i) atelic durative: *nayam*-type: *nayamu* 'suffer,' *komaru* 'be bothered,' *kurusimu* 'suffer,' *obieru* 'be scared,' *urotaeru* 'be upset,' etc.

    (ii) atelic punctual: *odoroku*-type: *odoroku* 'get surprised,' *ikaru* 'get angry,' *iradatu* 'get irritated,' *meiru* 'get depressed,' *okoru* 'get angry,' *syogeru* 'get depressed,' etc.

(iii) telic: *akiru*-type: *akireru* 'get disgusted,' *akiru* 'get tired,' *koriru* 'learn a lesson,' *mairu* 'feel beaten,' *megeru* 'lose hope,' *sirakeru* 'become chilled,' etc.

ExpSubj-*O* verbs (e.g. *nikum-* 'to hate') can be regarded as describing a state that may include its beginning, and so as some ExpSubj-*NI* verbs (e.g. *nayam-* 'to be bothered'). Other ExpSubj-*NI* verbs (e.g. *odorok-* 'to get surprised'), on the other hand, seem to describe the beginning of a state, and therefore they are genuinely punctual. However, another group of ExpSubj-*NI* verbs (e.g. *aki-* 'to get bored') describes the ending of a state that is at the same time the beginning of another state, and hence they are telic predicates. These aspectual differences between ExpSubj verbs are roughly schematized as below:

(219) a. ExpSubj-*O* verbs (to be revised):

    b. ExpSubj-*NI* verbs

    (i) atelic durative (e.g. *nayam-* 'to be bothered'):

    (ii) atelic punctual (e.g. *odorok-* 'to get surprised'):

    (iii) telic (e.g. *akiru* 'to get bored'):

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 (e.g. *nayam-* 'to be bothered'), it would seem that we cannot say that ExpSubj-*O* verbs and ExpSubj-*NI* verbs are aspectually distinct. However, there is indeed an aspectual difference between ExpSubj-*O* verbs and ExpSubj-*NI* verbs. For instance, ExpSubj-*O* verbs and ExpSubj-*NI* verbs behave differently in contexts with reference time modifiers. With a reference time adverbial, such as *asita* '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 ($r \subseteq e$).

(220) a. Maki-wa   asita   gakkou-ni iru.   [$r \subseteq e$]

     Maki-TOP tomorrow school-in be.NPST

     'Maki will be in school tomorrow.'

b. Maki-wa   asita   gakkou-ni iku.   [e ⊆ r]

  Maki-TOP tomorrow school-to   go.NPST

 'Maki will go to school tomorrow.'

c. Maki-wa   asita   iti-mai-no   tegami-o   kaku.   [e ⊆ r]

  Maki-TOP tomorrow one-CL-GEN letter-ACC write.NPST

 'Maki will write a letter tomorrow.'

d. Maki-wa   asita   nihon-ni tuku.   [e ⊆ r]

  Maki-TOP tomorrow Japan-at arrive.NPST

 'Maki will get to Japan tomorrow.'

Regarding ExpSubj verbs, ExpSubj-*O* verbs are incompatible with reference time modifiers. They would be tolerable if inchoative readings were possible.

(221) ?Taro-wa   asita   Hanako-o   nikumu(-darou). [(the beginning of) e ⊆ r]

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

      'Taro will start to hate Hanako tomorrow.'

ExpSubj-*NI* verbs, on the other hand, are compatible with reference time modifiers and they will have an e ⊆ r interpretation.

(222) a. Taro-wa   asita   sono mondai-ni   nayamu(-darou).   [e ⊆ r]

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

       'Taro will suffer that problem tomorrow.'

b. Taro-wa   asita   sono sirase-ni odoroku(-darou).   [e ⊆ 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 ⊆ r]

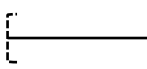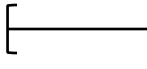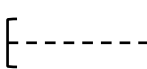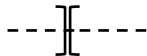 Taro-TOP tomorrow that movie-*NI* get tired.NPST(-maybe)

 'Taro will get tired at the movie tomorrow.'

The interpretations ExpSubj verbs would have with reference time modifiers are roughly described as below:

(223) i) ExpSubj-*O* verbs:

ii) ExpSubj-*NI* verbs: a. b. c.

That is to say, ExpSubj-*O* verbs and ExpSubj-*NI* verbs are aspectually distinct. The left boundary (i.e. the beginning of a state) of ExpSubj-*O* verbs is implicit, while that of ExpSubj-*NI* verbs is explicit, since ExpSubj-*O* verbs are actually difficult to give inchoative readings. Taking this into account, the aspectual differences between ExpSubj verbs are schematized as below:

(224) a. ExpSubj-*O* verbs:

    b. ExpSubj-*NI* verbs

    (i) atelic durative (e.g. *nayamu* 'to be bothered'):

    (ii) atelic punctual (e.g. *odoroku* 'to get surprised'):

    (iii) telic punctual (e.g. *akiru* 'to get bored'):

In this section, we have offered an aspectual analysis of ExpSubj verbs in Japanese. ExpSubj verbs are not ordinary stative verbs. ExpSubj-*O* verbs are durative atelic predicates and ExpSubj-*NI* verbs include some durative atelic ones, punctual atelic ones, and a few telic ones. More precisely, ExpSubj-*O* verbs (e.g. *nikum-* 'to hate') and some ExpSubj-*NI* verbs (e.g. *nayam-* 'to be bothered') denote a happening that involves a left boundary, as represented in (225a) and (225b(i)) respectively, although there is a difference in the explicitness of the left boundary. Among other ExpSubj-*NI* verbs, there are some that denote a boundary happening whose boundary is a left one (e.g. *odorok-* 'to get surprised'), as in (225b(ii)), and others that denote a boundary happening whose boundary is simultaneously a left boundary of a state and a right boundary of another state (e.g. *aki-* 'to get bored'), as in (225b(iii)).

(225) ExpSubj verbs:

a. ExpSubj-*O* verbs:

e.g. *nikumu* 'hate':= λyλxλe∃e′,e″[Beg(e′, e″, λe‴[hate(e‴) ∧ Happening(e‴) ∧ EXPERIENCER(e‴, x)] ∧ STIMULUS(e‴, y)) ∧ e = (e″⊕e′)]

b. ExpSubj-*NI* verbs

(i) e.g. *nayamu* 'be bothered':= λyλxλe∃e′,e″[Beg(e′, e″, λe‴[bothered(e‴) ∧ Happening(e‴) ∧ EXPERIENCER(e‴, x)] ∧ STIMULUS(e‴, y)) ∧ e = (e″⊕e′)]

(ii) e.g. *odoroku* 'get surprised':= λxλe∃e′[Beg(e, e′, λe″[surprised(e″) ∧ Happening(e″) ∧ EXPERIENCER(e″, x)])]

(iii) e.g. *akiru* 'get bored':= λxλe[∃e′[End(e, e′, λe″[¬bored (e″) ∧ Happening(e″) ∧ EXPERIENCER(e″, x) ∧ ∃e‴[Beg(e, e‴, λe⁗[bored(e⁗) ∧ Happening(e⁗) ∧ EXPERIENCER(e⁗, x)])]])]]

3.3.2. ExpObj Causatives

Now, we examine the aspectual nature of ExpObj causatives. As repeatedly noted before, 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 their aspectual differences. In this section, we intend to verify whether ExpObj causatives formed from these three subclasses of ExpSubj-*NI* verbs are also aspectually different.

Firstly, let us test the dynamicuty/stativity distinction by means of the interpretation of the nonpast tense forms. ExpObj causatives in the nonpast tense do not describe a present situation, but they may have a future reading. This indicates that ExpObj causatives are not stative predicates.

(226) 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.'

Next, what about the (a)telicity and the durativity/punctuality of these verbs? Let us see their (in)compatibility with temporal adverbials. ExpObj causatives are ambiguous according to the temporal adverbial test. ExpObj causatives pattern like their ExpSubj variants, although they also seem to gain some durativity since they become possible or at least more acceptable with *-kan* 'for.'

(227) 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}

      Taro-NOM/that news-NOM Maki-ACC three-minute -for/-in

      odorok-ase-ta.

      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}

      Taro-NOM/that movie-NOM Maki-ACC three-minute -for/-in

      aki-sase-ta.

      get tired-CAUS-PST

     'Taro/ The movie tired Maki for/in three minutes.'

Moreover, it seems that many ExpObj causatives gain telicity that their ExpSubj variants did not have, because they become compatible with *-de* 'in', as in (228b), or more tolerable with it, as in (229b).

(228) a. Taro-ga   sono hanasi-ni san-pun{*-kan/??-de}

      Taro-NOM that story-*NI*   three-minute-for/-in

      syogeta/okotta.

      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}

 that story-NOM Taro-ACC three-minute {-for/-in}

 shoge-sase-ta/okor-ase-ta.

 get depressed-CAUS-PST/ get angry-CAUS-PST

 'That story depressed/angered Taro {for/in} three minutes.'

(229) a. Maki-wa   Taro-no   kimagure-ni hutuka{-kan/??-de} komatta.

 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.'

Furthermore, ExpObj causatives with durative adverbials can also have an iterative reading, just like their ExpSubj-*NI* counterparts. This indicates that the punctuality of some ExpSubj-*NI* verbs appears to remain in the ExpObj causative variants.

(230) 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.'

Finally, we would like to see how ExpObj causatives react to reference time modifiers, as we did for ExpSubj verbs in the previous section. ExpObj causatives are compatible with reference time modifiers and they have an e ⊆ r interpretation. This means that ExpObj causatives describe events, and not states.

(231) 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.'

Concluding the remarks of this section, ExpObj causatives maintain the aspectual properties of their ExpSubj variants, although they also gain some durativity and telicity. We propose that the causativization in ExpObj causatives is a kind of operation to add a happening (i.e. causing event) to the happening or boundary happening that the base verb denotes, as roughly sketched as in (232), and hence 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-*NI* verbs. The details of the causativization will be discussed in chapter 4.

(232) ExpObj causatives:

　　a. '*nayam-ase-*' type:
　　　　('bother')

　　b. '*odorok-ase-*' type:
　　　　('surprise')

　　c. '*aki-sase-*' type:
　　　　('bore')

Based on the formalizations we proposed for ExpSubj-*NI* verbs in the previous section, the semantics of ExpObj causatives can be represented as below:

(233) ExpObj cauatives:

(i) *nayam-ase-* 'bother' type:=

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

(ii) *odorok-ase-* 'surprise' type:=

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

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(iii) *aki-sase-* 'bore' type:=

λyλxλe[∃e′, e′′′′′[CAUSE(e′′′′′, e) ∧ STIMULUS(e′′′′′, x) ∧ End(e, e′, λe′′[¬bored(e′′) ∧ Happening(e′′) ∧ EXPERIENCER(e′′, x) ∧ ∃e′′′[Beg(e, e′′′, λe′′′′[bored(e′′′′) ∧ Happening(e′′′′) ∧ EXPERIENCER(e′′′′, y)])])])]]

So far, we have examined the aspectual properties of ExpSubj verbs (section 3.3.1) and ExpObj causatives (section 3.3.2). As we mentioned in section 3.3.1, the next section tackles the aspectual interpretation of the *-te i-* forms of psych verbs and the nature of *-te i-* aspect itself.

3.3.3. The *-te i-* Aspect[19]

The imperfective aspect form such as the progressive in English is frequently used to detect certain aspectual properties of predicates. For instance, most statives cannot appear in the progressive, while dynamic verbs can; achievements may have a special reading; progressives bear different entailments depending on the telicity of the base predicate; and so on. 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.[20] The reading of the *-te i-* form seems to depend on the aspectual property of the base verbs, but this is still a topic of debate in Japanese linguistics. In this section we will discuss the problems surrounding the *-te i-* aspect and offer an account of the mechanism by which this single form yields these multiple interpretations. The aspectual analysis of psych verbs just performed above provides the key to this task.

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[19] This section is based on a pieace of work presented at the 11th Workshop on Syntax, Semantics and Phonology (WoSSP), held at the Universitat Autònoma de Barcelona, June 5, 2014.

[20] The *-te i-* form can also have a habitual reading, as shown below, which is not dealt with in this study.

  e.g. Taro-wa   maiasa   hasi-te i-ru.

      Taro-TOP every morning run-ASP-NPST

      'Taro runs every morning.'

First of all, 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-* 'to be, to exist.' However, as Shirai (2000) notes, its lexical meaning is bleached somewhat. That is, the selectional restriction on the subject of the lexical verb *-i-* does not apply to *-i-* of *-te i-*, as shown in (234). Moreover, as Nishiyama (2006) points out, the two parts of the *-te i-* morpheme are actually not so highly merged, as they can be split by the topic marker *-wa,* as in (235).

(234) a. {Inu-ga/*Booru-ga}   niwa-ni iru.
       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.'

(235) 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'

Just like the English progressive form, the Japanese *-te i-* form has been considered as a useful tool to examine the temporal properties of predicates. This tradition traces back to Kindaichi's (1950) landmark work, which 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.

(236) a. Stative verbs: e.g. *iru* 'be, exist,' *aru* 'be, exist,' *ataisuru* 'deserve,' etc.
    b. Durative verbs: e.g. *aruku* 'walk,' *naku* 'cry,' *kaku* 'write,' etc.
    c. Instantaneous verbs: e.g. *sinu* 'die,' *tuku* 'arrive,' *todoku* 'reach,' etc.
    d. The fourth category: e.g. *sugure-teiru* 'excel', *ni-teiru* 'resemble,' etc.

Verbs that cannot appear in the *-te i-* form are considered stative verbs, as shown in (237a). Among the verbs that can appear in this form, on the other hand, those whose *-te i-* forms yield a progressive reading are distinguished as durative verbs from those called instantaneous verbs, whose *-te i-* forms present a resultative interpretation, as

described in (237b) and (237c) respectively. Furthermore, there are also verbs that must appear in this form, as in (237d), except when they appear in an embedded clause. They are called the fourth category.

(237) a. Taro-wa   ie-ni   {iru/*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 {*sugureru/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, as shown in (238). Nevertheless, as Shirai (2000) states, 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 temporary.

(238) 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, in contrast, always appear in the *-te i-* form to describe states. These predicates, however, can be included in instantaneous verbs. Ogihara (1998), for instance, points out the similarity between the verbs in the fourth category and instantaneous verbs with respect to their behaviors in relative clauses. While

durative verbs and stative verbs in the past tense in relative clauses only describe a past event, as in (239b,c), instantaneous verbs describe a current state, as in (239a).

(239) a. Taroo-wa [hyoosi-no   yabureta   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 odotta   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 ita   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)

The verbs in the fourth category must appear with *-te i-* in a simple clause, as shown in (240a), but they can appear without it in a relative clause, as in (240b). In the relative clause, then, their *-te i-* forms describe a current state, just like instantaneous verbs do.

(240) a. Biru-ga   takaku {sobie-te i-ru/*sobieru}.
         building-NOM high   tower-ASP-NPST/ tower.NPST
        'A building stands tall.' (≈ 'There is a tall building in sight.')
      b. Taroo-wa [takaku sobieta   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)

Another point to add to Kindaichi's generalization is that the *-te i-* form of verbs can also have an experiential perfect interpretation as below:

(241) 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.'   (Ogihara 1998:4)

Unlike progressive and resultative readings, this reading seems to occur either with durative verbs, as in (242a), or instantaneous verbs, as in (242b).

(242) a. Taro-wa   hasi-te i-ru.

   Taro-TOP run-ASP-NPST

   i) 'Taro is running.' (Progressive)

   ii) 'Taro has (already) run (today)' (Experiential perfect)

   c. Kyaku-wa   tui-te i-ru.

   Tegami-TOP arrive-ASP-NPST

   i) 'The guest is here.' (Resultative)

   ii) 'The guest has (already) arrived.' (Experiential perfect)

It is difficult to distinguish the experiential perfect reading from the resultative reading. The resultative reading may differ from the experiential perfect reading in that the former entails that the described state still holds at the time of utterance, as described in (243a), while the latter does not have such entailment, as in (243b) (for more detailed discussion, see Shirai 2000, Nishiyama 2006, among others; for the difference between experiential perfect reading and resultative reading in general, see Comrie 1976 and Bybee, et al. 1994).

(243) 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.'

   (→She can be married or unmarried now.)

Similarly to the experiential perfect reading, verbs in the *-te i-* form can yield a 'continuous/persistence' perfect (cf. Shirai 2000). This reading would be more recognizable with certain type of temporal expressions such as 'since x time ago*,*' as shown in (244). Even some stative verbs, which normally resist the experiential perfect reading, can have this type of perfect meaning, as in (244c).

(244) a. Taro-wa   sanjikan-mae-kara   oyoi-de i-ru.

   Taro-TOP tree.hours-ago-since   swim-ASP-NPST

‘Taro has been swimming since three hours ago.’

   b. Nimotu-wa   mikka-mae-kara   todoi-te i-ru.

   Package-TOP three.days-ago-since reach-ASP-NPST

‘The package has been here since three days ago.’

   c. Fujisan-wa   sanpun-mae-kara   mie-te i-ru.

   Mt.Fuji-TOP three.minutes-ago-since be visible-ASP-NPST

‘Mt. Fuji has been visible since three minutes ago.’

Summarizing so far, the *-te i-* forms of verbs have multiple interpretations such as progressive, resultative, and experiential perfect, at least. Stative verbs, with some exceptions, are mostly incompatible with *-te i-*. The progressive reading generally occurs with durative verbs and the resultative reading, with instantaneous verbs. The experiential perfect reading seems possible with almost any class of verbs. 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 could be included in achievements, as we discussed above. The interaction between the aspectual class of verbs and the interpretations of their *-te i-* forms, then, could be summarized as below:

(245) The *-te i-* form interpretations:

   a. Stative verbs: generally *-*te i-*; when the *-te i-* form is possible, it presents some vividness or temporality in the described states (*if* the verbs will allow such reading).

   b. Dynamic verbs:

   i) Activities + *-te i-*   → Progressive (and experiential perfect) reading

   ii) Accomplishments + *-te i-* → Progressive (and experiential perfect) reading

   iii) Achievements + *-te i-*   → Resultative (and experiential perfect) reading

However, some researchers discard the aspectual account of multiple interpretations of the *-te i-* aspect because of the existence of some counterexamples to Kindaichi's generalization (Washio and Mihara 1997, Aono 2007, among others). 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 the notion of 'boundary.' The relationship between the aspectual nature of the predicates and the interpretation of their *-te i-* forms, then, are accountable for in a systematic way. We propose that the interpretation of *-te i-* depends on which type of boundary is denoted by the predicate.

One of the problematic cases reported for the *-te i-* aspect is that psych verbs in the *-te i-* form yield an interpretation that is difficult to identify as progressive vs. resultative (Yoshinaga 2008).

(246) 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.'

Nevertheless, 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 more recognizable. In the *-te i-* form, the *aki-*'to get bored'-type verbs yield a resultative interpretation, while the *odorok-* 'to get surprised'-type verbs have an interpretation that resembles both progressive and resultative ones. We call such interpretation 'state continuative' for convenience. Given that we discussed in the previous section that the *aki-*'to get bored'-type verbs are predicates that describe a 'left=right' boundary happening, while the *odorok-* 'to get surprised'-type verbs are punctual predicates that describe a 'left' boundary happening, the interpretations they obtain in the *-te i-* form are schematized as below.

(247) Psych verbs in the *-te i-* form

  a.   e.g. *aki-* 'to get tired/bored'

            → resultative reading

  b.   e.g. *odorok-* 'to get surprised'

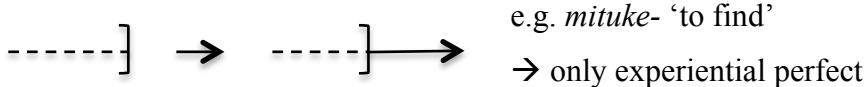   →'state continuative' reading

The 'state continuative' interpretation differs from a normal progressive reading 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-*'to get bored'-type verbs and *odorok-*'to get surprised'-type verbs is more clearly captured in the following examples:

(248) 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 surprised by that.'

There are more problematic cases for the aspectual account of multiple interpretations of the *-te i-* form. For instance, there are some punctual verbs that have only an experiential perfect reading and neither resultative nor progressive interpretations.

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

We propose that such punctual predicates denote a 'right' boundary happening, as schematized in (250). Their *-te i-* forms only yield an experiential perfect interpretation, and not a resultative reading. This suggests that whether a predicate can have a resultative reading in the *-te i-* form or not depends on whether the predicate makes a reference to a result state after the boundary.

(250)   ------]   →   -----]——→   e.g. *mituke-* 'to find'
                                          → only experiential perfect

There are some cases in which the multiple interpretations of the *-te i-* forms look like they could be explained by the transitive/intransitive distinction, and not by an aspectual distinction. That is to say, 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 describe the same situations.

(251) a. Kodomotati-ga ensoku-no   ikisaki-o   kime-te i-ru.
        chilren-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)

For this case, we would say that the transitive variant and the intransitive variant indeed describe different subparts of an event. The transitive variant expresses a process part of the event, while the intransitive variant describes a change at the end of the process. Thus, the *-te i-* form of the transitive variant and that of the intransitive variant would have different interpretations, as sketched below.

(252)

Tr. variant → progressive reading
Intr. variant → resultative reading
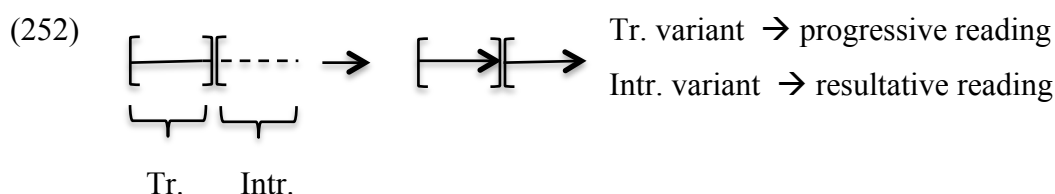
In fact, the transitive/intransitive distinction cannot explain the whole phenomenon. Some transitive verbs in their reflexive use have a resultative reading in the *-te i-* form, besides a progressive reading, while in their non-reflexive use they only have a progressive reading, as in (253). In reflexives the subject is an agent and a patient at the same time and agents participate in the process part of an event while patients participate 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.

(253) 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 verbs whose *-te i-* forms can have both progressive and resultative interpretations (other than an experiential perfect reading).

(254) 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.

    leaf-NOM flaking(onomatopoeia)/ground-at   fall-ASP-NPST

    i) 'The leaves are flaking off.' (Progressive)

    ii) 'The leaves are on the ground.' (Resultative)
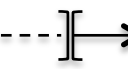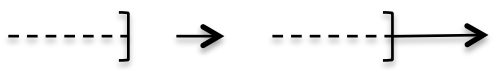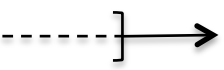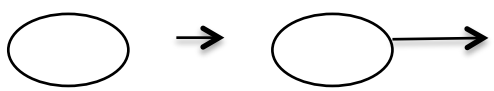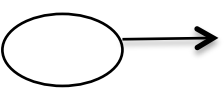
These predicates can be viewed as denoting two different subparts of an event, a subpart that is a process and another that is a change. The *-te i-* form, then, yields a progressive

reading with the former denotation of the verb, and a resultative reading with the latter denotation of the verb.

(255) Both progressive and resultative readings
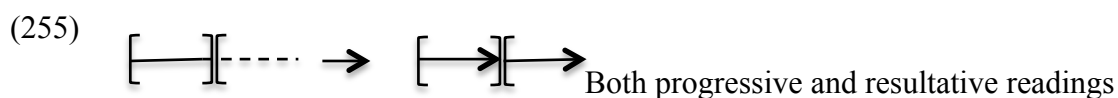
Summarizing, the interpretation of a *-te i-* form seems to depend on which type of boundary or boundaries the base verbs denote: with a left boundary, a progressive reading (if the boundary is followed by a motion-type eventuality) or a 'state continuative' reading (if the boundary is followed by a state-type eventuality); with a left=right boundary, a resultative reading; and with a right boundary, an experiential perfect reading. The relation between the denotation of a predicate and the interpretation of its *-te i-* form is schematized below:

(256) The interpretations of *-te i-* forms:

a.	N/A	Statives, except a few → not available
b.		Activities → progressive reading (Semelfactives→ iterative progressive reading)
c.		Achievements(i) → state continuative reading
d.		Achievements(ii) → resultative reading
e.		Achievements(iii) → experiential perfect reading
f.		Accomplishments → progressive and experiential perfect readings
g.		Bounded events → experiential perfect reading
h.		Others → progressive and resultative readings

Note that activity predicates here are analyzed as denoting a happening that can involve a left boundary, as described in (256b). However, it is often argued that activity predicates should not be inchoatives, i.e. they may be associated with an onset but not entail it. For instance, we can say (257a) because *John ran yesterday* does not entail that *John* started running yesterday (he could have been running since before yesterday). In Japanese, nevertheless, (257b) sounds contradictory, which indicates that activity predicates in Japanese entail an onset of the activity.

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

     b. ??Taro-wa   kinou   hasitta. Sikasi, kinou   hasiri-hajime-nakatta.

       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-* 'to knock'), their *-te i-* forms yield an iterative progressive reading, as shown in (258). The point here is that semelfavtives 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.

(258) 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-* 'to exist,' *a-* 'to exist,' *ataisu-* 'to deserve'), but it is acceptable with others (e.g. *tiga-* 'to be different,' *mie-* 'to be visible'). We believe that the difference between these statives lies in that the former has no boundary in the denotation, while the latter can be easily associated with a boundary.

(259) a. Kare-no koui-wa syousan-ni {ataisuru/*ataisi-te i-ru}.
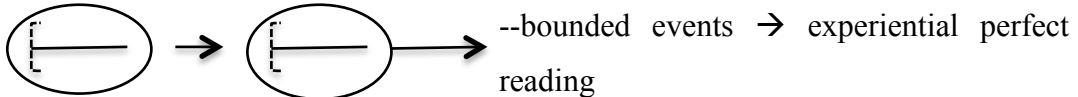
      he-GEN act-TOP praise-DAT deserve.NPST/ deserve-ASP-NPST

      'His acts are worthy of praise.'

b. Fujisan-ga   mieru/ mie-te i-ru.

  Mt. Fuji-NOM be visible.NPST/be visible-ASP-NPST

  'We can see Mt. Fuji (always/now).'

Finally, an experiential perfect interpretation is possible not only with accomplishments. Even atelic predicates can have an experiential perfect reading if the event is interpreted as bounded in the context, as shown below.

(260) 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.'

(261)

--bounded events → experiential perfect reading

In this section, we have explained the multiple interpretations of the Japanese aspect marker *-te i-* in terms of the boundaries the predicates denote. The *-te i-* form is sensitive to the boundaries in the denotation of the predicate. What *-te i-* does is identify a situation that follows right after a boundary associated with an eventuality, and linking the subject with that situation. The semantics of *-te i-* aspect is formalized as below:

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

    -te-:= λPλxλe″[∃e, e′[Boundary-Happening(e′) ∧ P(e) ∧ [Beg(e', e, P) ∨ End(e', e, P)] ∧ ∃Q[Beg(e', e″, Q] ∧ ThematicRole (x, e″)]

    -i-:= λPλxλe[P(x, e)]

Before closing this section, we would like to highlight the differences between our proposal and the other related proposals. 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. Our proposal is similar in this respect to Nishiyama's (2006) proposal.

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" (Nishiyama 2006:1). In other words, the *-te i-* itself is monosemous, but it can yield a progressive meaning when the output *e'* of *-te-* is a proper subpart of *e* (i.e. $e'<e$), and a perfect meaning when it is equivalent to the entire event *e* (i.e. $e'=e$).

In Nishiyama's (2006) system, the progressive and perfect readings of *-te i-* can be obtained systematically and uniformly. However, some problems remain. First, the proposed semantics of *-te i-* cannot account the existence of stative verbs that cannot appear with *-te i-* form. According to her, stative verbs can appear with *-te i-* because "the semantics of *-te-* includes an operator to quantize its input eventuality if the input description is unbounded" (Nishiyama 2006:20). Nevertheless, there exist verbs that are not compatible with *-te i-*. The point is whether *-te-* can quantize the eventuality or only detect a possible boundary in the eventuality. If it can quantize, any eventuality must be able to appear with *-te i-,* which is not the case. Second, the proposed system does not semantically distinguish resultatives from experiential perfects; rather, it sees the difference as a pragmatic matter. However, this view ignores the fact that the resultative reading is available for a specific group of verbs while the experiential perfect reading is possible with almost any kind of verbs. Moreover, some verbs cannot have a resultative reading but only an experiential perfect reading. Third, the semantics of *-te i-* proposed by Nishiyama (2006) does not explain the fact that not all punctual predicates have the same interpretation in the *-te i-* forms. According to her, the *-te i-* forms of states and activities yield a progressive interpretation because e'<e; the *-te i-* forms of accomplishments yield a progressive interpretation when e'<e and a perfect interpretation when e'=e; and the *-te i-* forms of achievements yield a perfect interpretation because they denote a punctual moment that is e'=e.

Our proposal is different from Nishiyama's (2006) proposal in that we take into consideration that there are subclasses under punctual predicates and the interpretation

of *-te i-* varies systematically depending on this classification. If we analyze eventualities in terms of the notions of happenings and boundary happenings, or more concretely, in terms of which type of boundaries the predicates manifest in their denotations, the multiple interpretations of the *-te i-* form can be more efficiently and accurately explained.

Summarizing the points of the aspectual description of Japanese psych verbs, these predicates 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-* 'to hate') are atelic durative inchoatives, while ExpSubj-*NI* verbs include (i) atelic durative inchoatives (e.g. *nayam-* 'to be bothered'), (ii) atelic punctual inchoatives (e.g. *odorok-* 'to get surprised'), and (iii) telic predicates (e.g. *aki-* 'to get bored'). Applying Piñón'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 is that ExpSubj-*O* verbs are more like stative predicates, while ExpSubj-*NI* verbs are eventive, or 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 argument realization. Regarding ExpObj causatives, they seem to maintain the aspectual properties of their ExpSubj-*NI* variants, but they also seem to gain some durativity and telicity. We have also proposed that the *-te i-* aspect form varies in its interpretation depending on which type of boundary the predicates denote.

3.4. Summary: The Aspectual Description of Psych Verbs

In this chapter we have examined the aspectual properties of psych verbs. There are various views about the aspectual classification of psych verbs: that psych verbs are stative; ExpSubj verbs are stative while ExpObj verbs are causative; ExpSubj verbs describe states while ExpObj verbs describe accomplishments; psych verbs are

achievement-class predicates; and so on. Psych verbs are difficult to group into any of Vendler's (1967) four aspectual classes (i.e. state, activity, achievement and accomplishment) because of the variations in the inchoativity encoded by the predicates in question. This study took 'beginning' (or 'left boundary') and 'ending' (or 'right boundary') as relevant notions in the study of aspect. Namely, the eventualities described by predicates can be subdivided depending on which type of boundaries the predicates include in their denotations and on which type of eventualities the boundaries are of. The aspectual properties of psych verbs could be described more efficiently with these notions than without them.

In Spanish, psych verbs appear in ExpNOM, ExpACC or/and ExpDAT constructions, and there are also reflexive psych verbs. Verbs that appear in the ExpNOM and ExpDAT constructions (e.g. *odiar* 'to hate' and *agradar* 'to please, to like,' respectively) are stative. Reflexive psych verbs are atelic predicates and they are divided into two groups, stative inchoative (e.g. *aburrir(se)* 'to be/become bored') and punctual inchoative (e.g. *enfadar(se)* 'to become angry'). The interesting point is that this classification can be extended to the non-reflexive variants, i.e. ExpACC verbs. Using the notions of left and right boundary, ExpNOM verbs and ExpDAT verbs describe states without any boundary, while *aburrir(se)*-class verbs describe a state with its left boundary and *enfadar(se)*-class verbs describe the left boundary of a state, with or without *se.*

In Japanese, on the other hand, psych verb are not stative in an ordinary sense at least. ExpSubj-*O* verbs (e.g. *nikum-* 'to hate') are predicates that describe a state with its left boundary. ExpSubj-*NI* verbs (e.g. (i) *nayam-* 'to be bothered,' (ii) *odorok-* 'to get surprised,' (iii) *akir-* 'to get bored') describe (i) a state with a left boundary, (ii) a left boundary of a state, and (iii) a left boundary of a state that is a right boundary of another state at the same time. The difference between ExpSubj-*O* verbs and ExpSubj-*NI* verbs lies in the implicitness/explicitness of the boundary. Regarding ExpObj causatives (e.g. (i) *nayam-ase-* 'to bother,' (ii) *odorok-ase-* 'to surprise,' (iii) *aki-sase-* 'to bore'), they basically maintain the aspectual properties of their ExpSubj variants, but gain telicity and durativity. Moreover, this aspectual analysis of psych verbs had positive consequences for the study of Japanese *-te i-* aspect. It has been a long-discussed issue that verbs in the *-te i-* aspect can have multiple interpretations such as the progressive,

resultative and perfect. From the observation of the variations in the interpretation of the *-te i-* forms of psych verbs, we revealed that the *-te i-* aspect yields different interpretations depending on which type of boundary the predicates encode.

The aspectual analysis performed in this chapter also suggests that there are interesting aspectual differences between psych verbs in Spanish and Japanese. For instance, their ExpObj verbs, i.e. ExpACC verbs in Spanish and ExpObj causatives in Japanese, differ in telicity and durativity. This seems to relate to the absence/presence of morphological derivation in the words and the nature of such derivational operations. In the next chapter, we will turn our attention to the morphological derivations found in psych verbs and tackle the possible relationship between morphological status and semantic variation.

Chapter 4. (Anti)causativization in Psych Verbs

Japanese ExpObj verbs (e.g. *odorok-ase-* 'to surprise') are morphologically overt causatives derived from a particular type of ExpSubj verbs (e.g. *odorok-* 'to get surprised'). Spanish reflexive psych verbs (or 'ExpNOM reflexives')(e.g. *asustarse* 'to get frightened'), on the other hand, can be analyzed as outputs of an anticausative formation operated on ExpACC verbs (e.g. *asustar* 'to frighten'). In other words, these Spanish and Japanese show a typological contrast in the directionality of the derivations of psych verbs. Moreover, there are semantic differences between ExpObj verbs and between ExpSubj verbs of these languages, and such semantic variation can be ascribed to the different derivational status of the expressions in question.

4.1. The Causative-Anticausative Contrast in Psych Verbs

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 via a suffixation of a causative morpheme, as shown in (263). Spanish, on the other hand, presents many psych verbs that appear with a reflexive morphology, as in (264), and such reflexive psych verbs seem to undergo a anticausative operation, which is normally associated with change-of-state verbs like *romper(se)* 'to break.' In other words, these languages derive certain psych verbs with procedures that reversely mirror each other.

(263) Derivation from ExpSubj verbs to ExpObj causatives in Japanese:
    a. Maki-ga   kaminari-ni odoroita.
      Maki-NOM thunder-*NI*   get surprised.PST
    'Maki got surprised at the thunder.'
    b. Kaminari-ga   Maki-o   odorok-**ase**-ta.
      thunder-NOM Maki-ACC get surprised-CAUS-PST
    'The thunder surprised Maki.'

(264) Derivation from ExpACC verbs to ExpNOM reflexives in Spanish:

    a. El trueno   asustó   a María.

      the thunder frightened to María

   'The thunder frightened María.'

    b. María **se** asustó   (por el trueno).

      María SE 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* 'to lay someone down') and in the 'getting-into-a-state' type in Japanese (e.g. *tatu* 'to stand up,' *suwaru* 'to 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:

(265) Lexicalization patterns for 'posture' verbs (based on Talmy 1985: 87):

	'be in a posture' ('STATIVE')	'get into a posture' ('INCHOATIVE')	'put into a posture' ('AGENTIVE')
English	V (e.g. *lie*)	⟶ V + SAT (e.g. *lie down*)	⟶ V + CAUS + SAT (e.g. *lay down*)
Spanish	'be' + V$_{PP}$ (e.g. *estar acostado*)	⟵ V + SE (e.g. *acostarse*)	⟵ V (e.g. *acostar*)
Japanese	'be' + V$_{PP}$ (e.g. *tat-te i-ru* 'stand')	⟵ V (e.g. *tatu* 'stand up')	⟶ V + CAUS (e.g. *tat-ase-ru*)

   (V= verb root; SAT= satellite;[21] pp= past participle; arrows = derivational directions)

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[21] 'Satellite' refers 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).

Applying this to psych verbs, Spanish and Japanese show a similar contrast in 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, as in English in this case.

(266) Lexicalization patterns for psych verbs (ExpObj verbs):

	'be in a mental state'	'get into a mental state'	'put into a mental state'
English	be + V$_{PP}$ (e.g. *be frightened*)	get/become + V$_{PP}$ (e.g. *get frightened*)	V (e.g. *frighten*)
Spanish	'be' + V$_{PP}$ (e.g. *estar asustado*)	V + SE (e.g. *asustarse*)	V (e.g. *asustar*)
Japanese	'be' + V$_{PP}$ (e.g. *odoroi-te i-ru*)	V (e.g. *odoroku*)	V + CAUS (e.g. *odorok-ase-ru*)

A related phenomenon is that languages seem to differ in which type of expression they preferably use in order to describe a particular situation. This is 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, 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, we could say that Spanish and Japanese are representative of "do" languages and "become" languages respectively, as stated in Deguchi (1982) and Fukushima (1990). Spanish tends to use an *agentive/causative* expression, i.e. ExpObj verbs, to express a change of psychological state or mental reaction, while Japanese prefers describing the same situation in an *inchoative* expression, i.e. ExpSubj verbs.

Nevertheless, as Noda (1997) pointed out, this is not that all verbs in a language are lexicalized in a single pattern. In fact, Spanish also displays *inchoative* type expressions, i.e. ExpNOM reflexives, and Japanese also presents *agentive/causative* expressions, i.e. ExpObj causatives. Therefore, assuming that both Spanish and Japanese have ExpSubj verbs and ExpObj verbs, what interests us here is whether the corresponding expressions in these languages really express the same semantics.

(267) Spanish ExpACC verbs vs. Japanese ExpObj causatives

    a. El trueno   asustó   a María.

      the thunder frightened to María

   'The thunder frightened María.'

    b. Kaminari-ga   Maki-o   odorok-**ase**-ta.

      thunder-NOM Maki-ACC get surprised-CAUS-PST

     'The thunder surprised Maki.'

(268) Japanese ExpSubj-*NI* verbs vs. Spanish ExpNOM reflexives

    a. Maki-ga   kaminari-ni odoroita.

      Maki-NOM thunder-*NI*   get surprised.PST

   'Maki got surprised at the thunder.'

    b. María **se** asustó   (por el trueno).

      María SE frightened by the thunder

   'María got surprised at the thunder.'

In this chapter, we will demonstrate that there are semantic differences between the corresponding psych predicates of Spanish and Japanese, including the aspectual differenced observed in chapter 3, e.g. Japanese ExpObj causatives are accomplishment-type predicates, while Spanish ExpACC verbs are not, and then, we will propose that such semantic differences can be ascribed to the typological contrast present between these languages. That is to say, as Spanish and Japanese derive psych verbs in a reverse procedure, the corresponding expressions in these languages are different in derivational status: Spanish ExpACC verbs are lexical verbs, while Japanese ExpObj causatives are derived predicates; and Japanese ExpSubj-*NI* verbs are lexical verbs, while Spanish ExpSubj reflexives are derived predicates.

First, we will examine the nature of the causative formation present in Japanese ExpObj causatives and tackle the question as to whether Japanese ExpObj causatives are really similar to ExpObj lexical verbs of other languages in grammatical terms. Second, we will see the details of the anticausative operation and apply it to Spanish reflexive psych verbs. Finally, we will discuss the semantic differences between ExpObj verbs and between ExpSubj verbs of these languages and demonstrate how the morphological processes can be reflected in the semantics of the verbs in question.

4.2. Causativization in Japanese Psych Verbs

ExpObj verbs in Japanese are morphologically overt causatives. The question is whether Japanese ExpObj causatives really correspond to the ExpObj verbs of other languages that are not overtly causative. In this section, we will demonstrate that the causativization that produces ExpObj causatives in Japanese is a valence-increasing syntactic formation, which makes them different from ExpObj lexical verbs.

4.2.1. Japanese ExpObj Causatives

In Japanese, ExpObj verb (e.g. *odorok-ase-* 'to surprise' *kanasim-ase-* 'to sadden,' *yorokob-ase-* 'to please,' *tanosim-ase-* 'to amuse') are morphologically derived from ExpSubj verbs by attaching a causative morpheme *-(s)ase*. In this section, we will summarize the basic characteristics of the causative construction and point out an apparent difference between ExpObj causatives and the "regular" causative construction.

First of all, a causative construction in Japanese is formed by attaching a morpheme *-(s)ase* to the verb root. Then, the subject of the base verb changes its case marking from nominative to other cases. For instance, the subject of transitive and ditransitive verbs becomes a causee followed by a dative case marker *-ni*, i.e. *Taro* in the examples below.

(269) a. Taro-ga   ringo-o   tabeta.

     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.'

(270) a. Taro-ga   oya-ni   tegami-o   kaita.

     Taro-NOM parent-DAT letter-ACC write.PST

    'Taro wrote a letter to his parents.'

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

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

'Maki made Taro write a letter to his parents.'

Regarding intransitive verbs, on the other hand, the causee will be marked by the accusative *-o*: although some verbs allow the dative *-ni,* as shown in (271). When the causee can be marked by the dative *-ni,* it would be interpreted as having some volition towards the denoted action. For instance, *kanjya* 'the patient' marked by *-ni* in (271b) can be regarded as not being forced to walk by the doctor but as walking on her (his) own or by her (his) own will. In fact, the intransitive verbs whose only argument tends to be a non-volitional participant are not compatible with the dative causee, as shown in (272b).

(271) a. Kanjya-ga   aruita.

　　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/let the patient walk.'

(272) a. Hana-ga   saita.

　flower-NOM bloom.PST

'The flower came out.'

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

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

'Maki made the flower bloom.'

However, the causative construction seems impossible for the intransitive verbs that do not entail volition, independently of case marking, as shown in (273b). (Such verbs have lexical causative counterparts, as in (273c).)

(273) a. Kabin-ga   kowareta.

　vase-NOM break.INTR.PST

'The vase broke.'

b. *Maki-ga   kabin-o/-ni   koware-sase-ta.

   Maki-NOM vase-ACC/-DAT break.INTR-CAUS-PST

   'Maki made the vase break.'

(c. Maki-ga   kabin-o   kowasita.

   Maki-NOM vase-ACC break.TRANS.PST

   'Maki broke the vase.')

In other words, a causative construction requires volition in the argument of the base verb. The basic characteristics of the causative construction can be sketched as below:

(274) Causative construction:

     a. *x*-NOM *y*-DAT *z*-ACC Vditr. $\rightarrow$ *w*-NOM [*x*-DAT *y*-DAT *z*-ACC V]-CAUS

     b. *x*-NOM *y*-ACC Vtr. $\rightarrow$ *w*-NOM [*x*-DAT *y*-ACC   V]-CAUS

     c. *x*-NOM([+volition]) Vintr. $\rightarrow$ *w*-NOM [*x*{-ACC/-DAT} V]-CAUS

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

Now, we turn our attention to ExpObj causatives. Japanese lacks ExpObj lexical verbs that correspond to English *annoy* or Spanish *asustar* 'to frighten,' but the language uses a morphological strategy to produce them. Japanese ExpObj verbs are derived from ExpSubj verbs by suffixing a causative morpheme *-(s)ase*. However, not all ExpSubj verbs can form ExpObj counterparts. ExpSubj-*NI* verbs mostly can form ExpObj causatives, as shown in (275), whereas ExpSubj-*O* verbs generally cannot, as in (276).

(275) a. Taro-ga   kaminari-ni odoroita.

     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.'

(276) a. Taro-ga   Hanako-o   nikumda.

     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 disgusted (caused hatred in) Taro.'

The distribution of ExpObj causatives seems to relate to the 'Cause of Emotion'/'Object of Emotion' distinction between the objects of ExpSubj-*NI* verbs and ExpSubj-*O* verb. As we mentioned in chapter 2, a major difference between ExpSubj-*NI* verbs and ExpSubj-*O* verbs is that the object of the former is interpreted as 'Cause of Emotion' while that of the latter is considered as 'Object of Emotion.' Since ExpObj causatives appears only possible for ExpSubj-*NI* verbs, we could say that ExpObj causatives are formed from ExpSubj verbs whose object is 'Cause of Emotion.'

For instance, there are some ExpSubj verbs that allow both -*o* and -*ni* case markers for their objects, and the *o*-marked object is 'Object of Emotion' while the *ni*-marked element is 'Cause of Emotion.' For such verbs, ExpObj counterparts are possible without problem.

(277) a. Taro-ga   purezento-o/-ni   yorokonda.

    Taro-NOM present-ACC/-*NI* get pleased.PST

   'Taro was pleased about/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.'

Moreover, there are some ExpSubj verbs whose object is rather 'Object of Emotion' even though it is marked by -*ni,* and such verbs sound unnatural in the ExpObj counterparts, as shown below.

(278) a. Taro-ga   sensei-ni akogareta.

    Taro-NOM teacher-*NI* long.PST

   'Taro longed for the teacher.'

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

    teacher-NOM Taro-ACC long-CAUS-PST

    Intended: 'The teacher attracted Taro.'

Furthermore, the verb *tanosim-* 'enjoy' can form an ExpObj causative even though it is an ExpSubj-*O* verb. The *o*-marked objects are normally considered as 'Object of Emotion,' but the *o*-marked object of this verb may not be an 'Object of Emotion.' That is, the *eiga* 'the movie' in (279a) is not a target of emotional evaluation, i.e. it is not necessarily that *Taro* evaluated the movie as enjoyable, but rather *Taro* just enjoyed watching the movie. If so, the watching movie is a mere cause of *Taro*'s enjoyment.

(279) a. Taro-ga   eiga-o   tanosinda.
        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.'

Therefore, ExpObj causatives are possible for the ExpSubj verbs whose objects, whether marked by *-ni* or *-o,* can be interpreted as 'Cause of Emotion.' From a different view, the element that can only be the 'Object of Emotion' cannot be the subject of ExpObj causatives.

So far, we have seen the basic characteristics of the causative construction (hereafter 'regular causative construction') and the formation of ExpObj verbs in Japanese separately, because they look different. While the regular causative constructions add an external argument as the causer subject, ExpObj causatives apparently have the same number of arguments as their ExpSubj variants, only in a reverse configuration.

ExpSubj verbs are generally not compatible with the regular causative construction, as shown in (280c). However, among the ExpSubj verbs that are not possible to form ExpObj causatives, there are a few cases that sound relatively fine in the regular causative construction, as in (281c).

(280) a. Taro-ga   kaminari-ni odoroita.
        Taro-NOM thunder-*NI* get surprised.PST
      'Taro got surprised at the thunder.'

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

  thunder-NOM Taro-ACC get surprised-CAUS-PST

 'The thunder surprised Taro.'

c. {*Sono oto-ga / *Maki-ga}   [Taro-ni   kaminari-ni odorok]-ase-ta.

  that sound-NOM/Maki-NOM Taro-DAT thunder-*NI* get surprised-CAUS-PST

  '{The loud sound/Maki} made Taro get surprised at the thunder.'

(281) a. Taro-ga   Hanako-o   nikumda.

   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 disgusted (caused hatred in) Taro.'

c. {?Sono hanasi-ga/?Maki-ga}   [Taro-ni   Hanako-o   nikum]-ase-ta.

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

  'Those stories made Taro hate Hanako.'

If the regular causative construction requires the causee to be a volitional argument, as we noted above, the reason that ExpSubj verbs generally cannot appear in the regular causative construction would be because an Experiencer is a less volitional participant. That is to say, the Experiencer subject of *odorok-* 'to get surprised' in (280) does not have control over his/her feeling surprised. In a similar way, we could explain that the example (281c) is relatively fine because the Experiencer subject of *nikum-* 'to hate' has some control over her/his feeling hared towards the object, or at least some control regarding the direction of aiming such emotion.

In this section we have summarized the basic characteristics of the regular causative construction and ExpObj causatives in Japanese. ExpObj causatives are derived from ExpSubj verbs, but not all ExpSubj verbs are possible. ExpSubj-*NI* verbs can form ExpObj causatives, while ExpSubj-*O* cannot. However, ExpSubj-*O* verbs are tolerable in regular causative construction, while ExpSubj-*NI* verbs are not compatible with it. ExpObj causatives are apparently different from the "regular" causative construction as to whether the valence changes or not. The next section will discuss whether the

causativization in Japanese ExpObj causatives is really different from regular causativization.

4.2.2. Causativization: Valence-Increasing vs. Valence-Unchanging

ExpObj causatives look different from regular causative construction with respect to the number of arguments. While regular causative constructions add an extra argument as the causer subject, as described in (282), ExpObj causatives seemingly do not increase the number of arguments but just switch the syntactic position of the arguments, as in (283).

(282) a. Taro-ga   hon-o   yonda.
        Taro-NOM apple-ACC read.PST
      'Taro read a book.'
    b. Maki-ga   Taro-ni   hon-o   yom-ase-ta.
      Maki-NOM Taro-DAT book-ACC read-CAUS-PST
      'Maki made Taro read a book.'

(283) a. Taro-ga   sono sirase-ni odoroita.
        Taro-NOM that news-*NI* get surprised.PST
      'Taro got surprised at the news.'
    b. Sono sirase-ga   Taro-o   odorok-ase-ta.
      that news-NOM Taro-ACC get surprised-CAUS-PST
      'The news surprised Taro.'

In other words, a single language seems to have two different types of causativization, as sketched below:

(284) a. Pred(x, y) $\rightarrow$ z CAUSE [Pred(x, y)]   'valence-increasing' causativization
    b. Pred(x, y) $\rightarrow$ CAUSE-Pred (y, x)   'valence-unchanging' causativization

Is the causativization in Japanese ExpObj causatives the 'valence-unchanging' type, as it seems? There are other languages that have this type of causativization. In this section, nevertheless, we propose that it is a 'valence-increasing' type of causativization, and this is plausible because the *ni*-marked elements of ExpSubj-*NI* verbs are adjuncts, as discussed in chapter 2.

There are languages that have different type of causativization. For instance, in Finnish, as we mentioned in 3.1.2, there are stative ExpSubj verbs and nonstative ExpSubj verbs, and both classes have ExpObj causative counterparts (see Pylkkänen 2000). The interesting point here is that there is an important difference between stative pairs and nonstative pairs with respect to causativization. In the stative pairs, the selectional restriction of the object of ExpSubj verbs applies to the subject of the ExpObj causatives. For example, just like the object of a stative ExpSubj verb *sääli* 'pity' cannot be inanimate, the subject of its causative ExpObj variant cannot be inanimate.

(285) 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.'   (Pylkkänen 2000:434-435)

In the nonstative pairs, on the other hand, the selectional restriction of the object of ExpSubj verbs does not apply to the subject of the ExpObj causatives. For example, while a nonstative ExpSubj verb *viha-stu* 'become angry' precludes an animate object, its causative ExpObj counterpart admits an animate subject.

(286) 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)

In other words, the causativization in the stative pairs can differ from that in the nonstative pairs. The causativization in the stative pairs can be a 'valence-unchanging (switching)'-type of operation, since the object of an ExpSubj verb and the subject of its ExpObj counterpart share the same selectional restriction.

Now, consider Japanese ExpObj causatives. 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-* 'to get depressed' disallows an animate object, but its ExpObj causative variant allows an animate subject.

(287) a. Taro-ga   warui sirase-ni meitta.

     Taro-NON bad   news-*NI* get depressed.PST

   'Taro got depressed at the bad news.'

b. ??Taro-ga   Maki-ni   meitta.

      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.'

Therefore, despite the appearance, causativization in Japanese ExpObj causatives is not a 'valence-unchanging (switching)' type of operation. Rather, we would say that it is a 'valence-increasing'-type of causativization, just like regular causativization. This becomes obvious if we accept the idea that the objects of ExpSubj-*NI* verbs are actually adjuncts, as we argued in chapter 2. Namely, if ExpSubj-*NI* verbs are one-place predicates that only require an Experiencer argument, the ExpObj variants can be formed by adding an external causer, as sketched in (288).

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

In the previous section, we observed that ExpSubj-*NI* verbs can form ExpObj causatives, but cannot appear in the regular causative construction. If the *ni*-marked 'Cause of Emotion' is an adjunct, there is no difference between its ExpObj causative and its regular causative construction. Then, (289c) is not grammatical just because there are two 'Causes of Emotion' in a single sentence.

(289) a. Taro-ga   (kaminari-ni) odoroita.
     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.'
   c. {*Sono oto-ga / *Maki-ga} [Taro-ni   kaminari-ni odorok]-ase-ta.
   that sound-NOM/Maki-NOM Taro-DAT thunder-*NI* get surprised-CAUS-PST
    '{The loud sound/Maki} made Taro get surprised at the thunder.'

ExpSubj-*O* verbs cannot form ExpObj causatives, as in (290b), but are relatively fine in the regular causative construction, as in (290c). Again, this is because the *o*-marked objects are indeed verb-selected arguments and the causativization is a 'valence-increasing' operation, and not a 'valence-switching' type.

(290) a. Taro-ga   Hanako-o   nikumda.
    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 disgusted (caused hatred in) Taro.'
   c. {?Sono hanasi-ga/?Maki-ga}   [Taro-ni   Hanako-o   nikum]-ase-ta.
    that story-NOM/ Maki-NOM Taro-DAT Hanako-ACC hate-CAUS-PST
   'Those stories made Taro hate Hanako.'

In summary, ExpObj causatives formed from ExpSubj-*NI* verbs in Japanese are results of 'valence-increasing' type of causativization, since ExpSubj-*NI* verbs are one-place predicates to which an external 'Cause of Emotion' can be added. In other words, ExpObj causatives are not different from regular causatives because both are constructed via a causativization that adds an external causer. It is not surprising that causativization is an operation that adds a causer argument, but our point here is that even ExpObj causatives, which look like outputs of a 'valence-switching' type operation, are formed by a 'valence-increasing' type causativization. The causativization by -*(s)ase* morphology in Japanese is a uniform operation. Moreover, as we will demonstrate in the next section, the -*(s)ase* causativization is not adding an external causer to create lexically formed causative verbs but embedding the whole base predicate just like syntactic causative constructions.

4.2.3. Causativization: Lexical vs. Syntactic

If Japanese ExpObj causatives are formed via a 'valence-increasing' type of causativization, as we proposed in the previous section, these expressions are more like periphrastic causative constructions, e.g. *They {made/let} her cry* (cf. Katada 1995, 1997, Kuroda 1965). In this section, we will demonstrate that the causativization in Japanese ExpObj causatives is indeed a syntactic operation, which makes them differ in the causativity they denote from lexically formed expressions

Causativization is not a uniform operation across languages, or even in a single language if it has more than one type of causative operation, as mentioned for Finnish in the previous section. For instance, Hungarian displays a morphological causativization that resembles Japanese causativization in productivity, but the causative operations in these languages behave differently. According to Horvath and Siloni (2011a), causatives in Hungarian are productively constructed by attaching a causative morpheme -*(t)at*/-*(t)et* to the verb roots, just like Japanese -*(s)ase* causatives, as shown in (291). However, some different behaviors between them indicate that Japanese causative constructions consist of two predicates, a cause predicate and an embedded predicate, while Hungarian ones involve only one predicate. Therefore, Japanese

causativization is a syntactic formation, while Hungarian causativization is a formation in the lexicon.

(291) a. Japanese productive causativization:

 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.'

 b. Hungarian productive causativization:

 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)

For instance, in Japanese causatives, negation can either follow the causative morpheme *-(s)ase* to negate the causative predicate, as in (292a), or intervene between the base verb and the causative morpheme to negate the base verb, as in (292b).

(292) a. Taro-wa kodomo-o gakkou-ni ik-ase-**na**katta.

  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 ika**na**k-sase-ta.

  Taro-NOM child-ACC school-to   go.NEG-CAUS-PST

  'Taro made his child not go to the school.'

This is a characteristic of the *-(s)ase* causative construction, since lexical (causative) transitive verbs do not allow negation to intervene between the base verb and the transitive morpheme (e.g. *kowasu* '(x) breaks (y)' vs. *kowareru* '(y) breaks'), as below:

(293) a. Taro-ga omocha-o kowasa**na**katta.

  Toro-NOM toy-ACC   break.TRANS.NEG.PST

  'Taro did not break the toy.'

 b. *Taro-ga omocha-o kowa**na**kasata.

  Toro-NOM toy-ACC   break.NEG.TRANS.PST

In Hungarian causatives, on the other hand, negation unambiguously scopes over the causative, and not over the base verb, as shown below. 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.

(294) **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.'

Hungarian has a periphrastic (permissive) causative construction, which is a syntactic formation. In this case, the negation can scope either over the whole causative predicate or over the base verb, as below.

(295) 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)

In other words, negation behaves differently between lexical causatives and productive causatives. Hungarian causatives behave like Japanese lexical (causative) transitive verbs, and Japanese productive causatives behave like Hungarian syntactic causatives. Whether or not negation can intervene between the base verb and the causative morpheme relates to whether the causative expressions involve two separable predicates or not.

The following diagnostics indicate that there are two agents in Japanese productive causatives, while there is only one agent in Hungarian ones. For instance, in Japanese productive causatives, agent-oriented adverbials can modify either the causer or the causee, as shown in (296a), while they can only modify the causer in Hungarian ones, as in (296b).

(296) a. Sono bengoshi-wa {tyuchonaku/   yorokonde}   John-ni   keiyakusyo-ni
       that lawyer-TOP   without hesitation/with pleasure John-DAT contract-DAT

       sain-s-ase-ta.

       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}

    the lawyer.NOM readiness-INSTR hesitation without

    alá-ír-ta   jános-sal   a szerződés-t.

    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}].'

<div align="right">(Horvath and Siloni 2011a: 669)</div>

Similarly, the VP-ellipsis construction, a.k.a. *do so* substitution, can also detect two agents in Japanese causatives, but only one in Hungarian ones. In Japanese causatives, the *do so* substitution is possible either for the causer's VP or for the causee's VP, as shown in (297a). In Hungarian causatives, on the other hand, the *do so* replacement is possible only for the causer's VP, as in (297b).

(297) a. Yoko-ga   [musuko-ni [huku-o   ki]-sase]-ru   to,
       Yoko-NOM   son-DAT   clothes-ACC wear-CAUS-NPST and

    Junko-mo soo sita.

    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

    up-read-CAUS-PST-1SG Mari-INSTR a poem-ACC because

    János   is az-t   csinálta.

    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.'

<div align="right">(Horvath and Siloni 2011a: 666)</div>

So far, we have seen how causativization can vary across languages. According to Horvath and Siloni (2011a), Hungarian causatives are formed in the lexicon, and hence, they are only one predicate as a whole. Japanese causatives, on the other hand, are constructed via a syntactic operation, and therefore, they consist of two separable predicates.

Now, we would like to apply this analysis to ExpObj causatives. In the previous section, we proposed that ExpObj causatives are apparently different from regular causative constructions, but both are actually made of a uniform causativization. Do ExpObj causatives also comprise two separable predicates? Firstly, the negation test can successfully detect two predicates in ExpObj causatives. That is to say, just like productive causatives we have seen above, ExpObj verbs can be intervened by the negation, and the negation can scope over either the causative predicate or the base verb, as shown in the following examples.

(298) a. Taro-wa   kodomotati-o odorok-ase-**na**katta.
     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 odoroka**na**k-sase-ta.
     Taro-TOP children-ACC get surprised.NEG-CAUS-PST
  'Taro caused children not to get surprised.'

(299) a. Taro-wa   kodomotati-ni si-o   osore-sase-**na**katta.
      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**na**k-sase-ta.
      Taro-TOP children-DAT death-ACC fear.NEG-CAUS-PST
   'Taro caused children not to fear death.'

Other tests like agent-oriented adverbials and *do so* substitution have not much use here, since the causee of ExpObj causatives is not an agent but an experiencer. Thus, natuarlly, agent-oriented adverbials and *do so* substitution only applies to the causer's portion.

(300) 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.'

(301) Taro-ga   Maki-o   odorok-ase-ru   to,   Jiro-mo soo sita.

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, we think that *zonbunni* 'sufficiently, to one's heart's content' can modify both the causer's triggering an emotion part and the causee's experiencing the emotion part.

(302) Maki-ga   Taro-o   zonbunni   {obie-sase-ta/

Maki-NOM Taro-ACC sufficiently   be scared-CAUS-PST/

odorok-ase-ta}.

get surprised-CAUS-PST

(i) 'Maki scared/surprised Taro to her heart's content.'

(ii) 'Taro got scared/got surprised to his heart's content.'

Moreover, temporal adverbials also show a similar result. For instance, *-kan* 'for' adverbials can modify either the causer's triggering the denoted emotion or the causee's (i.e. experiencer's) being in such emotional state, as shown below.

(303) Maki-ga   Taro-o   mikka-kan   nayam-ase-ta.

 Maki-NOM Taro-ACC three.days-for be bothered-CAUS-PST

(i) 'Maki caused bother in Taro for three days.'

(ii) '(Maki did something and) Taro was bothered for three days.'

Some ExpObj causatives with these adverbials are only possible in the first interpretation, and this tends to be an iterative reading, as shown in (304).

(304) #Maki-ga   Taro-o   mikka-kan   odorok-ase-ta.

Maki-NOM Taro-ACC three.days-for get surprised-CAUS-PST

(i) 'Maki caused surprise in Taro (repeatedly) for three days.'

(ii) ??'(Maki did something and) Taro was surprised for three days.'

Notice that their ExpSubj variants behave just like them. This suggests that ExpObj causatives embed the whole ExpSubj predicates, and therefore the temporal adverbials modify both the causing part and the embedded portion of the described event.

(305) a. Taro-ga   mikka-kan   nayamda.

Taro-NOM three.days-for be bothered.PST

'Taro was bothered for three days.'

b. #Taro-ga   mikka-kan   odoroita.

Taro-NOM three.days-for get surprised.PST

??'Taro was surprised for three days.'

In this section, we have seen how causativization in both regular causatives and ExpObj causatives in Japanese is a single uniform operation that embeds the whole base predicate just like syntactically constructed causative constructions. Horvath and Siloni's (2011a) proposal that Hungarian causativization is rather a lexical formation helped us to highlight the syntactic nature of Japanese causativization. Causativity can vary depending on the derivational procedures the expressions undergo.

ExpObj verbs in some languages are lexical verbs, while in other languages, derived verbs. For instance, *annoy* in English and *asustar* 'to frighten' in Spanish are lexical verbs, while Japanese ExpObj verbs are produced from ExpSubj verbs by overt causativization. Nevertheless, ExpObj verbs have been considered causative across languages, independently of the apparent lexical/derived distinction. For instance, as we briefly summarized in chapter 1, Pesetsky (1995) proposes that ExpObj verbs such as *annoy* and *depress* are bimorphemic words containing a bound root and a phonologically null causative morpheme (e.g. *depress*: $[[\sqrt{depress}_v]CAUS_v]$) and this proposal is based on the assumption that the similar verbs in other languages like Japanese are indeed morphologically causative (e.g. *kanasim-ase-* 'to sadden').

However, if Japanese ExpObj causatives are formed by a syntactic causative operation that makes them differ from lexically formed causative expressions, as we have just proposed, they can be distinguished from ExpObj lexical verbs as well. Actually, Horvath and Siloni (2011a) divide causative expressions into three types: causatives formed in the lexicon (e.g. Hungarian *-(t)at/-(t)et* causativization), causatives formed in the syntax (e.g. Japanese *-(s)ase* causativization), and causative transitive verbs which are subject to decausativization (a.k.a. anticausativization). The last type refers to those that typically appear in the transitive-unaccusative (a.k.a. causative-anticausative) alternation (e.g. *John broke the window/ The window broke*). As we will see below, Spanish ExpACC verbs show a resemblance to such lexical causative transitive verbs. Japanese ExpObj causatives would be crucially different from Spanish ExpACC verbs.

In the following sections, we will deal with Spanish reflexive psych verbs that are formed from ExpACC verbs (e.g. *asustar(se)* 'to become frightened'), which are analyzed as results of anticausativization in this study.

4.3. Anticausativization in Spanish Psych Verbs

4.3.1. Spanish Reflexive Psych Verbs

There are several types of reflexive psych verbs in Spanish. Some are inherently reflexive (e.g. *arrepentirse* 'to regret,' *jactarse* 'to boast'), as shown in (306), and others are seemingly derived from ExpNOM verbs (e.g. *compadecer(se)* 'to feel pity,' *lamentar(se)* 'to feel sorry') or from ExpACC verbs (e.g. *asustar(se)* 'to get frightened,' *preocupar(se)* 'to get worried') as in (307) and (308) respectively. In this section, we will especially deal with the last type of reflexive psych verbs (or 'ExpNOM reflexives' in our analysis).

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

     I   SE regret   of have lied

    'I regret having lied.'

(307) 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 SE feel sorry   always   of the poor

   'You always feel pity for the poor.'

(308) a. El trueno   la   asustó   (a María).

    the thunder ACC frightened to María

  'The thunder frightened María.'

   b. María **se** asustó   del   trueno.

    Maria SE frightened of.the thunder

   'María got frightened at the thunder.'

Spanish *se* is used in grammatically manifold ways. For instance, using Mendikoetxea's (2012:477) terminology, 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 additionally, an "aspectual use" (*Juan se comió las manzanas* 'Juan ate up the apples). Basically, in the anaphoric use, the clitic *se* agrees with the expressed argument in person and number, i.e. *me/nos* '1SG/1PL,' *te/os* '2SG/2PL,' *se* '3(SG or PL).' The arbitrary *se,* on the other hand, is used exclusively in the third person. The aspectual *se* is called so because in this use the variants with *se* and without *se* only differ in a shade of meaning related to the aspectual interpretation (see Sanz 1995 and Sanz and Laka 2002 for the details of the aspectual *se*).

Spanish reflexive psych verbs are associated with the anaphoric use of *se* rather than with the others because the clitic *se* that appears with them agrees with the Experiencer argument in person and number, as shown in (306-308) above. Besides, since (306), (307b) and (308b) are not even grammatical without *se,* it is not the aspectual *se* either.

Among anaphoric *se* constructions, ExpNOM reflexive verbs are close to unaccusatives. Unaccusatives are traditionally distinguished from "true" reflexives (and reciprocals), the former being known as 'quasi-reflexives' or 'Romance reflexives' in contrast to the 'regular reflexives' (see 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.' True reflexives are compatible with this expression, while unaccusatives are not, as shown in (309). ExpNOM reflexives pattern like unaccusatives in this respect, as in (310).

(309) a. Los niños   se lavaron a sí mismos.   [True reflexive]
          the children SE washed to SI self
        'The kids washed themselves.'
    b. *El cristal se rompió a sí mismo.   [Unaccusative]
          the glass SE broke to SI self
        'The glass broke itself.'

(310)   *Mi amiga se asustó   a sí misma.
          my friend SE frightened to SI self
        'My girlfriend frightened herself.'

This study analyzes ExpNOM reflexive verbs such as *asustar(se)* as anticausatives. 'Anticausative' refers to the output of an anticausativization or detransitivizing operation, such as unaccusative variants of the transitive-unaccusative (or causative-inchoative) alternation that is typical of many change-of-state verbs (the details of the alternation will be discussed in the next section). That is, the derivation from ExpACC verbs to reflexive variants resembles the transitive-unaccusative alternation. Some studies group both unaccusatives and reflexive psych verbs under the same category (Mendikoetxea 1999b, 2012), whereas others see a difference between them with respect to the acceptance of a prepositional phrase: that is, reflexive psych verbs accept a prepositional phrase, but unaccusatives do not (Masullo 1992). However, consider the examples (311b) and (312b). Unaccusatives are indeed not compatible with a *de* phrase, unlike ExpNOM reflexives. Nevertheless, both unaccusatives and ExpNOM reflexives can appear with a *por* phrase if it does not refer to an agent but a cause: i.e. *por el viento*

in (311b) and *por el trueno* in (312b) are causes of the described events; *Juan* can be agentive or nonagentive, but the *por* phrase is only accepted in a nonagentive reading.

(311) a. {Juan/El viento} rompió la ventana.

       Juan the wind   broke   the window

    '{Juan/The wind} broke the window.'

    b. El vaso   se rompió ({*del viento/ por el viento/ #por Juan}).

     the glass SE broke   of.the wind   by the wind   by Juan

    'The glass broke {of the wind/ by the wind/ by Juan}.'

(312) a. {Juan/El trueno}   asustó   a María.

      Juan the thunder frightened to María

    '{Juan/The thunder} frightened María.'

    b. María se asustó   ({del trueno/ por el trueno/ #por Juan})

     María SE frightened of.the thunder by the thunder by Juan

    'María became frightened of the thunder/ by the thunder/ by Juan.'

Summarizing the points so far, ExpNOM reflexives (e.g. *asustar(se)* 'to get frightened') share with true reflexives (e.g. *lavar(se)* 'to wash themselves') and unaccusatives (e.g. *romper(se)* 'to break (int.)') the anaphoric use of the clitic *se,* and they are especially close to unaccusatives. As unaccusatives are analyzed as anticausatives, we would like to apply an anticausative analysis to ExpNOM reflexives. In the next sections, we will first describe the basic idea of anticausativization.

4.3.2. Anticausativization: Is CAUSE Reduced or Retained?

This section summarizes the details of the anticausative operation, which is normally mentioned in studies of so-called change-of-state verbs. Verbs of change of state such as *break, open, close* and *melt* are characterized by the transitive-unaccusative (or causative-inchoative) alternation, e.g. *John broke the toy/The toy broke.* 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).

Among these different approaches to change-of-state verbs, the anticausativization approach is the most convenient one for Romance languages such as Italian and Spanish. That is, *si/se* unaccusatives in Italian/Spanish 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 removed from the causative variants to produce the inchoative variants: "Pred$_{CAUSE}$: CAUSE (x BECOME(Pred (y))) → Pred$_{INCH}$: BECOME(Pred (y))" (Grimshaw 1984:104). Chierchia (1989[2004]), in turn, considering the fact that these 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 the reduction operation that took place. In his proposal, therefore, *si/se* constructions in Italian/Spanish could be accounted for uniformly by a single reduction operation, only these constructions differ in which argument is reduced: i.e. in true reflexives, the object argument; and in unaccusatives, the subject argument.

However, does the anticausative operation really reduce or delete the causative meaning from the transitives to produce the unaccusatives? From Levin and Rappaport Hovav's (1995) description, for instance, we could assume that not only the transitive variants but also the unaccusative ones imply the existence of an external cause in the denoted events. According to Levin and Rappaport Hovav (1995:92-93), only verbs that denote 'externally caused' eventualities 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.

There is in fact a controversy as to whether the anticausativization deletes or retains the causative portion of meaning. Reinhart (2002), on the one hand, proposes a clear

reduction operation. According to her system, 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 another operation that produces reflexives. Reflexives are results of a reduction of an internal theme argument ([-c-m]), as described in (313a), while unaccusatives are outputs of a reduction of an external cause argument ([+c]), as in (313b) (see also Reinhart and Siloni 2004, 2005, Horvath and Siloni 2011b, 2013).

(313) Reinhart (2002) and Reinhart and Siloni's (2004) Reduction operation:

a. Internal reduction (Reflexivization): $V(\theta_1, \theta_2)$ ---> $R_R(V)(\theta_1) = \lambda x(V(x,x))(\theta_1)$

b. External reduction (Expletivization): $V(\theta_{1[+c]}, \theta_2)$ ---> $R_E(V)(\theta_2) = \lambda x(V(x)(\theta_2)$

For instance, the verb *shave* requires an agent role ([+c+m]) and it is only subject to the reflexivization that reduces the internal theme argument ([-c-m]), as shown in (314). The verb *open,* on the other hand, has an external cause role ([+c]), which is not required to be an agent, and this verb is subject to the external reduction operation that produces unaccusatives, as in (315).

(314) *shave*([+c+m], [-c-m]) ---> R_R(*shave*)([+c+m])

a. Lucie shaved Max.

b. Max shaved. [Reflexive]

(315) *open* ([+c],[-c-m]) ---> R_E(*open*)([-c-m])

a. The key/The wind/Max opened the door.

b. The door opened. [Unaccusative]

In other words, in Reinhart's system, reflexives and unaccusatives are results of two different types of operation. This works especially for languages whose true reflexives and unaccusatives can be clearly separated.

Koontz-Garboden (2009), on the other hand, claims that anticausativization is a reflexivization 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). This idea is based on the Monotonicity Hypothesis, which

states that "word formation operations do not remove operators from lexical semantic representaions" (Koontz-Garboden 2007:43, 2009:80, and 2012; see also Kiparsky 1982). Anticausativization is an operation that "takes a relation as an argument, setting both arguments of the relation to be the same" (Koontz-Garboden 2009:83, supporting Chierchia 1989[2004]:29), as represented in (316). The advantage of this proposal is that both true reflexives and *se* unaccusatives in Spanish can be accounted for by this single operation.

(316) The reflexivization operator (Koontz-Garboden 2009:86):

$$\llbracket \text{se} \rrbracket = \lambda\mathfrak{R}\lambda x[\mathfrak{R}(x,x)]$$

For instance, there are some transitive verbs such as *asesinar* 'to assassinate' whose *se* variants can be true reflexives but not unaccusatives, as shown in (317b), and other transitive verbs such as *romper* 'to break' whose *se* constructions can be unaccusatives but not true reflexives, as in (318b).

(317) 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 SE assassinated to SI self   by SI alone

   'The senator killed himself/*by himself.'

(318) 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 SE broke   to SI self   by SI alone

   'The glass broke *itself/by itself'

One of the grammatical differences between these transitive verbs is that the verb *asesinar* requires an agent to be the subject, while the verb *romper* allows other elements than agent (e.g. instrument, natural force, and causing event) to be the subject.

(319) a. {La terrorista/*El hacha/*El huracán/*La explosion} 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 broke   the car

   '{Juan/The axe/The hurricane/The explosion} broke the car.'

Therefore, the lexical representations of these verbs are different in which thematic relations are present in them. According to Koontz-Garboden (2009), the verb *asesinar* entails AGENT and PATIENT in its denotation, while the verb *romper,* EFFECTOR and THEME. 'EFFECTOR' (Van Valin and Wilkins 1996) is used for the arguments of the verbs that can take agents, instruments, natural forces, etc.

(320) a. ⟦*asesinar*⟧ = $\lambda x\lambda y\lambda s\lambda e[\exists v$[CAUSE($v,e$)∧ AGENT ($v,y$)∧ BECOME($e,s$)∧

   PATIENT (s,x) ∧ *not-whole*(s)]

   b. ⟦*romper*⟧ = $\lambda x\lambda y\lambda s\lambda e[\exists v$[CAUSE($v,e$)∧ EFFECTOR($v,y$)∧ BECOME($e,s$)∧

   THEME(s,x) ∧ *not-whole*(s)]   (Koontz-Garboden 2009:85,89) [22]

These verbs will produce *se* variants via the anticausativization operation described in (316) above. Then, the only argument of *asesinarse* bears a role that is a combination of AGENT and PATIENT roles, as described in (321a), while that of *romperse* is interpreted as EFFECTOR and THEME simultaneously, as in (321b).

(321) a. ⟦*asesinarse*⟧ = $\lambda x\lambda s\lambda e[\exists v$[CAUSE($v,e$)∧ AGENT($v,x$)∧ BECOME($e,s$)∧

   PATIENT(s,x)∧ *not-whole*(s)]]

   b. ⟦*romperse*⟧ = $\lambda x\lambda s\lambda e[\exists v$[CAUSE($v,e$)∧ EFFECTOR($v,x$)∧ BECOME($e,s$)∧

   THEME(s,x) ∧ *not-whole*(s)]]   (Koontz-Garboden 2009:86,90)

Mendikoetxea (1999a) takes a similar view regarding the interpretation of the single arguments of *se* constructions. "*[E]n las oraciones reflexivas, el sujeto se interpreta a*

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[22] Koontz-Garboden's (2009) analysis is developed in the context of Parsons' (1900) Neo-Davidsonian event semantics, where eventualities *v* come in two different sorts, events *e* and states *s* (cf. Bach 1981, 1986).

la vez como agente (o experimentante) y tema. Una similar interpretación se puede aplicar a las oraciones inacusativas con el sujecto como causa y tema ([i]n 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). In other words, the true reflexive reading can be identified with the AGENT=PATIENT interpretation of the single argument, and the unaccusative reading, with the EFFECTOR=THEME interpretation. A single operation can produce both true reflexives and unaccusatives, since the difference between true reflexives and unaccusatives lies in which thematic relations the predicate manifests.

This study supports Koontz-Garboden's (2009) proposal of anticausativization rather than Reninhart's (2002). That is, Reninhart's (2002) anticausativization is a reduction operation and needs two different types to produce true reflexives and unaccusatives respectively. Koontz-Garboden's (2009) anticausativization, on the other hand, does not involve any reduction of meaning and can account for both true reflexives and unaccusatives. We think of the latter as more suitable for Spanish *se* constructions because this language uses the same morphology for both true reflexives and unaccusatives and there are in fact some cases where a *se* construction can have both true reflexive and unaccusative readings. It would not be efficient to establish two different procedures to explain them.

For instance, the *se* variant of *matar* 'to kill' can be both true reflexive and unaccusative depending on the context, as in (322), or on other elements in the sentence, as in (323).

(322) ¡Dios mío, nos vamos a matar! (García 1975:9)

    God mine SE go 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 crash) [Unaccusative]

(323) a. Se mató tirándose desde el balcón.   [True reflexive]

    SE killed throwing.SE from the balcony

    'S/he committed suicide by jumping from the balcony.'

b. Se mató con el coche.   [Unaccusative]

   SE killed with the car

   'S/he got killed by a car.'

The verb *matar* can take not only agents but also nonagentive causers, as shown in (324). In Reinhart's system, this verb would be represented as in (325). As it holds an external causer role, the verb is supposed to become an unaccusative via an external reduction operation. Reinhart's system cannot account for the reflexive reading this verb can have.

(324) {Juan/ el veneno/ el huracán/ la explosión} mató a Ana.

       Juan the poison the hurricane the explosion killed to Ana

       '{Juan/The poison/The hurrican/The explosion} killed Ana.'

(325) *matar* ([+c],[-c-m]) ---> R_E(*open*)([-c-m]) [Unaccusative]

In Koontz-Garboden's system, on the other hand, the verb *matar* could be represented as in (326a). The proposed anticausativization constructs its *se* variant as described in (326b). The only argument of the *se* construction will be EFFECTOR=THEME, and this is a characteristic of the unaccusative reading.

(326) a. $[\![matar]\!]$ = $\lambda x \lambda y \lambda s \lambda e[\exists v[\text{CAUSE}(v,e) \wedge \text{EFFECTOR}(v,y) \wedge \text{BECOME}(e,s) \wedge$ THEME$(s,x) \wedge$ *not-alive*(s)]

     b. $[\![matarse]\!]$ = $\lambda x \lambda s \lambda e[\exists v[\text{CAUSE}(v,e) \wedge \text{EFFECTOR}(v,x) \wedge \text{BECOME}(e,s) \wedge$ THEME$(s,x) \wedge$ *not-alive*(s)]]

It seems that Koontz-Garboden's proposal cannot explain the reflexive reading of *matarse,* either. Nevertheless, recall that EFFECTOR includes both agentive and nonagentive causers. It can be said that the only argument of *matarse,* which is EFFECTOR=THEME, has a possibility of a reflexive reading because the EFFECTOR can be an agent. The interesting point is that this reasoning is only possible if we adopt Koontz-Garboden's proposal because his anticausativization does not reduce the causative portion of meaning and the EFFECTOR remains in the denotation of the *se* variants.

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In this section, we have summarized the basic idea of anticausativization and two different views about the operation. Anticausativization has been considered as a reduction operation, as proposed in Reinhart (2002) and related works. However, *se* constructions in Spanish can be more efficiently accounted for by an anticausativization that does not reduce the causative meaning from the base verbs, as proposed in Koontz-Garboden (2009). Actually, as we will discuss the details below, there are cases suggesting the presence of the causative portion of meaning in the denotation of the *se* variants. In the following section, we will conduct an anticausative analysis on Spanish reflexive psych verbs such as *asustarse* 'to get surprised,' examining whether the causative portion of meaning is really present in the denotation.

4.3.3. An Anticausative Analysis of Reflexive Psych Verbs

The reflexive psych verbs ('ExpNOM reflexives') 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 like the transitive-unaccusative alternation of change-of-state verbs, e.g. *romper(se)*. For instance, the transitive variants of psych verbs can take nonagentive causers as their subjects.

(327) 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 have an EFFECTOR role in addition to the EXPERIENCER role in the lexical representation. After anticausativization, then, we expect to get a reflexive variant whose only argument holds a combination of the EFFECTOR and EXPERIENCER roles, as described below. Now, what needs to be verified is whether the CAUSE is really present in the denotation of the ExpNOM reflexive verbs.

(328) a. ⟦*asustar*⟧= $\lambda x \lambda y \lambda s \lambda e[\exists v[\text{CAUSE}(v,e) \wedge \text{EFFECTOR}(v,y) \wedge \text{BECOME}(e,s) \wedge \text{EXPERIENCER}(s,x) \wedge \textit{frightened}(s)]]$

b. ⟦*asustarse*⟧= $\lambda x \lambda s \lambda e[\exists v[\text{CAUSE}(v,e) \wedge \text{EFFECTOR}(v,x) \wedge \text{BECOME}(e,s) \wedge \text{EXPERIENCER}(s,x) \wedge \textit{frightened}(s)]]$

According to Koontz-Garboden (2009), *se* unaccusatives (e.g. *romperse* 'to break') retain the CAUSE in their lexical representations. We will first summarize briefly the points of Koontz-Garboden's analysis of *se* unaccusatives, and then we will expand them to examine the reflexive psych verbs in question.

Firstly, *se* unaccusatives such as *abrirse* 'to open' and *romperse* 'to break' are compatible with *por sí solo* 'by itself' (see also Chierchia 1989[2004]). Given that this adverbial means 'without outside help,' it presupposes the presence of 'outside help' (i.e. external causation) in the denotation of the verbs it appears with. Therefore, other intransitives such as *empeorar* 'to worsen,' *hervir* 'to boil' and *crecer* 'to grow' show incompatibility with this adverbial because theses verbs do not imply external causation but internal causation, i.e. "some property inherent to the argument of the verb is responsible for bringing about the eventuality" (Levin and Rappaport Hovav 1995:91), as mentioned in Mendikoetxea (1999a:1598).

(329) a. La puerta se abrió   por sí sola.
    the door SE opened by SI alone
   'The door opened by itself.'
  b. ??La paciente empeoró por sí sola.
     the patient   worsened by SI alone
   'The patient worsened by himself.'

c. *El carro es rojo por sí solo.

    the cart is red by SI alone

  'The cart is red by itself.'

In other words, the compatibility/incompatibility with the adverbial *por sí solo* indicates the presence/absence of the causative portion of meaning in the denotation of the verb, as described below.

(330) a. ⟦*abrirse*⟧ =λ*x*λ*s*λ*e*[∃*v*[CAUSE(*v,e*) ∧ EFFECTOR(*v,x*) ∧ BECOME(*e,s*) ∧

    THEME(*s,x*) ∧ *open*(*s*)]]

    b. ⟦*empeorar*⟧ = λ*x*λ*s*λ*e*[BECOME(*e,s*) ∧ THEME(*s,x*) ∧ *worse*(*s*)]]

    c. ⟦*red*⟧ = λ*x*[*red*(*x*)]

Regarding the intransitive verbs *crecer* 'to grow,' *hervir* 'to boil,' and *empeorar* 'to worsen,' however, note that there are cases where they can appear with *por sí solo*, as shown in (331). Nevertheless, for a native speaker these verbs would be compatible with this adverbial only when it is presupposed that the subject cannot *crecer*, *empeorar* or *hervir* without outside help. In other words, even events described by the verbs of internal causation "occasionally…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).

(331) a. La situación del paciente empeoró por sí sola, (el médico no tiene la culpa).

    the situation of.the patient worsened by SI 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

    made a heat incredible yesterday the water that left in the sill of the window

    hirvió por sí sola.

    boiled by SI alone

    'It was incredibly hot yesterday; the water I left on the window sill actually

    boiled by itself.'   (Horvath and Siloni 2013:220)

Actually, *empeorar* and *hervir* present causative uses, as shown in (332).[23]

(332) 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.'

The interpretation of negation also indicates whether the CAUSE portion of meaning is present/absent in the denotation of the predicates. Negation with *se* unaccusatives is ambiguous between two readings, as shown in (333). However, such ambiguity does not occur with other intransitives such as *empeorar*, or with stative predicates, as in (334, 335). If the CAUSE is present, the negation can scope either over the CAUSE part or over the rest; and therefore, the interpretation is ambiguous.

(333) a. El vaso   no   se rompió sino que se quemó.

　　　　the glass NEG SE broke   but that SE burned

　　'The glass did not break, but rather it burned.' (The vase did not break)

　　b. El vaso   no   se rompió sino que   lo rompiste tú.

　　　　the glass NEG SE broke   but that ACC broke you

　　'The glass did not break (by itself), but rather you broke it.' (The vase did break)

(334) a. La paciente no empeoró   sino que mejoró.

　　　　the patient NEG worsened but that got better

　　'The patient did not worsen, but rather she got better.'

　　b.??La paciente no empeoró   sino que la   empeoró el tratamiento.

　　　　the patient NEG worsened but that ACC worsened the treatment

　　'The patient did not worsen, but rather the treatment worsened her.'

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[23] The verb *crecer* also accepts *por sí solo*: e.g. *El árbol creció por sí solo* 'The tree grew by itself.' However, this verb 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.

(335) a. Juanito   no   tiene miedo a los insectos sino que los odia.

      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.

      Juanito NEG have fear   to the insects but that you DAT ACC make have

    'Juanito does not fear insects, but you make him.'

As Koontz-Garboden (2009) notes, this is not a case of metalinguistic negation. Metalinguistic negation does not license Negative Polarity Items (NPIs), e.g. English *any* as in (336a) or Spanish *ningún* as in (336b). The negation with *se* unaccusatives is not metalinguistic negation because it does license NPIs, as shown in (336c).

(336) a. John didn't manage to solve {some/*any} of the problems-- he managed to

    solve all of them. (Koontz-Garboden 2009:116, following Horn 1985:132-135)

    b. No consiguió resolver {algún/*ningún} problema--

     NEG obtained solve   some   any   problem

    consiguió solucionarlos todos.

    obtained   solve.them   all

    'S/he did not manage to solve {some /*any of the} problems-- s/he managed to

     solve them all.'

    c. No   se rompió ningún vaso; los   rompió Andrés.

     NEG SE broke   any   glass ACC broke   Andrés

    'Any glass didn't break (by itself); Andrew broke them all.'

                   (Koontz-Garboden 2009:116-117)

Finally, we add a mention about the compatibility with prepositional causer phrases. Unaccusatives do not license '*by*-agent' phrases cross-linguistically, but do license other prepositional phrases that refer to a causer, as in (337). This indicates that, the licensing of a causer phrase reflects the presence of an "implicit causer" in the denotation, as stated in Schäfer (2008:125). Spanish *se* unaccusatives allow a prepositional phrase if it refers to a causer and not an agent, as in (338) (as we already noted in 4.3.1). Therefore, we could assume that *se* unaccusatives involve an implicit causer in the denotation.

(337) a. *The window broke/shattered {by John/by a storm/by Will's banging.}

   b. The window cracked/broke {from the pressure/from the explosion.}

(338) La ventana   se rompió {#por Juan/por el viento/por el golpe/por la explosion}.

   the window SE 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}.'

Regarding the other intransitives like *empeorar, hervir* and *crecer,* they also accept causer *por* phrases, but not agent *por* phrases. This is because, as noted above, these predicates can be associated with an external cause on occasions. These verbs can involve an implicit causer, and thus they are compatible with causer *por* phrases.

(339) a. La paciente empeoró por el tratamiento/#por el medico.

       the patient worsened by the treatment   by the doctor

     'The patient worsened form 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.'

Summarizing the points so far, according to Koontz-Garboden (2009), *se* unaccusatives such as *abrirse* 'to open' and *romperse* 'to break' are results of the anticausativization that does not reduce the causative meaning from the denotation of their transitive variants. The presence of the CAUSE portion in the lexical representation of *se* unaccusatives is reflected in the compatibility with *por sí solo* 'by itself (without outside help)' and the ambiguity in the interpretation of negation, for instance. Additionally, the compatibility with causer *por* phrases also indicates the presence of implicit causer in the described meaning.

Now, we turn our attention to ExpNOM reflexives such as *asustarse* 'to get frightened.' ExpNOM reflexives are derived from transitive variants just like *se* unaccusatives. As *se* unaccusatives are formed by the anticausativization that retains the CAUSE, is the causative meaning present in the denotation of ExpNOM reflexives as well?

First, ExpNOM reflexives are apparently compatible with *por sí solo,* as shown in (340a), and they 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." In other words, the causative meaning is present in the denotation of such reflexive psych verbs. However, the degree of acceptability may depend on the predicates. For example, natives would judge that some verbs like *aburrirse* 'to get bored' with *por sí solo* sounds more forced or redundant, as in (340b).

(340) a. María {se enfadó/ se asustó/ se sorprendió} por sí sola.

María SE angered/SE frightened/SE surprised by SI alone

'María {got angry/got frightened/ got surprised} by herself.'

b. ??Juan {se aburrió/ se preocupó/ se molestó} por sí solo.

Juan SE bored/ SE worried/ SE bothered by SI alone

'Juan {got bored/ got worried/ got bothered} by himself.'

Second, negation also indicates that ExpNOM reflexive verbs hold the CAUSE portion in the lexical representation. The interpretation of negation can be ambiguous with ExpNOM reflexives, and therefore, the following examples are not contradictory (although some of the examples sound forced without certain contexts).

(341) a. Ana no se enfadó (sola), sino que la enfadaste tú.

Ana NEG SE angered alone but that ACC angered you

'Ana did not get angry by herself, but rather you angered her.'

b. Ana no se sorprendió (sola), sino que la sorprendiste tú.

Ana NEG SE surprised alone but that ACC surprised you

'Ana did not get surprised by herself, but rather you surprised her.'

c. María no se aburrió (sola), sino que la aburriste tú.

María NEG SE bored alone but that ACC bored you

'María did not get bored by herself, but rather you bored her.'

d. María   no   se preocupó (sola), sino que   la   preocupaste tú.

   María NEG SE worried   alone   but that ACC worried   you

   'María did not get worried by herself, but rather you worried her.'

Moreover, this is not a case of metalinguistic negation because it does license NPIs such as *ningún,* as shown below.

(342) a. No   se enfadó ningún bebé, sino que tú enfadaste a todos.

   NEG SE angered any   baby but that you andered to all

   'No baby got angry (by itself), but rather you angered them all.'

   b. No   se sorprendió ningún niño, sino que tú sorprendiste a todos.

   NEG SE surprised   any   boy   but that you surpised   to all

   'No child got surprised (by itself), but rather you surprised them all.'

   c. No   se aburrió ninguna mujer, sino que tú aburriste a todas.

   NEG SE bored   any   woman but that you bored   to all

   'No woman got bored (by herself), but rather you bored them all.'

   d. No   se preocupó ninguna chica, sino que tú preocupaste a todas.

   NEG SE worried   any   girl   but that you worried   to all

   'No girl got worried (by herself), but rather you worried them all.'

Finally, ExpNOM reflexives are compatible with *por* phrases if they refer to a cause and not an agent. This indicates that these verbs involve implicit causer in the denotation. (Actually, reflexive psych verbs also allow other prepositions such as *de* 'of/from,' *en* 'in,' *con* 'with,' etc. 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.)

(343) a. María se enfadó   por la infidelidad de Juan.

   María SE angered by the infidelity   of Juan

   'María got angry from the infidelity of Juan.'

   b. Ana se sorprendió por el regalo.

   Ana SE surprised   by the present

   'Ana got surprised at the present.'

c. Juan se aburrió {del fútbol/ por el partido sin goles}.

   Juan SE 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 SE worried   by of his future

 'José got worried by/of his future.'

In summary, the compatibility with *por sí solo* 'by itself,' the ambiguity in the interpretation of negation, and the compatibility with *por* 'by' causer phrases indicate that Spanish reflexive verbs also retain the CAUSE component in their denotations, 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 proposed by Marín and McNally (2011) and supported in chapter 3, the *enfadar(se)* class is truly punctual inchoative, while the *aburrir(se)* class is stative inchoative. 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 eventivity. Taking the aspectual differences between the *enfadar(se)*-class and *aburrir(se)*-class verbs into account, the denotations of these verbs can be represented as below:

(344) a. ⟦*enfadar*⟧= λyλxλe∃e′,e‴[CAUSE(e‴, e) ∧ EFFECTOR(e‴, x) ∧ Beg(e, e′, λe″[angry(e″) Happening(e″) ∧ EXPERIENCER(e″, y)])]

b. ⟦*enfadarse*⟧= λxλe∃e′,e‴[CAUSE(e‴, e) ∧ EFFECTOR(e‴, x) ∧ Beg(e, e′, λe″[angry(e″) Happening(e″) ∧ EXPERIENCER(e″, x)])]

(345) a. ⟦*aburrir*⟧= λyλxλe∃e′,e″,e⁗[CAUSE(e⁗, e) ∧ EFFECTOR(e⁗, x) ∧ Beg(e′, e″, λe‴[bored(e‴) ∧ Happening(e‴)∧ EXPERIENCER(e‴, y)]) ∧ e=(e″⊕e′)]

b. ⟦*aburrirse*⟧= λxλe∃e′,e″,e⁗[CAUSE(e⁗, e) ∧ EFFECTOR(e⁗, x) ∧ Beg(e′, e″, λe‴[bored(e‴) ∧ Happening(e‴)∧ EXPERIENCER(e‴, x)]) ∧ e=(e″⊕e′)

These representations show that Spanish reflexive psych verbs are derived from their transitive variants via an anticausativization that does not reduce the CAUSE, and

therefore they have a CAUSE component to their meaning just like their transitive variants.

This study analyzed Spanish reflexive psych verbs as results of anticausativization. We adopted Koontz-Garbaoden's idea of anticausativization. The CAUSE is present in the lexical representation of *se* unaccusatives, according to the compatibility with *por sí solo* 'by itself' and the ambiguity of negation, for instance. We applied Koontz-Garboden's anticausativization to Spanish reflexive psych verbs and demonstrated that the causative meaning is present in the denotation of these verbs as well.

4.3.4. An Alternative View: The Antipassive Analysis

Before closing this section, we would like to mention an alternative account for other reflexive psych verbs, such as *compadecer(se)* 'to feel pity' and *lamentar(se)* 'to 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*.

(346) a. y **compadezco** a los niños de hoy, alimentados con productos artificiales, […]
     and feel pity to the kids of today fed with products artifitial
     'I pity the children of today, who are fed on artificial products.'
     (Carlos Fisas, *Historias de la Historia*, 1983:39; from CREA)
  b. A veces los verdugos **se compadecen** de sus víctimas,[…]
     sometimes the executioner SE feel pity of their victims
     'Sometimes, executioners feel pity for their victims.'
     (Jorge Martínez Reverte, *Demasiado para Gálvez,* 1979:52; from CREA)

(347) a. **Yo lamento** mucho la alegría precipitada de algunos, […]
     I feel sorry much the happiness hurried of some
     'I deeply regret the premature euphoria exhibited by some.'
     (*ABC, 24/12/1983*; from CREA)

b. Pero por lo menos yo soy consecuente con mis ideas y

   but   at least   I am consistent with my ideas and

no **me lamento** de mi suerte.

no SE feel sorry of my luck

'But at least I am consistent with my ideas and I don't complain about my

fortune.' (Lola Beccaria, *La luna en Jorge*, 2001:217; from CREA)

Masullo (1992) analyzes reflexive verbs such as *confesar(se)* and *compadecer(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 the Chukchi language, an ergative-absolutive language, the antipassive displays a demotion from absolutive-case-marked object to an instrument-case-marked complement, as in (348) (Kozinsky et al. 1988:652).

(348) a. *ʔaaček-a*   *kimitʔ-ən* *ne-nlʔetet-ən*

      youth-ERG load-**ABS** 3PL.SUBJ-carry-AOR.3SG.OBJ

   'The young men carried away the/a load.' (transitive)

  b. *ʔaaček-ət*   *ine-nlʔetet-gʔe-t*   *kimitʔ-e*

     youth-ABS **ANTIP**-carry-AOR.3SG.SUBJ-PL load-**INSTR**

   'The young men carried away the/a load.' (antipassive)

Applying this antipassive view to Spanish reflexive verbs, the direct object seems indeed to undergo a demotion to an oblique complement, as in (349).

(349) a. (Yo) compadezco a <u>los pobres</u>.

    I   feel pity   to the poor

  'I pity the poor.'

 b. (Yo) me compadezco <u>de los pobres.</u>

    I   SE 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 *se* absorbs the accusative case. Therfore, the antipassive operation for reflexive psych verbs such as *compadecer(se)* is descibed as following:

(350) The derivation of *compadecerse*:

    1) D-Structure: Juan   compadece   **se$_i$**   los pobres$_i$

    2) Incorporation: Juan   compadece**se$_i$** t$_i$ los pobres$_i$

    3) Cliticization: Juan **se$_i$** compadece t$_i$ t$_i$ los pobres$_i$

    4) Case-marking: Juan **se$_i$** compadece t$_i$ t$_i$ **de** los pobres$_i$

Masullo (1992) also extends the antipassive analysis to reflexive psych verbs such as *sorprender(se)*. In this approach, it is presupposed that the transitive variant *sorprender* is an unaccusative verb, i.e. its surface subject is an underlying object.

(351) The derivation of *sorprenderse*:

    1) D-Structure: e   sorprender   **se$_i$** Juan   las noticias$_i$

    2) Incorporation: e   sorprender**se$_i$** t$_i$ Juan   las noticias$_i$

    3) NP-movement: Juan$_j$ sorprender**se$_i$** t$_i$ t$_j$ las noticias$_i$

    4) Cliticization: Juan$_j$ **se$_i$** sorprende t$_i$ t$_i$ t$_j$ las noticias$_i$

    5) Case-marking: Juan$_j$ **se$_i$** sorprende t$_i$ t$_i$ t$_j$ **de** las noticias$_i$

Note, however, that the idea that ExpObj verbs such as *sorprender* are unaccusatives is often denied. Belletti and Rizzi (1988), on whose work Masullo's (1992) proposal is based, argue themselves, as we mentioned in chapter 1, that not all ExpObj verbs but only ExpDAT class of verbs (e.g. *piacere* 'to please, to like') are unaccusatives in a traditional sense. Moreover, Romero (2008) distinguishes ExpDAT variants of ExpObj verbs in Spanish as unaccusative constructions (e.g. *Le asustan* 'They frighten her') from ExpACC variants (e.g. *La asustaron* 'They frightened her'). In this study, we did not adopt Masullo's (1992) antipassive account of *sorprender(se)*-type of reflexive psych verbs because this pressuposes that the *sorprender* class of verbs are unaccusatives. Nevertheless, we are not denying the whole idea, since his antipassive approach is indeed effective to account for *compadecer(se)*-type of reflexive psych verbs, which are not explained by the anticausative analysis in our study.

4.4. Typological Contrast and Semantic Variation

We have so far examined the causativization of ExpObj causatives in Japanese like *odorok-ase-* 'to surprise' and the anticausativization of ExpNOM reflexives such as *asustarse* 'to get frightened.' We proposed that the causativization in ExpObj causatives in Japanese is a 'valence-increasing' type causativization that is a syntactic formation. The causativization adds an external causer argument to ExpSubj-*NI* verbs that are one-place predicates and embeds the whole base predicates. Regarding ExpNOM reflexives in Spanish, on the other hand, they could be analyzed as anticausatives. We adopted the idea that the anticausativization does not eliminate CAUSE and demonstrated that the causative meaning is present in ExpNOM reflexives.

Spanish and Japanese show a clear typological contrast in the lexicalization patterns of certain psych verbs. Japanese forms ExpObj causatives from ExpSubj-*NI* verbs by causativization, while Spanish forms ExpNOM reflexives (i.e. reflexive psych verbs) from ExpACC verbs by anticausativization. In other words, ExpObj verbs of these languages differ in derivation status, i.e. lexical or derived, as do ExpSubj verbs.

(352) a. El trueno   asustó   a María.   Spanish ExpACC verbs
           the thunder frightened to María
       'The thunder frightened María.'

    b. Kaminari-ga   Maki-o   odorok-**ase**-   Japanese ExpObj causatives
           thunder-NOM Maki-ACC get surprised-CAUS-PST
       'The thunder surprised Maki.'

(353) a. Maki-ga   kaminari-ni odoroita.   Japanese ExpSubj-*NI* verbs
           Maki-NOM   thunder-*NI*   get surprised.PST
       'Maki got surprised at the thunder.'

    b. María **se** asustó   (por el trueno).   Spanish ExpNOM reflexives
           María SE frightened by the thunder
       'María got surprised at the thunder.'

What we want to do in this final section of this study is demonstrate that there are semantic differences between Spanish ExpACC verbs and Japanese ExpObj causatives and between Japanese ExpSubj-*NI* verbs and Spanish ExpNOM reflexives, and that this semantic diversity can be ascribed to the different derivational status of these expressions.

Firstly, Spanish ExpACC verbs and Japanese ExpObj causatives show an aspectual difference, as we observed in chapter 3. For instance, Spanish ExpACC verbs and their reflexive variants are both atelic according to the incompatibility with *en* adverbials.

(354) 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 SE worried   in for   two hours

    'María was worried {*in/for} two hours.'

In Japanese, on the other hand, ExpSubj-*NI* verbs are mostly atelic although their ExpObj causatives can be telic: *-de* 'in' adverbial becomes tolerable with the causative variants.

(355) a. Taro-ga   sono sirase-ni san-pun{*-kan/*-de} odoroita.

      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}

      Taro-NOM that news-NOM Maki-ACC three-minute-for/-in

     odorok-ase-ta.

     get surprised-CAUS-PST

     'Taro/ The news surprised Maki for/?in three minutes.'

Spanish ExpACC verbs are lexical causative verbs that are subject to anticausativization, while Japanese ExpObj causatives are syntactically formed overt causatives. That is to say, the anticausativization from ExpACC verbs to ExpNOM reflexives in Spanish does not cause aspectual change (regarding telicity, at least), while

the causativization from ExpSubj-*NI* verbs to ExpObj causatives in Japanese does. 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, there is also a semantic difference between Japanese ExpSubj-*NI* verbs and Spanish ExpNOM reflexives. As we saw in the previous section, Spanish ExpNOM reflexive verbs are ambiguous with negation because they retain the CAUSE component in the denotation and the negation can scope over either the CAUSE part or the rest. The following examples are possible because the negation scopes over such CAUSE part.

(356) María no se enfadó, sino que la enfadaste tú.
     María NEG SE angered but that ACC angered you
     'María did not get angry (by herself), but you angered her.'

Japanese ExpSubj-*NI* verbs, on the other hand, do not show this ambiguity in negation because they are lexical verbs that are made of a single predicate. Naturally, the following examples sound contradictory.

(357) ??Maki-wa okoranakatta. 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 relation between ExpObj verbs and ExpNOM reflexive verbs in Spanish is different from that between ExpObj causatives and ExpSubj verbs in Japanese.

For instance, (358a) entails (358b). (358c) cannot be said because the entailment is not cancelable. (358d) is not acceptable because the negation of (358b) must entail the negation of (358a).

(358) a. Shelby is a dog.

    b. Shelby is a mammal.

    c. *Shelby is a dog, but is not a mammal.

    d. *Shelby is not a mammal, but is a dog.

It is usually assumed that the transitive variants of the transitive-unaccusative alternation entail the unaccusative variants, as shown in (359). This is indeed the case for Japanese transitive-unaccusative pairs, as in (360), whereas it is not entirely true for the Spanish pairs, as seen in (361).

(359) a. John broke the vase.

    b. The vase broke.

    c. *John broke the vase, but the base did not break.

    d. *The vase did not break, but John broke it.

(360) a. Taro-ga   kabin-o   kowasita.

      Taro-NOM vase-ACC break.TRANS.PST

     'Taro broke the vase.'

    b. Kabin-ga   kowareta.

      vase-NOM break.INTR.PST

     'The vase broke.'

    c. *Taro-wa   kabin-o   kowasita   ga,

       Taro-TOP vase-ACC break.TRANS.PST but

       kabin-wa   kowarenakata.

       vase-TOP break.INTR.NEG.PST

     'Taro broke the vase, but the vase did not break.'

    d. *Kabin-wa kowarenakata   ga, Taro-wa   kabin-o   kowasita.

       vase-TOP break.INTR.NEG.PST but Taro-TOP vase-ACC break.TRANS.PST

      'The vase did not break, but Taro broke it.'

(361) a. Juan rompió el vaso.

      Juan broke the glass

     'Juan broke the glass.'

b. El vaso   se rompió.

   the glass SE broke

  'The glass broke.'

c. *Juan rompió el vaso, pero el   vaso   no   se rompió.

   Juan broke   the glass but   the glass NEG SE 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 SE 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, as in (362), whereas there is no such entailment between ExpACC verbs and ExpNOM reflexives in Spanish, as especially shown in (363d).

(362) 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) odoroita.

   Maki-NOM thunder-*NI*   get surprised.PST

  'Maki got surprised by the thunder.'

c. *Kaminari-wa Maki-o   odorok-ase-ta   ga,   Maki-wa

    thunder-TOP Maki-ACC get surprised-CAUS-PST but   Maki-TOP

   odorokanakatta.

   get surprised.NEG.PST

  'The thunder surprised Maki, but Maki did not get surprised.'

d. *Maki-wa   odorokanakatta.   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.'

(363) a. El trueno   asustó   a María.

    the theunder frightened to María

   'The thunder frightened María.'

b. María se asustó   (por el trueno).

  María SE 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 SE 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 SE frightened but that ACC frightened you

 'María did not get frightened (by herself), but you frightened her.'

To sum up, the derivational differences 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.

4.5. Summary: (Anti)causativization in Psych Verbs

Certain types of psych verbs in some languages are morphologically derived from other types. In Japanese, ExpObj verbs are formed from ExpSubj-*NI* verbs by causativization. In Spanish, reflexive psych verbs (or 'ExpNOM reflexives') are morphologically related to ExpACC verbs, and we analyzed such reflexive psych verbs as the result of anticausativization. In other words, these two languages show a clear contrast in the morphological derivation of psych verbs. In this study, we found that such a contrast produces semantic differences between ExpObj verbs in Spanish and Japanese (i.e. ExpACC verbs in Spanish and ExpObj causatives in Japanese) and between ExpSubj verbs of these languages (i.e. ExpNOM reflexives in Spanish and ExpSubj-*NI* verbs in Japanese).

Causativization in Japanese ExpObj causatives is an operation that embeds the whole base predicate just like syntactically constructed causative constructions. ExpObj verbs have been often treated as causatives in a uniform sense despite the apparent lexical/derived distinction. However, if Japanese ExpObj causatives are formed by a syntactic causative operation that makes them differ from lexically formed causative expressions, they can be distinguished from ExpObj lexical verbs, such as *annoy* in English and *asustar* 'to frighten' in Spanish. In contrast, Spanish ExpACC verbs are subject to a lexical anticausative operation. The anticausativization found in Spanish reflexive psych verbs is an operation that does not involve elimination of the CAUSE. Such reflexive verbs, then, maintain the CAUSE portion of meaning just like their ExpACC variants.

Spanish and Japanese derive ExpObj verbs and ExpSubj verbs in opposing ways. Therefore, the corresponding expressions in these languages differ in lexical/derived status. Interestingly, there are semantic differences between ExpObj expressions and between ExpSubj expressions in these languages. We ascribed such semantic differences to the derivational distinction found between the expressions in question. For instance, ExpACC verbs in Spanish and ExpObj causatives in Japanese vary in the aspectual properties of telicity and durativity, because the latter are produced by syntactic causativization, while the former are lexical verbs. ExpSubj-*NI* verbs in Japanese and ExpNOM reflexives in Spanish, on the other hand, vary in entailment since the latter are formed by anticausativization, which retains the causative meaning in the denotation of the verbs, while the former are lexical verbs that are naturally not causative. This contrastive analysis of psych verbs between Spanish and Japanese revealed that the semantics of words reflects the derivational status of the words and the nature of the morphological operations employed in forming them.

Chapter 5. Conclusion

This dissertation has presented 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, we have asked 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: their thematic relations, lexical aspect, and (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* 'to fear,' *confiar en* 'to trust in'), ExpACC verbs (e.g. *enfadar* 'to anger,' *aburrir* 'to bore'), ExpDAT verbs (e.g. *gustar* 'to please, to like,' *repugnar* 'to disgust, to detest'), and various types of reflexive psych verbs (e.g. *enfadar(se)* 'to become angry,' *aburrir(se)* 'to be/become bored'). Nevertheless, the classification is blurred due to the 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-* 'to hate') and ExpSubj-*NI* verbs (e.g. *odorok-* 'to get surprised'), although there are some verbs that admit both case markings (e.g. *yorokob-* 'to get pleased'). The ExpObj verbs of this language are formed from ExpSubj-*NI* verbs via causativization (e.g. *odorok-ase-* 'to 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 proto-role entailments as coarser-grained but systematically organized thematic notions. Most psych constructions could be explained successfully in terms of 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 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 an aspectual analysis of psych verbs. As some psych verbs are difficult to classify into any of the well-known four aspectual classes, we took the notion of 'boundary' and its subtypes as relevant components of lexical aspect. In Spanish, psych verbs have often been considered stative. In fact, 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 while others are punctual. In other words, they can be divided into stative inchoatives (e.g. *aburrir(se)* 'to be/become bored') and punctual inchoatives (e.g. *enfadar(se)* 'to become angry'). More 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 only describe 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* 'to bore,' *enfadar* 'to anger'). If ExpDAT verbs are

'*estados no acotados,*' which do not involve any boundary in the denoted eventualities, and ExpACC verbs are those that involve a 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 ordinary stative predicates. ExpSubj-*O* verbs are atelic durative predicates, while ExpSubj-*NI* verbs can be further divided into atelic durative predicates (e.g. *nayam-* 'to be bothered'), atelic punctual predicates (e.g. *odorok-* 'to get surprised'), and telic predicates (e.g. *aki-* 'to get bored'). In other words, ExpSubj-*O* verbs are predicates describing a state happening that includes 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 that 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 type of boundary that the base predicate has in its denotation. To sum up, the aspectual analysis of psych verbs in Spanish and Japanese indicates that in both languages certain aspectual properties such as the presence/absence or explicitness/implicitness of the boundary in the denoted eventualities is relevant to the variations in 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 properties of the predicates depending on the type of operation the language employs.

Finally, we devoted the last chapter to the examination of Japanese ExpObj causatives and 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 in these languages, i.e. between Japanese ExpObj causatives (e.g. *odorok-ase-* 'to surprise') and Spanish ExpACC verbs (e.g. *asustar* 'frighten') and between Japanese ExpSubj-*NI* verbs (e.g. *odorok-* 'to get surprised') and Spanish ExpNOM reflexives (e.g. *asustarse* 'to 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 causativization because 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 in the same aspectual class with or without *se.* Moreover, there is an entailment difference between Japanese ExpSubj-*NI* verbs and Spanish ExpNOM reflexives. Specifically, 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, it incorporated 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) may or may not 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 meaning component (i.e. CAUSE) 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. 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 shed 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 add 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.

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