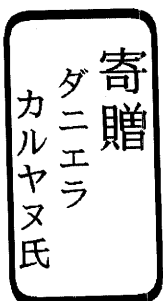


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A dissertation submitted to the University of Tsukuba in partial fulfillment
of the requirements for the degree of Doctor of Philosophy in Linguistics

Aspects of Emotion Predicates in Japanese

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02304231

Acknowledgements

I would like to express my gratitude to all the people who have helped me complete this dissertation. I would like to thank Minoru Nakau and Tasaku Tsunoda for their kind encouragement and their valuable advice. I wish to express my special gratitude to Anna Wierzbicka who showed uncommon kindness in answering my e-mails and offering very valuable suggestions. This work owes very much to her influence. I am very grateful to Kaoru Horie and Mie Tsunoda for their comments on an earlier version of the paper. I wish to thank the members of my Doctoral Dissertation Committee, Stefan Kaiser, Yuriko Sunagawa, Makoto Takada, Koichi Takezawa and Ryuichi Washio for their guidance through various stages of the dissertation. This dissertation would never have been finished without the tireless support of my husband, Kan Sasaki, who offered helpful discussions, judgements regarding the Japanese data, editorial know-how and baby-sitting on many week-ends.

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Introduction

The aim of this dissertation is to offer a lexico-semantic account of emotion predicates in Japanese. In order to achieve this purpose it will be necessary to reconsider some of the tacit assumptions and overt semantic characterizations concerning these predicates.

Emotion predicates are a subclass of psychological predicates. Psychological predicates, often referred to in the linguistic literature as psych-predicates, include predicates referring to cognition, perception, sensations such as pain or itching and emotion.

Psych predicates have received considerable attention in the linguistic literature of the past 30 years because of the linking problems they pose. The two thematic roles associated with these predicates, the experiencer and the stimulus ¹⁾, are not uniformly linked to syntactic positions. Besides the Experiencer Subject predicates (ES), which assign the experiencer role to the subject position, there are Experiencer Object predicates (EO), which map the experiencer argument onto object position. This fact poses a serious problem for theories attempting to offer universal linking rules deriving syntactic structures on the basis of semantic information.

This dissertation is devoted to emotion predicates rather than to psych predicates in general because emotion predicates exhibit the peculiarities of psych predicates more forcefully than the other subclasses. Emotion predicates display the entire range of syntactic patterns attributed to psych predicates, unlike cognitive or perception verbs, which behave in a more predictable fashion.

Japanese has a large variety of emotion predicates, including: adjectives like *ureshii* and *suki*, verbs like *yorokobu* (rejoice), *okoru* (anger), *nikumu* (hate), nominal adjectives like *shinpai suru* (worry), *kandoo suru* (be impressed), onomatopoeic forms like *iraira suru* (be irritated), *dokidoki suru* (be excited) and phrasal predicates like *atama ni kuru* (get angry). The discussion in this paper will be restricted only to the first two types of emotion predicate: adjectives and verbs. This decision was partly determined by the desire to offer an in-depth semantic study and partly by the wish to avoid the possible interference of irrelevant factors, such as the presence of the light verb or other support elements. A notable exception from this decision will be the verb *ai suru* (love) which in spite of the morphological composition, Chinese radical and

light verb, cannot lack from a discussion of emotion predicates due to its central role in the emotional lexicon. The same is true for the nominal adjectives *suki da* (like) and *kirai da* (dislike).

Even reducing the scope of the investigation in this manner, the number of constructions left is impressive. A list of the types of emotion predicates discussed in this paper is presented below.

(1) Types of Japanese emotion predicates discussed in the present paper

ADJECTIVES

- (a) Experiencer-GA/NI Stimulus-GA (+case alternation)
ureshii (glad), *kanashii* (sad), *tanoshii* (pleasant), *sabishii* (lonely), etc
- (b) Experiencer-GA Stimulus-GA(-case alternation)
suki da (like), *kirai da* (dislike), *nikui* (hateful), etc

VERBS

Experiencer Subject (ES)

- (c) Experiencer-GA Stimulus-O (accusative verbs)
kanashimu (sadden), *sabishigaruru* (look lonely), *konomu* (prefer), etc
- (d) Experiencer-GA Stimulus-NI (dative verbs)
odoroku (surprise), *komaru* (annoy), *akiru* (be/get fed up with), etc

Experiencer Object (EO)

- (e) Stimulus-GA Experiencer-O (experiencer causative constructions)
kanashimaseru (sadden), *odorokaseru* (surprise), *komaraseru* (annoy), etc

One of the aims of this paper is to suggest a source for the mismatch between the apparent semantic uniformity and the great syntactic richness characterizing the domain of emotion predicates. To achieve this aim we will address a number of practical issues concerning the five types of constructions above. Some of the questions addressed are listed below.

- (i) What is the semantic role of the case alternation found with some emotion adjectives and how to delimit the class of alternating adjectives from that of the non-alternating adjectives?
- (ii) What is the semantic difference between accusative and dative emotion verbs?
- (iii) What is the semantic relation between morphologically related adjectives and verbs?

(iv) What is the semantic function of the causative morpheme in experiencer causative constructions

The answers proposed to these questions lead to the main claim of this paper, which can be summed up as follows. The difficulties in accounting for the mismatch between the semantic content and the syntactic properties of emotion predicates are due to a large extent to the semantic assumptions held by most researchers. Linguists investigating the vocabulary of emotion show surprisingly little understanding for the complexity of the phenomena referred to by these lexical items. The prevailing assumptions of the linguistic community are nicely illustrated by the definition of psych predicates suggested in Landau (1999) and the discussion accompanying it.

Landau proposes the definition in (2) for psychological predicates, accompanied by the following comment: “*The definition merely spells out intuitive semantic entailments*”.

- (2) let P be an n-place predicate. P is psychological iff:
 $P(\langle x_1, \dots, x_i, \dots, x_n \rangle) \rightarrow \exists x_i \exists s (x_i \text{ is in } s) [s = \text{some mental state}]$

What the formula is meant to capture is mainly the intuition that a predicate can be described as psychological only if one of its arguments is an *experiencer*. The definition presupposes the existence of *mental states* that can be referred to by means of emotion words. The mental states provide the referential content of emotion predicates, i.e. *sadness* and *joy* are distinguished by the fact that the former is associated with the emotional state s_1 and the latter with the state s_2 . Emotional predicates are diadic because emotional states have an *object*. The notions of *experiencer*, *emotional state* and *object of emotion* are regarded as primitives. Moreover, they are subject to the speakers' intuitions. “*I take it that native speakers have direct, pretheoretical access to intuitions of this sort (a useful test is to ask yourself whether the predicate can be true of an unconscious person). Therefore, whether or not a particular predicate is psychological can be established independently of any grammatical process which is alleged to be sensitive to this distinction*” (Landau 1999: 334).

It will be argued in the course of this paper that pretheoretical notions such as *experiencer*, *object of emotion* and *emotional state* need to be reconsidered. The source of inspiration for the analysis advocated here is provided by psychological and

philosophical accounts of emotions.

Emotion words have not been an object of analysis only for linguistics. Researchers from other disciplines, such as psychology and philosophy, have investigated this topic. Unlike linguists, psychologists and philosophers do not assume that emotions refer to internal states. The prevailing view in recent studies is that emotions should be conceived as episodes comprising several components. The internal states are just one among these components. Emotion words refer to the entire episode.

Emotional episodes as described in psychological works are fairly complex. The 1992 APA conference, for instance, proposed that emotional episodes conform to the sequence represented in the following diagram (White 1994).

(3) EVENT-- EVENT CODING--APPRAISAL-->ACTION TENDENCY,
 SOMATIC EXPERIENCE-- MANAGEMENT

It is important to note that not all the components of the emotional episode are linearly ordered. The appraisal component is simultaneous with the action tendency and the somatic experience. That is, in the course of an emotional experience, physiological symptoms and physical manifestations do not follow the judgement of the triggering situation, but accompany it.

It appears that the folk psychology model of emotions is to a large extent parallel to the scientific model. The understanding of emotions involves a script in which there are slots for the eliciting situation; the subjective state; and the accompanying physiological, behavioral, and expressive symptoms of the emotion (Frijda 1993; Harris 1993). Emotion terms are labels for such scripts.

It is unlikely that all the components deemed to have psychological relevance will be directly associated with linguistic expression. An account of emotion words will have to clarify how much of the scientific and folk conception about emotional episodes is represented linguistically and in what form. One of the aims of this paper is to reveal the semantic features behind the formal distinctions observed with emotion predicates. By formal distinctions we understand not only the choice of case pattern, but also the presence or absence of case alternations, properties related to aspect (Aktionsart), selectional properties, etc. We will not deal with semantic features such as the quality of the emotion (positive or negative), the intensity of the emotion (strong or weak), or the

degree of subjective involvement of the experiencer in the situation, although such notions appear frequently in the dictionary definitions of emotion predicates. Despite their relevance for the organization of the lexicon these properties do not have a formal reflex, in the sense mentioned above.

The main ideas borrowed from the domain of psychology are the distinction between emotional occurrences and emotional dispositions and the analysis of emotion words as labels for emotional episodes. It will be argued that three aspects of the emotional episode are reflected by the properties of Japanese emotion predicates: the cognitive aspect, the sensorial aspect and the behavioral aspect.

The dissertation is organized as follows.

Chapter 1 discusses the case marking alternation manifested by Japanese emotion adjectives. One of the conclusions of the chapter is that a better account of the case marking variation can be achieved by assuming that emotion predicates do not refer to primitive states. Instead, we will suggest that emotional states can be further analyzed into a SENSATION component and an EVALUATION component.

It is a common place in philosophy to describe emotions as intentional states, states directed towards an object. The object, even more than the experiencer, has a determining role in defining the emotion. Chapter 2 will show that a number of the syntactic and semantic properties of emotion adjectives: the effect of argument deletion, the interpretation of nominal arguments, control properties, etc., are correlated with the selectional properties of the stimulus argument. The observations made in this chapter will prove useful in the following chapters. It seems that the selectional properties of the stimulus argument are not relevant only for emotion adjectives. They are a major factor in determining the aspectual status of emotion predicates in general.

Chapter 3 will offer a critical review of the some of the most influential accounts of emotion predicates in Western literature. The chapter will focus on the Causative Hypothesis, according to which the main semantic factor behind the formal variation exhibited by emotion predicates is causativity. It will be shown that the arguments for this approach are either flawed or insufficient.

In Chapter 4 we will propose a major classification of emotion predicates into predicates referring to emotional DISPOSITIONS and predicates referring to emotional OCCURRENCES. Disposition predicates and occurrence predicates represent two alternative ways of conceptualizing emotions. The distinction, which cuts across

emotion predicates, has aspectual properties as its linguistic correlate, but does not associate in a one-to-one fashion with formal properties, such as case marking. Its function is, nonetheless very important for delimiting the class of predicates to which further distinctions apply. We shall argue that predicates referring to emotional dispositions are not sensitive to the internal structure of emotional events. Predicates referring to emotional occurrences, on the other hand, describe emotional episodes as actual events and can be subclassified depending on the component of the emotional episode they choose to focus on.

Chapters 5 and 6 will discuss the syntactic and semantic properties of ES and EO pairs of predicates. Although this dissertation is devoted to emotion predicates in Japanese, these two chapters will present a contrastive account of ES- EO pairs in Japanese and Romanian. The aim of the contrastive account is to make the difficulties involved in the analysis of this class of predicates clearer and to make our proposals easier to understand.

Chapter 5 discusses the lexical aspectual properties of Romanian EO verbs and the difficulties arising when we attempt to associate these verbs with a causative structure.

Chapter 6 is devoted to an analysis of Japanese experiencer causative constructions. It will be shown that these constructions exhibit syntactic and semantic properties distinguishing them from standard causative constructions.

We will propose an analysis of these predicates that does not rely on the causative hypothesis. Instead, it will be argued that the source of the reverse linking exhibited by ES and EO pairs should be attributed to the complex nature of emotional interaction. The ideas in Chapter 1 will be developed and we will argue that each of the two participants in the emotional episode plays a double role. As a consequence, the emotional interaction can be viewed from two distinct perspectives, each focusing on a different aspect of the experiencer- stimulus relation. The choice of perspective determines the linking of arguments to syntactic positions. By adopting this approach, some striking similarities can be discerned behind the apparently very different data from Japanese and Romanian.

Chapter 7 will introduce a further subdivision among Japanese predicates referring to emotional occurrences. The distinction is associated with two components of the emotional episode: the INTERNAL STATE and the EXTERNAL

MANIFESTATIONS accompanying it. It will be argued that morphologically related verb adjective pairs in Japanese illustrate this distinction. The person restriction will be seen as a reflex of this semantic distinction.

Chapter 8 will present some proposals regarding the case marking of different classes of emotion predicates. The most important claim of this chapter is that the case marking properties of disposition predicates and those of occurrence predicates are not the result of the application of uniform mapping rules, linking semantic structures to syntactic structures. While the case marking properties of occurrence predicates are directly determined by their semantic structure, the case marking patterns associated with disposition predicates are not always a straightforward reflection of their semantic properties. This is a consequence of the kind of conceptualization associated with each type of predicate. As mentioned before, occurrence predicates reflect the internal structure of emotional episodes. The choice of case pattern with an occurrence predicate reflects the choice of perspective on the emotional episode associated with the respective predicate. Disposition predicates are not sensitive to the internal structure of emotions; they can be described as referring to asymmetric binary relations.

Chapter 1

Case Patterns with Subjective Adjectives

1. Introduction

Japanese adjectives are usually divided into two classes: objective adjectives, expressing properties, like: *akai* (red), *hiroi* (large), *utsukushii* (beautiful), etc, and subjective adjectives, referring to emotions like: *ureshii* (glad), *sabishii* (lonely), etc., or sensations, like: *atsui* (hot), *amai* (sweet), *nemui* (sleepy) (see Nishio 1972). Subjective adjectives share a number of properties, such as the person restriction, which forbids their use in the present tense with non first person subjects, and the possibility of forming derived verbs through affixation of the suffix *-garu*. Most subjective adjectives can take two argument NPs bearing the semantic roles of Experiencer and Stimulus (the trigger of the experience). As regards case marking, there are two case patterns^{1), 2)} associated with subjective adjectives.

- i. Experiencer-ga Stimulus-ga
- ii. Experiencer-ni Stimulus-ga

Most speakers regard the two case patterns as semantically equivalent. Syntactic studies, on the other hand, attribute different structures to the two case marking patterns (Saito 1982; Takezawa 1987). There are very few attempts to associate the difference in syntactic structure with a semantic distinction, or to explain the lack of differentiation on the semantic level, considering the formal distinction between the two case patterns³⁾.

As mentioned before, the two case patterns are to be found with most subjective adjectives not only with adjectives referring to emotions. In what follows, it will be shown that with some classes of subjective adjectives, namely adjectives referring to sensations, the two case patterns are clearly associated with distinct semantic interpretations whereas in the case of emotion predicates there is no sensible semantic difference.

The aim of this chapter is to gain a better understanding of the case patterns in

(i) and (ii) and to explore the possible significance of these two case patterns for emotion adjectives.

In the syntactic literature dealing with this problem, it is implicitly assumed that all the predicates allowing the *-ga/-ni* case marking alternation of the Experiencer argument are structurally equivalent. It is common to discuss the nominative-dative alternation with stative verbs. This chapter will show that there are important differences among lexical items that display apparently identical argument structure and case marking properties and that talking about the class of ‘stative predicates’ as a whole can be misleading. It will be argued that the distinction between sensation adjectives and emotion adjectives with respect to the interpretation of the two case patterns can be traced back to a major difference between emotions and other internal states. The behavior of Japanese experiencer adjectives offers an important insight into the semantic structure of emotion terms. The linguistic facts discussed in this chapter can be seen as providing evidence in favor of a certain account of emotions. In this sense, the problems discussed may be argued to have both linguistic and psychological significance.

2. The Double Nominative Pattern with Sensation Adjectives

The double nominative pattern with sensation adjectives can be observed in constructions such as (1).

- (1)
- a. *Watashi-wa hiyake shite kao-ga atsui*
I-TOP sunburn do face-NOM hot
My face feels hot from the sunburn
- b. *Watashi-wa kuchi-no naka-ga amai-node*
I-TOP mouth-GEN inside-NOM sweet CONJ
karai mono-ga tabetai
spicy thing-NOM eat-DES
I want to eat something spicy because I feel a sweet taste in my mouth
- c. *Watashi-wa senaka-ga samui*
I-TOP back-NOM cold
My back feels cold

It can be easily noticed that there is a part-whole relation between the two NP arguments, namely, the second NP refers to a body part. In such cases it is not possible to mark NP1 with the particle *-ni*.

- (2)
- | | | | | |
|----|----------------|--------------|------------|----------------|
| a. | *Watashi-ni-wa | hiyake shite | kao-ga | atsui |
| | I-DAT-TOP | sunburn do | face-NOM | hot |
| b. | *Watashi-ni-wa | kuchi-no | naka-ga | amai-node..... |
| | I-DAT-TOP | mouth-GEN | inside-NOM | sweet |
| c. | *Watashi-ni-wa | senaka-ga | samui | |
| | I-DAT-TOP | back-NOM | cold | |

Despite the part-whole relation between the two NPs, these constructions are not to be confused with the double nominative pattern found with the great bulk of adjectives in Japanese.

- (3)
- | | | | |
|----|---|-----------------|----------|
| a. | Kare-wa | kao-ga | akai |
| | he-TOP | face-NOM | red |
| | He has a red face | | |
| b. | Taro-wa | se-ga | takai |
| | Taro-TOP | back-NOM | tall |
| | Taro is tall | | |
| c. | Kono byooki-wa | kono biirusu-ga | ayashii |
| | This disease-TOP | this virus-NOM | doubtful |
| | This virus might be the cause of this disease | | |
| d. | Kare-wa | kenka-ga | tsuyoi |
| | he-TOP | fight-NOM | strong |
| | He is good at fighting | | |
| e. | Zoo-wa | hana-ga | nagai |
| | elephant-TOP | nose-NOM | long |
| | The elephant has a long nose | | |

In these constructions the adjective assigns a single thematic role, Theme. The second nominative is licensed through a semantic relation with the first argument: Part-Whole

or Location-Located object. As observed in Takezawa (1987), the first NP need not have ‘a direct thematic relation with the predicate’. Indeed, in constructions such as those in (3), the adjective is not predicated directly of the leftmost NP. This is illustrated by the fact that the sentences in (3’) where NP2 has been deleted, are either deviant, or, even when acceptable on their own, have meanings differing from the meaning expressed in the corresponding (3) constructions. (The symbol # is used to indicate different interpretation.)

- (3’) a. #Kare-wa akai
 he-TOP red
 He is red
- b. *Taro-wa takai
 Taro-TOP tall
- c. #Kono byooki-wa ayashii
 this disease-TOP suspicious
 This disease is suspicious
- d. #Kare-wa tsuyoi
 he-TOP strong
 He is strong
- e. #Zoo-wa nagai
 elephant-TOP long

This suggests that the first NP in the examples in (3) is not a direct argument of the adjective. Instead it could be said that the first NP takes the entire phrase, including the adjective and NP2, as its predicate. NP1 receives its theta role from this complex predicate. Kuroda (1978) has suggested a syntactic analysis of such double nominative constructions, which reflects their semantic composition. He argues that the double nominative construction in (3) is obtained through the adjunction of NP1, as in (4).

- (4) [[zoo wa]NP1[[hana ga]NP2 nagai]S1]S2

Kuroda does not discuss the issue of thematic role assignment in this structure, but it could be argued that only NP2 is assigned a thematic role by the predicate adjective,

while NP1 receives its role from the complex predicate [NP2+ Adj]. The thematic role of NP1, though assigned compositionally by the adjective and NP2, is identical to the role of NP2, namely a Theme, the object to which the property expressed by the predicate is attributed.

Although the examples in (1) seem superficially similar to those in (3), at least as regards the part-whole relation between the two NPs, there are some major differences between these constructions, summed up below.

i. NP1 and NP2 have distinct semantic roles

In examples such as (1) NP1 and NP2 clearly have distinct thematic roles. The first NP is the entity experiencing the sensation, while the second expresses the locus of the sensation. NP1 cannot be interpreted as the Theme of a complex predicate formed from NP2 and the adjective. This is shown by the fact that a speaker can truthfully utter (1) even though his face proves cool on touch, the inside of his mouth is not actually sweet and his back is not cold. What is important is that he feels hot, cold, etc.

A comparison with sentences such as (5) is revealing.

- (5) Kono mise-wa raamen-ga takai/yasui/umai
 this shop-TOP ramen-NOM expensive/cheap/good
 The ramen in this shop is expensive/cheap/good

It could be argued that in this type of construction too, the two nominals have distinct thematic roles, namely Location and Located Object (Theme). But the Location interpretation of NP1 in this case is a result of the Part-Whole relation between the two nominals, plus the locative features of NP1. What the construction asserts is that the *raamen* of that shop is expensive/cheap/good, etc, and not that any *raamen* are expensive/cheap/good at the respective location. (5) can be paraphrased as (6), without significant change of meaning.

- (6) Kono mise-no raamen-wa takai/yasui/umai
 this shop-GEN ramen-TOP expensive/cheap/good
 The ramen in this shop is expensive/cheap/good

This is not the case with the constructions in (1). The Experiencer role of NP1 is not merely a result of the Part-Whole relation between the two nominals combined with the animacy /sentiency feature of NP1, as shown by the fact that the desired reading does not obtain automatically in the presence of NPs having the feature [+animate][+sentient]. These constructions (though not (1c)) are ambiguous between a property reading and the sensation reading.

- (7) a. Taroo-wa kao-ga atsui
 Taro-TOP face-NOM hot
 Taro's face is hot
- b. Taroo-wa kao-ga atsui soo desu
 Taro-TOP face-NOM hot-AUX
 Taroo feels his face hot

Example (7a) can be uttered by someone upon touching Taroo's forehead and finding it hot, while example (b) is true if Taroo feels hot and says so, even though the heat is not accessible to an outside observer.

The constructions in (1), unlike those in (5), cannot be paraphrased by means of genitival constructions.

- (8) a. Watashi-no kao-ga atsui
 I-GEN face-NOM hot
 My face is hot
- b. ?Watashi-no kuchi-no naka-ga amai-node
 I-GEN mouth-GEN inside-NOM sweet CONJ
 karai mono-ga tabetai
 spicy thing-NOM eat-DES
 ? I want to eat something spicy because the inside of my mouth is sweet

The sentences in (8) simply express physical properties. The adjective does no longer refer to sensations of temperature or taste. This observation leads us to point (ii).

- ii. the adjectival predicate undergoes a semantic change

Adjectives expressing physical properties such as temperature and taste undergo a semantic change when their argument structure is expanded through the addition of an appropriate argument. The two argument construction can be paraphrased as (9).

(9) Experiencer (NP1) feels sensation (x) localized in body part (NP2)

Attributing properties such as temperature or taste to objects, and having sensations causally related to temperature and taste properties are two completely different matters.

iii. NP1 has a direct semantic relation to the predicate

Unlike NP1 in the double nominative construction with descriptive adjectives, NP1 in constructions such as (1) is directly related to the predicate adjective. This is demonstrated by the fact that the adjective acquires the ‘sensation’ interpretation only in the presence of an appropriate NP1. Adjectives expressing temperature sensations, though not adjectives expressing sensations of taste, can also be used intransitively, taking only the Experiencer argument. We have shown in (3’) that deletion of NP2 in double nominative constructions with descriptive adjectives leads to a different interpretation when it does not yield semantically deviant constructions. Adjectives expressing sensations of temperature allow deletion of NP2, without significant change of meaning, as a comparison of examples (1a,c) and (10) indicates.

(10) a. Watashi-wa hiyake shite atsui
I-TOP sunburn do hot
I feel hot from the sunburn
b. Watashi-wa samui
I-TOP cold
I’m cold

The predicate adjective is correctly attributed to the argument NP. Constructions like (1) only indicate that the effect of the sensation expressed by the predicate is restricted to a particular body part.

- iv. The items allowed to appear in the position NP2 are severely limited compared to the items that can occur in the simple one argument construction.

The choice of NP2 in double nominative constructions with temperature and taste adjectives is severely restricted. The nominals which can appear in this position must not merely designate body parts, but the body parts typically associated with the particular type of sensation expressed by the predicate or else the expressions are semantically deviant.

- (11) a. **Watashi-wa kami-no ke-ga samui*
 I-TOP hair-NOM cold
 My hair feels cold
- b. **Watashi-wa te-ga amai*
 I-TOP hand-NOM sweet
 My hand feels sweet

This contrasts with the behavior of descriptive adjectives. It seems that in constructions like (1) it is NP1 combined with the predicate which provides the basis for selecting NP2, while in double nominative constructions with descriptive adjectives it is NP2 and the predicate which select NP1.

Finally, it should be noted that the properties described above are displayed by a semantically limited class of lexical items, namely by adjectives referring to properties such as temperature and taste. The question as to why, among the larger class of adjectives expressing properties connected to the five senses, only these particular two classes of adjectives behave in the way described above is beyond the scope of this paper. It is, however, obvious that the semantic shift from descriptive adjective to subjective adjective is limited to certain lexical classes. This, in turn, suggests that a purely syntactic solution of the phenomenon is not sufficient.

If the arguments offered so far for distinguishing the double nominative construction with descriptive adjectives from the same construction with temperature and taste adjectives are correct, it means that the latter construction should be given a distinct syntactic analysis, different from the adjunction structure proposed by Kuroda

(4). Indeed, a structure such as (4) cannot explain the semantic role assignment to NP1. We have seen above, that the role assigned by the complex predicate [NP2+ Adj] is Theme for all descriptive adjectives. Depending on the semantic relation between NP1 and NP2, NP1 has the additional role of Possessor, or Location. In the case of subjective adjectives, the relation NP1-NP2 is Part-Whole, which makes NP1 an Inalienable Possessor. However, there is no principled way of explaining why the predicate [NP2+ Adj] should assign the role of Experiencer, instead of Theme in this case.

Considering the semantic shift undergone by adjectives expressing temperature and taste, it could be argued that the lexicon of Japanese contains two homophonous entries. One would be the property interpretation, in which the adjective predicates physical properties of objects. The adjective selects a single argument with the feature [+Concrete]. The second entry would contain the subjective reading, on which the adjective selects for two arguments, an Experiencer and a Theme, with the features [+Human], [+Body Part], respectively.

Though descriptively accurate such an approach is not very revealing. For one thing, it does not explain the relation between the two interpretations; namely that the sensation designated by the second entry is produced by the perception of properties expressed by adjectives in the first entry. The two interpretations also display an asymmetry with regard to the possibility of nominalization. While the descriptive reading can form the base for *-sa* affixation, this is not possible for the sensation reading of the adjectives. The significance of derivational processes for the analysis of the double nominative pattern will be discussed below.

3. The Dative Experiencer Pattern

The *-ni/-ga* pattern appears in sentences such as (12) below:

- (12) a. *Watashi-ni-wa kono suupu-ga atsui*
 I-DAT-TOP this soup-NOM hot
 This soup feels hot
 a'.? *Watashi-wa kono suupu-ga atsui*
 I-TOP this soup-NOM hot

b.	Watashi-ni-wa	kono shiokara-no	aji-ga	amai
	I-DAT-TOP	this shiokara-GEN	taste-NOM	sweet
	This shiokara tastes sweet to me			
b'.?	Watashi-wa	kono shiokara-no	aji-ga	amai
	I-TOP	this shiokara-GEN	taste-NOM	sweet
c.	Watashi-ni-wa	kono umeboshi-ga	suppai	
	I-DAT-TOP	this pickled plum-NOM	sour	
	This pickled plum tastes sour (to me)			
c'.?	Watashi-wa	kono umeboshi-ga	suppai	
	I-TOP	this pickled plum-NOM	sour	
d.	Watashi-ni-wa	puuru-no	mizu-ga	tsumetakatta
	I-DAT-TOP	pool-GEN	water-NOM	cold-PAST
	The water in the pool felt cold (to me)			
d'.?	Watashi-wa	puuru-no	mizu-ga	tsumetakatta
	I-TOP	pool-GEN	water-NOM	cold-PAST

It seems that when NP2 is semantically unrelated to the experiencer these adjectives require *-ni* case marking for NP1. In this case nominative marking for the Experiencer is not appropriate as shown by the prime examples.

The interpretation of the adjective seems to differ from the one it has in the double nominative pattern. The sentences do not refer to a sensation of the Experiencer, localized in an object, but to a property of the object felt by the Experiencer. It seems as though the interpretation of the adjective in the *-ni/-ga* pattern is closer to the property reading than to the subjective reading in spite of the presence of two arguments, one of which is an Experiencer.

The semantic distinction between the double nominative and the *-ni/-ga* pattern is even more dramatic with adjectives expressing physiological reactions, like *itai* (painful).

As in the case of adjectives referring to temperature and taste sensations the two NPs in the double nominative pattern express the Experiencer and the Locus of the Sensation, respectively.

- (13) Watashi-wa atama-ga itai
 I-TOP head-NOM painful
 My head aches

In constructions like those in (13) the Experiencer cannot be marked with the particle *ni*.

- (14) * Watashi-ni-wa atama-ga itai
 I-DAT-TOP head-NOM painful

Interestingly, the *(NP-ni) NP-ga* pattern, when possible, does not serve to express a physical sensation, but a psychological state. The adjective seems to allow this case pattern only when used metaphorically, in a psychological sense

- (15) Watashi-ni-wa senshuten-o agerarenakatta-no-ga itai
 I-DAT-TOP [first point mark-POT-NEG]-COMP-NOM painful
 It upset me that I could not get the first point (in the game)

As with other adjectives referring to sensations, we see a clear difference in the semantic conditions underlying the double nominative pattern and those behind the *-ni/-ga* pattern.

4. The Structure of the Double Nominative Pattern

Although we have used the label Experiencer to designate the argument in both constructions, the role of the Experiencer is not identical in the situations referred to by the two case patterns. In the double nominative pattern the Experiencer is rather passive, simply recording the sensation and, at most, localizing it in some part of his body. On the other hand, the Experiencer in the *-ni/-ga* pattern is not merely a passive receptor of sensations. The effect of the sensation is evaluated as positive or negative. The different role of the experiencer argument is illustrated by the following examples, and the interpretation they are given in the IPAL dictionary.

- (16) a. *Watashi-ni-wa puuru-no mizu-ga tsumetakatta*
 I-DAT-TOP pool-GEN water-NOM cold-PAST
 The water in the pool felt cold (to me)
 Def: (*watashi wa*) *chokusetsu karada ni fureru mono no ondo ga hiku-SUGIRU to kanjiru*
 I feel that the temperature of something coming into direct contact with my body is TOO low.
- b. *Watashi-wa te-ga tsumetai*
 I-TOP hand-NOM cold
 My hand feels cold
 Def: (*watashi wa*) *karada no ichibu no ondo ga hikui to kanjiru*
 I feel that the temperature of some part of my body is low

The presence of the verb ‘feel’ in both interpretations should not mislead one. In the first example, where the Experiencer is marked with the case particle *-ni*, the Experiencer does not just record the temperature, but has a valenced reaction towards it, as shown by the presence of the verb *-sugiru* (too...) in the paraphrase. The sentence does not mean only ‘I find the water in the pool cold’ but ‘I find the water in the pool **too** cold for me.’ The Experiencer evaluates the property of the object from his point of view. The property is still attributed to the object itself, but the standard for the evaluation is provided by the Experiencer’s subjective scale. Sentences with *-ni* marked experiencers contain a concealed comparison. The temperature of the water in the pool is compared to the Experiencer’s subjective standard and declared lower than the norm.

Considering the semantic distinction pointed out above, I will tentatively name the two patterns:

- (i) the **sensation pattern** (*-ga/-ga*), and
- (ii) the **evaluation pattern** (*-ni/-ga*)

In what follows I shall argue that adjectives expressing sensations are not ambiguous, nor do they have multiple lexical entries. These adjectives have only one meaning, that of expressing properties of objects. The ‘sensation reading’ and the ‘evaluation reading’ obtain compositionally.

4.1. Nominalization

A survey of nominals derived through *-sa* affixation from subjective adjectives shows that they fall into two main groups:

- a. nominals referring to object properties: *atsusa* (heat), *samusa* (cold), *amasa* (sweetness), *omoshirosa* (interest), *mezurashisa* (curiosity)
- b. nominals referring to subjective reactions: *ureshisa* (gladness), *kanashisa* (sadness), *itasa* (pain), *kurushisa* (suffering)

Although adjectives referring to temperature and taste have a subjective reading, in which they denote subjective reactions to temperature and taste stimuli (the constructions in (1)), this use does not admit nominalization. There is no nominal *atsusa* meaning ‘the sensation of heat’. But, as the existence of the group (b) nominals indicates, this gap is not due to some property of the suffix *-sa*, blocking the ‘sensation’ interpretation.

If adjectives referring to temperature and taste properties had indeed two entries, a property reading and a subjective reading, we would expect the suffix *-sa* to attach to both *atsusa1* and *atsusa2*, yielding two nominalizations, one belonging to group (a) above and the other to group (b). The lack of nominalizations based on the subjective reading is difficult to explain under the multiple entry hypothesis. If, on the other hand, these adjectives have a single interpretation, as suggested above, the lack of a sensation reading for the derived nominals represents no problem. What is, in this case, the status of the subjective reading?

One possibility would be to argue that the subjective reading results from the affixation of a zero-morpheme to the property expressing adjective. Pesetsky (1995) proposed an analysis for English Object-Experiencer verbs in terms of zero-morpheme affixation. The notion of a zero morpheme is not new. It has already been used to account for the relationship between phonetically identical items belonging to distinct lexical categories, such as *paint* (V/N), *poor* (Adj/N), etc. The novelty is that the zero morpheme has semantic content.

Pesetsky argues that the adjective in (a) below is derived from the corresponding adjective in (b) through affixation of a zero morpheme with the interpretation ‘SUGGEST’.

- (17) a. John's manner was proud[SUG]
b. John is proud of his son.

As it has no phonetic form, the presence of zero morphemes can be ascertained only indirectly, by analyzing the semantic and syntactic behavior of the elements to which it attaches. The most obvious effect of zero affixation is semantic change. Although it has no phonetic shape, Pesetsky argues that a zero-morpheme has a semantic content, like many other derivational morphemes. Besides, this morpheme has the property of blocking further affixation processes⁴⁾.

The two diagnostic properties for zero-affixation provided by Pesetsky are present in the case of the 'sensation' reading with temperature and taste adjectives.

- i. semantic change: the descriptive reading shifts to a subjective reading
- ii. derivational processes are blocked

These facts permit the postulation of a zero morpheme in Japanese, which attaches to one-argument descriptive adjectives referring to temperature and taste properties, and forms derived two-argument adjectives meaning 'feel x', where 'x' is the sensation caused by the property expressed by the base adjective.

If this hypothesis is correct we should expect other derivational processes, besides *-sa* affixation to be impossible with the 'sensation' reading of this class of adjectives. I will argue below that this expectation is, indeed, fulfilled.

4.2. -GARU Affixation

A look at *-garu* affixation seems to indicate that it is based on the evaluative pattern and not on the sensation pattern. The verbalizing suffix *-garu* attaches to adjectives that take an Experiencer argument and yields verbs referring to the outward expression of the experienced sensation, emotion. Several adjectives referring to temperature sensations admit *-garu* affixation: *atsui-atsugaru* (show signs of feeling hot), *samui-samugaru* (show signs of feeling cold), *tsumetai-tsumetagaru* (show signs that an object feels cold). It is interesting to note that the derived verbs obtained present the semantic particularity noticed for the *-ni/-ga* pattern. The verbs do not mean simply that the experiencer shows signs of feeling hot or cold. The verbs are not used in situations

where someone experiences heat or cold but is pleased, or indifferent to it. The use of these verbs implies that the Experiencer finds the temperature TOO hot or TOO cold. That is, the experienced sensation is evaluated against a subjective scale, suggesting that the Experiencer argument in these constructions is not the passive Experiencer in the Sensation pattern.

Stronger evidence that *-garu* attaches to the ‘evaluative’ interpretation and not to the ‘sensation’ reading comes from sentences containing two arguments. It appears that *-garu* can be attached to the *-ni/-ga* pattern but not to the *-ga/-ga* pattern. This fact is demonstrated by the semantic features of the Stimulus nominal.

In (18a) NP2 refers to a body part and in (18b) it is an external stimulus. While (18b), which represents the verbal counterpart of the *-ni/-ga* pattern is acceptable, (18a), which corresponds to the double nominative pattern, is not well formed.

- (18) a.* Taroo-wa senaka-o samugatteiru
 Taro-TOP back-ACC cold-SUFF
- b. Taroo-wa Yooroppa-no fuyu-o samugatteiru
 Taro-TOP the Europe-GEN winter-ACC cold-SUFF
- Taro shows signs that the winter in Europe is too cold for him

This, too, can be explained as a consequence of the presence of a zero-morpheme attached to the adjective in the *-ga/-ga* construction, blocking the possibility of *-garu* affixation.

The role of the zero-morpheme would be two-fold. It would contribute the semantic feature ‘feel’ which is combined with the basic sense of the predicate *x* yielding the reading ‘have the sensation *x*’. Along with the semantic change suffered by the predicate, there would be a modification in the argument structure. The zero morpheme ‘FEEL’ is used to refer to situations where a subject experiences a physical sensation. In this, it is similar to adjectives like *itai*, *kayui*, etc, but unlike these adjectives, the concrete description of the bodily sensation is not specified. In view of the semantic similarity between ‘FEEL’ and adjectives expressing physical sensations, we may assume that ‘FEEL’ has the same argument structure as these adjectives. This means that ‘FEEL’ has two arguments, an Experiencer and a body part representing the Locus of the sensation. By affixation of the zero morpheme ‘FEEL’ to an adjective

expressing temperature or taste, the derived adjective inherits the argument structure of the zero morpheme⁵). The structure of the adjective derived through zero-affixation can be represented as below:

Exp-NOM Locus-NOM [[f Adj]+FEEL] INFLECTION

Postulating the existence of an element which lacks phonetic shape is a costly operation, and an analysis which can account for the same facts without recourse to such mechanisms would be on the whole preferable.

An alternative would be a construction approach (Goldberg 1995) which treats the two case frames as two distinct constructions, each associated with its own semantic description. The meaning of a sentence obtains compositionally through the combination of the lexical information associated with the predicate with the meaning of the construction. On this account, the lack of ‘sensation nominalizations’ based on temperature and taste adjectives is a consequence of the fact that nominalization applies to the basic form of the predicate, the property reading in our case, and not to the construction. In the case of *-garu* affixation the situation is different. Attachment of the suffix *-garu* requires the presence of an experiencer in the argument structure of the base predicate. This indicates that *-garu* does not take the objective adjective as its base, but the two-argument experiencer form. Sugioka (1986) treats *-garu* affixation as a case of morphological process with a phrasal base. Consequently, the explanation we suggested for the gap observed with nominalizations, cannot be extended to *-garu*. We can offer no principled account for the semantic parallelism between the evaluation reading and the output of *-garu* affixation at the moment. It may be possible, however, to find a semantic element triggering similar implicatures in both cases. The construction approach has the advantage of simplicity over the zero-morpheme account. Moreover, it is easier to apply to the entire range of predicates involving the two case patterns in question.

The zero-morpheme account seems to offer a better explanation of the semantic relations among different syntactic forms, particularly between the evaluation pattern and sentences involving *-garu* derived verbs. The analysis suggested in this section is applicable to adjectives expressing sensations of temperature or taste. It is not meant to be extended to emotion adjectives or to adjectives expressing physiological

sensations, such as *itai* (painful), *darui* (weary), *kayui* (itchy), etc. These adjectives contain in their semantic description the element ‘feel’. The Experiencer argument is, in this case, base generated.

Indeed, adjectives referring to emotions and physiological sensations do not display the properties that have suggested a zero-morpheme analysis for temperature and taste adjectives. The nominalizations of these adjectives refer to sensations of the Experiencer (the *b* type nominalization), and not to properties of objects: *ureshisa* (gladness), *sabishisa* (loneliness), *kurushisa* (suffering), *itasa* (pain), etc., a fact easy to explain if the Experiencer argument is base generated. *-garu* affixation is always possible and the interpretation of the derived verb does not carry the additional implication of ‘TOO x’. This is also predictable on the basis of the semantic structure of these adjectives, to be discussed in Section 6. A zero-morpheme account can, thus, account for both the similarities and the differences between sensation adjectives and emotion adjectives in the double nominative constructions. The most serious problem for a zero-morpheme account is that it associates the double nominative case array with a very specific semantic description. This makes it difficult to account for the use of this pattern with predicates from other semantic domains. While a construction approach presupposes the existence of metaphorical relations among constructions, an approach working with discrete predicates will have to account for the use of the same case pattern in distinct semantic domains either by positing a very abstract level, common to all these domains, or by having recourse to homophony.

It is clear that either approach has its advantages and disadvantages. Since the choice of theoretical framework is not very important for this paper, we shall leave this decision to future study.

5. The Structure of the NP1-ni NP2-ga Pattern

It was noted before that the human argument in pattern (ii) is better regarded as an Evaluator than a passive Experiencer. This construction closely parallels constructions such as (19) with scalar adjectives.

- (19) a. *Watashi-ni-wa kono fuku-ga ookii*
I-DAT-TOP this coat-NOM large
This coat is large for me

- b. Watashi-ni-wa kono kuruma-ga takai
 I-DAT-TOP this car-NOM expensive
 This car is expensive for me

The *-ni* NP in these constructions is an adjunct phrase, which can be replaced by a *-nitotte* phrase without change of meaning⁶. *-nitotte* is a compound particle typically accompanying adjuncts that could be rendered in English as ‘as far as x is concerned’, ‘as regards x’. It is never used to mark an argument. The semantic role of the NP is to provide the standard against which the scalar property expressed by the predicate adjective is evaluated.

This analysis can be carried over as such to adjectives expressing temperature and taste. These constructions also admit replacement of the particle *-ni* by *-nitotte*.

- (20) a. Watashi-ni-wa kono suupu-ga atsui
 I-DAT-TOP this soup-NOM hot
 a'. Watashi-nitotte kono suupu-ga atsui
 I-PRT this soup-NOM hot
 This soup is (too) hot for me
- b. Watashi-ni-wa kono shiokara-no aji-ga amai
 I-DAT-TOP this shiokara-GEN taste-NOM sweet
 b'. Watashi-nitotte kono shiokara-no aji-ga amai
 I-PRT this shiokara-GEN taste-NOM sweet
 This shiokara tastes sweet to me
- c. Watashi-ni-wa kono umeboshi-ga suppai
 I-DAT-TOP this pickled plum-NOM sour
 c'. Watashi-nitotte kono umeboshi-ga suppai
 I-PRT this pickled plum-NOM sour
 This pickled plum tastes (too) sour to me
- d. Watashi-ni-wa puuru-no mizu-ga tsumetakatta
 I-DAT-TOP pool-GEN water-NOM cold-PAST
 d'. Watashi-nitotte puuru-no mizu-ga tsumetakatta
 I-PRT pool-GEN water-NOM cold-PAST
 The water in the pool felt (too) cold to me

Depending on the semantic content of the predicate adjective, the constructions can have different interpretations. In the case of dimension adjectives the adjunct NP is interpreted as a kind of Goal, while in sentences with sensation adjectives it is interpreted as an Experiencer.

Adjectives such as *itai* (painful) or *kayui* (itchy) are inherently sensation adjectives and the basic case pattern is the double nominative. Such adjectives can take a *-ni* marked adjunct, yielding thus the Evaluation pattern, only at the cost of losing the initial sensation interpretation, a fact illustrated by example (15).

6. The Structure of the Two Case Patterns with Emotion Adjectives

We have seen that case patterns (i) and (ii) are not only syntactically distinct, but that, with the majority of subjective adjectives they are associated with distinct semantic values. The question arises as to why a similar semantic distinction is not present with adjectives expressing emotions. A possible reason could be the semantic structure of psychological adjectives.

A survey of the literature on emotions coming from psychology shows that treating emotions as unanalysable internal states is quite obsolete in this field. Emotions are not defined as subjective states of the Experiencer, but are rather regarded as episodes making reference to a fixed scenario. It was noticed that *“when subjects are asked to recall an instance of a given emotion, they tend to report transactions and the sequences these involve. The sequences have an internal structure and usually an extended duration, yet they are considered by the subjects as instances of “an emotion”. ... We call these complex and or affective phenomena emotion episodes”* (Frijda 1993). The layman’s understanding of emotions is not different from the conclusion reached by scientific research: *“Studies in numerous languages show emotions to be thought of as a personal response that mediates the episodic scenes and events of everyday life. Interestingly, this processual structure of folk models of emotion resembles closely the form of more “top-down” scientific theories that have proposed representing emotions as a process connecting antecedent events, subjective perceptions, feelings, and subsequent responses... The convergence of these definitions of emotion, seen from both the bottom-up perspective of ordinary language and the top-down perspective of psychological theory, suggests that this is a robust*

conceptualization, rooted in widely shared structures of language and experience.” (White 1994). Evaluation (appraisal) and sensation (psycho-somatic experience) are essential components of emotions: *“emotion is a psychosomatic state, a bodily state caused by an attitude, in this case an evaluative attitude. So, for X to be in an emotional state, X must include an evaluation that causes abnormal physiological changes. Both the evaluation and the physiological changes are necessary conditions for X being an emotional state, but neither is separately sufficient. Jointly they are.”* (Lyons 1980).

On this view of emotions, emotion words do not refer only to feelings, to the psycho-somatic reaction component of the emotional episode, but to full episodes: *“Emotion words should therefore not be studied as isolated and bare concepts: they are assumed to be structured like emotion scripts.”* (Fisher 1991).

The idea that emotion words should be analyzed in terms of emotion scripts is not accepted only by psychologists but is beginning to gain support from linguists, too. Lakoff & Kövecses (1987) and Wierzbicka (1992) make explicit use of the notion of emotion script. Wierzbicka (1999) offers a very deep going analysis of the language of emotion, based on the definition of emotions as “thought-based” feelings.

“The main difference between words like guilty and afraid on the one hand and words like hungry or sleepy on the other has to do, roughly speaking, with the “cognitive” character of the former and the “non-cognitive” character of the latter. What this means is that the prototypical scenario serving as a reference point for the phrase “feel like this” (e.g. in “I felt like this”) is formulated in the case of words like guilty or afraid in terms of somebody’s thoughts (“sometimes a person thinks:...”), whereas in the case of words like hungry, sleepy or tired there is no reference to thoughts.” Wierzbicka; 1999, 15.

As the quoted paragraph makes it clear, Wierzbicka considers that emotion words have a more complex structure than words referring to sensations. The explications (definitions) of emotion words she provides throughout the book make use of two semantic primitives, THINK and FEEL, as shown below.

- (a) I felt something because I thought something
- (b) when I felt this some things were happening inside my body
- (c) I could feel these things happening

It is important to note that the different components of the emotional experience do not occur in a sequence, but simultaneously. As Wierzbicka puts it “*Since the bodily feelings in component (c) co-occur with the thought-related ones, the two can be perceived by the experiencer as a global ...*” id. 16.

The fact that emotion adjectives in Japanese allow case marking alternation with no sensible semantic effect can be regarded as a consequence of the complexity of emotional states, of the fact that emotions involve a THINK component along with the FEEL component. It has been argued in this chapter that the two case patterns associated with subjective adjectives can be described semantically as the EVALUATION and the SENSATION reading. Evaluation is a cognitive process that can be defined in terms of the semantic primitive THINK, whereas sensation is associated with the semantic primitive FEEL. (The primitive FEEL is not to be identified with the hypothetical zero morpheme *feel* from Section 4.2.). While other subjective adjectives are basically associated with only one of these primitives, adjectives referring to emotions contain in their semantic description both elements.

An adjective like *itai* (hurt) can be described in terms of the predicate FEEL. Consequently, the adjective will be associated with the double nominative pattern. When it is inserted into the DAT-NOM pattern, this adds the THINK component to its semantic structure and the overall reading will be “psychological”. In the case of adjectives like *atsui* (hot) or *amai* (sweet), the basic meaning contains none of the two primitives. Association with one or the other of the two patterns will result in a pure evaluation or sensation reading. With emotion adjectives the choice of case pattern might focus on the EVALUATION or on the SENSATION component, but since the meaning of the adjectives implies both components, alternation does not lead to distinguishable semantic effects. The semantic distinctions are neutralized.

Unlike sensation adjectives, which were argued to be one-place predicates having the property reading as their basic sense, emotion adjectives are two-place predicates. The experiencer argument is not an adjunct but a genuine argument of the predicate. This accounts for the fact that nominalizations yield ‘emotion’ nominals, implying the existence of an experiencer. The interpretation of constructions with *-garu* derived verbs is also predictable. A condition for *-garu* suffixation is the presence of an Experiencer argument. In the case of sensation adjectives the presence of the

Experiencer triggers a semantic change also discernible in the resultant *-garu* construction, see Section 4.2. In the case of emotion adjectives no such interpretation is associated with the presence of the Experiencer, and consequently it lacks from the *-garu* construction.

It is interesting to note that most psychological adjectives can appear embedded in constructions such as (21) below, having as higher predicate either *omou* (think) or *kanjiru* (feel). Although these verbs cannot be taken as lexicalizations of the SENSATION and EVALUATION patterns, the fact that many psychological adjectives can be embedded under either verb, while many other adjectives can combine only with *kanjiru* is significant. We could consider this fact as an indirect argument in favor of an analysis attributing a more complex semantic structure to psychological adjectives.

- (21) a. Sore-ga atashi-ni sukoshi sabishiku kanjirareta
 that-NOM I-DAT a little melancholy felt
 That left me with a slightly melancholy impression
- b. Konya hitoban-no koto-ga kyuu-ni sanbishiku
 tonight-GEN thing-NOM suddenly melancholy
 omowarete-kita
 think
 I suddenly felt melancholy about tonight's happenings
- c. Kare-wa tsuma-no kokoro-o ureshiku omoi-nagara....
 he-TOP wife-GEN heart-ACC glad think.....
 Feeling glad about his wife's disposition he.....
- d. Yo-wa sono toki-ni kokoro-kara ureshiku kanjita
 I-TOP that time-DAT heart-PRT glad felt
 I felt then glad with all my heart

This possibility is not available for adjectives referring to sensations. Such adjectives can be embedded under the verb *kanjiru*, but they reject the verb *omou*.

- (22) a. Kuuki-o hada-ni tsumetaku kanjiru
 air-ACC skin-LOC cold feel
 Feel the air cold on one's skin

- b. *Kuuki-o hada-ni tsumetaku omou
 air-ACC skin-LOC cold think

I have discussed so far adjectives referring to emotions as if they constituted a uniform class. This is not the case. Besides adjectives typically referring to emotions, there are adjectives like *omoshiroi* (interesting), *okashii* (amusing), *urusai* (loud), etc., which express subjective evaluations rather than genuine emotional states. It is worthwhile noting that with these adjectives the distinction between patterns (i) and (ii) is again obvious. In constructions where the Experiencer is marked with the nominative, the adjective can be used to express the internal state of the Experiencer triggered by the properties of a relevant object. When the Experiencer is marked with the case particle *-ni*, the construction expresses a subjective evaluation of the properties of the Stimulus object.

- (23) a. Watashi-ni-wa kono konto-ga totemo okashikatta
 I-DAT-TOP this story-NOM very funny
 I considered this story very amusing
- b. Watashi-wa okashikutte okashikutte warai-ga tomaranai
 I-TOP funny funny laughter-NOM stop-NEG
 I was so amused that I couldn't stop laughing
- c. Watashi-ni-wa kono joodan-ga omoshirokatta
 I-DAT-TOP that joke-NOM interesting
 I found that joke interesting
- d. Watashi-wa jibun-dake okorareru-no-ga omoshirokunai
 I-TOP [self-PRT be scolded]COMP-NOM interesting-NEG
 It upset me to be the only one scolded

Example (23a) says that the speaker evaluated the story in a particular way, as amusing. Sentence (23b), on the other hand describes the somatic reaction of the speaker, his irresistible impulse to laugh. The same change of meaning is present in the pair (23c,d). In the example (23c) the speaker evaluates the joke as interesting, while (23d) expresses the speaker's displeasure at being the only one scolded.

It could be argued that constructions such as (23b,d) are idiosyncratic.

However, the case marking of the Experiencer argument suggests that they do not constitute merely a case of chance variation. The different interpretations of the adjectives are predictable on the basis of the semantic interpretation associated with the two case frames. That is, a nominative Experiencer is linked to the ‘sensation pattern’ whereas a dative Experiencer belongs to the ‘evaluation pattern’. An adjective like *okashii* contains the predicate THINK. Actually, the THINK component is latent in the semantic structure of *okashi* ⁷⁾. The case pattern most consonant with this adjective is the evaluation pattern. If the adjective is inserted into the double nominative pattern we obtain an emotion-like reading, as was the case with the adjective *itai* used with the DAT-NOM pattern. This is the effect of superimposing the sensation pattern on the semantic content of the base predicate. As was the case with *itai*, the less common case pattern leads to an “emotion” reading, that is a semantically complex reading. That is because both *okashii* and *itai* contain one of the primitives THINK or FEEL and the case alternation supplies the additional component, thus yielding an emotion reading. The concrete description of the respective emotion is not specified by the construction, but is construed on the basis of the information contained in the lexical entry.

7. Discussion

The aim of this chapter was to offer an insight into the semantic make-up of the two case patterns associated with subjective adjectives. It has been argued that the two case patterns can be associated with two distinct semantic interpretations.

- (i) SENSATION READING: NP1-*ga* NP2-*ga*
- (ii) EVALUATION READING: NP1-*ni* NP2-*ga*

With some classes of adjective the two patterns are very easy to distinguish, since the selectional restrictions imposed on the two NPs differ between pattern (i) and pattern (ii). With other classes of adjectives, the distinction becomes blurred.

Previous studies treat the two patterns discussed here in terms of a case alternation on the Experiencer NP. It was argued in this chapter that the difference in case marking entails a difference in the semantic role of the Experiencer NP. Moreover, as the role of the Experiencer changes, so does the semantic role of the second argument, although no modification in its case marking is triggered. The semantic variation

associated with the change of case marking affects the entire clause. Consequently, it seems preferable to analyze the two case patterns as two distinct constructions, rather than a single construction involving an alternation in the case marking of one argument. As a matter of fact, the use of the two patterns with sensation adjectives could be regarded as evidence for the important role of constructions in grammar.

The neutralization of the semantic distinction between the two constructions in the case of adjectives expressing emotions was accounted for by attributing a more complex semantic structure to this class of predicates. It might be objected that the semantic analysis of experiencer adjectives in terms of the features EVALUATION and SENSATION represents an unwarranted application of psychological concepts to the linguistic domain. The aim of this paper is to offer a hypothesis concerning the psychological distinctions relevant in the domain of the emotional lexicon. We shall argue in the following sections that the semantic model used by linguists to account for the formal distinctions observable in this field cannot do justice to the data. The need for notions going beyond the general categories of causation, stativity, etc., is obvious. Semantic distinctions which could be attributed, if not to the science of physics, at least to the folk model of the physical world are more and more frequently used to account for syntactic differences. It appears as though the model of the physical world presupposed by linguistic description is far more sophisticated than the psychological model. As mentioned before, the results of research in psychology tend to verify the model presupposed by folk psychology.

The person in the street is an amateur psychologist. People have an informal and implicit "naive theory" of emotion, which they use when they anticipate, identify, communicate about, and try to influence the emotional states of others. Everyday emotion words are labels for the categories of an informal and implicit naive taxonomy of emotional states, a taxonomy that is part of the folk theory. It is only because these notions and categories are largely shared within a language community that verbal communication about emotion is possible.
(Russell 1989: 84)

It is quite reasonable to assume that the layman's understanding of emotion, as represented by the folk psychology model, is present as part of the encyclopedic entry for the concept (see Sperber & Wilson 1986). The aim of this paper is to determine what

elements from the encyclopedic entry of emotion concepts are reflected in their lexical entry. The analysis presented in this chapter suggests that the SENSATION and EVALUATION components of the emotion episode have a syntactic reflex in the choice of case pattern associated with experiencer adjectives in Japanese. The following chapters will discuss other categories from the folk and scientific psychological model of emotion that could have linguistic relevance.

A problem that has not been addressed in this chapter is the relation between the semantic description for the NOM-NOM pattern and the DAT-NOM pattern advocated here and other uses of the two patterns. According to Shibatani (1999), the two case patterns (separately or alternating) are found in a large number of semantic areas:

- (a) Possession/ Existence
- (b) Psychological states
- (c) Physiological states
- (d) Visual/ auditory perceptions
- (e) Modal states of necessity
- (f) Modal states of potentiality
- (g) Desiderative states

It is clear that the semantic role of the two constructions in some of these areas cannot be associated with the notions of SENSATION or EVALUATION. Shibatani (1999) suggests that there is no common semantic relation discernible throughout these uses. He offers an account of the two case patterns discussed in this chapter in terms of the notions of LARGE SUBJECT and SMALL SUBJECT. Constructions exhibiting these two patterns, which he calls 'non-canonical sentence patterns', have the structure below.

[LARGE SUBJECT [SMALL SUBJECT- predicate]]

The analysis assumes that these constructions involve double predication rather than a predicate and two arguments. Semantically, the defining feature of non-canonical case patterns is the notion of dependency, i.e. the dependency of a predication upon an individual, the large subject. *"Is there anything common between having children and*

liking someone? Probably nothing in terms of case relations. What unifies these two expressions is the notion of dependency" Shibatani, 1999, 24.

Regarding the semantic difference between the two patterns, Shibatani argues that the NOM-NOM pattern and the DAT-NOM pattern differ with respect to the degree of strength of the dependency relation between the small subject phrase and the large subject. The DAT-NOM pattern involves a certain degree of independence, whereas the NOM-NOM pattern is associated with a high degree of dependence of the embedded predication on the large subject.

Differences in nominalization pattern, like those discussed in Section 4.1. of this chapter, raise question regarding the validity of the syntactic analysis proposed by Shibatani. The suggested semantic difference between the two patterns, however, can be applied to the distinction between SENSATION and EVALUATION. In the process of evaluation, the cognizer is confronted with an independently existing state of affairs, which forms the object of his cognitive activity. In the case of sensation it is more difficult to distinguish an object existing independently of the sensitive experience itself.

Whether Shibatani is correct in assuming that there is no common semantic core, beside the notion of dependence, linking the semantic areas where the two non-canonical sentence patterns are used is a question going beyond the scope of this paper. Distinguishing the SENSATION pattern from the EVALUATION pattern might make sense only in the very local lexical domain of psychological and physiological states. Its usefulness in this limited area, however, is not negligible because it provides us with an insight into the structure of emotion predicates. What matters is, not so much the exact labels used, as the fact that emotion predicates seem to be semantically more complex than apparently related predicates. This complexity will prove to be the key to understanding other peculiarities of this class of predicates. For instance, in Chapters 5 and 6 it will be argued that the difference in linking between Experiencer subject and Experiencer Object verbs can be explained as a shift in perspective from the evaluation component to the sensation component.

Chapter 2

Classification of Psychological Adjectives in Japanese

1. Introduction

Psychological adjectives such as *ureshii* (glad), *tanoshii* (pleased), *kowai* (scared), *nikui* (hateful) appear at first sight to form a coherent semantic class. They all express emotions; they all involve an experiencer and a stimulus, an element eliciting the emotion. Syntactically, too, they have very similar properties: argument structure, case marking, the person restriction, the impossibility to modify the experiencer argument in adnominal constructions **ureshii-hito* with the intended meaning *cheerful person*. A closer scrutiny, however, reveals a number of differences among these adjectives. There are differences regarding the case marking properties: while most adjectives admit two case marking patterns (*-ni/-ga* or *-ga/-ga*), some adjectives allow only the *-ga/-ga* pattern. Some adjectives allow an ‘intransitive’ use, where the experiencer argument is no longer implied and the adjective simply denotes a property, some other adjectives have a reading where only the experiencer is present and the adjective expresses an emotional state. These facts raise the questions:

- a. Are the phenomena mentioned above distributed at random, or is there a pattern ?
- b. Are these differences merely idiosyncratic or do they have a deeper significance ?

This chapter will attempt to provide an answer to these questions.

1.1. Previous Classifications

Japanese linguistic literature provides a wide range of proposals for the classification of experiencer adjectives. Existing classifications of these adjectives can be grouped into two main categories: lexical classifications and formal classifications. The first category is represented by dictionary definitions. Although dictionary entries frequently contain syntactic information, such as specification of the lexical category of the complement,

the classification is usually based on extra linguistic factors such as the properties of the emotion associated with the respective item¹⁾.

The formal approaches can be subdivided into three main types²⁾, classifications in terms of:

- i. argument structure
- ii. selectional restrictions
- iii. person restriction

Classifications of psych adjectives in terms of argument structure involve grouping adjectives according to the number and type of obligatory arguments they take. The first approach of this type was proposed by Tokieda (1950) who divided adjectives expressing emotions into two classes ‘subjective adjectives’ and ‘subjective-objective adjectives’. Subjective adjectives imply the existence of an experiencer even when this argument lacks from the surface representation. For instance, in interpreting (1a) we infer the existence of an experiencer which is the subject of the sentence and understand the nominal *mizu* as referring to the object. Adjectives in the second class are characterized by the fact that in certain cases they can be interpreted without implying the existence of an experiencer, as in examples (1b, c). In this case they behave like the bulk of descriptive adjectives.

- (1)
- | | | |
|----|-------------------------|-------------|
| a. | mizu ga | hoshii |
| | water-NOM | want |
| | I want some water | |
| b. | yama ga | mieru |
| | mountain-NOM | visible |
| | The mountain is visible | |
| c. | inu ga | kowai |
| | dog-NOM | frightening |
| | Dogs are frightening | |

Teramura(1973; 1982)³⁾ and Ooe (1975)⁴⁾ have proposed classifications along the same lines.

The problem with these classifications is that they are based mainly on the authors' intuitions, with the result that the same item is described differently by different authors. For instance, *kowai* (scared) and *nikurashii* (hateful) are in the same class for Tokieda (both subjective and objective) but in different classes for Teramura who classifies *kowai* as an emotion adjective and *nikurashii* as an emotional evaluation adjective. Tokieda places *nozomashii* (desirable) in the subjective class, which means that the experiencer argument, the subject in Tokieda's terms, cannot be deleted, while Teramura describes the same adjective as expressing an emotional evaluation, that is, an adjective of the type which has an optional Experiencer argument. Examples of such disagreements could be multiplied.

The second type of classification is in terms of selectional restrictions: adjectives are grouped according to the semantic features of the Stimulus argument. Such classifications are found in Nishio (1972) and Hosokawa (1989). Nishio does not explicitly make a subclassification of emotion adjectives in terms of selectional restriction. He offers a package of properties that can distinguish between subjective and objective adjectives. These include *-garu* affixation, restrictions on the subject, possibility of embedding in a clause having *-te tamaranai* for predicate. Besides these properties, he includes a number of criteria regarding the selectional restrictions of the stimulus argument. He distinguishes four representative semantic types of complement which he labels: '*koto*' (abstract), '*mono*' (concrete), '*hito*' (human), '*karada-no-bubun*' (body part). He comments that typical psychological adjectives do not take a stimulus arguments referring to body parts, though borderline cases like *itai* and *kurushii* do. Typical emotion adjectives, although allowing nominals referring to concrete objects in stimulus argument position, favor [+human] or [+abstract] nominals in this position. This property serves to distinguish within the subjective class two subclasses, adjectives expressing emotions and adjectives expressing sensations.

Unfortunately, the semantic content of these labels is not always clear. This is especially obvious in the case of '*koto*'. The author uses this label to cover everything from clausal complements to abstract nouns. This is rather confusing and it blurs a more objective criterion: the division between adjectives which allow clausal complements headed by the complementizer '*koto*' and those which take only nominal complements. The same observation applies to Hosokawa who uses similar criteria.

A more recent approach is proposed by Azuma (1993). She starts by making a

division between adjectives expressing properties and adjectives expressing feelings and notices that while the former imply a distinction between the evaluator of the state of affairs and the individual described as being in the respective state, for the latter, evaluator and experiencer of the feeling overlap. The person restriction is seen as the trademark of this overlap and hence the most important marker of subjectivity. She analyses the strength of the person restriction, not only in main clauses, but also in various types of subordinate clauses and ends up with a classification into 5 subclasses of adjectives distinguished semantically by the strength of the emotion expressed. Azuma's proposal is interesting in that it offers new criteria for analyzing psych adjectives. However, the criteria she suggests do not always serve the intended purpose. For instance, in her discussion of *-toki* clauses she argues, on the basis of the examples below, that certain adjectives do not allow a Stimulus argument when embedded in this type of clause.

- (2) a.??[gookaku-ga ureshii-toki] ano hito-wa issyo-ni
 passing exam-NOM glad-COMP that person-TOP together
 yorokonde-kureru
 rejoice
 Whenever I'm happy about passing the exam, that person is happy with me
- b.??[geemu-ga tanoshii-toki] Taroo-wa jama-o suru
 game-NOM enjoy-COMP Taroo-TOP bother
 Whenever I'm enjoying the game Taroo bothers me
- c. [ureshii-toki] ano hito-wa issyo-ni yorokonde-kureru
 glad-COMP that person-TOP together rejoice
 Whenever I'm happy that person is happy with me
- d. [tanoshii-toki] Taroo-wa jama-o suru
 enjoy-COMP Taroo-TOP bother
 Whenever I'm enjoying myself Taroo bothers me

The reason for the unnatural ring of sentences (2a,b) above does not seem to be due to the degree of subjectivity of the predicate but rather, the result of aspectual constraints. The presence of the Stimulus argument imposes a reading where the embedded clause refers to a particular event. The matrix, however, receives a habitual reading, hence the

low acceptability of the entire construction. If the Stimulus argument is deleted a habitual reading for the embedded clause becomes possible. This seems to be the cause of the higher acceptability of examples (2c,d) and not the lower degree of subjectivity associated with the predicate.

As this brief discussion has suggests, although previous classifications of Japanese experiencer adjectives capture certain subtle differences among the members of the class, the criteria used rely too heavily upon the author's intuition. None of the existing classifications is capable to account in a principled manner for the range of phenomena mentioned in Section 1. Moreover, as these adjectives are used to express emotions most authors seem to assume that the degree of subjectivity of the emotion will play a role in the grammar of the adjective. This, however, does not appear to be the case. The notion of subjectivity seems to hinder rather than further our understanding of emotion adjectives.

1.2. Proposal

In this chapter we will argue that a more objective classification can be achieved starting from subcategorization frames⁹⁾. Since the features of the experiencer argument are identical for all adjectives, it is the syntactic features of the Stimulus argument that will provide the criterion for classification. This criterion yields three syntactic frames:

- i. NP only
- ii. NP and control S
- iii. NP and non-control S

It will be argued that the subcategorization properties of Japanese psych adjectives reflect the ontological status of the Stimulus eliciting the emotion. That is, Japanese psych adjectives can be subclassified into adjectives referring to emotions elicited by individuals or events. The latter category is further subdivided into emotions triggered by independent events and emotional reactions of an Experiencer to his/her own actions. The selectional properties of the Stimulus determine not only the subcategorization frame but also other aspects of the syntactic and semantic behavior of the adjective, such as the existence of a property reading or the interpretation of nominals in Stimulus argument position. It will be argued that the classes of adjectives thus obtained have a

far-reaching significance. The classification proposed in this chapter seems to lie at the base of another major distinction within the class of emotion predicates, that between dispositional predicates and occurrence predicates. This will be the topic of Chapter 4.

2. Subcategorization Frames

Although previous studies of subjective (psych) adjectives in Japanese discuss the features of the non-experiencer argument in terms of categories such as *koto*, *mono*, *hito*, etc., there is no explicit analysis of the subcategorization frames of these predicates. The general assumption is that adjectives in this class allow both clausal and nominal arguments. The following section will show that this is not the case, and, moreover, that differences regarding subcategorization properties are (i) related to other syntactic properties and (ii) semantically significant.

2.1. Nominal and Clausal Arguments

There is a tendency in the literature on adjectives expressing emotions to lump together discussion of subcategorization frames and selectional restrictions. This can be observed in Nishio (1973), Hosokawa (1989), as well as in the IPAL Dictionary.

The IPAL dictionary gives the number of arguments allowed by a predicate, but uses the uniform label N, without distinguishing between nominal and clausal arguments.

As mentioned before, Nishio classifies adjectives with respect to the four semantic features: *koto*, *mono*, *hito*, *karada-no-bubun*. While *mono*, *hito*, and *karada-no-bubun* can be identified with the semantic features [+concrete], [+human], [+body part] respectively, *koto* has a double significance. Semantically it corresponds to [+abstract], while syntactically it usually indicates the presence of a clausal argument. Hosokawa and Nishio seem more concerned with the semantic content of the element in Stimulus position than with its syntactic realization.

Both Nishio⁶ and Hosokawa include *ureshii*, *kanashii*, *tanoshii* (H), *nikui* in the same class with respect to the availability of a *koto* argument.

Hida and Asada (1991) is more accurate in describing the object (Stimulus) of *nikui* as preeminently human.

As mentioned before, a [+human] argument is normally realized as a nominal. Indeed, speakers reject constructions where *nikui* is accompanied by a clausal argument

although the same construction is found acceptable with other adjectives.

- (3) a. (watashi-wa) uso-o iu hito-ga nikui
 I-TOP lie-ACC tell person-NOM hateful
 I hate people who tell lies
- b. *(watashi-wa) uso-o iu koto-ga nikui
 I-TOP lie-ACC tell-COMP-NOM hateful
 Intended meaning: I hate telling lies
- c. boku-o uragitta kanojo-ga nikui
 I-ACC betray she-NOM hateful
 I hate the woman who betrayed me
- d. * kanojo-ga boku-o uragitta-no-ga nikui
 she-NOM I-ACC betray-COMP-NOM hateful
 Intended meaning: I hate the fact that she betrayed me
- (4) a. (watashi-wa) uso-o iu hito-ga kirai
 I-TOP lie-ACC tell person-NOM dislike
 I dislike people who tell lies
- b. (watashi-wa) uso-o iu koto-ga kirai
 I-TOP lie-ACC tell COMP-NOM dislike
 I dislike telling lies
- c. gaikoku-ni iku kare-wa urayamashii
 abroad-DAT go he-TOP envy
 I envy the man who goes abroad
- d. kare-ga gaikoku-ni iku-no-wa urayamashii
 he-NOM abroad-DAT go-COMP-TOP envy
 I envy him for going abroad
- e. (watashi-wa) uso-o iu hito-ga kowai
 I-TOP lie-ACC tell person-NOM frightening
 I'm afraid of people who tell lies
- f. (watashi-wa) uso-o iu koto-ga kowai
 I-TOP lie-ACC tell COMP-NOM frightening
 I am afraid to tell lies

It is important to underline the fact that this is a linguistic distinction not a description of real life emotional situations. In real life situations the emotion expressed by *nikui* may be, and usually is, triggered by actions of agents, that is, we hate a person for what he or she does, yet, linguistically, the predicate *nikui* can have only a nominal argument. The clause describing the respective action cannot be a direct argument of the adjective as illustrated by the ungrammaticality of (3b,d). The only option is to use a relative clause⁷⁾, as in (3a,c) above. The agent is the direct argument, and the clause describing his action appears as a modifier.

This behavior contrasts with that of adjectives like *kirai*, *kowai*, and *urayamashii*, which allow the Stimulus argument to be expressed either through a nominal or through a clause.

The attempt to state the distinctions among psychological adjectives in terms of shades of feeling can have the unwelcome effect of blurring obvious syntactic generalizations. Thus, Hida and Asada offer example (5) accompanied by the comment that unlike *iya*, *nikui* cannot be used to express a momentary dislike, and the emotion it expresses is continuous. Also, the degree of displeasure expressed is considerably stronger in the case of *nikui* in comparison with *kirai* and *iya*.

- | | | | | | |
|-----|----|----------------|----------|------------------|---------|
| (5) | a. | *anna yatsu-no | kao-o | miru-no-mo | nikui |
| | | such guy-GEN | face-ACC | look at-COMP-PRT | hateful |
| | b. | anna yatsu-no | kao-o | miru-no-mo | iya da |
| | | such guy-GEN | face-ACC | look at-COMP-PRT | dislike |
- I hate even looking at that guy's face

The example offered as illustration lends itself to a completely different analysis. The most obvious account for the unacceptability of (5a) is the violation of subcategorization restrictions. The complement of (5a) is clausal, and, as argued before, *nikui* requires a nominal complement. We can safely say that it is not the strength of the displeasure, or its continuity, which are responsible for the unnatural ring of (5a). The factors rendering the sentence unacceptable are syntactic.

The number of adjectives in this class is limited, *nikui* and *itoshii* being the clearest examples. The derived adjective *nikurashii*, and also *kawaii* on one of its uses seem to belong to the same class.

2.2. Control

In the following sections we will argue that emotion adjectives which accept clausal complements can be divided into two syntactic classes. The relevant criterion is a form of control. Generally, the term control is understood as referring mainly to argument control, which implies that the subject of a complement clause is referentially dependent on an element in the matrix clause. The referential dependency is associated with the null form of the controlled element and the use of a non-finite form of the verb in the controlled clause. All these three properties are found, to various degrees, with a number of emotion adjectives. It will be shown, however, that the most significant property is related to the form of the predicate in the controlled clause.

2.2.1. Tense Control

It was mentioned in the opening lines of this chapter that most classifications of psych adjectives focus on semantic properties, such as degree of subjectivity, intensity, etc. We have quoted the analysis suggested for *nikui* in Hida and Asada (1991). The same tendency can be found in other studies, too.

In a paper which attempts to delimit the semantic scope of emotion adjectives on the basis of the semantic properties of the stimulus eliciting the emotion, Asahara et al. (1989) discuss the acceptability of a number of constructions in the complement position of emotion adjectives. They base their analysis on 9 semantically related adjectives in combination with 17 test sentences. In the section devoted to *ureshii* and *tanoshii*, for instance, the authors conclude that speakers find most acceptable the examples in which the stimulus argument of *ureshii* implies direct involvement of the Experiencer. The involvement is not necessarily physical, but can result from an emotional process of identification. On the other hand, *tanoshii* is found equally acceptable in examples presupposing direct involvement as well as in examples where the Experiencer merely evaluates the stimulus. According to their degree of acceptability, examples are grouped in three classes:

- i. both *ureshii* and *tanoshii* are acceptable. This type of examples is supposed to illustrate the common semantic core of the two adjectives.

- (6) a. odekake suru-no-wa ureshii/tanoshii
 go out-COMP-TOP ADJ
 I'm glad to go out
- b. tegami-o morau-no-wa ureshii/tanoshii
 letter-ACC receive COMP-TOP ADJ
 I'm glad/pleased to receive letters
- ii. *ureshii* is considerably more acceptable than *tanoshii*
- (7) a. Soren-ga Afugan-kara tetta suru-no-wa ureshii/tanoshii
 Soviet-NOM Afghanistan-PRT withdraw-COMP-TOP ADJ
 I'm happy the Soviet Union is withdrawing from Afghanistan
- b. hito-ni jibun-o rikai shite-morau-no-wa ureshii/tanoshii
 people-DAT self-ACC understand-AUX-COMP-TOP ADJ
 I'm happy when people understand me
- iii. *tanoshii* is considerably more acceptable than *ureshii*
- (8) a. kono shoosetsu-no tenkai-wa ureshii/tanoshii
 this novel-GEN plot-TOP ADJ
 I enjoy the plot of this novel
- b. matsuri-no funiki-wa ureshii/tanoshii
 festival-GEN atmosphere-TOP ADJ
 I enjoy the atmosphere of the festival

The difference in acceptability is attributed, as mentioned above, to the difference in the subjective involvement of the Experiencer. The situation that makes the use of *ureshii* maximally acceptable presupposes, according to the authors, direct subjective involvement of a passive Experiencer. On the other hand, *tanoshii* is most felicitously used in situations where the Experiencer is actively participating in the event, but does not display a very high degree of subjective involvement.

If this approach were correct, namely, if the determining factor for the appropriate use of one or the other of the two adjectives were the degree of subjective

involvement on the part of the Experiencer, we would expect the same judgments to obtain whatever the tense of the embedded clause. This, however, is not the case. Modifying the tense of the embedded clause (Stimulus argument) from present to past has visible effects on the acceptability of the examples.

- (9) a. omoi-doori-ni koto-ga hakonda-no-wa tanoshii 14(26)
 as planned things-NOM go-PAST-COMP-TOP pleased
 I enjoy the fact that things came out as planned
- b. omoi-doori-ni koto-ga hakonda-no-wa ureshii 25(27)
 as planned things-NOM go-PAST-COMP-TOP glad
 I'm glad things came out as I planned
- c. tegami-o moratta-no-wa tanoshii 11(23)
 letter-ACC receive-PAST-COMP-TOP pleased
 I enjoyed receiving the letter
- d. tegami-o moratta-no-wa ureshii 20(25)
 letter-ACC receive-PAST-COMP-TOP glad
 I'm glad I have received the letter

The figures attached to the examples are the results of my own questioning of 30 informants. The results regarding the acceptability of the examples in Asahara are basically identical to those presented in that study. The two figures are to be interpreted as follows: the first figure indicates the number of informants who found the sentence acceptable with a *-ta* form in the embedded clause and the second figure the number of informants who accepted the sentence with a *-ru* form in the embedded clause.

The examples in (9) belong to type (i), namely, they describe situations where both adjectives can be appropriately used. Changing the tense of the embedded clause from present to past has the effect of decreasing considerably the acceptability of *tanoshii*, although it influences only slightly the acceptability of *ureshii*.

- (10) a. doyoobi-no yoru minna-to osake-o nonda-no-wa
 Saturday-GEN night all-PRT sake-ACC drink-PAST-COMP-TOP
 tanoshii 9(23)
 pleased

- b. doyoobi-no yoru minna-to osake-o nonda-no-wa
 Saturday-GEN night all-PRT sake-ACC drink-PAST-COMP-TOP
 ureshii 19(14)
 glad
 I'm glad I drank sake with all (of you) on Saturday night
- c. ryuukoo-o sakidori shita-no-wa tanoshii 16(27)
 fashion-ACC outrun-PAST-COMP-TOP pleased
- d. ryuukoo-o sakidori shita-no-wa ureshii 21(18)
 fashion-ACC outrun-PAST-COMP-TOP glad
 I'm glad I was ahead of everybody in fashion

The examples in (10) illustrate case (iii), situations where *tanoshii* is preferred to *ureshii*. The counterpart sentences for (10a,c) (with the predicate of the embedded clause in the present tense) were perfectly acceptable, as can be seen from the figures in parenthesis. The use of the past tense rendered the constructions unacceptable for most speakers. The present tense variant of sentences (10b,d) with *ureshii* as predicate, had a fairly low degree of acceptability. Changing the tense of the embedded predicate to past did not render the constructions completely acceptable. Yet the speakers questioned, found the constructions with past forms more acceptable than the present form counterparts. The change in speaker judgments is especially sharp for the pair (10a-b). While in the case of (10a) most speakers judged the sentence unacceptable, in contrast to the perfectly natural present counterpart, the same speakers judged (10b) as slightly unnatural, although the present counterpart had been judged unacceptable.

These results suggest that what makes the use of one or the other of the two adjectives acceptable in a certain context is not merely the degree of subjective participation of the Experiencer.

The same distinction can be observed with other adjectives as well. Thus, *hazukashii*, *urayamashii*, and maybe *sabishii* and *kanashii* behave like *ureshii* in allowing a tensed embedded clause. On the other hand, *kowai*, *osoroshii* seem to behave in the same way as *tanoshii*.

- (11) a. *watashi-wa inu-ni osowareru-koto-ga kowai*
 I-TOP dog-DAT be attacked-PRES-COMP-NOM afraid
 I'm afraid of being attacked by the dog(s)
- b. **watashi-wa inu-ni osowareta-koto-ga kowai*
 I-TOP dog-DAT be attacked-PAST-COMP-NOM afraid
- c. (*watashi-wa*) *jooshi-ga ano hito-o hyooka shiteiru-no-ga*
 I-TOP boss-NOM that man-ACC appreciate-PRES-COMP-PRT
urayamashii
 envious
 I'm envious because the boss appreciates that man
- d. (*watashi-wa*) *ano hito-ga takai boonasu-o moratta-no-ga*
 I-TOP that man-NOM high bonus-ACC get-PAST-COMP-NOM
urayamashii
 envious
 I'm envious because that man got a high bonus

So far, we have discussed examples where the predicate of the embedded clause is marked with the *-ta* form (past) while the matrix predicate is in the present (*-ru* form). Such examples are impossible with adjectives in the *tanoshii* class: *tanoshii*, *kowai*, *osoroshii*. However, the restriction cannot be explained simply by banning the *-ta* form from the embedded clause.

- (12) a. **doyoobi-no yoru minna-to osake-o nonda-no-wa tanoshii*
 drink-PAST ADJ-PRES
- b. %*doyoobi-no yoru minna-to osake-o nonda-no-wa tanoshikatta*
 drink-PAST ADJ-PAST
- c. *doyoobi-no yoru minna-to osake-o nomu-no-wa tanoshii*
 drink-PRES ADJ-PRES
- d. *doyoobi-no yoru minna-to osake-o nomu-no-wa tanoshikatta*⁷
 drink-PRES ADJ-PAST

The paradigm above indicates that if the matrix predicate is in the past form, the embedded predicate can take the past form, too. Of all the possible combinations, only

the matrix present combined with a past form in the embedded clause is unacceptable⁸).

The restriction could be formulated in strictly syntactic terms, as a restriction regarding tense features. We could argue that adjectives in the *tanoshii* class require that the matrix predicate and the embedded predicate share the tense features, while *ureshii* type adjectives allow the tense features of the two predicates to be disjoint.

If we assume that the present tense marker in Japanese is zero⁹ and the past marker is *-ta*, the paradigm above can be easily explained. Examples (c) and (d) are unproblematic. There is no tense marker in the embedded clause and the matrix tense takes scope over the entire construction. In (12a) the past tense marker in the embedded clause clearly bears distinct features from the zero-marker of the matrix. The two clauses having distinct tense features and the construction is unacceptable. In (12b), although the embedded clause contains the past tense marker this is interpreted as coindexed with the tense element in the matrix clause, that is, as bearing identical tense features with the matrix predicate. The restriction against disjoint tense features is satisfied and the sentence is acceptable.

So far we have discussed the distinction in syntactic terms, as a restriction on distinct tense features between matrix and embedded clause predicate. The restriction can be alternatively explained from a semantic point of view.

The restriction regarding the tense of the embedded clause with adjectives like *tanoshii* is reminiscent of what Farcas (1992) calls Su-dependency. Farcas argues that sentences, as well as infinitival complements, can be used to denote situations, i.e., individuals having properties and standing in various relations at various spatio-temporal locations. In the case of complex sentences, one of the arguments of the matrix predicate denotes a situation. The situation denoted by the complement (sc) is a constituent of the situation denoted by the matrix (sm). The matrix predicate may impose various restrictions on sc as part of its lexical meaning since sc is one of its arguments. These restrictions may involve the immediate constituent parts of sc, i.e., the participants in sc, as well as its spatio-temporal location. Su dependency refers mainly to the requirement that the external argument of the sc be referentially dependent on some argument of sm. Argument dependency is usually accompanied by temporal dependency of the sc on the sm, but there are predicates such as *promise* and *foresee* whose Su reference is free while the temporal reference is dependent.

If we look at the interpretation of the sentences above, it becomes clear that the

excluded example is the only one in which the time of the Stimulus event (sc) is independent from the time of the emotional situation (sm). In all the other cases, both matrix and embedded clause predicate can be construed as referring to a unique situation (but see note 7). In the next section we shall offer arguments suggesting that adjectives in the *tanoshii* class also require a type of argument dependency, although this is not necessarily limited to the external argument of the complement clause.

2.2.2. Person Control

Control of the tense in the embedded clause is not the only property distinguishing these adjectives. In the case of *tanoshii*, the subject of the embedded clause is normally unexpressed, but construed as identical with the Experiencer. *ureshii* is not subject to this requirement.

- | | | | | | |
|------|------|--|-----------------|---------------------|----------|
| (13) | a. * | watashi-wa | ano hito-ga | utau-no-wa | tanoshii |
| | | I-TOP | that person-NOM | sing-COMP-TOP | pleased |
| | b.?? | watashi-wa | ano hito-ga | utatte-kureru-no-wa | tanoshii |
| | | I-TOP | that person-NOM | sing-AUX-COMP-TOP | pleased |
| | c. | watashi-wa | ano hito-ni | utatte-morau-no-wa | tanoshii |
| | | I-TOP | that person-DAT | sing-AUX-COMP-TOP | pleased |
| (14) | a. | watashi-wa | ano hito-ga | utau-no-wa | ureshii |
| | | I-TOP | that person-NOM | sing-COMP-TOP | glad |
| | | I'm glad when that person sings | | | |
| | b. | watashi-wa | ano hito-ga | utatte-kureru-no-wa | ureshii |
| | | I-TOP | that person-NOM | sing-AUX-COMP-TOP | glad |
| | | I'm glad when that person sings for me | | | |
| | c. | watashi-wa | ano hito-ni | utatte-morau-no-wa | ureshii |
| | | I-TOP | that person-DAT | sing-AUX-COMP-TOP | glad |
| | | I'm glad when that person sings for me | | | |

Each of the three examples in (13-14) describes basically the same situation. What distinguishes them, semantically is the point of view from which the situation is related and syntactically, the presence or absence in the embedded clause of an argument co-indexed with the Experiencer and the syntactic position of this argument. The examples

clearly show that there is no restriction regarding the embedded subject of the complement clause in case of *ureshii*. On the other hand, for *tanoshii*, the subject of the embedded clause cannot be distinct from the Experiencer argument. As the contrast between sentences (13b) and (13c) shows, it is not enough that the Experiencer be coindexed with some argument of the embedded clause; that argument must be the subject (the external argument) for the sentence to be entirely acceptable. While the auxiliary *-te-morau* takes the speaker as subject, the auxiliary *-te-kureru* casts the speaker in beneficiary position and marks it with the dative. The only construction that is entirely acceptable with *tanoshii* is (13c), where the auxiliary *-te-morau* introduces an argument coindexed with the Experiencer (speaker) in the embedded clause.

The case of the adjective *kowai* is quite instructive. Unlike *tanoshii* for which the Stimulus tends to be a situation in which the Experiencer is the main participant, the Stimulus of *kowai* is, more often than not, an event (situation) involving an agent distinct from the Experiencer. We are generally afraid of what somebody (Agent) could do to us (Patient). The Experiencer is rather an Undergoer. In spite of this, linguistically, there is a tendency to have coreferential subjects in matrix and embedded clause. The result is that speakers find the passive variant in (15b) more acceptable than the active counterpart in (15a).

- (15) a. ? *watashi-wa kuma-ga osotte-kuru-koto-ga kowai*
 I-TOP bear-NOM attack-AUX-COMP-NOM afraid
 I'm afraid the bear will attack me
- b. *watashi-wa kuma-ni osowareru-koto-ga kowai*
 I-TOP bear-DAT be attacked-COMP-NOM afraid
 I'm afraid I'll be attacked by the bear

2.2.3. Control Properties or Su Dependency

We have argued in the previous two sections that *tanoshii* type adjectives display restrictions regarding the tense of the predicate and the reference of the subject in the embedded predicate. These constraints are reminiscent of the typical properties of obligatory control structures:

- i. the subject of the embedded clause is obligatorily coindexed with an

argument of the matrix clause

- ii. the predicate of the embedded clause appears in a non-finite form
- iii. the subject of the embedded clause is expressed by a null element

The properties displayed by adjectives like *tanoshii* do not match exactly the definition, yet are close enough to the three requirements above to justify the label ‘control’-adjectives, even if the term is somewhat too strong. Property (i) as formulated above is too strong, since cases like (13b), discussed in the previous section, where the controlled argument is not the subject of the embedded clause are not entirely unacceptable.

Property (iii) is not inviolable either. An overt reflexive is not excluded from this position, as indicated by examples (16a,b). However, the tendency to use a null element exists, as demonstrated by the higher acceptability of examples (16c,d). The type of predicate does not seem to play a very important role here, however, so the examples could be rather an illustration of the Avoid Pronoun strategy more than an argument in favor of treating *tanoshii* as a control predicate

- (16)
- | | | | | | |
|------|---------------------|------------------------|------------|--------------|----------|
| a.?? | watashi-wa | jibun-ga | tegami-o | morau-no-wa | tanoshii |
| | I _i -TOP | self _i -NOM | letter-ACC | receive-COMP | pleased |
| b.?? | watashi-wa | jibun-ga | tegami-o | morau-no-wa | ureshii |
| | I _i -TOP | self _i -NOM | letter-ACC | receive-COMP | glad |
| c. | watashi-wa | PRO | tegami-o | morau-no-wa | tanoshii |
| | I _i -TOP | PRO _i | letter-ACC | receive-COMP | pleased |
| d. | watashi-wa | PRO | tegami-o | morau-no-wa | ureshii |
| | I _i -TOP | PRO _i | letter-ACC | receive-COMP | glad |

As regards property (ii), the requirement, although having formal consequences, can be better formulated as a semantic requirement than as a requirement on the form of the embedded predicate. As discussed in Section 2.2.2., the predicate of the embedded clause can appear in the *-ta* form, as long as it refers to the same temporal location as the matrix predicate. That is, the requirement is not that the complement clause predicate be expressed by a non-finite verbal form, but rather that the predicate of the complement clause be dependent on the matrix predicate for temporal reference.

This suggests that these predicates are less a typical example of control predicates and more an illustration of the phenomenon called Su dependency. In their semantic implications, however, control and Su dependency are closely related phenomena. If we adopt Dowty's (1985) analysis of control which treats the complement clause in a control structure as a VP rather than as a clause (IP), the ban on independent temporal reference is easily explained. Such an approach receives support from the interpretation of nominals in Stimulus argument position with these adjectives. As will be discussed in detail in Section 3, these nominals are interpreted relative to an activity attributed to the Experiencer.

Semantically, controlled complements do not represent temporally anchored situations, but properties (in Dowty's terms); the semantic correlate of VPs. Su dependency includes cases of control, although it is not limited to strict control. For convenience sake, however, we shall use the term 'control adjectives' to refer to adjectives like *tanoshii*, instead of the rather strange sounding term 'Su dependency adjectives'.

Adjectives such as *tanoshii* tend to require both tense and (to a lesser extent, maybe) argument identity between matrix and embedded clause. In the case of *ureshii* type adjectives, neither tense identity nor person identity is necessary. This difference permits us to see what was wrong with examples such as (17) from Asahara.

- (17) a. Soren-ga Afugan-kara tetta suru-no-wa ureshii/tanoshii
 Soviet-NOM Afghanistan-PRT withdraw-COMP-TOP ADJ
 I'm happy the Soviet Union is withdrawing from Afghanistan
- b. hito-ni jibun-o rikai shite-morau-no-wa ureshii/tanoshii
 people-DAT self-ACC understand-AUX-COMP-TOP ADJ
 I'm happy when people understand me
- c. yoi hyooka-o ukeru-no-wa ureshii/tanoshii
 good appreciation-ACC get-COMP-TOP ADJ
 I enjoy being appreciated

In all these examples speakers found the use of *ureshii* more acceptable than that of *tanoshii*. The use of *tanoshii* is found least acceptable with (17a). This comes as no surprise considering that (17a) contains no argument in the embedded clause coindexed

with the Experiencer. Examples (17b) and (17c) are judged considerably more acceptable than (17a), and this is due to the presence of an argument in the embedded clause, coindexed with the Experiencer¹⁰.

We have argued so far, that psychological adjectives in Japanese can be divided into three syntactic classes, according to the type of complement they allow in Stimulus argument position.

- A. Adjectives that allow only nominal complements: *nikui*, *itooshii*, *kawaii*, *nikurashii*
- B. Adjectives which allow both nominal and clausal complements
 - B.1. Control adjectives
 - B.2. Non-control adjectives

It was demonstrated in this section that certain restrictions on the use of psychological adjectives, so far considered to be due to their semantic peculiarities, are, as a matter of fact, syntactic in nature. The approach has the merit that it allows to do away with some ad hoc semantic distinctions such as ‘degree of subjective involvement of the experiencer’ or ‘strength of the emotion’ replacing them by better documented criteria.

In the following section we shall discuss some other properties of psychological adjectives and the way they relate to the three syntactic subclasses uncovered so far.

3. Nominal Arguments

At first sight it seems difficult to establish any connection between the syntactic distinction regarding tense control and the semantic content of these adjectives¹¹. Both control and non-control adjectives comprise positive and negative evaluation members. If we consider only the lexical meaning of the adjectives, *tanoshii* appears to be more closely related to *ureshii* than to *kowai* and *osoroshii*.

What is, then, the semantic factor that leads to the control vs. non-control distinction? The interpretation of nominal arguments in Stimulus position offers an insight into the nature of the semantic distinction behind this.

It should be noticed that all the adjectives expressing emotions admit a nominal complement. The nominal complements are not always interpreted as referring to the

individuals they normally denote. The same nominal used to express the stimulus argument with different adjectives will be associated with different interpretations. The interpretations are not randomly distributed, however. It will be shown that the interpretative mechanisms can be grouped into three classes, each associated with one of the three classes of adjectives we determined on the basis of subcategorization properties.

3.1. Selectional Restrictions

It should be noticed that all the adjectives expressing emotions admit nominal complements, though, of course, the selectional restrictions on the nominal are usually different. Thus, as mentioned before, *nikui*, *nikurashii*, and the ‘derived’ *kawaii* basically select for [+human] complements. Optionally they may take a [+abstract] NP referring to human properties or activities, in which case the complement refers metonymically to the possessor of the property or to the agent. As Hida and Asada (1991) notes, an adjective such as *nikui* can be used with [-human] nominals only if these are interpreted in a metaphorical sense.

- (18) a. Boku-wa Tokyoo-no yatsura-ga *nikui* (Hosokawa)
 I-TOP Tokyo-GEN guys-NOM hateful
 I hate the guys from Tokyo
- b. ... kare-ya kare-no chichi-ga *nikurashikute* naranakatta
 he-PRT he-GEN father-NOM hateful-AUX
 (x) hated him and his father (Hosokawa)
- c.? Musuko-o yuuzai-ni shita hooritsu-ga *nikui* (Hida & Asada)
 son-ACC guilty do law-NOM hateful
 (I) hate the law that found my son guilty
- d. Kazoku-o ubatta ano hikooki jikoo-ga *nikui* (IPAL)
 family-ACC take away that plane accident-NOM hateful
 (I) hate the airplane crash that took away my family

The last two examples involving [-human] nominals are clearly personifications and do not constitute a counter example to the generalization that *nikui* selects a [+human] argument.

Other adjectives, such as *ureshii*, *kanashii*, *sabishii*, are not very comfortable with [+human] nominal complements. A large number of adjectives including *tanoshii*, *kowai osoroshii*, *hazukashii*, *urayamashii* seem to have practically no semantic restrictions on the complement nominal.

It is difficult to make generalizations or to build classifications on the basis of these selectional restrictions. More often than not, the restrictions displayed by the adjectives seem quite arbitrary: thus *tanoshii* will not admit a [+concrete] nominal such as "melon" as its complement, though *ureshii* will.

- (19) a. ?? meron-ga tanoshii
 melon-NOM pleased
 b. meron-ga ureshii
 melon-NOM glad
 I'm glad of the melon

However, a nominal referring to a concrete object such as "book" will be acceptable with both adjectives.

- (20) a. kono hon-ga tanoshii
 this book-NOM pleased
 This book is fun
 b. kono hon-ga ureshii
 this book-NOM glad
 I'm glad of this book

In what follows we shall attempt to uncover the regularities behind these apparent peculiarities.

3.2. Implicatures

In this section we shall argue that the distinction with respect to subcategorization properties has consequences on the interpretation of a nominal argument in complement position. As the examples below illustrate, when the same nominal appears in the complement position of different adjectives, the interpretation differs.

- (21) a. watashi-wa sensei-ga nikui
 I-TOP teacher-NOM hateful
 I hate the teacher
- b. watashi-wa sensei-ga urayamashii
 I-TOP teacher-NOM envious
 I envy the teacher
- (22) a. watashi-wa kodomo-ga kawaii
 I-TOP child-NOM dear
 I cherish my child
- b. watashi-wa kodomo-ga hazukashii
 I-TOP child-NOM shameful
 I'm ashamed of my child
- (23) a. kono hanashi-ga ureshii
 this talk-NOM glad
 I'm glad to hear that
- b. kono hanashi-ga urayamashii
 this talk-NOM envious
 This story makes me envious
- c. kono hanashi-ga hazukashii
 this talk-NOM shameful
 I'm ashamed to hear this
- d. kono hanashi-ga tanoshii
 this talk-NOM pleased
 I enjoy this talk

Some of the sentences above do not only express the experiencer's feelings towards the Stimulus entity but also give rise to particular implicatures. This phenomenon is restricted to the examples containing adjectives that allow clausal complements. When the predicate is an adjective that takes individuals in Stimulus argument position there are no implicatures, the sentence only expresses the emotional relations between the two individuals, Experiencer and Stimulus, as illustrated by the examples (a) in (21) and (22).

By contrast, the examples (b) in (21) and (22) as well as the sentences in (23) provide supplementary information. Thus, (21b) implies that the teacher is in an advantageous position and that the experiencer has no share in it. Sentence (22b) implies that the child is in a disadvantaged position and that the experiencer has a share in it, for instance he is the parent of the child. Similar implications are associated with the use of these adjectives in sentences (23b,c). In (23) the talk is evaluated as positive and the experiencer is excluded from the benefit, while in (23c) we have the opposite situation, a negatively evaluated talk in which the experiencer is somehow involved. (23a) allows us to deduce that the experiencer is a kind of Beneficiary (or Goal) in a situation involving the talk and (23d) implies that the experiencer was a participant in the talk.

To see exactly how these implicatures arise we should look at some more examples.

- (24) a. ano hon-ga tanoshikatta
 that book-NOM pleased-PAST
 I enjoyed that book
- b. ano hon-ga kowakatta
 that book-NOM afraid-PAST
 That book scared me
- c. ano hon-ga ureshikatta
 that book-NOM glad-PAST
 I was glad about that book
- d. ano hon-ga urayamashikatta
 that book-NOM envious-PAST
 I envy that book
- (25) a. ano eiga-wa tanoshikatta
 that movie-TOP pleased-PAST
 I enjoyed that movie
- b. ano eiga-wa kowakatta
 that movie-TOP afraid-PAST
 That movie scare me

- c.??ano eiga-wa ureshikatta
 that movie-TOP glad-PAST
 I was glad about that movie
- (26) a. kono omocha-ga tanoshii
 this toy-NOM pleased-PRES
 I enjoy this toy
- b. kono omocha-ga urayamashii
 this toy-NOM envious-PRES
 I envy (you) this toy
- c. kono omocha-ga ureshii
 this toy-NOM glad-PRES
 I'm glad about this toy

Not all the examples above are equally natural, but to the degree to which they are acceptable, they clearly give rise to constant implicatures. In all the examples above, the interpretation of sentences having *ureshii* as predicate is constant: the Experiencer is interpreted as a Beneficiary. This is why, (25c) is not entirely acceptable. It is rather difficult to think of a situation where a person is the beneficiary of a movie. However, if a situation is provided which casts the experiencer in the beneficiary role, the sentence becomes acceptable. We can imagine, for instance, that the Experiencer is an acknowledged ecologist and he greets the presentation of a movie dealing with his favorite topic with this utterance. In the same way, the interpretation of sentences with *urayamashii* leads to constant inferences regarding the relation between the Experiencer and the referent of the Stimulus argument: the book, the movie, the toy are positively evaluated objects and they do not belong to the experiencer.

In the case of *tanoshii* and *kowai*, the situation is different. For the same nominal we obtain similar implicatures with both adjectives.

- (27) a. watashi-wa ano hon-ga tanoshikatta → watashi-wa ano hon-o yonda
 I enjoyed that book → I read that book
- b. watashi-wa ano hon-ga kowakatta → watashi-wa ano hon-o yonda
 That book frightened me → I read that book

- (28) a. *watashi-wa kono eiga-ga tanoshii*→ *watashi-wa kono eiga-o miteiru*
 I enjoyed that movie→I am watching this movie
- b. *watashi-wa kono eiga-ga kowai*→ *watashi-wa kono eiga-o miteiru*
 That movie frightened me→I am watching this movie

The nominal in Stimulus argument position serves as the base for retrieving a predicate. The predicate describes an activity prototypically associated with the object referred to by the nominal: reading for a book, watching for a movie, playing for a toy, etc. The experiencer is the central participant in this activity and the emotion is triggered by the activity, rather than by the object per se. The adjective describes the subjective reaction of the central participant in the activity.

We have, so far, distinguished two types of interpreting process. One, associated with adjectives such as *ureshii* and *urayamashii*, has the effect of casting the Experiencer in a particular role in the event associated with the nominal. The casting is not influenced by the semantic content of the nominal. It remains constant across nominals. Each adjective has a specific interpretation associated with it, a particular role for the Experiencer. In the second case, for adjectives like *tanoshii* and *kowai*, the interpretation of the sentence depends not on the adjective, but on the nominal. Implicatures vary with the nominal, but are constant across predicates.

It is clear by now that the choice of interpreting process is not random: the adjectives which impose type 1 interpretation are those which subcategorize for full clauses, the non-control adjectives, and those which impose type 2 interpretations are the control adjectives, which subcategorize for VPs. Seen in this light, the choice of interpretation process is significant. Adjectives that subcategorize for VPs (control structures) impose interpretations in which a predicate (semantically a property) is retrieved on the basis of the nominal argument. The same mechanism, providing a predicate on the basis of the information contained in a nominal, applies to all the adjectives in this subclass, with the effect that the use of the same nominal will give rise to identical implicatures. In the case of non-control adjectives the nominal must be integrated in a situation involving the experiencer. The situation is predetermined for each adjective and the acceptability of a construction depends on how likely it is for the nominal (more precisely the referent of the nominal) to be involved in that type of situation. For *ureshii* a nominal in stimulus argument position must be a potential

Theme for the construction to be acceptable. Nouns having human referents, cosmic or geographical elements, etc. are not natural unless a context is provided.

- (29) a. ??tonari-no ojisan-ga ureshii
 next door-GEN old man-NOM glad
 ??I'm glad of the old man next door
- b. ??sora-ga ureshii
 sky-NOM glad
 ??I'm glad of the sky

The use of *urayamashii* implies that the stimulus is desirable and that the experiencer is excluded from it. Nominals referring to undesirable objects such as diseases or pests are not natural candidates for the complement position of this adjective.

- (30) ??kaze-ga urayamashii
 cold-NOM envious
 ??I envy that cold

Information regarding the prototypical stimulus event is included in the lexical entry for each adjective, as indicated by the fact that implicatures are not cancelable.

- (31) a. ?? tegami ga ureshikatta kedo, tegami o moratte nai
 letter-NOM glad-PAST CONJ letter-ACC receive-NEG
 I was glad about the letter but I have received no letter
- b. ??ano hiroi heya ga urayamashii kedo,
 that large room-NOM envious CONJ
 watashi no heya desu
 I-GEN room COP
 I envy that large apartment, but it's my apartment

The use of *ureshii* in (31a) above conventionally implies that the experiencer received the letter, and *urayamashii* in (31b) excludes the possibility that the room belonged to the experiencer.

The implicatures that arise with nominal complements suggest that control and

non-control predicates, unlike *nikui* type adjectives, do not express emotions elicited by individuals or objects. They refer to emotions triggered by events.

Non-control adjectives do not merely express emotions triggered by events but the lexical entry for an adjective in this class contains more specific information regarding the type of stimulus event and the way in which the experiencer is related to it. Each adjective is associated with a different prototypical situation: *ureshii* presupposes a transfer of property (material or abstract) event, *hazukashii* is more complex. It presupposes a situation involving the experiencer or some possession of his (material or not). This in turn forms the subject of a negative evaluation by somebody other than the Experiencer. The emotional reaction is triggered by this negative evaluation.

A non-control adjective can be argued to have two functions. The first is to assert the occurrence of a particular type of situation and the second to qualify this event from the experiencer's standpoint¹²⁾. The use of a non-control adjective makes reference to two distinct events: the triggering event and the emotional reaction to it. The implicatures of nominal complements provide the information necessary for reconstructing the (prototypical) stimulus event, when this is not overtly mentioned.

In the case of control adjectives there is no single prototypical property (event type) associated with the emotion expressed. The semantics of the adjective requires that the experiencer be involved in some activity, but leaves the content of the activity unspecified. This fact is reflected in the interpretation of nominals. The adjective determines only the mechanism for building the implicatures, but the concrete details are provided by the nominal¹³⁾. The more difficult it is to associate the nominal with some activity, to find an event type matching the nominal, the more difficult will it be to interpret the construction involving that nominal in complement position. A nominal which cannot provide the support for the property attributing function of the adjective is not a fit complement. Given the language user's desire to find a meaning in any utterance such nominals are not easy to come by, but (32) can be used to illustrate this point.

- (32) ??hiza/ mado/ happa-ga tanoshii
 knee/window/leaf-NOM pleased

Unlike control adjectives, non-control adjectives do not imply the existence of two

distinct events. The triggering event and the emotional reaction it produces are not separable. The subjective reaction of the participant is kept alive by the unfolding activity. If (33a) presents an event from the objective point of view, (33b) can be used to present the same event from the subjective point of view of the central participant.

- (33) a. Taroo-wa tanoshisoo-ni hon-o yondeiru
Taroo-TOP pleased-MODbook-ACC read-PRES-PROGR
Taroo is reading the book looking pleased
- b. Watashi-wa kono hon-ga tanoshii
I-TOP this book-ACC pleased
I enjoy reading this book

The following sections will discuss some linguistic phenomena that seem to be sensitive to the semantic distinctions proposed so far.

4. Control and the Semantics of Psych Adjectives

The classification proposed in the previous sections seems to correspond to a classification of emotions in cognitive psychology. In their study of emotions, Ortony, Clore, and Collins (1988) propose a classification of emotions in terms of eliciting factors. This leads them to set up three major types of emotions, emotions elicited by events, by agents and by objects.

"The assumption is that there are three major aspects of the world, or changes in the world, upon which one can focus, namely, events, agents or objects. When one focuses on events one does so because one is interested in their consequences, when one focuses on agents, one does so because of their actions, and when one focuses on objects, one is interested in certain aspects or imputed properties of them qua objects. Central to our position is the notion that emotions are valenced reactions, and that any particular valenced reaction is always a reaction to one of these perspectives on the world."(p19)

The type of stimulus object determines, according to Ortony *et al*, the basic

content of the emotion it elicits. Namely, emotions elicited by events have the structure of desirability-judgments computed with reference to goals; reactions to agents are praiseworthiness judgments based on standards, while reactions to objects are appealingness judgments based on attitudes.

Typical emotions elicited by events are of the type pleased/displeased and the most representative examples are: joy, distress, disappointment, relief, gloating, and resentment. Attribution emotions, reactions to agents in their terms, have as their basic content approving and disapproving with pride, shame, admiration, reproach as representative members. The reactions towards objects are of the type liking/disliking and the best known examples are love and hate.

The classification is very appealing to the linguist, especially as the three types of eliciting entities discussed correspond to long established linguistic notions such as 'agent', 'event', 'object'. It is, thus, tempting to try to identify the three syntactic subclasses of psychological adjectives with the three types of valenced reaction distinguished by Ortony *et al.* It should be remembered though, that Ortony's classification refers to the cognitive structure of emotions and not to linguistic structures. Their schema includes some emotions which do not even have a linguistic label in English (or in Japanese), such as '*fears confirmed*', or emotions that must be expressed through a phrase, such as '*happy-for x*'. The schema is argued to be a universal of human cognition, which might not necessarily be reflected as such by linguistic facts. Nonetheless, if their analysis is valid, we expect to see at least some linguistic reflex of the classification, even if it is not a one to one mapping.

It is apparent that the class of adjectives that subcategorize for nominal complements, the *nikui/itoshii* type resembles closely the class defined by Ortony as reactions to objects. These adjectives express emotions of the type *liking/disliking* and could be aptly defined as 'appealingness judgments based on attitudes'. The adjectives in this class were argued to take preferentially [+human] complements, but it is clear that the human stimulus of the emotion is not viewed as an agent but rather as an object. To avoid confusion, we shall define this class of adjectives as expressing emotions elicited by *individuals*. By individual we understand a concrete or abstract entity, such as those denoted by the nouns *boy, cat, chair, idea*, etc.

Here the parallelism between Ortony schema and our classification seems to end. Ortony *et al* distinguish between reactions to events and reactions to agents,

whereas we distinguish between adjectives encoding reactions to independent events and adjectives encoding reactions to one's own actions. It seems that there is no linguistic reflex of the distinction between reactions to events and reactions to agents. It should be noticed, however, that emotions described as reactions to agents by Ortony *et al* are, as a matter of fact, reactions to events evaluated with respect to the agent. Ortony's schema and our classification are, then, similar in making a major distinction between reactions to individuals and reactions to events.

Focusing on the agent and the ensuing distinction between desirability emotions and praiseworthiness emotions does not seem to be a relevant factor in the classification of Japanese psych adjectives. The distinction might be marked in the lexicon, but it is not associated with any formal properties. Adjectives expressing pleasure or displeasure, such as *ureshii* and *kanashii*, which encode, according to Ortony *et al*, reactions to events, have the same syntactic properties as *hazukashii*, which encodes a typical example of emotional reaction to agents.

What is relevant for linguistic purposes is the status of the emotional reaction in relation to the triggering event. Are the triggering situation and the emotional reaction conceived as two distinct events or are they seen as two aspects of a single situation? The most striking difference between adjectives like *hazukashii*, *kanashii*, etc on the one hand and adjectives such as *tanoshii*, *kowai* on the other hand regards the tense restrictions observed with adjectives in the second class. Although *hazukashii* presupposes the involvement of the experiencer in the stimulus event, it does not require that the stimulus event be temporally dependent on the emotional event. This means that person control and tense control are independent and that tense control is the determining element in Japanese. The Ortony schema does not offer an explicit variable permitting to capture this linguistic aspect¹⁴).

It has been argued by several authors (Dowty 1985; Jacobson 1990; etc.) that in control structures we do not deal with a clausal complement but with a VP complement. While the semantic object denoted by a sentence is a truth-value, control predicates subcategorize for VP complements that correspond semantically to properties. On this approach, control predicates entail about their subject that it has the property denoted by the complement in the possible world defined by the matrix predicate. A sentence such as 'Mary tried to win' is interpreted as entailing that in the world where Mary 'tries' she has the property of winning. This accounts for the lack of independent

temporal anchoring of the stimulus event with control adjectives in Japanese. The complement of these adjectives would be treated as a VP rather than a clause, i.e. IP¹⁵). As such, it cannot refer to actual events. The interpretation of the matrix clause determines the truth-value of the embedded clause. In this case we are dealing with a single temporally anchored event. It seems that this event cannot be identified with either the emotional reaction or the triggering activity but consists of the combination of the two. We shall coin the term ‘incomplete events’ to refer to this situation. In the case of non-control adjectives the interpretation of the embedded clause is independent from that of the matrix.

We have opened this chapter with the criticism of a purely semantic analysis of emotion adjectives, such as the one proposed by Asahara et al, and have uncovered a syntactic criterion of classification. The most obvious difference between *ureshii* and *tanoshii* is the obligativity of control in the embedded clause for the latter. The same criterion serves to distinguish between control adjectives like *kowai*, *osoroshii* on the one hand and non-control adjectives like: *hazukashii*, *kanashii*, and *urayamashii*, on the other. In the previous paragraph we have suggested a semantic interpretation for this syntactic distinction. Accordingly, emotion adjectives in Japanese can be subdivided into:

- a. Reactions to individuals
- b. Reactions to independent events
- c. Reactions to incomplete event

This classification has important consequences for the semantic description of emotion adjectives. Previous studies consider that the main function of emotion adjectives is to express internal states. The fact that they can be classified in terms of the semantic properties of their ‘objects’ indicates that this understanding is not satisfactory. To use Kenny’s apt phrase: “*If the emotions were internal impressions or behavior patterns there would be no logical restriction on the type of object which each emotion could have. It would be a mere matter of fact that people were not angered by being benefited, nor afraid of what they already know to have happened; just as it is a mere matter of fact that most people are nauseated by slugs crawling from beneath an upturned stone and sneeze on getting pepper in their nostrils. There would be no more reason why,*

once in a while, a man might not be grateful for being harmed, or proud of a defect, than there is why, once in a while, a man may not feel a sinking in the stomach while being complimented, or weep on the receipt of good news.....” (Kenny 1963: 191).

The understanding of the semantic role of the emotion adjectives and other emotion predicates in terms of reference to internal states has effects on their syntactic and semantic description. Most of the Japanese linguistic literature on this subject concentrates on the subjective/ objective distinction and its syntactic consequences, on the person restriction and its interpretation. The classification proposed here stresses the role of the stimulus argument. In what follows we will show how the analysis proposed here can account for other the phenomena mentioned in the introductory section.

5. Other Properties

This chapter started by noticing the existence of a number of irregularities within the apparently uniform class of experiencer adjectives. These irregularities concerned the availability of ‘intransitive’ uses and the lack of case alternation. In the following sections we will address the question of how these irregularities relate to the three classes of adjectives distinguished so far.

5.1. Objective Reading

At the beginning of this chapter we mentioned that previous studies on psychological adjectives make a distinction between adjectives which allow an objective reading and those which do not. The adjectives most frequently used to illustrate this property are *tanoshii*, *kowai* and *osoroshii*. All these adjectives belong to the control class. Is the polysemy between a subjective and an objective reading a consequence of the control structure or is this simply a coincidence?

Previous studies have observed the fact that the objective reading of psych adjectives is related to the absence of the experiencer. The experiencer argument in such contexts is not only absent from the surface structure, it is not even implied. Compare the following two sentences.

- (34) a. yama-o noboru-koto-ga tanoshikatta
 mountain-ACC climb-COMP-NOM pleased
 I enjoyed climbing the mountain

b. yamanobori-wa tanoshii
 mountain climbing-TOP pleased
 Mountain climbing is fun

In sentence (a) although the experiencer argument is absent from the surface structure it is implied. This sentence is about the speaker. In (34b), on the other hand, no actual experiencer is implied, not any more than in a sentence like (35)

(35) mikan-wa amai
 tangerine-TOP sweet
 Tangerines are sweet

We have argued that the stimulus for adjectives in this class is an incomplete event, an activity having the experiencer as central participant. This activity is associated with a particular type of subjective reaction. This reading is dependent on the presence of the Experiencer argument. When the Experiencer is absent no activity can be attributed to him. The subjective reaction that used to accompany the performing of the activity is no longer attributed to the absent Experiencer. The adjective expresses a generic evaluation, that is a property. When the Experiencer argument is present these adjectives refer to emotional episodes, to actually occurring events. When the Experiencer is deleted the adjectives cease to refer to events. They behave like prototypical states, as illustrated by the contrast below.

(36) a. kinoo (watashi-wa) eiga-o mite tanoshikatta
 yesterday I-TOP movie-ACC see pleased
 Yesterday I enjoyed myself watching the movie
 b. %kinoo eiga-wa tanoshikatta
 yesterday movie-TOP pleased
 I enjoyed the movie yesterday
 c. kinoo-no eiga-wa tanoshikatta
 yesterday-GEN movie-TOP pleased
 Yesterday's movie was fun

On the property reading the adjective can no longer be modified by a time adverb. That is why (36b) cannot have the property reading. The sentence is well formed, however, on the experiencer reading. Example (36c) illustrates the property reading. Here the time adverb is no longer a modifier of the adjective but of the Theme nominal. The role of the adverb is not to provide a temporal location for the property, but to restrict the scope of the Theme nominal.

It is interesting to note that the implicatures based on nominals, discussed in the previous paragraphs still exist, but no longer as conventional implicatures. Their status as conversational implicatures is demonstrated by the fact that they can be cancelled. Compare the following utterances and the possible reactions towards them.

- (37) a. jetto-koosutaa-wa tanoshii yo. watashi-wa mada
jet-coaster-TOP pleased PRT I-TOP ADV
notta-koto-ga nai kedo
ride-COMP-NOM NEG CONJ
Jet-coasters are fun, but I have never ridden one
- b. watashi-wa jetto koosutaa-ga tanoshikatta. noranakatta kedo
I-TOP jet-coaster-NOM pleased-PAST ride-NEG-PAST CONJ
I enjoyed the jet-coaster although I didn't ride on it
- (38) a. jetto-koosutaa-wa tanoshii-sooda. watashi-wa mada
jet-coaster-TOP pleased-MOD I-TOP ADV
notta-koto-ga nai kedo
ride-COMP-NOM NEG CONJ
I hear jet-coasters are fun, but I have never ridden one
- b. *watashi-wa jetto koosutaa-ga tanoshi-soo datta.
I-TOP jet-coaster-NOM pleased-MOD-PAST
noranakatta kedo
ride-NEG-PAST CONJ

Sentence (37a) illustrates the objective reading while sentence (37b) represents the experiencer reading of the adjective. Uttering the two sentences would produce different reactions. (37a) is inappropriate because it violates the principles of conversation. A speaker is expected to have a basis when attributing a quality to an object. If a modal is

added as in (37a) the sentence becomes unobjectionable, as illustrated by example (38a). The function of the modal is to offer a basis for the assertion. With (37b), denying the implicatures renders the sentence nonsensical. Adding a modal, instead of improving acceptability has the effect of lowering it, see (38b). The implicatures of (37b), namely that the riding event took place cannot be cancelled, as they can in (37a). This indicates that we are dealing with conventional implicatures in the case of (37b), implicatures which do not arise conversationally, but represent part of the semantic information of the lexical item. On the objective interpretation, illustrated in example (37a), the adjective does not contain any longer this semantic information.

This is to be expected if the ‘subjective’ reading of these adjectives refers to emotional situations where an individual is affected by his evaluation of an activity in which he is involved. Otherwise expressed, the presence of an Experiencer implies the presence of an activity to be evaluated. In the absence of the Experiencer the existence of such an activity is no longer implied, but as a consequence, there is no Stimulus to trigger an emotional reaction. The adjectives cease to refer to emotional experiences and they merely refer to generic evaluations, that is, properties of objects.

The semantic analysis proposed allows us to see why the property reading does not arise with non-control adjectives such as *ureshii*, *urayamashii*. We have argued that these adjectives specify in their semantic definition the type of prototypical situation triggering the emotion and the nature of the emotional reaction. Unlike control adjectives, which merely imply that the Experiencer is performing some activity, without identifying the activity in question, these adjectives contain specific information on the prototypical stimulus event as part of their lexical specification. The relation between the Experiencer and the Stimulus event is also specified in the lexical entry. This information cannot be detached from the semantic description. That is, if we remove the information referring to the eliciting situation from the lexical entry of the adjective, the difference between *hazukashii* and *urayamashii* will be lost since both adjectives involve a negative attitude towards the eliciting situation. We argued that the situation contains specific information regarding the experiencer. For *ureshii*(glad) the Experiencer plays the role of Beneficiary in the Stimulus event, *urayamashii*(envy) implies the existence of a situation from which the Experiencer is excluded. The experiencer argument cannot be effectively deleted from the semantic description of non-control adjectives. Even when the experiencer is not expressed, the ‘situation’

component of the meaning guarantees that the experiencer is nonetheless implied. The property reading, which is dependent on the lack of an experiencer argument, is, consequently, blocked¹⁶.

- (39) a. *tanoshii hon*
 enjoyable book
 b. *ureshii tegami*
 cheering letter
 c. *urayamashii hanashi*
 enviable story

While (39a) simply attributes a property to the modified object, (39b,c) give rise to all the above-mentioned conventional implicatures: the letter is one the experiencer is glad to RECEIVE and the story is one in (from) which somebody, who is NOT the experiencer benefits.

The property reading does not arise with adjectives which subcategorize for nominal complements either. Sentences like (40) below always imply the existence of an experiencer and cannot be used to merely ascribe a property to an individual¹⁷.

- (40) a. *ano hito-ga* *nikui*
 that person-NOM hateful
 I hate that person
 b. *ano hito-ga* *itooshii*
 that person-NOM beloved
 I love that person

Even when the experiencer is absent from surface structure, and this is the norm rather than the exception with psychological adjectives, these adjectives have a relational rather than a property reading.

Case marking offers a clue to why this should be so. Adjectives which take clausal complements allow two case marking patterns: *Exp-ni Stim-ga* and *Exp-ga Stim-ga*. With adjectives taking only nominal complements only the second pattern is available. It was argued in Chapter 1 that the two case patterns are normally associated

with different interpretations: the NI/GA pattern is used to make evaluative judgments while the double nominative pattern expresses direct sensations. In the case of psychological adjectives the two patterns are used with no discernible semantic difference because the semantic structure of these adjectives is more complex, containing both an evaluation and a sensation component.

The fact that the *nikui* class adjectives admit only the double nominative pattern could be seen as a consequence of the fact that they have a simpler semantic structure. Adjectives in this class seem to have a unique function, to express the emotional reaction of the experiencer towards the stimulus.

If one of the arguments is absent interpretation proceeds according to the general rules applied in such a case to two place predicates, it does not lead to a new function of the predicate. Compare the examples (41-44)

- (41) a. ?watashi-wa nikui
 I-TOP hateful
 I hate....
- b. aitsu-ga(wa) nikui
 he-NOM(TOP) hateful
 (I) hate him
- (42) a. watashi-wa nagutta
 I-TOP hit
 I hit someone
- b. aitsu-o nagutta
 he-ACC hit
 (I) hit him
- (43) a. watashi-wa ureshii
 I-TOP glad
 I'm glad
- b. tegami-ga(wa) ureshii
 letter-NOM(TOP) glad
 (I'm) glad about the letter
- (44) a. watashi-wa tanoshii
 I-TOP pleased
 I'm having fun

- b. omatsuri-wa tanoshii
 festival-TOP pleased
 Festivals are fun

The effect of deleting one of the arguments of *nikui* is semantically parallel to the effect of deletion in a normal transitive sentence. If the subject (experiencer, agent) is absent, it is interpreted as coreferential with the speaker, unless the context provides another candidate (41b). If the object (stimulus, patient) is absent, the sentence sounds odd if the referent of the missing element is not specified by the context (41a).

It seems that the objective reading of control adjectives is not merely the result of deleting an argument. In this case we are dealing with a lexical process deriving a one-place adjective from a two-place adjective. The semantic complexity of the adjective permits the application of the reducing lexical process in a productive way. The operation can be defined for the entire class of control adjectives and need not be specified for each lexical item as a lexical peculiarity.

5.2. 'Intransitive' Use

There is another similar lexical rule that applies to both control and non-control adjectives, but not to the adjectives selecting nominal complements. This rule is complementary to the rule deriving the objective reading and results in the deletion of the stimulus argument. The result is an intransitive adjective that predicates a psychological state of the experiencer without implying the existence of a specific stimulus.

- (45) a. (watashi-wa) ureshii
 I-TOP glad
 I'm glad
 b. (watashi-wa) tanoshii
 I-TOP pleased
 I'm having fun
 c. *(watashi-wa) nikui
 I-TOP hateful

Unlike *ureshii* and *tanoshii*, *nikui* cannot express a state of the experiencer without implying the existence of a stimulus. There is no special state of mind that can be defined as ‘feeling *nikui*’ that can be detached from the reaction towards some individual. (45c) can only be interpreted as elliptic.

This rule, too, could be seen as a consequence of the semantic complexity of control and non-control adjectives. As was the case with the process deriving the objective reading the process can be described as having the following three properties:

- a. reduces the number of arguments
- b. reduces the semantic complexity of the adjective, with visible effects on the conventional implicatures
- c. does not imply an arbitrary semantic shift

Point (a) is self-evident. This use of the adjective is a function of the absence of the stimulus argument. If we consider the interpretation of utterances (45a,b) it becomes clear that the implicatures argued to exist when both arguments are present cease to exist. (45a) does not imply that the speaker-experiencer is the beneficiary in any kind of event, and (45b) is natural even in the absence of any activity in which the experiencer is implied. If these implicatures are a result of a semantic function of the adjective, the lack of implicatures signifies that the respective function is no longer present.

We could speculate further on the content of this qualifying function. As argued in Chapter 1, emotions have a sensation side and an evaluation side. The experiencer estimates a stimulus as positive or negative and this evaluation is accompanied by certain feelings. The evaluation component is object oriented, in the sense that it is largely determined by the properties of the object. The sensation component is experiencer oriented. We could argue that in the intransitive reading discussed above, the evaluative component of the emotion disappears and we are left with only the sensation component. The fact that the experiencer can be only marked with the nominative case could be seen as an argument in favor of this proposal. It was argued in Chapter 1 that the evaluative reading is associated with a *-ni* marked experiencer. In the objective reading of control adjectives, on the other hand, the sensation component could be argued to lack. If we wish to specify the experiencer in the objective reading we have to resort to the postposition *-nitotte*, which has the typical

function of marking the evaluator of some property.

The analysis proposed here associates classes of adjectives with lexical rules, it purports to explain why a particular subclass of psychological adjectives undergoes a rule while some other class does not. Since we are dealing with lexical rules, it is reasonable to expect that the lexical content of certain items might block the application of a rule. The analysis predicts which classes of adjectives can be the input of a rule, but it does not state that all the members of that class will actually undergo the process. The experiencer-based intransitive use of emotion adjectives was argued to arise from deleting the stimulus argument and all other information regarding the conditions of elicitation of the event. It will be noticed that some non-control adjectives cannot be intransitivized at all. It is the case of *urayamashii* and *hazukashii*. If we look closely at the semantic content of these adjectives two things are obvious. First, the event specifying function is more important in this case than the qualifying function. That is, the role of specifying the circumstances when the emotional event is likely to occur is more important than the role of describing a particular shade of feeling. The second is the fact that the feelings associated with these adjectives are fairly neutral if we evaluate them on the pleasure/ displeasure scale, remember that both adjectives were described as neutral (0 image) in Hida and Asada (1991). In these respects these adjectives contrast with the adjectives which intransivize. For *ureshii*, *kanashii*, *tanoshii* the balance between the two functions is more even and the associated feeling is easy to evaluate.

In conclusion, we could say that if the experiencer intransitive reading expresses sensations, a psychological adjective is more likely to yield this reading if there is an easily recognizable feeling associated with the respective emotion and less likely to do so if the evaluative component is more important to the definition of that emotion than the affective part. This could be the reason why we have the intended use with *ureshii*, *tanoshii*, *kowai*, but not with *urayamashii* and *hazukashii*. Adjectives that allow only nominal stimulus arguments will also fail to yield this reading because they lack the complex semantic structure that permits application of the lexical rule.

5.3. Aspectual Properties

We have distinguished two intransitive uses of control adjectives: the 'mood' reading, discussed in the previous section, involving the experiencer argument alone and the

objective reading resulting from the elimination of the experiencer argument. The two readings differ not only in terms of argument structure but also with respect to aspectual properties. On the mood reading, the adjective does not express a property, but a temporary state of the argument. The objective reading and the mood reading differ aspectually. Used in the objective reading sense emotion adjectives are, aspectually, typical state predicates, like most adjectives. Their function is to attribute a property to an individual, and this attribution is assumed to hold over a longer period. The limiting points of the interval, the beginning and the end, do not form a part of the picture. The state is not mapped on a temporal axis but is treated as somehow time independent. This is why an objective reading is more difficult to obtain when the adjective is in the past form.

The mood reading, on the other hand, is temporally anchored: states of joy, sadness, etc., happen at specific moments in time. On this reading control adjectives could not be described as prototypical states. On the syntactic level, adjectives used in this sense differ from prototypical adjectives in that they cannot be used as adnominal modifiers (**ureshii hito*).

This aspectual peculiarity is not limited to the mood reading of control adjectives, it is found with both control and non-control adjectives in their basic, two argument, sense and in the mood sense. Nominal stimulus adjectives are aspectually similar to the property reading of control adjectives: they are typical states associated to indefinite, but presumably long, intervals of time and cannot be said to occur at specific moments in time, see Chapter 4 for more details. Even when the adjective is in the past form, the function of the past tense morpheme is rather to indicate that the attribution is no longer valid rather than associate the state with a time moment.

- (46) a. himitsu keisatsu-ga nikukatta.
 secret police-NOM hateful-PAST
 I hated the secret police
 Ee, ima demo nikui ja-nai-ka?
 INTERJ now PRT hateful COP-NEG-QUEST
 You don't hate them anymore?
- b. ano hon-ga tanoshikatta
 that book-NOM pleased-PAST

I enjoyed that book
 Ee, ima demo tanoshii ja-nai-ka?
 INTERJ now PRT pleased COP-NEG-QUEST
 Don't you still enjoy it?

c. ano tegami-ga ureshikatta
 that letter-NOM glad-PAST
 That letter pleased me
 Ee, ima demo ureshii ja-nai-ka?
 INTERJ now PRT glad COP-NEG-QUEST
 Doesn't it please you anymore?

The use of the past tense in (46a) functions somehow like a negative. It serves mostly to indicate that the attribution of the state to the individual does no longer apply. In the case of event adjectives the past tense has the role of associating the occurrence of the state with a past moment on the temporal axis¹⁸⁾.

6. Discussion

We have argued in this chapter for a classification of Japanese psychological adjective in terms of their subcategorization features. We have distinguished three subcategorization classes and argued that the subcategorization features reflect the properties of the stimulus eliciting the emotion expressed by the adjective.

- a. nominal stimulus adjectives: reactions to individuals
- b. control adjectives: reactions to incomplete events
- c. non-control adjectives: reactions to events

Classifying emotion adjectives in these terms has allowed us to capture certain regularities within the class, which have been so far regarded as idiosyncrasies of particular lexical items. We have argued that the objective reading arises only with control adjectives. The possibility of expressing moods, emotions with no apparent stimulus, was limited to adjectives referring to reactions to events. Adjectives with nominal stimulus could not undergo either of these intransitivizing processes. Adjectives with nominal stimulus also differ from the other two types of adjective with respect to aspectual properties, they are prototypical states while control and non-

control adjectives refer to occurring events. In Chapter 4 we shall argue that this aspectual distinction can be described as the difference between emotional dispositions and emotional occurrences. It will be observed that predicates referring to emotional occurrences tend to be associated with emotions elicited by events even with other classes of emotion predicates. This is true not only in Japanese but in other languages as well. On the other hand, there seems to be an association between emotional dispositions and reactions to individuals, though it is not as robust as the association between occurrences and reactions to events. Disposition predicates seem to impose few selectional restrictions on the stimulus argument. They are not limited to nominal complements. They do, however, exclude events with independent time anchoring from this position.

The following chapters will offer some arguments against the most widely accepted account of emotion predicates, the Causative Hypothesis. According to this account, the major source of syntactic variation with emotion predicates is presence or absence of causative features. It will be argued in Chapter 6 that non-control adjectives can receive a causative interpretation in certain contexts. Despite this fact, they cannot be ranged among causative predicates. The causative reading will be argued to arise as a consequence of the nature of their Stimulus argument. The presence of an event in Stimulus argument position facilitates a causative reading.

We have demonstrated in this chapter that the apparently unrelated phenomena mentioned in the introductory section are not randomly distributed, that they form a pattern. The brief discussion in this section suggests that the classification proposed is not relevant only for Japanese emotion adjectives.

Chapter 3

Semantic Structure of Emotion Predicates: The Causative Myth

1. Introduction

Chapters 1 and 2 have dealt with emotion adjectives. The repertory of emotion predicates in Japanese includes not only adjectives but also verbs. Very frequently verb and adjective pairs referring to a particular emotion are morphologically related. The following chapters will propose a semantic model for the organization of the lexical field of emotion predicates in Japanese. This implies giving an account for the semantic relation between morphologically related forms such as *tanoshii* (adj.), *tanoshimu* (verb), *tanoshimaseru* (causative verb) and explaining the semantic source for the case marking variation associated with different verb classes *kanashimu* (nom-acc), *odoroku* (nom-dat).

Studies on emotion (psychological) predicates in Western literature have demonstrated that purely syntactic solutions for differences in linking between semantic roles and syntactic positions, such as those proposed by Lakoff (1965), Perlmutter (1984), Belletti and Rizzi (1988), are not viable. As a consequence, subsequent approaches, Grimshaw (1991), Pesetsky (1995), represent attempts to elucidate the semantic dimension triggering the formal variation. Studies belonging to different theoretical frameworks seem to agree on the idea that the main source of formal variation among emotion predicates is due to the semantic distinction between stative and causative predicates.

In this chapter we will discuss in some detail some of the most influential Western studies of emotion (psychological) predicates focusing mainly on the scarcity of evidence for the “causative hypothesis”. Chapter 5 will show, on the basis of data from Romanian, how the causative analysis makes the wrong predictions regarding the aspectual properties of EO emotion verbs.

In order to illustrate how the model functions it will be necessary to refer to more than one language. We will use for illustrative purposes data from Romanian, the

author's native language. Although Romanian and Japanese are two unrelated languages they both raise problems for current accounts of emotion predicates in interesting ways. Romanian is apparently quite similar to European languages like French and English in having ES and EO verbs. Romanian EO verbs, however, seem to lack most of the peculiarities noted for EO verbs in other languages. They appear to have verbal passives and subjects which can bind an anaphor in object position. In turn, ES verbs offer unexpected surprises: these verbs have passive forms, as expected, but the forms are similar to the passives of agentive transitives rather than those of non-agentive transitives, they have active nominalizations rather than the passive nominalization form common with the transitive verbs.

Japanese lacks underived EO predicates. This raises the mapping problem in a different guise. Some predicates seem to have a causative-like interpretation: the stimulus is interpreted as a Causer of sorts, yet it fails to appear in subject position. This is the case for dative verbs like *odoroku* and *komaru*, but also for adjectives like *ureshii* or *kanashii*, see discussion in Chapter 2. The EO pattern is associated with morphologically causative forms related to some of the ES verbs, *odorokaseru*, *komaraseru*, *kanashimaseru*. The relation between causative and non-causative forms, the syntactic structure of the former, the argument structure of ES verbs and the significance of case patterns, are all questions that create difficulties for standard approaches to emotion predicates. What Japanese and Romanian have in common is the syntactic variation in this lexical field ¹⁾. We find that each language has no less than four possible constructions associated with emotion predicates.

Japanese

1. Nominative-Accusative: (a) *ai suru*, *osoreru*, (b) *kanashimu*, *kowagaru*
2. Nominative-Dative: *odoroku*, *komaru*
3. Dative (Nominative)-Nominative(Adj1): *ureshii*, *kanashii*
4. Nominative-Nominative (Adj2): *suki*, *kirai*

Romanian

1. Nominative-Accusative (Experiencer Subject): *admira* (admire), *iubi* (love),
2. Dative-Nominative: *place* (like), *displace* (dislike)
3. Nominative-Accusative (Experiencer Object): *amuza* (amuse),
enerva (irritate)
4. Reflexive: *(se)amuza* (be/get amused); *(se)enerva* (be/get irritated)

Since in both languages it is predicates expressing emotions that display the entire range of syntactic variation, the following discussion will concentrate on this semantic class, reference to other classes of psychological predicates, such as predicates referring to sensation, cognition or ability will be made only where necessary. The class of predicates analyzed will be henceforth referred to as ‘emotion predicates’, though the terms ‘experiencer predicates’, ‘psych predicates’ or even ‘mental predicates’ will be used, when there is no danger of confusion, in order to avoid repetition, or to preserve the terminology of some work under discussion.

Emotion predicates, frequently referred to as psych-predicates, have been the object of assiduous investigation in Western linguistic literature during the past 30 years on account of the problem they pose to a uniform account of the linking between semantic roles and syntactic positions. Most studies are concerned with pairs such as (1a, b) below.

- (1) a. Mary fears John
- b. John frightens Mary

Previous work has pointed out that in these sentences, two apparently identical semantic roles, Experiencer and Theme, are associated with syntactic functions in two opposite ways: in (1a) the Experiencer is mapped onto subject position and the Stimulus onto object position, whereas in (1b) we find the reverse mapping, the Stimulus appearing as subject and the Experiencer as object. We will henceforth refer to these structures as Experiencer Subject (ES) and Experiencer Object (EO) constructions, respectively.

It is common to regard (1a) as the unproblematic case. The assignment of syntactic functions reflects the generally accepted semantic role hierarchy:

Agent>Experiencer.... >Theme.

Example (1b) seems to go against the universal mapping rules which require that a semantically more prominent argument be mapped onto the more prominent syntactic position. In these constructions the Experiencer argument appears in object position, thus violating the uniformity of assignment rules.

One of the earliest works dealing with morphologically related psych predicates is Lakoff (1970) which proposed the Flip Rule in order to account for the reverse mapping between EO verbs and the related adjectives. The rule was soon criticized for its lack of motivation and the incapacity to explain the semantic differences between the two constructions it related, see McCawley (1976b). Subsequent accounts of EO verbs were mostly conducted in the spirit of generative semantics and they involved the postulation of an underlying abstract predicate in the semantic make up of the verbs, Chomsky (1970), Kuroda (1965), McCawley (1976a), (1976b), etc.

The mapping pattern displayed by EO verbs is not their unique. These verbs are known to behave in an irregular manner with respect to several morpho-syntactic processes. Among the most quoted properties setting EO predicates aside from standard transitive verbs are: the existence of adjectival passives (2a), passive nominalizations as in (2b) rather than ‘active nominalizations’ such as (2b’), backward binding (2c).

- (2) a. John was frightened of the bear
- b. the bear’s frightening John
- b’. *John’s frightening of the bear
- c. Pictures of each other annoyed the politicians

Generative semantic accounts had solutions for the deviant behavior of these verbs, but it was at the cost of admitting abstract semantic predicates such as CAUSE or PERCEIVE as well as various transformations such as object deletion (Chomsky 1970; Kuroda 1965), or Causal Object Formation (McCawley 1976a). As generative semantics went out of fashion, there occurred a shift in focus from a semantically oriented account to a syntactically based one. It was claimed that several properties of EO verbs could be accounted for better by assuming that the subject and the object of these verbs are not generated in their surface positions. This view is most clearly expressed in the movement analysis of Belletti and Rizzi (1988)(henceforth B&R) which argues that the surface configuration of EO predicates is derived from an unaccusative underlying structure where the Experiencer commands the Theme argument, as the Thematic Hierarchy would lead us to expect ²⁾. Movement of the Theme to subject position is motivated by Case requirements: since the verb does not assign accusative case the

Theme argument is forced to move to subject position where it can receive the nominative case. The accusative case of the experiencer argument is not structurally assigned; it is an inherent case.

Some of the most influential analyses of EO verbs in recent literature are Grimshaw (1991), Pesetsky (1995), Croft (1991) Pustejovsky (1995) and Van Valin and LaPolla (1997). All these authors attempt to derive the difference in mapping between ES and EO verbs from a semantic difference between the two classes of predicate.

Major work on emotion (psychological) predicates has been conducted with some ultimate purpose reaching beyond its direct object of investigation. Neither Grimshaw, nor Pesetsky, to mention only the most frequently quoted authors, make the study of emotion (psychological) predicates an end in itself. The aim of their investigation is to contribute an answer to general linguistic questions, such as the status of argument structure in syntax, the shape of syntactic trees, etc. Although this is, undoubtedly, the right way to conduct linguistic research, the consequences for the study of emotion predicates have not been entirely benefic. The semantic description of emotion predicates is extremely sketchy. The major semantic distinction admitted in the literature is that between causative and stative verbs, and this can hardly be called a peculiarity of the emotional domain. The distinction, initially drawn in order to explain the syntactic properties of ES-EO pairs, such as *fear-frighten*, is now extended to the analysis of predicates displaying the surface syntactic configuration in question, irrespective of their semantic interpretation and of whether a related form exists to complete the pair. As a consequence, verbs such as *preoccupy* and *please* are classified as causatives along with *frighten* and *surprise*. Verbs such as *love* or *like* are treated as prototypical ES verbs, in spite of the fact that no related EO form exists. These semantic features are regarded as primitives and there are no attempts, to my knowledge, to refine them in any way³⁾.

As linguistic science advances, with the result that more languages and more phenomena come under the scope of its investigation, it has become common practice to include a more fine-grained semantic description in order to account for the syntactic phenomena. A number of verb class alternations described by Levin (1993) are defined in fairly concrete terms. Whether the subject is a location or a container, whether the verb is of the *clear* type or of the *wipe* type, has syntactic effects. In the same spirit the difference in acceptability between (3a) and (3b) below can be explained by

distinguishing between motion verbs that include reference to manner of motion and verbs that do not:

- (3) a. Kyoto made/ni itta
b. Kyoto made/*ni aruita

Reference to subtle semantic properties of lexical items, as a source for syntactic properties, is becoming the rule in the linguistic literature. It is curious how little this strategy has been applied to the study of emotion verbs, although the syntactic variation displayed by these predicate was noticed long ago and extensively discussed. The following chapters will attempt to reinterpret some of the syntactic and semantic peculiarities of emotion predicates in the light of notions particular to the psychological domain.

Previous approaches are attempts to find a source for the formal variation observed with emotion predicates within a single dimension, that is, to find a unique criterion applying to all the predicates, and accounting for the entire range of case marking variation. We shall argue that a unidimensional approach cannot do justice to the complexity of this domain and shall propose a more complex model which makes use of notions such as disposition-occurrence, stimulus-effect, internal state-external manifestation. The details of this model will be presented in the following chapters.

Before presenting the details of our proposal we shall review, in the rest of this chapter, some of the most important works on emotion predicates and discuss some of their weaknesses. The literature on this subject is so impressive that it would be practically impossible to cover the bibliography exhaustively. We shall consequently concentrate on the studies which present a semantic model along with the syntactic analysis. This includes Grimshaw (1991), Pesetsky (1995), Pustejovsky (1995) and Croft (1991), Van Valin and LaPolla (1997) and excludes Belletti and Rizzi (1988) and Perlmutter (1984). All the above mentioned authors adopt one form or the other of the “causative hypothesis”. As expected, the details of the analysis differ substantially among authors.

Although these works do not refer to Japanese or Romanian otherwise than in marginal notes, the accounts they propose are not restricted to the data of a specific language but attempt to offer a universally valid semantic and syntactic model. We shall

call attention to some general problems faced by these analyses and to some specific difficulties particular to the languages discussed in this paper. The main purpose of this chapter is to raise a doubt regarding the validity of the causative hypothesis.

2. Grimshaw (1991)

Grimshaw criticizes the syntactic account of psych predicates proposed by B&R noticing that their solution is based on a lexical stipulation, namely, that the experiencer argument of EO verbs bears inherent accusative case. This cannot account for the semantic differences between EO and ES verbs ⁴⁾. Grimshaw herself gives arguments for the semantic prominence of the experiencer argument in EO verb constructions based on their behavior with respect to compounding. She notes the following difference:

- (4) a. Man fears God
- a'. a God-fearing man
- b. God frightens the man
- b'. * a man-frightening God

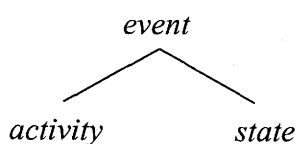
While ES verbs yield compounds in which the object is incorporated into the compound, EO verbs do not. She argues that the thematically less prominent argument is incorporated in compounds and that the experiencer of EO verbs does not answer this requirement. She adopts the unaccusative solution in B&R, but argues that the reason for the mapping pattern is found among the semantic properties of EO verbs. The source of the different mapping is associated with the aspectual tier. While ES verbs are stative, EO verbs have a causal interpretation and are aspectually non-stative (accomplishments). The theme argument is associated with the first element in the causal dimension and is assigned subject role because subject choice is determined by the prominence relations on the aspectual tier. The verbs are nonetheless unaccusative because the prominence relations on the thematic tier and those on the aspectual tier do not coincide. The lack of verbal passives and event nominalizations is due to their unaccusativity. The binding properties reflect the prominence relations of the thematic tier.

Grimshaw's analysis is quite revealing for the manner in which the "causative hypothesis" has been put forth and defended. In spite of the fact that she explicitly

designates aspect as the source for the unique syntactic properties of EO verbs, and discusses the connection between aspectual properties, event structure and argument structure, she does not provide a single aspectual test.

“My proposal is that the dimension is aspectual in character, since it is a projection of the event structure of predicates. I assume that each verb has associated with it an event structure, which when combined with elements in the clause, provides an event structure for an entire sentence. The event structure represents the aspectual analysis of the clause, and determines such things as which adjuncts are admissible, what the scope of elements like almost will be and so forth (Vendler (1967), Dowty (1979), Bach (1986), Pustejovsky (1988), Tenny (1988, 1989a, 1989c).

The event structure breaks down events into aspectual subparts. For example, a Vendler-Dowty “accomplishment” denotes a complex event (which consists of an activity) and a resulting state (see in particular Pustejovsky (1988) for a discussion).



Now a cause argument has a standard representation in such an analysis: it will always be associated with the first sub-event, which is causally related to the second sub-event.”

(Grimshaw 1991:26)

VanVoorst (1992) challenges Grimshaw’s aspectual description of EO verbs. Grimshaw assumes that these verbs are accomplishments, and VanVoorst demonstrates that EO verbs do not behave like accomplishments with respect to aspectual tests ⁵⁾. Unfortunately, VanVoorst does not discuss the significance of the aspectual properties of EO verbs for the semantic analysis of these predicates.

The unaccusative analysis of EO verbs has not remained unchallenged either. Pesetsky (1995) shows that many of these verbs do have verbal passives and that most of the arguments in Grimshaw and in B&R can be explained in semantic terms, without

the need to pose an unaccusative structure.

To conclude, we may say that although Grimshaw amply demonstrates the existence of semantic and syntactic differences between EO verbs like *frighten* and ES verbs like *fear*, the evidence she provides in favor of the proposed analysis (i.e. that EO verbs are unaccusative causatives and ES verbs are accusative statives) is not convincing.

3. Pesetsky (1995)

One of the most extensive studies of emotion (psychological) predicates is Pesetsky (1995). His most important claims are that:

- i. the difference in mapping between ES and EO verbs is due to a difference in th-role.
- ii. EO verbs are morphologically complex:

These claims are set into the causative framework. While the non-experiencer argument of ES verbs is a Target or Subject Matter, the non-experiencer argument of EO verbs is a Causer. The mapping reflects the thematic hierarchy below

Causer > Experiencer > Target

The Causer argument is not assigned by the verbal root itself, but by a causative morpheme attached to it. These verbs are morphologically complex, they result from the affixation of a zero causative morpheme to an ES bound root. Many of the peculiarities of EO verbs, such as the availability of adjectival passives or the passive-like derived nominals, are the consequence of this structure, rather than evidence for their unaccusativity.

These claims are supported with data illustrating the semantic distinction between the Theme argument of ES and EO verbs, evidence for the existence of other zero morphemes behaving much like the hypothetical CAUS morpheme, arguments justifying the postulation of a bound root to which the morpheme CAUS attaches, etc. The division of the thematic role Theme into two distinct roles, Causer and Target raises a problem inexistent in previous approaches. Pesetsky notes that the two roles do not

seem to co-occur, although this should be possible if they were indeed two distinct th-roles.

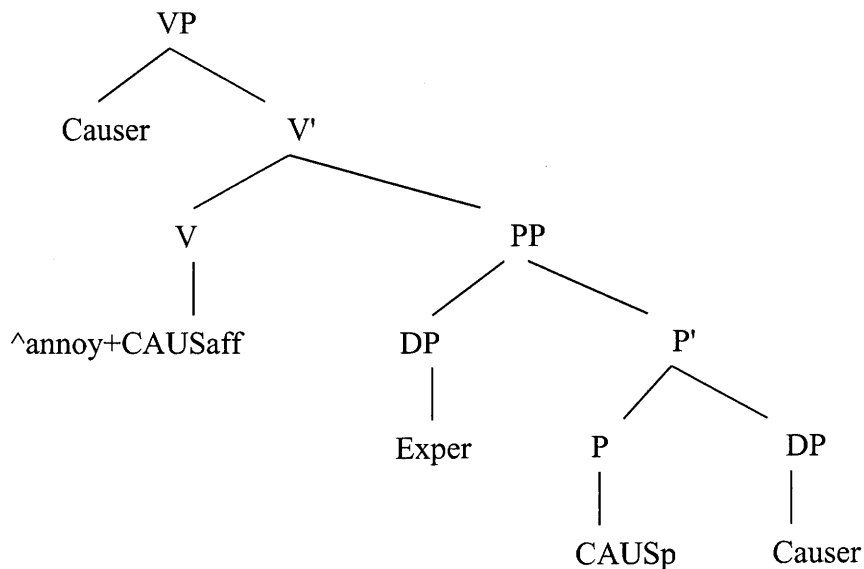
- (5)
- a. The article in the Times angered Bill<Cause, Experiencer>
 - b. Bill was angry at the government<Experiencer, Target>
 - c. *The article angered Bill at the government<Cause, Experiencer, Target>

The largest part of the monograph is devoted to the quest for a solution to this problem, the T/SM restriction, as Pesetsky calls it. The quest leads Pesetsky to adopt an original type of syntactic structure he calls cascade structures. The Causer argument is generated to the right of the subcategorized arguments and, due to its affixal status is forced to move to subject position to check its features. The presence of a prepositional argument marked with the feature [-affix] blocks this movement engendering ungrammaticality. This is the source for the unacceptability of (5).

Leaving aside the details of his very complex argumentation, we can sum up Pesetsky's final proposal for the structure of EO verbs as follows.

- a. These verbs are formed by affixation of a zero-causative morpheme CAUS(a) to the bound root. The affixation takes place in the lexicon and it triggers suppression of the external argument of the base verb (the A-Causer).
- b. A non th-selected prepositional argument headed by a preposition CAUS(p) appears to the right of th-selected arguments, see Fig 1
- c. CAUS bears certain features which must be discharged. CAUS(a) and CAUS(p) discharge each other's features. Feature checking is blocked by the presence of a non-affixal element between the two instances of CAUS. This is the source of the T/SM restriction
- d. The affix CAUS selects the Causer as its external argument and the preposition CAUS selects the same Causer as its internal argument. The Causer moves from object position of the preposition to subject position of the Verb+ CAUS complex. Movement of the Causer from the lower position to subject position explains the binding properties of EO verbs. The fact that the Causer is th-selected by the causal affix explains why the subject of EO verbs does not behave like an athematic subject, i.e. EO verbs can passivize.

Fig1



Appraising this syntactic model is beyond the scope of this paper. Instead we shall discuss some lesser, more concrete aspects of Pesetsky's proposal.

3.1. Aspect

Although Pesetsky does not discuss the effect of the hypothetical zero morpheme on the aspectual properties of the predicate, there is nothing in his analysis that would lead us to expect the actual behavior of EO verbs with respect to aspectual tests. If the null morpheme is distinguished from other causative affixes only in that it lacks phonological representation, the EO verbs should have the aspectual properties of other morphological causatives, i.e. they should be accomplishments. As mentioned in the previous section, this is not the case. It is difficult to see how Pesetsky's framework could accommodate this fact.

3.2. The TS/M Restriction

Another problem with this analysis is Pesetsky's solution for the T/SM restriction. As we have already seen, Pesetsky offers a syntactic explanation for the restriction: the presence of a preposition blocks feature checking of the CAUS morpheme and results in ungrammaticality. As such, the restriction should be absolute. There are, however, cases where the restriction does not seem to function.

- (6) a. The rain discouraged us from our tasks
b. Sue's remarks aroused us to action
c. These results inclined us towards a more difficult course

Pesetsky's account for these cases is not very satisfactory. He argues that these sentences should be analyzed in a manner similar to the analysis for inchoatives and verbs of accompanied movement such as (7) below.

- (7) a. John broke the cookie into little pieces
b. Sue grew the seeds into beautiful plants
c. John walked the dog to his grandmother's house and back
d. Sue galloped the horse through the woods.

If the Goal argument in these examples were a *th*-selected argument, it should block the feature checking for the affix CAUSE, which it does not. These verbs, unlike experiencer verbs, are genuine unaccusatives and CAUS affixation does not suppress an external argument. CAUS in this case does not bear strong features, which require checking, and the presence of an intervening prepositional argument is unproblematic. The exceptions to the T/SM restriction with EO verbs are treated in a parallel manner. Pesetsky argues that these verbs might not require an A-Causer. The attachment of the affix CAUS would not, in this case, require feature checking and the prepositional argument is free to surface. Pesetsky himself admits that the explanation in terms of lexical peculiarities of the bound roots (absence of the A-Causer argument) is ad hoc, but adds "*Nonetheless, it is striking that these counterexamples, like the phenomenon itself, seem to cluster around semantic classes of verbs. This in itself suggests an explanation that is rooted in lexical semantics...*" p217.

The ad hoc nature of his solution to the counterexamples raises doubts concerning Pesetsky's entire discussion of the T/SM restriction. If we assume that his premise, the distinction between ES and EO verbs in terms of *th*-role is not correct, the T/SM restriction problem vanishes. Sentences like (5) are unacceptable because they violate the *th*-Criterion. The task facing us would be, in this case, only to explain the acceptability of (6).

The beginning of an explanation comes from the following semantic property of the EO verbs that admit prepositional objects. These verbs describe situations where a stimulus produces an emotional reaction of the experiencer towards some object. If we look more closely, we notice that the stimulus and the object of the preposition belong to different situations, the object is not a participant in the stimulus situation. This becomes apparent if we replace the nominal arguments with clausal arguments.

- (8) a. Pierderea intregii averi l-a dezgustat/scirbit
 loss whole-GEN fortune CL-aux disgust/nauseate
 pe Marin de jocuri de noroc
 P-ACC Marin P gambling
 The loss of his entire fortune disgusted Marin with gambling
- a'. Faptul ca si-a pierdut averea l-a
 fact COMP CL-DAT-aux loose fortune CL-aux
 dezgustat/scirbit pe Marin de a mai juca jocuri de noroc
 disgust/nauseate P-ACC Marin P COMP adv gamble
 The fact that he lost his entire fortune disgusted Marin from gambling
- b. Insuccesul l-a ambitonat/instigat pe Ion la lupta
 failure CL-aux incense/instigate P-ACC Ion P fight
 The failure incensed Ion to fight
- b'. Faptul ca nu a avut succes l-a
 fact COMP NEG COMP have success CL-aux
 ambitonat/instigat pe Marin sa lupte
 incense/instigate P-ACC Marin COMP fight
 The fact that he did not succeed incensed Marin to fight

While the clause in subject position describes a past event, the object clause refers to a future, or hypothetical event. These verbs take subjunctive clauses controlled by the experiencer argument in object position. The property of object control and the licensing of a prepositional argument seem to go hand in hand. We could argue that, whereas the majority of EO verbs describe a change of the emotional state of the experiencer, these verbs describe a causal relation between two events, accompanied by an emotional reaction. Sentences (8a), (8b) could be paraphrased as:

(9)

[event1(Marin lost his fortune)]CAUSEevent2 [(Marin stop gambling)& Marin feels something]

[event1(Marin had an unsuccess)] CAUSE [event2(Marin fight)& Marin feels something]

The structure seems less appropriate for the verbs in (8a) where the feeling is clearly directed towards the object denoted by the prepositional phrase. The idea that the main function of sentences such as (8a), (8a') is to express the causal reaction between an event and its consequences, is, however, supported by a comparison between the interpretation of these sentences and that of sentences where the verbs are not accompanied by a prepositional object. When the prepositional object is absent the focus is shifted from the effect of the stimulus event on the experiencer's actions to the effect on his psychological state.

- (10) a. Jocurile de noroc il dezgusta/ scirbesc pe Ion
gambling CL disgust/ nauseate P-ACC Ion
Gambling disgusts Ion
- b. ?Pierderea averii l-a dezgustat/scirbit pe Ion
loss fortune-GEN CL disgust/ nauseate P-ACC Ion
The loss of his fortune disgusts Ion
- c. Melcii il dezgusta/scirbesc pe Ion
snails CL disgust/ nauseate P-ACC Ion
Snails disgust Ion

Compared with (10) above, the emotion expressed by the verbs in (8a) and (8a'), when the prepositional object is present is very diluted. Notice, also that the selectional restrictions of the verb differ slightly. Whereas the subject of (8) must refer to an event, the subject of (10) can be a concrete noun. The verbs in (8) are, in a sense, doubly causative, they can be seen as the causative counterpart of the verbs in (10). This could account for the presence of two stimulus arguments.

Although this might not be the best explanation for the phenomenon, it is

certain that structures such as (8a) and (8b) and the peculiarity of these verbs of referring to two distinct situations are related. The examples quoted by Pesetsky as exceptions to the T/SM restriction, repeated here as (11), display the same property.

- (11) a. The rain discouraged us from our tasks
b. Sue's remarks aroused us to action
c. These results inclined us towards a more difficult course

The rainfall is a past event which preceded and prevented the occurrence of the event of doing the tasks; Sue's remarks preceded and triggered the actions; the results preceded and determined the change of course. Notice also that the English verbs quoted by Pesetsky are object control verbs

- (12) a. The rain discouraged us from going out
b. Sue's remarks aroused us into taking action
c. These results inclined us towards choosing a more difficult course

With the T/SM restriction violations accounted for, it seems more economical to reject the distinction between the two thematic roles Causer and Target. In Chapter 5 it will be argued that the Target and Subject Matter roles are not basic but compositionally derived. The thematic role assigned by the verbal predicate is the same for both the (morphologically related) ES and the EO verb. The apparent semantic difference between the two is the effect of the preposition accompanying the ES form.

3.3. Direction of Derivation

One of the basic assumptions in Pesetsky's analysis is that EO verbs are derived by attachment of a zero-morpheme to bound ES roots. He makes it very clear that the direction of derivation goes from the ES form to the EO form. In support of this assumption he quotes the fact that there are ES verbs with no causative counterpart. This argument is questionable, considering that the number of reflexive verbs with no EO counterpart is far exceeded by the number of EO verbs that do not have a related reflexive form. Pesetsky notes this fact, but dismisses it as a lexical property of those verbs, which forces them to undergo causativization.

The move is not convincing when we consider the data. In Romanian, for instance, there are only two cases of reflexives without a causative counterpart: *se teme* (fear) and *se indragosti* (fall in love), although about half of the EO verbs lack a reflexive counterpart. There used to be an EO form *teme* in the language, which was lost, very likely because both the EO and the Es forms are stative. The verb *se indragosti* is an inchoative, but it has overt causative morphology, the prefix *in-*. It does not seem very reasonable to say that, in spite of the causative morphology the verb is actually formed by attaching the clitic to a bound non-causative root and that some lexical property blocks attachment of the zero causative morpheme. On the other hand, if we assume the opposite direction of derivation, it is not difficult to find semantic reasons for the lack of reflexive forms with these verbs. Below is a list of the main EO verbs which do not have a reflexive counterpart.

ademeni (lure), *afecta* (affect), *buimaci* (befuddle), *bulversa* (smite), *captiva* (captivate), *deceptiona* (disappoint), *demoraliza* (demoralize), *deprima* (depress), *deruta* (confuse), *descumpani* (bewilder), *deznadajdui* (despair), *dezorienta* (disorient), *dispera* (despair), *exalta* (exalt), *fascina* (fascinate), *fermece* (charm), *frapa* (strike), *incita* (incite), *ispiti* (tempt), *stingheri* (discomfort), *stinjeni* (embarrass), *stirni* (excite), *stupefia* (stupefy), *tenta* (tempt), *timora* (cow), *ului* (astound)

Semantically, the reflexive forms are inchoatives, and they present the emotion as occurring spontaneously. The EO verbs which do not have reflexive counterparts seem to be those which describe emotions in which the role of the stimulus is essential. It is difficult to imagine a situation where someone gets spontaneously tempted, lured, fascinated, stunned, charmed, disappointed, embarrassed, etc.

This explanation receives support when we compare various predicates expressing surprise. The verb (*se*)*mira*, which is semantically close to the English *wonder*, has a reflexive form, while *surprinde* (surprise), *ului* (astound), *uimi* (astonish), which refer to reactions provoked by unexpected stimuli do not have related reflexives. Of course, this semantic fact about the verbs above could be regarded as the factor which forces CAUS affixation, but the consequences such a move would have for the theory of the lexicon do not seem desirable. Arguing that a large number of verbs are

forced, by virtue of their semantic content, to undergo causativization before they reach surface structure amounts to saying either that the lexicon generates defective items with the prescience of the fact that a later component will save them, or that the lexicon generates lexical items randomly and the semantically unacceptable forms get discarded unless a later component rescues them. This is a daring hypothesis about the lexicon which I prefer not to embrace, abiding instead by a more traditional view. If the causative form of EO verbs is basic and the reflexive form derived, the arguments in favor of the zero-morpheme seem less compelling. The causative interpretation of these verbs, to the extent to which it really exists, could be a semantic feature, unconnected to the morphology of the verbs.

3.4. The Semantic Interpretation of Nominalizations

The main argument offered by Pesetsky in favor of zero-affixation comes from nominalizations. He observes that EO verbs do not have related nominal forms with causative interpretation ⁶. The existing nominalizations of the verbs are stative. This was seen as indirect proof for the presence of a zero morpheme. The phonologically null morpheme CAUS would block affixation of the nominalizing morphology. The fact that there are nominalizations related to these verbs was seen as evidence for the existence of the bound root to which the morpheme CAUS attaches.

- (13) a. We annoyed Mary
 b. Mary's annoyance with us

The nominal *annoyance* does not refer to something causing annoyance, but to the state of being annoyed. If we assumed that the structure for the verb in (13a) and the nominal in (13b) above is the one below, this fact receives an explanation. The unacceptability of a nominal with causative interpretation is due to the properties of the morpheme CAUS, which disallows further affixation, as represented in (14c).

- (14) a. [[*annoy]0-CAUS]
 b. [[*annoy]-nominalizer]
 c. *[[[*annoy]0-CAUS]-nominalizer]

The semantic properties of the nominals offer a key to the semantic properties of the

bound root, i.e. since the nominal expresses a state we are allowed to infer that the root is equally stative.

For Pesetsky the lack of process nominals based on the causative form is a consequence of the presence of CAUS. The bound root he postulates, is an ES verb and has an external argument. as such, it should undergo process nominalization. Pesetsky argues that, indeed it does, as demonstrated by the co-occurring modifiers, see example (15) and the resistance to pluralization illustrated by examples (16) and (17).

- (15) a. Bill's continual agitation about the exam was silly
- b. Mary's constant annoyance about/with/at us got on our nerves
- (16) a. Agitation about exams is silly
- b. Annoyance at one's teacher should be suppressed
- (17) a. *The agitations about exams are silly
- b. *Annoyances at one's teacher should be suppressed

There are two problems with Pesetsky's account. The first concerns the stative interpretation of such nominalizations in languages that have reflexive forms. The second regards the interpretation of these nominalizations in certain contexts.

Pesetsky's discussion of nominalization concentrates on English data, although his final proposal for the structure of EO verbs relies heavily on data from French and Russian, languages which have causative-reflexive pairs of EO verbs. Pesetsky argues that in such languages the availability of a reflexive clitic allows the bound experiencer root to surface in its verbal form. This is impossible in English, which lacks reflexive clitics ⁷⁾.

The bound root may surface without the reflexive clitic if it undergoes a morphological process which results in suppression of the external argument. This happens in nominalized forms and in adjectival passive forms.

The reflexive forms related to EO verbs, in languages that have reflexive clitics, are generally described as inchoative rather than stative. Pesetsky does not deal with this problem explicitly, but notes that reflexives are not causative and describes the nominalized forms as equally non-causative. This description invites the conclusion that the reflexive form and the nominalization are to receive the same interpretation. In fact, he explicitly argues for such a parallelism in the case of the English bound roots and of

the nominal forms. In English the nominals are stative and the bound roots are assumed to share this aspectual property. Reflexiva tantum, however, are not stative, but inchoative.

- (18) a. l'etonnement de Marie
DEF-amazement P-GEN Marie
Marie's amazement
b. supararea Mariei
anger Maria-GEN
Maria's anger

The nominal forms in (18) above, on the other hand, refer to states, just as they do in English. Nominalization, as we know, may suppress an external argument, but is not supposed to change the aspectual class of the base predicate. Nominalizations of causative verbs that have homophonous inchoatives such as *grow*, *drop*, *shrink*, *diminish*, etc., quoted by Pesetsky (1995:79) are inchoative and not stative. Pesetsky does not explain why the inchoative interpretation is suppressed in the case of emotion verbs. If reflexive forms and nominalizations do not share the semantic content, it becomes more difficult to justify the postulation of a bound verbal root because there is no clear clue as to its semantic properties.

To account for these facts it seems more natural to assume that both reflexive and nominal forms are based on the transitive form. The inchoative reading of the reflexive form can be associated with the presence of the reflexive clitic. The fact that the nominalizations are stative is a consequence of the stative properties of the EO root itself.

Nominalizations of emotion verbs are not always interpreted as stative, however. This leads us to the second problem in Pesetsky's account.

It is interesting to observe the interpretation of the nominalization with different types of stimulus arguments. As illustrated by example (19), the nominalized form allows a clausal stimulus argument. Comparing the interpretation of the nominal in (19b) with that of the same nominal in (20b), where it takes a nominal argument, a certain difference of meaning can be detected ⁸⁾.

- (19) a. Faptul ca l-ai criticat l-a suparat pe Marin
 fact COMP CL-aux criticize CL-aux anger P-ACC Marin
 The fact that you criticized him upset Marin
- b. supararea lui Marin ca l-ai criticat
 anger GEN-Marin COMP him aux criticize
- (20) a. Marin s-a suparat pe Ion
 M-NOM cl-refl anger P Ion
 Marin got angry with Ion
- b. supararea lui Marin pe Ion
 anger GEN-Marin P-Ion
 Marin's anger with Ion

While (20b) is stative although (20a) is inchoative, (19b) invites a causative or inchoative interpretation. This fact cannot be explained if we adopt Pesetsky's proposal. There is nothing in his theory to allow for such a semantic variation determined by the categorial status of the argument.

It will be argued in the following chapters that EO verbs are not causative predicates. The causative interpretation arises compositionally, from the interpretation of the stimulus argument as referring to a situation and the fact that the predicates denote a particular subclass of states, states with a marked onset. The onset represents the initial point of the state. In the presence of an argument referring to a situation the construction is identified with a causative situation, the situation expressed by the subject of the EO verb is identified with the causing event, the onset of the state predicate is interpreted as the moment of the change from $-p$ to p , and the state denoted by the predicate is interpreted as the caused event. When the stimulus argument is expressed through a nominal, the urge to give a causative interpretation to the structure is lesser, since there is no overt mention of the causing event. This proposal accounts for the difference between (19b) and (20b).

4. Pustejovsky (1995)

Another influential analysis of EO verbs that attributes them a causative structure is Pustejovsky (1995). Pustejovsky argues that EO verbs express *experienced causation* and analyses experienced causation in terms of his Default Causative Paradigm (DCP).

According to the DCP, a causative event contains two subevents, a process and the state which results as an effect of the process.

“The underlying semantics of psychological predicates is a causative structure where the surface subject is the logical object of an experiencing event. On this view, the lexical representation for the verb 'anger' has something like the following form, where $Exp(x,y)$ is a sortally restricted relation of experiencing (e.g., hearing, seeing, watching, etc.), and $<$ is a strict partial order of temporal precedence:

$$(63) \quad \Box \forall x \forall y \forall e [\text{anger}(e,y,x)] \rightarrow \\ \exists e_1 \exists e_2 \exists \text{Exp} [\text{Exp}(e_1,x,y) \wedge \neg \text{angry}(e_1,x) \wedge \text{angry}(e_2,x) \wedge \neg e_2 < e_1]$$

This states that a verb such as 'anger' involves someone who directly experiences something, and as a result becomes angry.” p 210.

The experiencer argument of the verb controls the subject of the (overt or reconstructed) experiencing predicate in subject position. The experiencing event provides the process component of the causative event, and the changed state of the experiencer provides the state component. The complete analysis for a predicate such as *anger* is given below.

$$(21) \quad \left(\begin{array}{l} \mathbf{anger} \\ \text{EVENTSTR} = \left[\begin{array}{l} E_1 = \mathbf{e}_1 : \mathbf{process} \\ E_2 = \mathbf{e}_2 : \mathbf{state} \\ \text{RESTR} = <_{\circ} \alpha \\ \text{HEAD} = \mathbf{e}_1 \end{array} \right] \\ \text{ARGSTR} = \left[\begin{array}{l} \text{ARG1} = \{1\} [\{2\}, <\mathbf{e}_1, t>] \\ \text{ARG2} = \{2\} \left[\begin{array}{l} \mathbf{animate_ind} \\ \text{FORMAL} = \mathbf{physobj} \end{array} \right] \end{array} \right] \\ \text{QUALIA} = \left[\begin{array}{l} \mathbf{experiencer_lcp} \\ \text{FORMAL} = \mathbf{angry}(\mathbf{e}_2, \{2\}) \\ \text{AGENTIVE} = \mathbf{exp_act}(\mathbf{e}_1, \{2\}) \end{array} \right] \end{array} \right)$$

The main argument adduced by Pustejovsky in favor of the proposed analysis is the phenomenon he calls coercion. Like Pesetsky, he notices that the nominal in subject position of an EO verb does not refer to an individual. Pustejovsky is more specific than Pesetsky with respect to the proposed semantic description and claims that the interpretation of a nominal in this position is “involving metonymic reconstruction of the subject to an event, and in particular, to an experiencing event between the surface object and the surface subject”. He argues that sentence (22a) below is interpreted as implying (22b).

- (22) a. Books bore me
b. My reading books bores me

Nominals referring to artifacts such as *book* or *movie* contain in their lexical description information regarding the purpose of the object to which they refer. This is what Pustejovsky calls the telic quale of the nominal. When the nominal occurs in a coercive context such as (22a) above, interpretation proceeds on the basis of information provided by the nominal qualia structure. The telic quale of a noun such as *book* is specified in the lexicon as *read*. “For words such as *film* or *book*, the TELIC quale role value of *watch* and *read* respectively are not optional in any sense, but are part of the semantics of the words. When a NP enters into a coercive environment, such as here with experiencer verbs, the qualia values act only to determine the default assignment for how the type environment is reconstructed. Thus, it seems that linguistic evidence supports an underlying semantic type of an event as the subject, which would directly explain what the connection between the subject and object of the experiencing relation is” 209.

4.1. Aspect

Although the model is quite attractive, there are several reasons to believe it is not correct. Pustejovsky’s analysis of experienced causation as a subtype of the DCP, in terms of a process subevent followed by a change of state, predicts that EO verbs should be accomplishments, as claimed by Grimshaw. However, EO verbs behave quite differently from accomplishment verbs. Accomplishment verbs have an event structure

conforming to the DCP: they consist of a process resulting in a change of state. The event structure of the verb includes the process sub-event and the change it culminates with. Aspectual tests reveal this event structure. To refer to the resultant state we need a different form of the predicate, usually the participle.

- (23)
- a. John broke the window in 2 minutes
 - b. John broke the window at 3 o'clock
 - c. John almost broke the window
 - d. John is breaking the window
 - e. The window is broken

In (23a) the adverbial phrase *in x minutes* measures the duration of the process sub-event. The adverbial phrase in (23b) pinpoints the moment when the change of state occurred. Example (23c) is ambiguous between a reading where the adverb *almost* marks the beginning of the process sub-event and a reading where it marks the end of the same sub-event. Example (23d) presents the process sub-event as unfolding, and the use of this form implies that the change of state has not yet occurred. Example (23e) refers to the resulting state, the caused event. The transitive verb cannot be used to refer to this event.

Emotion verbs display quite a different behavior with respect to aspectual tests such as those above.

- (24)
- a. ? The situation frightened John in 2 minutes
 - b. The situation frightened John this morning
 - c. The situation almost frightened John
 - d. The situation frightens/ is frightening John
 - e. John is frightened

The use of adverbial modifiers delimiting the duration of the causing event, such as (24a), results in semantic oddity. The moment of change appears to be included in the semantic information of the predicate, although, for semantic reasons having to do with the nature of emotional changes, it cannot be fixed with the same precision as in the case of physical change, see example (23b). Example (24c) is not ambiguous, indicating

that the event structure of the verb does not provide a process sub-event with a beginning and an end. What exactly is the interpretation of (24c) is not clear. VanVoorst (1988) argues that in this case the construction with *almost* can be paraphrased as ‘begin to V’. As indicated by example (24d), the simple present and the progressive are (sometimes) interchangeable. Moreover, unlike progressive constructions with accomplishment verbs, the progressive in (24d), like the simple present form, indicate that the change of state has occurred. This implies that the transitive form of the verb refers to the resulting state, just like the adjectival form in (24e).

Such results are unexpected if the event structure of EO verbs is the one posited by Pustejovsky. Pustejovsky is very explicit in his claim that the process sub-event is the head of the event structure, unlike unaccusative verbs where the state sub-event heads the argument structure (cf. Pustejovsky 1995:160 and 211). Note that for Pustejovsky event structure is “necessary for event descriptions in order to capture some of the phenomena associated with aspect and Aktionsarten” (cf. Pustejovsky 1995: 68) and is defined for verbs rather than clauses. The notion of event headedness is meant to capture the relative prominence of subevents. It is very curious then, that a prominent subevent should fail to leave its mark on the aspectual features of the verb ⁹⁾.

Chapter 5 will discuss in detail the aspectual properties of EO verbs in Romanian and propose a model that takes into account the event structure of these verbs (and of the related reflexive forms), as revealed by aspectual tests.

4.2. Argument Interpretation

Another problem with Pustejovsky’s analysis is the fact that the postulated coercion process does not always function as expected. The account runs into trouble if we replace the nominals in example (25) by nominals with human or abstract referents, as in (26).

- (25) a. Books bore me
b. The movie frightened me
- (26) a. Tom bore me
b. The incident frightened me

Although we can argue on the basis of (25a) and (25b) that the semantics of the nominal

in subject position contributes information permitting to retrieve the experiencing event, this is difficult in the case of (26a) and (26b). Although the nominal in (26a) is subjected to a kind of coercion, this yields a vague activity predicate and not an experiencing predicate. The nominal in (26a) is interpreted, to use Pustejovsky's terminology, on the basis of its AGENTIVE QUALE. The sentence says that something Tom did bored me. It is quite true that unless I experienced somehow the things he did, I cannot get bored, but this is rather a conversational implicature and not part of the lexical entry for the verb *bore*. It seems quite farfetched to say that such a sentence is interpreted as 'my experiencing something that Tom did bored me'. Such an interpretation would require 'double coercion', once to retrieve the experiencing event, and once to reconstruct the event featuring *Tom*. If repeated application of coercion were allowed it is difficult to see how the operation can be constrained. In (26b) also, we do not need to posit an experiencing event in order to interpret the sentence. If we contribute anything to the interpretation of the sentence it is the idea that *the incident occurred* rather than that *I experienced the incident*.

If we attempt to apply Pustejovsky's model to the analysis of EO verbs in Romanian we discover further problems. Beside the interpretation of nominals referring to humans or events it appears that even with nominals referring to artifacts, such as book or movie, the reconstruction of an event on the basis of the qualia information fails to occur with all the EO verbs in the predicted manner. As mentioned before, Pustejovsky treats coercion of this type as linguistic evidence in favor of his analysis of EO verbs.

The subject nominal *carte* (book) in the following examples is not coerced to an experiencing event interpretation ¹⁰⁾. With verbs expressing surprise-like emotions there is a metonymic reconstruction to an event but it is quite vague. It can be *the content of the book, some unexpected property of the book, the fact that the book was issued*, etc. In (27b) the interpretation proceeds in terms of an event where the experiencer is the goal and the book is the theme, i.e. *receiving the book made Ion happy*.

- (27) a. Cartea l-a alarmat/ mirat/ surprins pe Ion
 book CL-aux alarm/ puzzle/ surprise P-ACC Ion
 The book alarmed/ puzzled/ surprised Ion

b. Cartea l-a bucurat pe Ion
 book CL-aux cheer P-ACC Ion
 The book cheered Ion up

We mentioned above examples where the nominal in subject position is [+human] or [+event]. The experiencing-as-cause theory runs into trouble in contexts where the stimulus argument is expressed by a clause embedded under the nominal *fapt*(fact), too.

(28) a. Faptul ca nu ai venit l-a enervat pe Ion
 fact COMP NEG aux- come CL-aux irritate P-ACC Ion
 The fact that you did not come irritated Ion
 b. Faptul ca pamintul este rotund il amuza pe Ion
 fact COMP earth is round CL amuse P-ACC Ion
 The fact that the Earth is round amuses Ion

It is difficult to see how Pustejovsky's analysis can be applied to examples such as (28a,b) above. These sentences do not imply any experiencing relation between the fact denoted by the clausal argument and the experiencer. Besides, we would need a mechanism for retrieving a predicate denoting some direct experience on the basis of the abstract nominal *fapt* and this is not an easy task ¹¹⁾. This suggests that analyzing EO verbs as including a hidden experiencing event in their semantic structure is not the right solution.

5. Croft (1991)

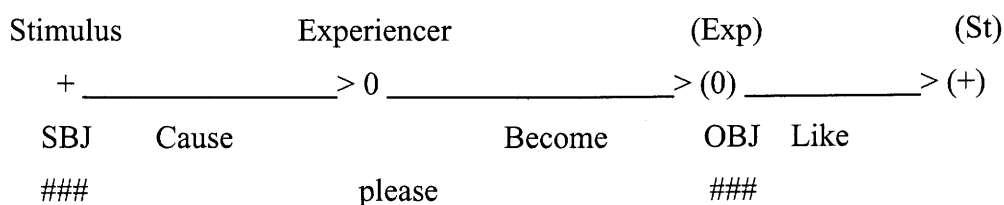
Croft argues that “*verbs reflect segments of causal structure, not any other kind of structure*”. The assignment of grammatical functions to arguments reflects the directionality of the causal chain: subject and object are assigned to initiator and endpoint elements respectively. Other arguments are case marked in a way that reflects the position in the causal chain. Causal relations are of four types: physical, volitional, affective and indicative, depending on the nature of the initiator and endpoint, physical or mental. The unmarked causation type is volitional causation which involves a mental initiator and a physical endpoint. This matches perfectly the demands of the Animacy Hierarchy, which requires that the element higher on the animacy scale be assigned to

subject position. Affective causation is the most marked type of causation because it involves a physical initiator and a mental endpoint. This accounts for the fact that verbs expressing volitional causation behave in a uniform way while mental verbs show a high degree of variation both cross-linguistically and language internally.

Croft distinguishes four classes of mental verbs: (1) causative verbs, (2) stative verbs, (3) mental activity verbs and (4) inchoative verbs. Classes (1), (3) and (4) are fairly stable with respect to the assignment of grammatical functions to the participants: verbs in (1) are experiencer object, those in (3) and (4) are experiencer subject. Class (2) predicates show the highest degree of variation, a fact explained as a consequence of their semantic content. These predicates express mental states, which have no inherent causality. This allows for freedom in assignment of grammatical relations, stative mental verbs can be experiencer subject, experiencer object, or they can be neutral, marking both arguments with the same case marker or choosing a neutral marker.

As mentioned before, Croft considers the non-prototypicality of affective causation the main source of syntactic variation within the class of mental verbs. Affective causation presupposes a physical initiator and a mental endpoint. The structure of causative mental verbs can be represented as in Fig 2 below. The figure offers the representation for the verb *please*:

Fig 2

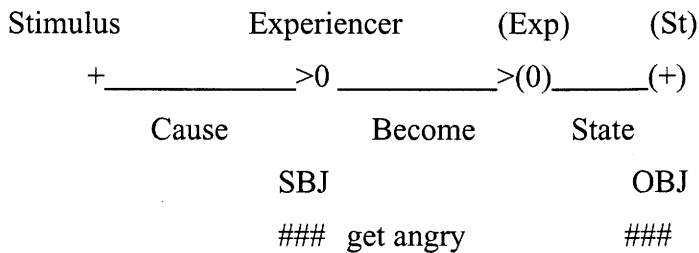


The initiator of the affective causal event is the Stimulus and it is selected as subject, while the Experiencer, the endpoint, is assigned object role. It should be noticed that a verbal segment is composed of several subevents, called arcs, in which the participants may appear in different roles. The first arc of the segment above involves transmission of force and this determines the mapping of Stimulus and Experiencer onto subject and object position, respectively. The presence of the first arc is revealed by the possibility of means clauses as in (29), see Croft (1991: Sections 4.4.4 and 5.5.1 for details.)

(29) John pleased his boss by coming early

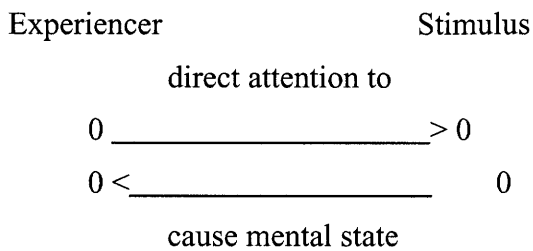
Another class of mental verbs distinguished by Croft is inchoatives, with the representation in Fig 3. The inchoative verbs include in their semantic structure the Become and State arcs of the affective causal schema. Since the *Become* arc has the Experiencer as initiator and the Stimulus as endpoint these verbs are ES verbs.

Fig3



Some mental verbs are stative. In the case of mental states there is no inherent directionality. This is due to the special nature of the relation experiencer Stimulus, which involves two processes: on the one hand, the Experiencer must direct his attention to the Stimulus, on the other hand the Stimulus causes the Experiencer's mental state.

Fig 4



In encoding a mental state a language is free to chose one perspective or the other, or even both. This engenders the mapping variation found with mental verbs, both across languages and within a single language. Croft discusses the following possibilities.

ES verbs: the Experiencer is chosen as initiator, the Stimulus may be expressed as an accusative or as an oblique

EO verbs: the Stimulus is initiator. This class includes dative-subject verbs

No directionality: the two arguments are identically case marked, as in Japanese double nominative constructions or one of the arguments receives a neutral marking

Croft includes in his taxonomy of mental verbs the class of mental processes, such as *think (about)*, *wonder (about)*, *consider*, but these are outside the scope of the present work.

It should be noticed that Croft's analysis makes the same predictions about the aspectual properties of EO verbs as the other works discussed. Since an EO verb contains a *Cause* segment followed by a *Become* segment, the verb should behave like an accomplishment. As a matter of fact, Croft characterizes EO verbs as "processes" "*because the "cause" and the "become" arcs make the verbal segment a process*" (cf. Croft 1991: 217). Croft explicitly excludes the final State segment from the structure of EO verbs, although he includes it in the structure of inchoative forms. He is forced to do this in order to capture the mapping of experiencer argument onto object position. If he had included the entire verbal segment into the semantic structure of the verb the stimulus argument should have been both initiator and endpoint and we would expect a form with this argument in both subject and object position. Such a structure would be associated with a reflexive stimulus subject verb. Such forms do not seem to exist. We mentioned before that EO verbs are not accomplishments and that they include a state component in their event structure. Judging from the aspectual properties, these verbs seem to have rather the structure attributed by Croft to inchoatives. Actually the event structure of EO verbs and of their reflexive pairs differs considerably from Croft's predictions. Chapter 5 will discuss this problem in detail.

This suggests the possibility that, as far as language is concerned, affective causation does not exist. EO verbs are resultatives, a subspecies of statives which specify the initial point of the interval expressed by the verb. This aspectual class seems to be associated with emotion predicates not only when they appear in the EO pattern.

Croft's model is clearly superior to the other models discussed in what concerns the coverage of the data. Although we have pointed out above that his analysis of ES verbs in terms of affective causation is not unproblematic, he offers a complete

model, able to accommodate a large variety of case marking patterns and semantic classes. The system we propose in the following chapters will be indebted to Croft's model.

6. Van Valin and LaPolla (1997)

The Role and Reference Grammar approach advocated in Van Valin and LaPolla (1997) is the most explicit work defending the causative hypothesis. Unlike other works they offer aspectual tests and discuss the relation between causativity and aspectual properties.

The basic aspectual classes are associated with lexical representations, as in Fig 5. These lexical representations define argument positions in logical structure and eventually the syntactic position of arguments in syntax.

Fig 5

Lexical representations for the basic Aktionsart classes

Verb class	Logical structure
State	predicate' (x) or (x, y)
Activity	do' (x, [predicate' (x) or (x, y)])
Achievement	INGR predicate' (x) or (x, y)
Accomplishment	BECOME predicate' (x) or (x, y)

From Van Valin and LaPolla (1997:102)

In spite of the apparent identity between the aspectual classes in Fig 5 and the better known classification of Vendler (1967) and Dowty (1979), Van Valin and LaPolla's system contains a number of innovations. The first, which can be observed from the table above, is the definition of accomplishments. Whereas in Vendler's system accomplishments are defined as having two sub-events, and activity and a change of state, in the RRG system accomplishments are distinguished from achievements only with respect to the duration of the change. Achievements are punctual changes, represented in logical structure by the operator INGR. Accomplishments are durational and their logical structure contains the operator BECOME. Both classes are telic.

Another innovation concerns the status of causativity. In the system proposed by Van Valin and LaPolla the presence or absence of the element CAUSE in logical

structure has no impact on the aspectual properties of the verb. Consequently, causativity captures only the distinction between spontaneous and induced events. Each of the Aktionsart types has a corresponding causative type (cf. Van Valin and LaPolla; 1997: 97). There are no syntactic tests which can reveal the inherent causativity of a verb; the possibility of paraphrase is the only criterium for distinguishing between causatives and non-causatives. In spite of this fact, the presence of CAUSE is determining for the mapping of arguments onto syntactic positions.

EO verbs are described in Van Valin and LaPolla as causative states. Nakamura (2000), which gives an RRG account of psychological predicates, distinguishes between causative states and causative achievements.

- (30) a. Solitude frightens John
 [DO' (x, 0)] CAUSE [**pred'** (y, x)]
 b. Mary frightened John when she smashed the window
 [DO' (x, z)] CAUSE [INGR **pred'** (y, x)]

The presence of the stimulus argument in a DO clause, subject of the operator-connective CAUSE ensures the linking of this argument to subject position.

This is an original point of view on causative verbs and if admitted, the absence of accomplishment properties from EO verbs ceases to represent a problem. Whether this view is entirely advantageous is debatable.

The most obvious problem for this approach is the treatment of CAUSE. Whereas in Dowty (1979) CAUSE, along with BECOME and possibly DO is treated as an operator in logical structure, having a predictable effect on the Aktionsart type of the verb, in Van Valin (1993) it is referred to as an “operator-connective” and, as mentioned above, is excluded from the aspectual calculus. The exclusion of CAUSE from aspectual calculus is achieved at the cost of introducing the operator INGR, distinguished from BECOME only in the lack of durational properties. BECOME, thus receives a non-standard interpretation, in which it covers only extended changes.

The asymmetry in the treatment of CAUSE and BECOME does not seem to be an entirely welcome feature of the approach. Besides, it looks dubiously as if the modification of the traditional aspectual calculus proposed by Dowty had been made in order to ensure the correct linking of problematic cases like the EO predicates discussed

here, predicates which while allowing a causative paraphrase fail to pass the aspectual tests for accomplishment predicates, the traditional class for causatives.

Another, more theory internal problem, concerns the possibility of paraphrasing constructions with EO predicates by causative constructions. A condition for the well-formedness of a paraphrase, stated in Van Valin and LaPolla (1997: 97) is that the paraphrase have the same number of NPs as the original sentence being paraphrased. This rules out causative paraphrases of EO verbs that contain a transitive predicate as the second argument of CAUSE. A logical structure such as (31), proposed in Nakamura (2000), should be ruled out since it involves the paraphrase of a predicate taking two arguments by means of a structure containing three arguments ¹²⁾.

- (31) The dogs frightened him
[DO' (dogs, 0) CAUSE [(INGR) fear' (he, dogs)]]

While English has convenient adjectival passives to be used in such paraphrases, this is not always the case in other languages. Take for instance the following cases in Romanian.

- (32) a. L-ai suparat pe Ion
CL-ACC anger P-ACC Ion
Your angered John
b. Ion este suparat pe tine
Ion-NOM be angry P- you
Ion is angry with you
c. Ion este suparat
Ion-NOM be angry
Ion is upset

As the gloss for (32c) indicates, the intransitive use of the past participle for the EO verb *supara* (anger) has a slightly different meaning than the transitive use of the same form, as it appears in (32b). While (32b) refers to a provoked emotional state, (32c) describes a mood, which may have no discernable cause. Intuitively, it is the meaning in (32b) and not the one in (32c) that allows for a correct paraphrase of (32a). That is, the correct paraphrase of (32a) is (33a) rather than (33b). However, (33a) is not a possible

paraphrase for (32a), by the criteria set forth in V&L.

- (33) a. (tu) l-ai facut pe Ion sa fie suparat pe tine
[DO' (you, 0) CAUSE [(INGR) **anger'** (Ion, you)]]
b. (tu) l-a facut pe Ion sa fie suparat
[DO' (you, 0) CAUSE [(INGR) **upset'** (Ion,)]]

A similar situation arises in Japanese where verbs displaying overt causative morphology do not allow a well-formed paraphrase. The verb *akiru* (become fed up), unlike most of the other emotion verbs in Japanese does not have an intransitive use.

- (34) a. nagai hanashi ga seitotachi o akisasetta
[DO' (x, 0) CAUSE [(INGR) **akiru'** (x, y)]]

Since the only argument for the presence of CAUSE for the EO verbs is the possibility of paraphrase, the difficulty of providing well formed paraphrases becomes an important drawback, and raises doubts for the correctness of the analysis in cases where a paraphrase is available.

7. Discussion

The discussion of major work on emotion (psychological) predicates presented in this chapter has revealed that the arguments for a causative analysis of EO verbs are not so compelling. The main evidence against such an analysis has come from the aspectual properties of these verbs. Why are aspectual properties so important?

The declared aim of most of the works discussed so far is not so much to provide an adequate semantic description for emotion predicates as to derive the unexpected linking of thematic arguments displayed by EO verbs on the basis of universal principles. If the proposed analyses solve the linking problem in a satisfactory manner but fail to obey universal principles in other components of the grammar the solutions must be questioned.

We have seen that influential works on emotion (psychological) predicates give ample evidence for the syntactic and semantic distinction between ES and EO verbs. These differences, however, do not necessarily imply the causativity of EO verbs. The causativity is a hypothetical property which needs independent proof. in order to

provide such independent evidence, authors such as Grimshaw (1991) and Pustejovsky (1995) explicitly associate EO verbs with the class of accomplishments without, however, making the effort to check the correctness of the claims they put forth. Even an author whose main work concerns the association between aspect and argument linking, Tenny (1994), speedily declares that EO verbs are accomplishments on the basis of dubious examples like (35) below, without applying other obvious tests.

(35) The truth frightened John in 5 minutes

Other authors, such as Pesetsky and Croft, do not make any explicit statements regarding the aspectual properties of the ‘causative’ emotion verbs, although nothing in those works leads us to expect that their authors embrace anything but the standard view of causativity.

The standard view of causativity is the one advocated in Dowty (1979), one which associates causative verbs with the aspectual class of accomplishments, rather than the original approach defended by V&L. If causative, EO predicates should have the same type of event structure as the rest of the verbs analyzed as causatives. That is, the verb itself should cover the causing event and the caused event. This event structure should be revealed by the aspectual properties of the verbs. In case they fail to do so, the fact is worthy of attention. It is interesting to remember that Dowty (1979), the most influential work on aspectual calculus to date, does not treat EO verbs as causatives, or accomplishments. There, EO verbs are classified according to their actual aspectual properties, as states and also achievements. Despite VanVoorst’s warning that a causative treatment makes the wrong predictions, the behavior of EO verbs with respect to aspectual tests has done nothing to shake the belief in the causative hypothesis.

As Dowty observes, natural language associates with causativity a range of phenomena that would not be regarded as involving causation by scientific research. Such cases are in need of an explanation. We have seen that the event structure of EO verbs, as reflected by their behavior with respect to aspectual tests, is not that of standard causative verbs. We shall discuss in the following chapters some difficulties which arise when one tries to identify the causing event and the caused event. That these difficulties arising from the treatment of EO verbs as causatives have not shaken the almost general belief in the causative hypothesis is puzzling. We can conclude that the

causative interpretation of EO verbs is a phenomenon in need of an explanation rather than a solid linguistic reality which can be used to explain the linking properties of these verbs. A glance at the arguments offered in favor of the causative hypothesis suggests more the persistence of a myth and less the objective linguistic analysis.

In Chapter 5 we shall suggest an analysis of EO predicates which does not assume the causativity of these verbs. We shall offer a tentative explanation for how the causative interpretation, which makes causative paraphrase available, arises. The explanation will take into account the aspectual properties of EO verbs.

Chapter 4

Occurrences and Dispositions

1. Introduction

The distinction between stative and causative experiencer verbs appears in many studies. We have already discussed how this distinction is connected to the syntactic properties of experiencer verbs in the work of authors like Grimshaw(1991), Pesetsky(1995), Croft (1991), etc. These authors adduce various arguments in favor of the causative analysis: morphological processes like nominalization, interpretation of arguments, types of adjuncts, etc. The notions involved are not particular to the domain of emotions, but can be found throughout predicates. We have argued in the preceding chapter that the aspectual properties of emotion predicates do not fully justify the use of the label ‘causative’.

Another problem is the creation of ‘false pairs’, based on the semantic closeness and the case frame of the predicates involved. Thus, we find in the literature besides morphologically related pairs such as *anger* and *be angry at*, or *frighten* and *fear*¹⁾, pairs such as *please* vs. *like*, cf. Pesetsky (1995;18 and 57). The relation is not comparable, however. While *frighten* may be arguably paraphrased in terms of CAUSE and FEAR, *please* cannot be decomposed into CAUSE and LIKE. That is, *please* is not the causative counterpart of *like*. This shows that besides the EO-ES pairs there are ES verbs that have no EO correspondent. This class includes besides *like*, predicates such as *love*, *hate*, *admire*, *adore*. Since the processes relating ES and EO verbs are lexical, the existence of gaps might not seem a very serious problem. If we consider the status of ES verbs in the theories discussed, the problem becomes more significant.

None of the authors mentioned above explicitly discusses this point, but it seems that they assume no fixed relation between a specific emotion and the properties of the linguistic expression referring to it. That is, there is nothing to relate fear-related emotions to EO forms and joy-related emotions to ES forms. In the encoding of any emotion the two perspectives are available: the language can focus on the causative aspect or on the state component. This idea is obvious in the way Croft represents emotion predicates: causative forms comprise the first two arcs of the verbal segment

while states consist in the last arc of the same segment.

Fig 1

Stimulus	Experiencer	(Exp)	(St)
+ _____	>0 _____	>(0) _____	(+)
SBJ	Cause	Become	OBJ fear
###	frighten	###	

There is no rule requiring that all emotion predicates should come in morphologically related pairs of the type *fear/ frighten* or *anger/ be angry*. It is quite possible to have ES predicates with no corresponding causative form. However, an ES predicate, whether it has a morphologically related EO verb or not, is describable as the last arc in the schema above.

There are two facts casting doubts on such an account. First, there is a tendency for ES predicates that have no morphologically related causative forms to cluster around a particular semantic area. The favorite domain is represented by emotion words referring to love, liking and their negative counterparts referring to hate and dislike. Secondly, even if there are causative predicates associated with these emotions they are morphologically unrelated to the ES forms. Romanian and Japanese illustrate these points quite eloquently. To take, for instance, the vocabulary related to the emotion of 'love'. The verbs expressing this emotion are *ai suru* in Japanese and *iubi* in Romanian. Although the Romanian verb belongs to the ES class it has no related EO form. In Japanese, where non-derived EO verbs do not exist, it is possible to produce predicates illustrating the 'inverse' argument linking possibility on the basis of ES verbs by causative morpheme affixation. The verb *ai suru* does not undergo this process. Both languages do, however, have non-stative predicates associated with the emotion of 'love'. These are *horeru* in Japanese and *(se) indragosti* in Romanian; both verbs are inchoatives having roughly the meaning 'fall in love with'. As can be plainly seen, neither of the inchoative forms has any morphological relation to the ES form. The situation is similar in the case of the predicates expressing liking, hate, and dislike. Japanese and Romanian are not unique in this respect. The same situation can be observed in English, French, etc.

We wish to argue that this state of affairs is not due to chance. This chapter claims that a number of emotion predicates, like those referring to love or hate in

Japanese and Romanian cannot be represented in terms of the schema in Fig 1. Although these predicates are stative, it makes no sense to describe the respective state as the final arc in a segment comprising a CAUSE and a BECOME arc. This sets them apart from stative predicates like *be angry at* or *be surprised*, which are correctly represented as elicited states, resultatives. In the following sections we will examine the behavior of emotion predicates with respect to co-occurrence with temporal modifiers and show that two major classes can be distinguished from the point of view of lexical aspect.

2. Aspect

Not all emotion predicates behave in the same manner with respect to temporal anchoring. Some emotion predicates are primarily used to refer to actual here-and-now emotional events, whereas other predicates are used to denote emotional tendencies rather than actual episodes. This distinction is reflected in the co-occurrence restrictions between emotion predicates and time adverbials. We will use data from Japanese and Romanian to illustrate the difference. Although Japanese and Romanian are genetically and geographically very remote, the existence of the two classes of emotion predicate is equally clear in both languages.

The first test to be discussed is the possibility of co-occurrence with specific time modifiers.

- | | | | | | |
|-----|---|-----------|-----------|------------------|-------------|
| (1) | a. ??Kinoo | Taroo-wa | Maria-o | aishita/nikunda | |
| | yesterday | Taroo-TOP | Maria-ACC | hate/love | |
| | Yesterday Taroo admired/loved/hated Maria | | | | |
| | b. ??Kinoo | Taroo-wa | Maria-ga | suki/kirai datta | |
| | yesterday | Taroo-TOP | Maria-NOM | like/dislike COP | |
| | Yesterday Taroo liked/disliked Maria | | | | |
| (2) | a. ??Ieri | lui Taroo | i-a | placut/displacut | Maria |
| | yesterday | DAT Taroo | CL-aux | like/dislike | Maria-NOM |
| | b. ??Ieri | Taroo | a | iubit-o/urit-o | pe Maria |
| | yesterday | Taroo-NOM | aux a | love-CL/hate-CL | P-ACC Maria |

- (3) a. Kinoo Taroo-wa tegami-o yorokonda/
yesterday Taroo-TOP letter-ACC glad/
tegami-ni odoroitā/okotta/ureshikatta
letter-DAT surprised/angry/glad
Yesterday Taroo was surprised/angry/ glad because of the letter
- b. Kinoo shusho-no tegami-ga Taroo-o
yesterday prime minister-GEN letter-NOM Taroo-TOP
odorokaseta/okoraseta/yorokobaseta
surprise/anger/cheer
Yesterday the letter from the prime minister surprised/ angered/cheered
Taroo
- (4) a. Ieri purtarea lui Ion
yesterday behavior GEN-Ion
a suparat/bucurat/speriat/plictisit-o pe Ana
angered/cheered/scared/bored -CL P-ACC Ana
Yesterday Ion's behavior angered/cheered/scared/bored Ana
- b. Ieri Ana s-a suparat/bucurat/plictisit
yesterday Ana CL-REFL-aux angered/cheered/bored
Yesterday Ana got angry/glad/bored

As example (1) indicates some Japanese verbs like *ai suru* (love) and *nikumu* (hate), as well as some adjectives including *suki da* (like) and *kirai da* (dislike) do not sound natural when used with adverbial modifiers referring to specific moments in time. The same behavior is exhibited by the cognate predicates in Romanian, as can be seen from example (2). Other emotion predicates are not subject to this restriction as illustrated by example (3) for Japanese and (4) for Romanian. Predicates admitting specific time modifiers are verbs like *odoroku* (be surprised), *okoru* (be angry) and their causative forms *odorokaseru* (surprise) and *okoraseru* (anger) and adjectives like *ureshii* (glad) in Japanese. For Romanian emotion predicates in this class include EO verbs and their reflexive counterparts, such as *(se)supara* (anger), *(se)bucura* (cheer) and *(se)plictisi* (bore).

The behavior of these predicates with respect to co-occurrence with adverbs of

duration is again different.

- (5) a. Taroo-wa juu-nen-kan Maria-o aishita/nikunda
 Taroo-TOP 10 years-period Maria-ACC hate/love
 Taroo loved/hated Maria for a ten years
- b. Taroo-wa nagai aida Maria-ga suki/kirai datta
 Taroo-TOP long period Maria-NOM like/dislike COP
 Taroo liked/disliked Maria for a long time
- (6) a. Taroo a iubit-o/urit-o pe Maria zece ani
 Taroo-NOM aux lov/hate-CL P-ACC Maria 10 years
 Taroo loved/hated Maria for ten years
- b. Lui Taroo i-a placut/ displacut Maria multa vreme
 DAT Taroo CL-aux like/ dislike Maria-NOM long time
 Taroo liked/ disliked Maria for a long time
- (7) a. Taroo-wa nagai aida tegami-o yorokonda/ureshikatta
 Taroo-TOP long time letter-ACC glad/
 ??tegami-ni odoroitai/??okotta
 ?? letter-DAT surprised/angry
 Taroo was glad/surprised/angry for a long time because of the letter
- (8) a. Purtarea lui Ion a suparat/bucurat/speriat/plictisit-o
 behavior GEN-Ion angered/cheered/scared/bored -CL
 pe Ana multa vreme
 P-ACC Ana much time
 Ion's behavior angered/cheered/scared/bored Ana for a long time
- b. Ana s-a ??suparat/bucurat/plictisit multa vreme
 Ana CL-REFL-aux ??angered/cheered/bored long time
 Ana was/got angry/happy/scared/bored for a long time

As the examples above illustrate, the predicates which rejected modification by specific time adverbs allow adverbs of duration, see example (5) for Japanese and (6) for Romanian. The predicates which admit modification by adverbs of specific time tend to reject modification by duration adverbials in both languages. The tendency is not general, however, since both languages have predicates in this class which co-occur with durational adverbs. This is the case of the adjective *ureshii* (glad) and the related

verb *yorokobu* (be glad) in Japanese and by the EO verbs *bucura* (cheer) and *plictisi* (bore) in Romanian. The aspectual behavior of these predicates will be discussed in detail in the following chapters.

Co-occurrence with temporal modifiers indicates that predicates like *ai suru* (love), *suki da* (like) in Japanese and the corresponding *iubi* (love) and *place* (like) in Romanian are prototypical states. These predicates do not refer to events occurring at specific temporal locations. They stretch over long periods of time, as indicated by the felicity of constructions in which they are accompanied by durational adverbs. Predicates like *okoru* (be angry), *ureshii* (glad) and *odorokaseru* (surprise) in Japanese, or *(se)bucura* (cheer), *(se)supara* (anger) and *(se)plictisi* (bore) in Romanian are not prototypical states even when they exhibit strong stative properties. These predicates refer to events occurring at specific moments.

This distinction regarding aktionsart type calls to mind a distinction made by psychologists between emotional dispositions and emotional occurrences.

3. Proposal

The need for a distinction between dispositions and occurrences in the domain of emotions has been recognized in philosophy and psychology²⁾. Occurrences of emotions are actual emotional episodes, whereas dispositions represent the tendency to get in a particular emotional state. Unlike occurrences, dispositions do not ‘happen’ at particular moments. To use Ryle’s words, to say that a person has a certain disposition "*is not to say that he is at a particular moment in the process of doing or undergoing anything, but that he is able to do certain things, when the need arises, or that he is prone to do and feel certain things in situations of certain sorts*".

We propose to introduce the distinction between dispositions and occurrences into the analysis of emotion vocabulary and we claim that there are two major classes of emotion predicates. The first, which we will henceforth refer to as *dispositional predicates* refer to emotional dispositions. The class includes predicates like *ai suru*, *suki da*, *iubi*, *place*, etc. These are the predicates argued to exhibit the behavior of prototypical states. The second class of predicates, henceforth referred to as *occurrence predicates*, refer to actual emotion episodes. In this class we find *ureshii*, *okoru*, *yorokobu*, *yorokobaseru*, *(se) supara*, *(se)bucura*, etc.

Ryle points out that having a disposition does not necessarily result in any form

of palpable behavior. A disposition is merely a latent tendency to act or feel in a particular way. This explains why the use of adverbials of specific time is excluded with dispositional predicates. Dispositional predicates are not meant to convey that something happened at some particular moment or another. Adverbs of duration, on the other hand, are acceptable because they measure the length of the interval during which the individual (experiencer) had that disposition.

While dispositional predicates can be all assigned to a single aspectual class, states, this is not possible in the case of occurrence predicates. Predicates expressing occurrences belong to various aspectual classes, excluding prototypical states. The aspectual properties of occurrence predicates will be discussed in more detail later. However, what all these predicates seem to have in common is the fact that they can refer to actual emotional situations. The aspectual properties of each predicate are determined by the temporal constitution of the type of occurrence it expresses.

The distinction proposed here is semantic, and is not claimed to provide a criterion for mapping between the semantic level and the syntactic level, in the sense that aspect and th-roles were argued to do in previous accounts. It cuts across formal classes: there is no one-to-one mapping between a particular form and the dispositional or occurrent interpretation. Dispositions are expressed by predicates belonging to different lexical categories displaying different case patterns and the same will be the case for occurrences. As illustrated in Fig.1, we find predicates displaying the same case marking properties that belong to different classes with respect to the disposition-occurrence distinction. For instance, the linking pattern Nominative Experiencer-Accusative Stimulus is used in Japanese to encode both emotional dispositions *ai suru* (love), *nikumu* (hate) and emotional occurrences *yorokobu* (rejoice), *kanashimu* (mourn, be sad). In spite of the formal similarity, it will be argued in Chapter 8 that two different case marking mechanisms are at work.

Fig. 2

JAPANESE

Dispositional Predicates

Case pattern	Lexical Category	examples
Exp-NOM Stim-ACC	verb, adjective	<i>ai suru, konomu, nikumu, kirau, suki</i>

Exp-NOM	Stim-NOM	adjective	<i>suki, kirai, ?nikui</i>
Occurrence Predicates			
Case pattern		Lexical Category	examples
Exp-NOM/DAT	Stim-NOM	adjective	<i>ureshii, kanashii, urayamashii, sabishii</i>
Exp-NOM	Stim-ACC	verb	<i>yorokobu, kanashimu, sabishigaru</i>
Exp-Nom	Stim-DAT	verb	<i>okoru, odoroku, komaru</i>
Exp-ACC	Stim-NOM	verb	<i>okoraseru, yorokobaseru</i>

ROMANIAN

Dispositional Predicates

Case pattern		Lexical Category	examples
Exp-NOM	Stim-ACC	verb,	<i>iubi, uri, place</i>
Exp-DAT	Stim-NOM	verb	<i>place, displace</i>
Exp-DAT	Stim-PP	verb	<i>place</i>

Occurrence Predicates

Case pattern		Lexical Category	examples
Exp-ACC	Stim-NOM	verb	<i>bucura, supara</i>
Exp-NOM	Stim-PP	reflexive verb	<i>se bucura, se supara</i>

Saying that the distinction between dispositions and occurrences with emotion predicates does not serve as a criterion for argument linking is not the same as saying that it is irrelevant to linking. It is quite reasonable to think that, combined with other semantic factors, this distinction influences the mapping between arguments and syntactic functions and the choice of case pattern. This possibility will be pursued in Chapter 8.

The distinction proposed has consequences for the way of defining the relation between stative and non-stative emotion predicates. Previous accounts treat stative predicates as less complex than causative predicates. This assumption is made explicit in Pesetsky's study: He claims that a predicate like *frighten* has a semantic structure which includes the semantic structure of a predicate like *fear* and contains some additional elements, viz. the phonologically null causative morpheme. "*I will suggest*

that such predicates consist of a phonologically zero causative morpheme and a bound rootthat is actually a SubjExp predicate" (Pesetsky 1995: 64). We have seen that for Croft causative and stative mental verbs are associated with different arcs of the same verbal segment. The causatives include the state segment in their structure.

The classification of emotion predicates into predicates referring to dispositions and predicates referring to occurrences does not make any similar claims regarding the possible inclusion relation between the two classes. Dispositions and occurrences are two parallel ways of conceptualizing emotions. It is difficult to say that occurrences are logically prior to dispositions or vice versa. All emotions seem to have both sides. However, not all emotion words have both a dispositional and an occurrent use, a fact observed by Lyons (1980).

"...In regard to emotion, while, as we have seen, the term 'anger' seems to have both an occurrent and a dispositional use, and so does 'fear', the term 'love' seems to be a term which only has a dispositional use. When we say 'X loves Y' we are referring to a proneness of X to do certain things and react in certain ways to Y, especially the former. If we are referring to emotional love, we will probably imply that, among those ways in which X is prone to react, there are emotional states, but I do not think that we would ostensibly label such emotional states with the term 'love', though it is not clear what term one would use..... By contrast the term 'rage' has only an occurrent use, labeling actual occurrent emotional states of anger of a very strong and tempestuous sort" (Lyons 1980: 54-5)

It is worthwhile noting that occurrence predicates normally have a dispositional use. In generic or habitual sentences these predicates can refer to dispositions, as illustrated by the examples below.

- (9) a. Taroo-wa chiisa-na oto-ni-mo odoroku
 Taroo-TOP small sound-DAT-PRT surprised
 Taroo is startled even by small sounds
- b. Musekinin-na seijika-ga minshuu-o komaraseru
 irresponsible politician-NOM people-ACC upset-CAUS
 Irresponsible politicians upset the people

Sentence (9a) has a habitual reading and sentence (9b) is a generic statement. Both represent instances of a dispositional use of an occurrence predicate

Dispositional predicates cannot be made to refer to occurrences. Neither context nor derivational morphology can form an occurrence predicate on the basis of a dispositional predicate. This contradicts again the standard view on the relation between stative and non-stative emotion predicates, which claims that ES predicates are the basis from which EO predicates are derived.

On the view advocated in this chapter, the relation between stative and non-stative emotion predicates, between *fear* and *frighten*, is different. In spite of the superficial semantic relatedness these predicates do not refer to different arcs of a single segment, to use Croft's terminology: The verb *fear* seems to be a disposition predicate, whereas *frighten* is an occurrence predicate. The pair *fear-frighten* in English, where the two forms are historically related, is a linguistic accident. In the standard case, dispositional predicates and occurrence predicates do not overlap. Dispositional predicates cluster around a specific area; that of emotional attitudes like loving and liking.

A stative emotion predicate expressing a disposition covers the entire emotional chain and not just its last segment. We will claim in Chapter 8 that these predicates are stative not so much because they refer to the state or feeling component of the emotional episode but rather because they are not sensitive to the internal structure of the emotional episode. They simply view the emotion as an asymmetric binary relation.

In Section 4 we will argue that there are reasons to believe that occurrence predicates are sensitive to the internal structure of emotional episodes. Various classes of occurrence emotion predicates represent different perspectives on the emotional episode. Their aspectual and case marking properties, the morphological structure, are not random but determined by the choice of perspective. This problem will form the topic of the second part of this dissertation. This implies that, regarding the 'coverage' of the emotional episode, predicates expressing dispositions are, if anything, more comprehensive than occurrence predicates. While the latter focus on some subcomponent of the episode, the former embrace the emotional episode in its entirety and not just the final segment in a sequence.

The distinction between dispositions and occurrences seems to be common in

more than one language. Lyons illustrated the necessity of this distinction on the basis of English examples. We shall argue for its existence in Japanese and Romanian, two geographically remote and genetically unrelated languages. Ameka (1990) argues for the relevance of the distinction between dispositional and occurrent interpretation for the mapping of arguments with experiencer predicates in Ewe. He points out that, in Ewe, predicates that refer to dispositions are associated with the Experiencer Subject linking, while predicates referring to occurrences are associated with the Experiencer Object linking. Aspectual markers also serve to mark this distinction. Thus, dispositional predicates are associated with the habitual or the aorist, whereas occurrence readings are associated with the progressive. Most predicates allow both readings, but there are a number of predicates associated exclusively with the dispositional reading. These predicates generally come from the same semantic area as the dispositional predicates in Japanese and Romanian, love, like, hate, but also be anxious, be afraid, etc.

We argued that the distinction between dispositional and occurrence predicates is lexical and is not directly linked to syntactic properties. The question is, are there any linguistic differences between predicates belonging to the two classes besides those related to lexical aspect? In the following sections we will illustrate a number of further differences between disposition predicates and occurrence predicates.

4. Morphology

The two classes of emotion predicates are also distinguished in terms of their morphological structure. Predicates expressing dispositions and predicates expressing occurrences differ with respect to their ‘morpho-syntactic productivity’. The root of an occurrence predicate serves as the basis for several morpho-syntactic operations specific to this class, yielding a word family where the members are related in semantically predictable ways. This does not happen in the case of disposition predicates. This difference is illustrated below.

- (10) a. Taroo-(ni)wa shippai-ga kanashikatta
 Taroo-DAT-TOP failure-NOM Adj
 b. Taroo-wa shippai-o kanashindeiru
 Taroo-TOP failure-ACC V

- c. Taroo-wa shippai-o kanashigatteiru
 Taroo-TOP failure-ACC Adj-garu
- d. Sono shippai-ga Taroo-o kanashimaseta
 that failure-NOM Taroo-ACC V-CAUS
 Taroo was saddened by the failure
- e. *Jiroo-wa Taroo-ni shippai-o kanashimaseta
 Jiroo-TOP Taroo-DAT failure-ACC V-CAUS

Sentences (10a) on the one hand, and (10b,c) on the other hand, are distinguished not only in terms of syntactic category of the predicate, adjective for (10a) and verb for (10b,c) but also in terms of interpretation. What is more, the same semantic relation exists between other morphologically related Adjective –Verb pairs, such as *tanoshii – tanoshimu* (enjoy), *kowai – kowagaru* (fear), etc. The semantic relation between sentences (10a) and (10b) is constant for all these Adj-V pairs. It will be argued later that the semantic distinction between the two forms is best described as the difference between the expression of internal states and the description of external manifestations accompanying those states.

As illustrated by the unacceptability of (10e), occurrence predicates do not undergo causativization, in the sense of a valance increasing operation. Instead they are the basis for lexical causativization which has the consequence of reversing the linking of arguments as in (10d). This is true for all the emotional occurrence verbs, irrespective of their case marking properties.

Emotion predicates expressing occurrences in Japanese form a network of morphologically related forms. The domain includes verbs and adjectives related by productive and non-productive morphological processes. The common root ensures that they all refer to the same type of emotion: anger, joy, or surprise. The morphology determines which aspect of the emotional situation is focused on. Below is a chart of emotion occurrence predicates in Japanese.

Fig. 3

- a. Verb (Exp-ga Stim-ni) ----- Verb-SASE (Stim-ga Exp-o)
- b. Adj (Exp-ni Stim-ga) -- Verb-GARU (Exp-ga Stim-o) -- Verb-SASE (Stim-ga Exp-o)
- c. Adj (Exp-ni Stim-ga) -- Verb-SUFF(Stim-ga Exp-o) --Verb-SASE (Stim-ga Exp-o)
 Verb-SUFF (Exp-ga Stim-o/-ni)

There are two productive morphological processes at work, one attaching the causative suffix SASE to emotion verbs and the other deriving verbs from adjectives by affixation of the suffix GARU. The causative suffix can attach to any of the verbs in this domain, basic or derived. The result is always the same, a form where the experiencer appears in object position and the Stimulus argument is the subject. The suffix GARU derives transitive verbs from emotion adjectives. As already mentioned, this suffix attaches only to adjectives expressing occurrences, such as *kanashii* (sad), *sabishii* (lonely), *ureshii* (glad), etc., and not to adjectives expressing emotional dispositions, such as *suki* (like), *kirai* (dislike), *nikui* (hateful), etc.

We also find morphologically related pairs such as *tanoshii/ tanoshimu* (enjoy), *kanashii/ kanashimu* (sad), illustrating the same semantic relation as that obtained through -GARU derivation, and *kurushimu/ kurushimeru*, *kanashimu/ kanashimeru* etc., representing the counterpart of causative verbs and their non-causative pairs.

It seems that different forms derived from a single stem focus on different aspects of the emotion associated with the stem. That is *kanashii*; *kanashimu*; *kanashimaseru* are all associated with the emotion of SADNESS, but each form expresses a different facet of the emotion. Emotion predicates expressing occurrences, unlike predicates expressing emotional tendencies, are sensitive to the internal structure of the emotional episode. The role of morphology is to bring into focus a certain component of the emotional episode. This is why studying the role of morphology represents a key to uncovering the semantic distinctions underlying the organization of the emotion field in a language.

The situation is quite different in the case of dispositional predicates. The existence of similar morphologically related items is not very common among disposition predicates. Exceptions are *nikui- nikumu* and *konomu- konomashii*. Compared with predicates from the occurrence class, even these items have limited productivity. The two pairs quoted cannot yield further derived elements (11a,b).

- (11) a. *nikui- nikumu- *nikugaru-nikurashii- *nikurashigaru*
 b. *konomu- konomashii- *konomashigaru*

We find the same state of affairs in Romanian: predicates expressing

occurrences have morpho-syntactically related items which refer to the same type of emotion from a slightly different perspective.

- (12) a. Marin l-a suparat pe Ion
 Marin-NOM V P-ACC Ion
 Marin angered Ion
- b. Ion s-a suparat (pe Marin)
 Ion-NOM CL-REFL V (P Marin)
 Ion got angry at Marin
- c. Ion este suparat pe Marin
 Ion-NOM is PRT P Marin
 Ion is angry at Marin
- (13) a. Vestea l-a bucurat pe Ion
 News-NOM V P-ACC Ion
 The news pleased Ion
- b. Ion s-a bucurat de veste
 Ion-NOM CL-REFL V P news
 Ion pleased at the news
- c. Ion este bucurosi de veste
 Ion-NOM is Adj P news
 Ion is glad about the news

Sentences (12-13) are examples of morphologically related forms of occurrence predicates. Many of the occurrence predicates in Romanian have three related forms: EO verbs, reflexives and (adjectival) participles. Each of the three forms of the predicate presents the emotional occurrence from a different perspective. Informally, the role played by each form could be described as follows: the EO form focuses on the affected status of the experiencer, the reflexive form presents the emotion highlighting the active role of the Experiencer and the adjectival participle describes the experiencer's state, the resulting state. Although not all the EO verbs have related reflexives, when a reflexive form exists, its meaning is predictable on the basis of the meaning of the EO verb. What should be stressed here is the fact that, unlike disposition predicates, which view the emotional situation as an unanalysable unit, occurrence

predicates probe into the internal structure of the emotional episode and select a particular segment to focus upon. This is true for both Japanese and Romanian. The morphological productivity of occurrence predicates as distinct from dispositional emotion predicates seems to reflect a distinction between occurrences and dispositions, noted by philosophers, the fact that occurrences represent emotions in a more ‘complete’ way than dispositions:

"....the occurrent emotional state and not the disposition is the full paradigm case. Whatever factor it is which remains dormant in the person still disposed to be angry about something, will also be present when it is operative. Now it is most fully operative as emotion, when it causes not merely motivated behavior, but affects someone emotionally, that is, physiologically, stirring up feelings, and generating wants or desires to do certain things." Lyons (1980: 56)

5. Role of Case Alternations

With disposition predicates we witness a peculiar phenomenon. For some of the items in this class there exist alternative syntactic configurations which are not associated with semantic differences, although they are associated with different selectional restrictions.

- (14) a. Taroo-wa Hanako-ga kirai
 Taroo-TOP Hanako-NOM Adj
 b. Taroo-wa Hanako-o kirau (kiratteiru)
 Taroo-Top Hanako-ACC V
 c. Taroo-wa Hanako-o kirai
 Taroo-TOP Hanako-ACC Adj
 Taroo dislikes Hanako
 d. Saboten-wa mizu-o kirau
 cactus-TOP water-ACC V
 Cactus plants do not need water

Although the predicates *kirai*, *kirau* (dislike) in sentences (14a,b) above belong to

different syntactic categories there is no sensible semantic difference. The meaning remains unchanged in (14c), although this sentence differs from (14a) with respect to case marking and from (14b) with respect to the syntactic category of the predicate. The free variation among the three sentence patterns is restricted to cases where the stimulus argument is expressed by a [+Human] NP. Sentence (14d), on the other hand, introduces a change of meaning. The semantic change is not reflected in the morphological shape of the predicate or the case marking properties, (14d) is formally undistinguishable from (14b), although it is accompanied by a change in the selectional restrictions, due to a change in the th-role, of the 1st nominal, the former experiencer argument. This change, although explainable in terms of the semantic content of the predicate, is not predictable and cannot be accounted for as the effect of some productive morpho-syntactic process. A similar semantic shift can be observed in the case of *konomu* (prefer) but not of *suki* (like), *aisuru* (love), *nikumu* (hate), etc. This seems to indicate that there are no productive morpho-syntactic processes specific to this particular class of predicates. There are of course, general lexical operations like causativization and passivization, but these are not limited to disposition emotion predicates.

Again, the behavior of dispositional predicates in Romanian closely parallels that of Japanese. The predicates corresponding semantically to the Japanese predicates discussed above can be associated with a range of case patterns with no visible semantic effect. The choice of case pattern is determined by the semantic features of the arguments, mostly by their animacy. Such case alternations are restricted to specific items and do not occur with all the predicates in a certain formal class. The verb *place* (like), which can appear with no less than four case frames, is quite revealing in this sense.

- (15) a. Lui Ion/porcului ii place Ana/ carnea
 Dat Ion/ pig CL-DAT like Ana/ meat-NOM
 Ion/ the pig likes Ana/ meat
- b. Ion/*porcul o place pe Ana/*carnea
 Ion/ pig-NOM CL-ACC like P-ACC Ana/ meat
 Ion/ *the pig likes Ana/*meat

- c. Lui Ion/*porcului ii place de Ana/*carne
 Dat Ion/ pig CL-DAT like P Ana/ meat-NOM
 Ion/ *the pig likes Ana/*meat
- d. La porc/*Ion ii place carnea/*Ana
 P pig/ Ion Cl-DAT like meat/ Ana-NOM
 The pig/*Ion likes meat/*Ana

The DAT/NOM frame in (15a) imposes no selectional restrictions on the two participants. Patterns (15b) and (15c) require human participants. In spite of the identical selectional restrictions the two patterns could not be more different. The sentence in (15b) is a standard NOM-ACC structure, whereas in (15c) the Experiencer is Dative and the Stimulus a prepositional phrase. The last pattern, illustrated in (15d) requires a [-Human] animate Experiencer and a [-Animate] Stimulus. The Experiencer is prepositional, but doubled by a Dative clitic pronoun and the Stimulus is Nominative. There is no sensible difference in the interpretation of these four constructions. (It might be argued that the examples in (15b) and (15c) mean something closer to ‘love’ than the rest, but this is very likely due to the participant features. The lack of any semantic difference between (15b) and (15c) makes this possibility very likely.)

This is not to say that semantic shift cannot occur with disposition predicates. Examples (16) and (17) below illustrate cases of semantic shift. Just as in the case of Japanese, the semantic shift is not accompanied by morpho-syntactic changes. It is neither regular and nor predictable.

- (16) a. Ana admira pictura
 Ana-NOM V painting-ACC
 Ana appreciates painting
- b. Ana a admirat picturile din expozitie un ceas
 Ana-NOM V paintings-ACC P exhibition one hour
 Ana admired the paintings in the exhibition for one hour
- (17) a. Ion o adora pe Ana
 Ion-NOM V P-ACC Ana
 Ion adores Ana
- b. Azteci adorau soarele
 Aztecs-NOM V sun-ACC
 The Aztecs worshipped the Sun

Sentences (16a) and (17a) above describe emotional dispositions while their pairs (16b) and (17b) refer to social and physical activities. The activities are normally accompanied by emotional states of the type expressed by the predicate in its basic interpretation. The verb in (16b) means looking at the pictures with admiration and the verb (17b) means performing certain religious ceremonies with feelings of adoration. When used to express emotions the verbs are genuine states. The derived use, on the other hand, is aspectually an activity. The semantic shift is not predictable and is limited to a reduced number of items. There is no similar shift associated with predicates expressing negative emotions such as *detesta* (detest) or *uri* (hate). The existence of an activity reading for a verb must be specified in the lexicon as an idiosyncrasy of the item in question.

The distinction between dispositional and occurrence predicates can be summed up as follows: dispositional predicates tend to be associated with a unique perspective, whereas occurrence predicates can present the episode they relate from several distinct perspectives.

6. Structure of the Lexical Field

If we consider the semantic relations between items within the two classes we notice that the class of emotional disposition is organized according to the typical adjectival model: the most common relation within the class is antonymy. We have pairs of opposites with most of the members: *ai suru* (love)- *nikumu* (hate); *suki* (like)- *kirai* (dislike); *kawaii* (dear)- *nikui* (hateful) in Japanese and *iubi* (love)- *uri* (hate); *respecta* (respect)- *dispretui* (scorn); *place* (like)- *displace* (dislike) in Romanian.

Disposition predicates typically express the attitude of an experiencer towards a stimulus. The antonymical pairs refer to positive and negative attitudes. Another adjective-like feature displayed by these predicates, even when they are verbs, is that of being marked for degree: there are several items expressing the same attitude with different degrees of intensity: *konomu* (prefer)- *suki* (like)- *ai suru* (love) in Japanese or *respecta* (respect) - *stima* (honor)- *venera* (venerate) - *diviniza* (worship) in Romanian

Antonymy is not a common relation among the members of the occurrence predicates. Although there are pairs like *yorokobu* (be glad) - *kanashimu* (be sad) and *ureshii* (be glad) - *kanashii* (be sad), they are the exception rather than the rule. Most of the predicates in this class do not have antonyms: *odoroku* (surprise), *komaru* (trouble),

okoru (anger), *nayamu* (suffer), *akiru* (be fed up with), etc. Even adjectives expressing emotional occurrences lack antonyms: *urayamashii* (envious), *hazukashii* (ashamed), *sabishii* (lonely), *arigatai* (grateful), *kowai* (scared). This is not expected if we treat these predicates as referring to internal states that can be described in terms of degree of pleasantness, but becomes quite natural if we assume that they refer to events.

Fig. 4 Dispositional Predicates

Dispositions	
Positive	Negative
Konomu	
Suki da	kirai da
Ai suru	nikumu

Occurrence predicates do not merely refer to events. They refer to events definable in terms of other events. That makes it difficult to describe the semantic relations among occurrence predicates in terms of standard notions such as antonymy, gradation, and hyponymy. Occurrence emotion predicates could be (arguably) described as hyponyms of *kanjiru* (feel). The distinguishing factor among the subordinate terms is the type of triggering situation for each particular emotion. Further relations among predicates obtain when the same type of triggering situation gives rise to opposite evaluations. This could be the case with occurrence predicates referring to joy (*ureshii*, *yorokobu*, *yorokobaseru*) and sadness (*kanashii*, *kanashimu*, *kanashimaseru*). Morphologically or semantically related predicates give rise to entailment relations. That is, asserting a sentence having one of the forms for predicate, generally entails the truth of sentences involving morphologically related forms

Fig. 5 Occurrence Predicates

Kanjiru			
Situation1		Situation2	Situation3
Kanashii	ureshii	urayamashii
Kanashimu	yorokobu	urayamashigaru	okoru
Kanashimaseru	yorokobaseru	urayamashigaraseru	okoraseru

The problem with this analysis is the fact that the superordinate level of (*kanashii, kanashimu, kanashimaseru*) is not itself lexicalized. Providing the correct description for the lexical network of occurrence predicates will have to wait until future study. It seems, however, that occurrence predicates are organized in a way closer to verbal networks. Kenny, quoting the scholastic phrase ‘obiectum specificat actum’ argued that verbs completed by object expressions describe species of the genus described by the verb alone. Occurrence predicates describe species of the genus ‘emotion’ classified in terms of the object (triggering situation) for the emotion.

The structure of the lexical field can be regarded as a consequence of the semantic difference between the two types of emotion predicates. Dispositional predicates refer to tendencies, that is properties of individuals. The semantic network of dispositional predicates is similar to that of the lexical category standardly associated with property interpretation, the adjective. Occurrence predicates refer to events. The most frequent semantic relations among occurrence predicates are those found in the verbal domain; hyponymy and entailment (see Miller and Fellbaum (1991) for a discussion on the differences among the semantic networks for different lexical categories).

7. Selectional Restrictions

Another aspect distinguishing dispositional predicates from occurrence predicates is the span of their selectional restrictions. Dispositional predicates place few restrictions on the argument expressing the Stimulus of the emotion. This is reflected in the loose selectional restrictions on the respective argument.

- (18) a. Taroo-wa Maria/ongaku/yama/wain-o aishiteiru/nikundeiru
 Taroo-TOP Maria/music/mountain/wine-ACC love/hate
- b. Taroo o iubeste/uraste pe Maria/muzica/muntele/vinul
 Taroo CL love/hate P-ACC Maria/music/mountain/wine
 Taroo loves/hates Maria/music/the mountain/wine/vinul
- (19) a. Taroo-wa Maria/ongaku/wain/yama/wain-ga suki/kirai
 Taroo-TOP Maria/music/the mountain/wine-NOM like/dislike
- b. Lui Ion ii place/displace Maria/muzica/muntele l
 DAT-Ion CL like/dislike Maria/music/mountain/wine
 Taroo likes/dislikes Maria/music/the mountain/wine

Predicates such as *aisuru* (love), *nikumu* (hate), *konomu* (like), *kirau* (dislike) in Japanese and *iubi* (love), *uri* (hate), *admira* (admire), *detesta* (detest), in Romanian admit practically any nominal in Stimulus position. The same is true about the adjectives *suki da* (like), *kira ida* (dislike) in Japanese and the corresponding Dative-Nominative verbs *place* (like) and *displace* (dislike) in Romanian.

Dispositional predicates, although most frequently accompanied by nominal complements, are not limited to nominal arguments. A clausal argument can appear in the Stimulus argument position with some predicates in this class. The subject of the argument clause must be controlled by the experiencer argument. Clauses with independent temporal reference are not allowed in this position, as illustrated by the examples below.

- (20) a. *Watashi-wa hon-o yomu-no-ga suki/ kirai da*
 I-TOP book-ACC read-COMP-NOM like/dislike
 I like/ dislike to read books
- b. **Watashi-wa kodomo-ga hon-o yomu-no-ga suki/ kirai da*
 I-TOP child-NOM book-ACC read-COMP-NOM like/ dislike

The behavior of predicates like *suki da* and *kirai da* differs from that of control adjectives such as *tanoshii* (enjoy) and *kowai* (be afraid). It was argued in Chapter 2 that the latter exhibit restricted selectional properties, in spite of the fact that they subcategorize both nominal and clausal complements. This conclusion was prompted by the interpretation of constructions with nominal arguments. We argued that a nominal in this position is not interpreted as referring to an object but to an activity involving the respective object. This is not the case for dispositional predicates even when they allow control structures in stimulus argument position. The contrast is illustrated by the pair below.

- (21) a. *Watashi-wa ano hon-ga tanoshikatta*
 I-TOP that book-NOM enjoy
 I enjoyed that book
- b. *Watashi-wa ano hon-ga suki datta*
 I-TOP that book-NOM like
 I liked that book

Whereas the truth of (21a) implies that I read the book, this is not the case for (21b). Sentence (21b) can be appropriately used even if I did not read the book and was only attracted by the cover design. This is not possible when we use (21a).

Occurrence emotion predicates are stricter in the choice of Stimulus. For example, a verb such as *yorokobu* (be glad of) and the semantically related *bucura* will not admit nominals such as *Maria* or *mountain* in Stimulus position.

- (22) a. Taroo-wa Maria/ongaku/?wain/*yama-ni odoroitā
 Taroo-TOP Maria/music/?wine/*mountain-DAT scare
- b. Maria/muzica/*vinul/??muntele l-a speriat pe Taroo
 Maria/music/wine/mountain CL-ACC-AUX scare P-ACC Taroo
 Maria/the music/the wine/the mountain scared Taroo
- c. Taroo-wa *Maria/*ongaku/*yama/wain/tegami-o yorokonda
- d. ?Maria/?muzica/*muntele/vinul/scrisoarea l-a bucurat pe Taroo
 Taroo was happy about Maria/the music/the mountain/the wine/the letter

As mentioned in Chapter 2, it is difficult to capture the selectional restrictions of these predicates in terms of the semantic features of the nominal in stimulus argument position, such as [animate], [inanimate], [concrete], [abstract], etc. The selectional restrictions for these predicates must be stated in terms of situations. A possible Stimulus for the predicate *yorokobu* must be able to fulfill the function of Theme in a situation where the Experiencer is the Beneficiary. Notice that the prototypical triggering situation for *yorokobu* is the same as for the adjective *ureshii*. Generally, morphologically related occurrence predicates have the same selectional restrictions, since they represent different perspectives on the same emotion. There are, however, some differences determined by the semantic content of each predicate. Thus, the adjective *tanoshii* and the related verb *tanoshimu* exhibit slight differences due to the fact that the former refers to the internal reactions of the experiencer whereas the latter refers to the activity side of enjoyment.

- (23) a. ?Watashi-wa koohii-ga tanoshii
 I-TOP coffee-NOM enjoy

- b. Taroo-wa koohii-o tanoshindeiru
Taroo-TOP coffee-ACC enjoy
Taroo is enjoying his coffee

Unlike dispositional predicates, occurrence predicates admit clausal complements with independent temporal reference and an independent (not controlled) subject. What is more, even when they take a nominal complement, this is interpreted not as referring to an object, but as a participant in an event, as argued in Chapter 2.

This difference between dispositional predicates and occurrence predicates could be associated with the different semantic role of the two predicates. Dispositional predicates refer to the attitudes of an individual towards a stimulus. The attitudes stretch over long intervals of time, and it is expected that the object of the attitude has some temporal continuity, too, because it makes no sense to have an attitude if the object of the attitude does not exist. Individuals and properties have the quality of enduring through time. Specific events are associated with specific moments on the temporal axis and do not have this kind of lasting existence. As such, they do not form a proper object for dispositions. Occurrence predicates refer to specific events, and they can be related to other specific events.

8. Semantic Content

Another difference between dispositional predicates and occurrence predicates supporting the idea that the latter, but not the former, refer to actual situations can be formulated in terms of the predictions the use of a predicate makes about the role of the Experiencer in the state of affairs it refers to.

Occurrence predicates refer to or entail very specific behavior on the part of the Experiencer. The choice of Stimulus does not influence this behavior. Allowing for the difference of degree, an Experiencer will display the same type of behavior when he is glad (*yorokobu*, *bucura*) whatever the Stimulus of his gladness: the news that his sick son has recovered, the receipt of a nice present or the prospect of a sunny day. The function of referring to specific behavior associated with emotion is lexicalized in the case of occurrence predicates in Japanese. Accusative emotion verbs like *yorokobu* (manifest joy) or *kanashimu* (manifest sadness) and all the *-garu* derived verbs refer to emotion episodes focussing on the external manifestation component. The use of other

types of occurrence predicates, adjectives and causative forms, entails the presence of the appropriate manifestations, even though the predicates do not refer to them directly.

In the case of dispositional predicates, the semantic information associated with the predicate does not seem to include a description of the manifestations of the Experiencer. This is not merely the reflex of the fact that dispositional predicates refer to tendencies to act rather than to actual acts. Theoretically, the predicates could refer to a tendency to behave or feel in a specific manner. This is not the case. The entailments regarding the behavior of the Experiencer made in using a dispositional predicate vary depending on the choice of Stimulus. The use of these predicates is appropriate in a large range of situations, covering a variety of manifestations. Being in love with a person, for example, is normally accompanied by manifestations such as increased pulse, blushing, trembling hands, etc., manifestations not likely to be found in someone who loves chocolate or climbing the mountains. This kind of knowledge comes from pragmatic sources and has nothing to do with the lexical description of the predicate *love*, or *ai suru*. What loving Mary, loving chocolate or loving the mountains have in common is not the reaction of the Experiencer but rather his attitude towards the Stimulus. The predicate *love* in English and its cognates in other languages are cover terms for a variety of more specific emotions.

Loving, hating, admiring presuppose a valenced reaction towards a Stimulus, a positive or negative appraisal, a fact noticed by Pesetsky (1995: 56). What Pesetsky does not mention is the fact that the specific reactions accompanying the appraisal, whether external or internal, are not part of the semantic description of the predicate. If we relate *like* and *please* through the rule of causativization, as suggested by Pesetsky, the presence of entailments regarding the external manifestations of the emotion in the derived form and its absence in the base form cannot be explained.

The vagueness of dispositional predicates with respect to the nature of the experiencer's feeling offers an argument against accounts claiming that they refer to internal states. The feelings of the experiencer example (24a) are not comparable with the feelings associated with the disposition referred to by example (24b).

- (24) a. Taroo-wa Hanako-o ai shite iru
Taroo-TOP Hanako-ACC love
Taroo loves Hanako

- b. Taroo-wa ongaku-o ai shite iru
Taroo-TOP music-ACC love
Taroo loves music

The difference between the feelings implied by the use of (24a) and those implied by the use of (24b) is not just a matter of degree.

As there is no specific behavior that would appropriately describe all the cases referred to using the predicate *ai suru*, so there is no single internal state that could be associated with all such cases. This casts a serious doubt on the description of these predicates as referring to internal states. This is not the case for occurrence predicates. The use of words such as *ureshii*, *yorokobu*, *odoroku*, *kanashimu*, *kowagaru*, *okoru*, etc., implies the existence of a particular, recognizable internal state throughout the situation referred to by the predicate.

It can be argued that dispositional predicates and occurrence predicates are associated with different ways of conceptualizing emotions. Occurrence predicates are labels for specific emotions and the linguistic properties of these predicates are determined by the internal structure of emotional episodes. Dispositional predicates, on the other hand, do not seem to be associated with particular emotions, not even with tendencies towards specific emotions. Dispositional predicates reflect the relational character of emotions. Emotions are intentional states, states directed towards an object. Dispositional predicates represent the conceptualization of emotions as asymmetric binary relations. Their linguistic properties are not determined by the internal structure of emotional episodes, the fact that emotional episodes involve internal feelings accompanied by external manifestations. The syntactic behavior of dispositional predicates seems to be more sensitive to the properties of the participants. We showed in Section 5 how the animacy of the participants influences the choice of case frame with some dispositional predicates.

9. Adnominal Modification

It is a peculiarity of Japanese emotion adjectives that, unlike semantically related adjectives in other languages, they cannot be used as adnominal modifiers of the experiencer argument.

- (25) a. Ion este un baiat vesel/ trist
 Ion is boy cheerful/sad
 Ion is a cheerful/sad boy
- b. ??Taroo-wa ureshii/tanoshii/kanashii hito da
 Taroo-TOP cheerful/joyous/sad person COP

This restriction is unexpected considering the argument structure of these adjectives and the generally accepted mechanisms for adnominal modification. Emotion adjectives in Japanese are basically two-place predicates, but most of the adjectives also have an intransitive use, where the stimulus argument is no longer implied and the adjective is predicated of the experiencer (26). We would expect this use to yield corresponding adnominal structures. This expectation is not fulfilled, as illustrated by the unacceptability of (25b).

- (26) watashi-wa ureshii/kanashii/tanoshii
 I-TOP cheerful/joyous/sad
 I feel cheerful/joyous/sad

The adnominal form could be ruled out by invoking the existence of an unsaturated internal argument. Although this account seems the right one for adjectives like *urayamashii* (envious) or *hazukashii* (ashamed) which always imply the existence of a stimulus argument, the explanation is not very convincing intuitively when we consider the meaning of predicative structures with *ureshii*, *kanashii*, *tanoshii*. See Chapter 2 for discussion regarding the semantic effect of deletion with various classes of emotion predicates in Japanese.

Another solution would be to blame the impossibility of adnominal constructions on the person restriction. Since the present non-modal form of these adjectives is acceptable only with 1st person experiencers a nominal head referring to an individual other than the speaker is semantically inappropriate. The fact that these adjectives are acceptable with 3rd person experiencers in embedded clauses makes this argument rather unconvincing. Whatever makes embedded clauses acceptable should make adnominal constructions acceptable, too.

- (27) a. musume-ga ureshii toki soba-ni ite ne
 daughter-NOM cheerful COMP near BE PRT
 Be with your daughter when she is cheerful
- b. *ureshii musume
 cheerful daughter

The disposition vs. occurrence distinction can help clear this puzzle. The Japanese emotion adjectives discussed are all occurrence predicates. The function of adnominal constructions is to make attributions: to attribute the property expressed by the adjective to the object denoted by the nominal. The occurrence reading does not seem well fit to fulfill this function. To be used attributively, an adjective needs to have a dispositional reading. The difference between emotion adjectives in Japanese and Romanian or other European languages consists in the fact that while emotion adjectives in European languages are ambiguous between a dispositional and an occurrence reading, Japanese emotion adjectives can express only occurrences. In the predicative function they can be associated with a generic or habitual reading yielding a dispositional use. In adnominal structures, however, such readings are blocked. Only the basic reading of the adjective is available, and this is the occurrence interpretation.

It is interesting to note that Japanese occurrence adjectives behave like the past participles of EO verbs in Romanian. These past participles denote occurrences and, like the occurrence adjectives in Japanese are not easily found in adnominal modifying constructions. The participle is acceptable in predicative position (28b), but the adnominal use in (28c) is unacceptable.

- (28) a. Marin se supara/mira/ amuza/ plictiseste
 Marin-NOM CL-REFL anger/surprise/amuse/bore
 Marin is getting angry/ surprised/ amused/ bored
- b. Marin este suparat/ mirat/ amuzat/ plictisit
 Marin-NOM is angry/ surprised/ amused/ bored
 Marin is angry/ surprised/ amused/ bored
- c. *Marin este un om suparat/ mirat/ amuzat/ plictisit
 Marin-NOM is DET man angry/ surprised/ amused/ bored
 Marin is a(n) angry/ surprised/ amused/ bored man

The intuitions of linguists and psychologists treating emotion adjectives clearly reflect the linguistic status of the distinction between dispositions and occurrences in their native language. Although Japanese linguists may differ in their intuitions regarding the argument structure of certain adjectives, see Chapter 2, they will not include on their lists of subjective adjectives adjectives denoting human traits such as *yasahii* (kind), *kibishii* (severe), *okubyo* (coward), etc.

If we look at the lists of emotion adjectives offered by Western linguists and psychologists we shall immediately notice that no difference is made between adjectives expressing traits of character (dispositions) and psychological states (occurrences). For example, the list of emotion words given in Scherer (1988), partially quoted in (29), includes adjectives such as *courageous*, *cowardly*, *frolicsome* which clearly do not express emotional states of the experiencer but traits of character. Scherer makes no difference between such words and adjectives like *afraid*, *worried* which cannot express dispositions. This is because the bulk of adjectives in English are like *cheerful*, *envious*, *sad*, they can be used to express emotional states, but can just as well refer to dispositions related to those states.

- (29) afraid, angry, ashamed, cheerful, courageous, cowardly, envious, frightened, frolicsome, humble, jealous, proud, sad, shy, weak, worried

Dixon's (1982) classification of adjectives contains the class called HUMAN PROPENSITY which includes both adjectives expressing emotional occurrences and adjectives referring to typical human traits: *happy*, *sad*, *cruel*, *kind*, *clever*, *generous*, *rude*, etc. All the adjectives in this class have certain semantic and morphological properties setting them apart from adjectives in other classes: they do not have exact antonyms, they do not have inchoative and causative derivatives, they have related adverbs, they are not used in secondary predication structures (topic-manner constructions in Dixon's terms). Dixon does not feel the need to distinguish among the members of this class, which is not surprising considering their identical behavior in the contexts he provides. The fact that some adjectives like *cruel*, *rude*, *brave* describe human propensities as seen by an external witness, while *sad*, *happy*, *glad* refer to internal reactions, does not represent an issue.

10. Discussion

In this chapter we have introduced the distinction between dispositional emotion predicates and occurrence emotion predicates. The distinction is applicable to the entire range of emotion predicates although it is not associated with a particular lexical category or a specific syntactic structure in Japanese and Romanian. As mentioned in Section 3, in other languages such as Ewe, the linking of arguments is influenced by the distinction between the dispositional and the occurrent use.

There are reasons to believe that introducing this distinction is a descriptively adequate move. Applied to Japanese, it permits to predict correctly the behavior of emotion predicates with respect to various morphological processes. Predicates which behave like prototypical states, that is dispositional predicates, will not exhibit the person restriction observed with Japanese experiencer adjectives. It will be argued in Chapter 7 that the restriction is limited to occurrence predicates. Dispositional adjectives will not undergo –GARU affixation. Verbs in the dispositional class will undergo standard causativization, if causativization is possible at all, but will not appear in the experiencer Causative construction, see Chapter 6.

We have argued that dispositional predicates and occurrence predicates are associated with two distinct ways of conceptualizing emotions. Occurrence predicates refer to actual emotion episodes and their morpho-syntactic and semantic properties are determined by the structure of those emotional episodes. Dispositional predicates do not refer to emotions qua emotions, but present them as binary relations. As a consequence, the syntactic structure of dispositional predicates is more sensitive to the properties of the participants than to the role they play in the emotional episode. In Chapter 8 we argue that the two types of predicates involve different case marking mechanisms.

Dividing emotion predicates into dispositional and occurrence predicates has consequences for the way in which the relation between ES and EO pairs is characterized. Previous studies generally present ES and EO predicates as overlapping semantically, with EO verbs exhibiting a more complex structure. We have argued that the domains of emotional predicates and dispositional predicates do not overlap, with the exception of the dispositional use of occurrence predicates. We pointed out some difficulties that arise when we attempt to derive occurrence predicates on the basis of dispositional predicates. As mentioned in the introductory section, it makes no sense to contrast individual dispositional predicates with individual occurrence predicates.

Dispositional predicates enter into a semantic relation with the whole paradigm of an occurrence predicate. On this account, *fear* has no direct relation to *frighten*. It has a relation to the paradigm *frighten – be frightened*.

Talking about ES and EO pairs loses much of its appeal once the pairs are reduced to the EO verb and the morphologically related ES predicates. It is very likely that much of the literature devoted to the linking of arguments with emotion predicates might not have been written had not the *fear – frighten* pair existed. A question that remains is why occurrence predicates exhibit different linking patterns cross-linguistically. This problem will be addressed in Chapter 6.

Chapter 5

Emotion Predicates in Romanian

1. Introduction

It was argued in Chapter 3 that the evidence for the causativity of EO verbs is not as compelling as it seems. The most serious problem for the causative analysis is posed by the aspectual properties of these verbs. Standard lexical causatives are accomplishments, the only aspectual class which represents an event configuration fit to encode the causative relation, see Dowty (1979).

2. Aspect

In what follows we will describe the behavior of Romanian EO verbs with respect to various aspectual tests and discuss the emerging picture of the event structure of these predicates. It will be shown that these verbs do not exhibit the properties of accomplishments. What is more, EO verbs do not seem to fit neatly in any of the recognized lexical aspectual classes. It will be argued that trying to match the causative situation with this event configuration leads to difficulties regarding the linking of arguments as well as the relation between EO verbs and the corresponding reflexive forms.

2.1. Aspectual Properties of Romanian EO Verbs

Lexical causative verbs referring to physical activities are accomplishment verbs. The event structure of these predicates consists of a process culminating with a change of state. As mentioned before, the process is associated with the causing event and the change of state is associated with the caused event. This configuration is revealed by aspectual tests involving adverbial modification.

- (1) a. Ion a spart geamul in 3 minute
Ion aux break window P 3 minutes
Ion broke the window in 3 minutes

- b. Ion a spart geamul la ora 3
 Ion aux break window at hour 3
 Ion broke the window at 3 o'clock
- c. *Ion a spart geamul 3 minute
 Ion aux break window 3 minutes
 Ion broke the window *for 3 minutes

The adverbial phrase *in 3 minute* in (1a) applies unambiguously to the process component of the verb. Since the process subevent associated with an accomplishment verb is telic, only adverbs of limited duration are acceptable in this context. Duration adverbs, which do not refer to a bounded interval, do not co-occur with accomplishments. (Duration adverbs such as that in (1c) are acceptable when a mass nominal appears in object position. The sentence in that case does not refer to an accomplishment, but to an activity, see Dowty (1979), Tenny (1987) for the aspectual consequences of the choice of nominal argument.) Accomplishments also co-occur with punctual time adverbs, as in (1b). In this case, the adverb indicates the time of the change of state.

An adverbial phrase denoting a left-bounded time interval, an interval with an initial point, is not acceptable with accomplishment verbs in the past form, the form which implies that the change of state has occurred (2a). This suggests that the resulting state, an interval matching the requirements of the adverb, is not part of the event structure expressed by the active form of the verb. With a present form of the verb, such an adverbial is not very acceptable, but to the extent to which it can be used it will modify the process component, as in (2c). The sentence implies that the change of state has not yet occurred. To refer to the resulting state, the state following from the change induced by the process, we have to use a different lexical item, a participle or an adjective as in (2b).

- (2) a. * Ion a spart geamul de 3 minute
 Ion aux break window P 3 minutes
 *Ion broke the window since 3 minutes ago

b. Geamul este spart de 3 minute
 window be break-PRT P 3 minutes

The window has been broken since 3 minutes ago

c. ?Ion sparge geamul de 3 minute
 Ion break window P 3 minutes

Ion has been breaking the window since 3 minutes ago

Applying the same tests to EO verbs we obtain completely different results. Although, given the particularities of emotional situations, there are certain restrictions on the use of adverbial phrases, the results are sufficient to draw the picture of the event structure for EO verbs.

(3) Purtarea lui Ion l-a enervat/ bucurat/ speriat/ surprins
 behavior GEN-Ion CL-aux irritate/ cheered/ frightened/ surprise
 pe Marin in *10 minute/ 2 secunde
 P-ACC Marin P *10 minutes/ 2 seconds
 Ion's behavior irritated Marin in *10 minutes/ 2 seconds

Adverbial modifiers denoting a telic interval, are not acceptable with these verbs, as illustrated by (3) above. The apparently acceptable examples have a different semantic function. It will be noticed that only adverbial modifiers referring to short intervals are acceptable. This suggests that the role of the adverbial is not to measure the interval of change, as argued in Tenny (1994), but rather to measure the speed of the change. The speed of change, in turn, measures the intensity of the emotion. This claim is supported by the fact that sentences containing an adverbial of the type we are discussing do not admit modification by means of degree adverbials indicating a moderate level of emotion.

(4) a. *Purtarea lui Ion l-a enervat **putin** pe Marin in 2 secunde
 Ion's behavior irritated Marin **a little** in 2 seconds
 b. *Purtarea lui Ion l-a **cam** speriat pe Marin cit ai clipi din ochi
 Ion's behavior **rather** frightened Marin in a blink

If we remove the degree modifiers *putin* and *cam*, the sentences in (4) above are acceptable, like (3). Notice that the unacceptability of (4) is not due to the degree adverbials *putin* (a little) and *cam* (rather) which can accompany EO verbs on their own, as in (5).

- (5) a. *Purtarea lui Ion l-a enervat putin pe Marin*
 Ion's behavior irritated Marin a little
 b. *Purtarea lui Ion l-a cam speriat pe Marin*
 Ion's behavior rather frightened Marin

If the function of the time adverbial were the same as in constructions with verbs referring to physical activities, the ban on adverbials referring to longer intervals of time, as well as the co-occurrence restriction between time and degree modifiers would be unexpected.

- (6) a. *Ion a deschis putin usa in trei minute/ 3 ore/3 zile*
 Ion aux open little door P 3 min/3 hours/3 days
 Ion opened the door a little in three minutes/ hours/ days
 b. *Ion a cam murdarit haina in trei minute/trei zile*
 Ion aux rather soil coat P 3 minutes/days
 Ion rather soiled his coat in three minutes/ days

We saw in (1b) that accomplishment verbs co-occur freely with punctual adverbs. Punctual adverbs do not sound very natural in sentences with EO verbs, but temporal clauses referring to a punctual time interval are perfectly acceptable (7). As was the case with accomplishment verbs referring to physical activities, punctual adverbials denote the moment when the change of state occurred. The experiencer's emotional state changed from not irritated to irritated at 3 o'clock, or when Ion burst into laughter.

- (7) *Ion l-a enervat pe Marin cind a izbucnit in ris/?la ora 3*
 Ion CL-aux irritate P-ACC Marin when he burst into laughter/? at 3
 Ion irritated Marin when he laughed/ ?at 3 o'clock

Duration adverbials freely co-occur with EO verbs.

- (8) Purtarea lui Ion l-a enervat pe Marin 3 ore
 behavior GEN-) Ion CL-aux irritate P-ACC Marin 3 hours
 Ion irritated Marin for 3 hours

As we saw above, such adverbials are acceptable in sentences with verbs referring to physical activities only when the object is a mass noun. In this case the construction does not have an accomplishment reading but an activity reading. The duration adverb measures the process in which the actor is involved and the construction implies that the change of state has not occurred. With EO verbs, the duration adverbial measures the resulting state, following the emotional change. Aspectual tests involving adverbial modification tell us the following about the event structure of accomplishments and of EO verbs.

- Both accomplishments and EO verbs seem to have an event structure consisting of two subevents. One subevent is punctual and the other has duration. The interpretation of sentences with adverbs of punctual time suggests that the punctual subevent can be identified with the change of state incurred by the undergoer participant.
- The two types of predicate differ with respect to the nature and position of the durational subevent relative to the change. Accomplishments contain a telic interval, an interval delimited by the moment of the change of state. Adverbial tests, see example (8), indicate that EO verbs contain an interval in their event structure but the interval is not a telic interval, as in the case of accomplishments.

The implication relations between sentences with perfect and progressive forms can help make clearer the differences between EO predicates and standard accomplishments.

A sentence with the progressive form of an accomplishment implies the falsity of the corresponding sentence with the perfect form of the verb (9b) ¹⁾. This implication relation is determined by the event structure of the verb. The progressive form selects a (homogeneous) interval. In this case it highlights the activity of the actor. The use of the

perfect form ²⁾ asserts the occurrence of the change of state. The fact that asserting the process subevent implies the falsity of the construction asserting the change of state suggests that the change component in the event structure of the verb is ordered after the process component.

- (9) a. Ion darima casa--> *Ion a darimat casa
Ion is pulling down the house---> *Ion has pulled down the house
b. Ion darima casa---> *Ion darimase casa
Ion was pulling down the house --->* Ion had pulled down the house

In the case of EO verbs a sentence with the progressive form of the verb implies the truth of the corresponding sentence with the perfect form of the verb (10).

- (10) a. Cartea il amuza pe Ion--> Cartea l-a amuzat pe Ion
The book amuses Ion---> The book has amused Ion
b. Cartea il amuza pe Ion---> Cartea il amuzase pe Ion
The book was amusing Ion---> The book had amused Ion

Assuming that the progressive form selects an interval and the perfect form is associated with a point on the temporal axis (the change of state), the implication relations illustrated by the sentences above suggest that, in the case of EO verbs, the order between the point and the interval selected by the progressive is the reverse of the order observed with standard accomplishments. Indeed, the interpretation of these sentences clearly indicates that the interval referred to by the progressive form is not a state or a process leading to the change of state, but the state resulting from the change.

The same conclusion can be drawn from evidence involving conjoined sentences. With accomplishment verbs, the conjunction of a sentence in the perfect with a sentence in the progressive results in a contradiction. Such conjoined sentences with EO verbs are well-formed.

- (11) a. *Ion a darimat casa si o darima si acum
Ion has pulled down the house and is still pulling it down
b. Cartea l-a amuzat pe Ion si il amuza si acum
The book amused Ion and it is still amusing him

Example (11a) is contradictory because it asserts that both the result (the change of state) and the cause (the process leading to that change) hold at the same time. Example (11b) merely asserts that a change of state has occurred and that the resulting state still obtains. Hence (11b) is well formed.

The results of the aspectual tests performed so far are summed up in Fig.1. Even a cursory glance shows that the two types of verbs belong to very different aktionsart types.

Fig.1.

	Accomplishments	Emotion Verbs
in x min:	ok	no
at x :	ok	?ok
for x min:	no	ok
progressive-->perfect:	no	yes
perfect&progressive:	no	yes

The interpretation of sentences with derived forms of accomplishments and EO verbs also reveals certain differences between these predicates. These differences bear on the event structure of the two types of predicate. The active form of accomplishment verbs cannot be used to refer to the state resulting from the change. The participle, or an adjective must be used to this effect. EO verbs, on the other hand, can be used in their verbal form to refer to the resulting state. Adverbial modifiers reveal this distinction.

- (12) a. Ion darima casa de 3 zile
 Ion-NOM pull down-PROG house-ACC P 3 days
 Ion has been pulling down the house for 3 days
- b. Cartea il plictiseste pe Ion de 3 zile
 book-NOM CL-ACC bore-PROG P-ACC Ion P 3 days
 Ion has been bored with the book for 3 days

The adverbial modifier *de 3 zile* measures an interval from its initial point on. In this

sense it is the mirror image of *in x time*. Used with accomplishments it marks the initial moment of the process leading to the change of state. Sentence (12a) above cannot be used to refer to the interval following the change of state. That is, (12a) is true if the house is still standing. Sentence (12b), on the other hand, refers to the state following the change of state. The experiencer must have undergone the change from *not bored* to *bored* for (12b) to be true.

For EO verbs, sentences like (12b) above and sentences with adjectival forms referring to the emotional state following the change are practically synonymous. Both refer to the same interval of time, namely, the interval following the change of state. With accomplishment verbs, participial constructions referring to the resulting state carry a different meaning from constructions involving the active form of the verb. While the former refer to the resulting state, the latter refer to the process leading to the change of state.

- (13) a. Cartea îl plictiseste pe Ion <=> Ion este plictisit de carte
 book bore-PROG P-ACC Ion Ion be bore-PART P book]
 The book is boring Ion Ion is bored with the book
- b. Ion darima casa *<=> Casa este darimata
 Ion pull down-PROG house house be pull down-PART

Assuming that both accomplishments and EO verbs are associated with complex situations involving a process followed by a change bringing about a new state, the differences regarding the event structure of the two types of predicates can be represented as follows:

Fig 2

Accomplishments

[process]>>>[change]>>>[state]

EO verbs

[process]>>>[change]>>>[state]

The underlined part represents the subevents actually included in the event structure of the predicate. The part that is not underlined represents subevents which, although

implied by the use of the predicate, are not included in its event structure. Such subevents cannot be expressed using the active form of the verb. EO verbs seem to be the mirror image of accomplishment verbs. The former contain in their event structure a change of state and the resulting state, the latter include a process and the resulting change of state.

2.2. Mapping Problems

The aspectual class of standard lexical causatives is accomplishment. Dowty (1979) argues that this is to be expected.

"If one examines the large literature on "causatives" in GS, the class of verbs there referred to as causatives seems to be co-extensive with the class of accomplishments, though aspectual syntactic tests like those in 2.2.3. have not been used to define the class. This convergence is not surprising when one recalls that Kenny considered accomplishments to be describable as "bringing it about that p" for some proposition p." (Dowty 1979: 91)

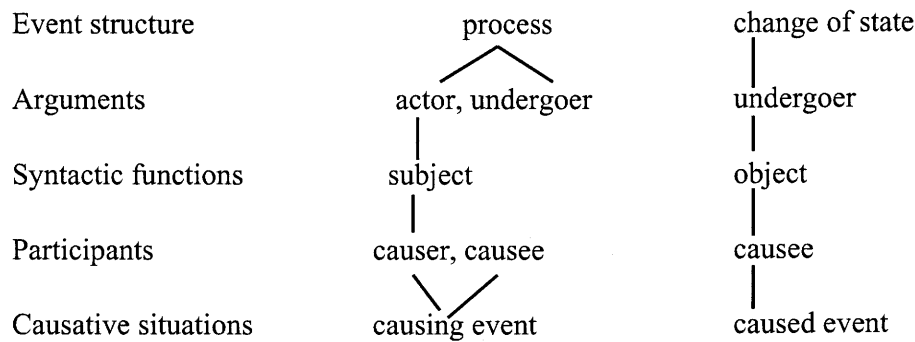
In fact, Dowty argues that all accomplishments should be analysed as causatives. With the notable exception of the RRG treatment advocated by Van Valin (Van Valin and LaPolla 1997), the association between causative verbs and accomplishments seems to be generally accepted.

We have seen that accomplishments consist of two subevents: an activity, followed by a change of state. It is easy to map the prototypical causative situation onto this event structure. The activity subevent of the accomplishment can be associated with the causing event in the causative situation and the change of state subevent with the caused event. The two subevents are temporally ordered, with the activity subevent preceding the change of state subevent. This temporal ordering is compatible with the temporal ordering of events in a causative situation; the causing event precedes the caused event.

The linking of participants in the two subevents to syntactic positions can be correctly derived from this configuration. The activity subevent involves two participants, an actor and an undergoer. The second subevent, the change of state, refers only to the affected participant, the undergoer. The participant associated exclusively

with the first subevent, i.e. the actor, is mapped onto subject position and the unique participant associated with the second subevent is mapped onto object position (see Grimshaw 1991). The mapping between the event structure of accomplishments and the causative situation, as well as the linking of participants, is schematically presented below.

Fig.3 Causative analysis of accomplishments



The compatibility between accomplishments and causatives is guaranteed by the event structure. In both cases we have two temporally ordered subevents. The compatibility extends to the participant structure of the two subevents. The first subevent involves both participants while the second subevent involves just one of the participants. This ensures the smooth linking of participants to syntactic positions. The participant which appears only in the first subevent, namely the agent, is associated with the subject position while the participant which appears in the second subevent is linked to the object position.

In what follows we shall examine the possibility of mapping the causative situation onto the event structure of EO verbs, as it emerged from the aspectual tests performed above.

Co-occurrence with adverbial modifiers and the semantic relation between progressive and perfect forms have suggested that the event structure of EO verbs could be decomposed into two sub-events, a change of state subevent and a (resulting) state subevent. If we consider the event structure of the prototypical causative situation it is clear that such an event structure is not readily compatible with the causative interpretation. This is because both the change of state and the resulting state are

normally interpreted as corresponding to the caused event. EO verbs, then, contain no subevent in their event structure that could be related to the causing event.

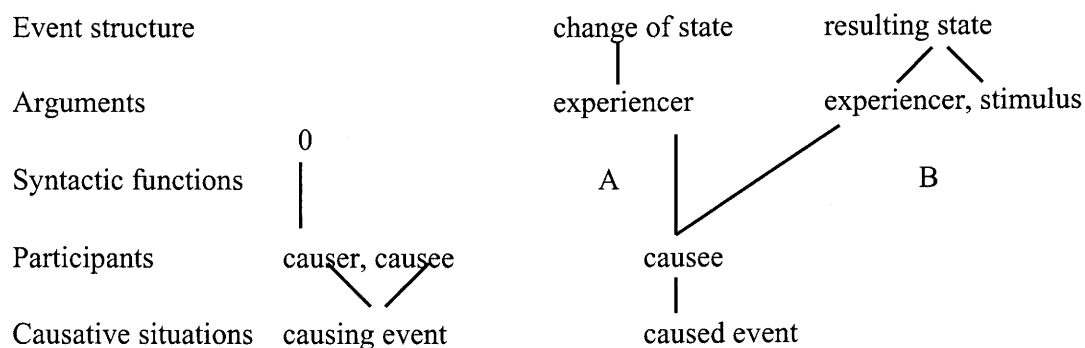
Fig.4.

.....>>>> change of state>>>> resulting state
causing event>>>>caused event

The subject of EO verbs has been analyzed as the Causer, see Pesetsky (1995). A Causer, however, is the main participant in the causing event. We have seen that the event structure of EO verbs cannot accommodate the causing event. This leaves us with two questions. The first is: where does the causative interpretation of EO verbs come from? Given the aspectual properties, with the implications they have for the event structure of the verb, EO verbs should be interpreted at most as inchoatives. The intuition that EO verbs are causatives is so strong that it has prompted researchers such as Grimshaw, Tenny and Pustejovsky, researchers who lay special importance on the effect of aktionsart on semantic and syntactic properties, to treat EO verbs as accomplishments, in spite of clear evidence to the contrary.

The second question concerns the mapping of the stimulus argument to subject position. The event structure of EO verbs suggested above seems to select the experiencer rather than the stimulus for subject position. This is because the change of state regards the experiencer. Consequently, the experiencer participant must be linked to the first subevent. It is possible to introduce the stimulus participant in the resulting state, but then, given the generally accepted linking rules, this participant should get mapped onto object position. Fig. 5 below represents schematically the difficulties arising when we try to map the event structure of EO verbs onto the prototypical causative situation.

Fig. 5



The causing event, as it is generally understood, represents the event in which the causer and the causee interact. The caused event that follows presents the change resulting from this interaction. The change affects only the causee and not the causer. The event structure of EO verbs seems to consist of the change of state sub-event followed by a state sub-event. The Experiencer is the only participant in the first sub-event. The state sub-event can be argued to involve both the Experiencer and the Stimulus participant because the resulting state of the Experiencer is an intentional state, a state directed towards an object.

Applying the standard linking rules to this event structure will yield the ES linking. The Experiencer, which is the only participant in the first sub-event, gets mapped onto subject position, if an analysis such as Grimshaw (1990) is adopted. "*The generalization is that an argument which participates in the first sub-event in an event structure is more prominent than an argument which participates in the second sub-event*" (cf. Grimshaw 1990:26). Function A in the figure above should, then, be subject. Consequently, the Stimulus argument, which appears only in the second sub-event, will appear in object position (function B above). The syntactic functions actually assigned to participants are, however, the reverse. A is in reality the object and B is the subject.

Grimshaw invoked the aspectual tier, which reflects the causal dimension of predicates, in order to avoid the linking problem posed by EO verbs, given the Thematic Hierarchy. But the aspectual properties revealed by these verbs clearly show that the solution is not viable. Applying Grimshaw's generalization above to the real event structure of EO verbs, instead of assuming a theoretically convenient event structure, yields again the wrong linking pattern, just as the Thematic Hierarchy did. In what

follows we shall attempt to find a solution for the linking problem and suggest a source for the intuitive appeal of the causative hypothesis.

2.3. The Change of State Component

The event structure of EO verbs, as revealed by aspectual tests, does not correspond to any of the standard aspectual classes. It was demonstrated that these verbs cannot be identified with accomplishments. Accomplishments consist in a process culminating in a change of state. EO verbs seem to describe a change of state and the resulting state that follows from it. Nor is it possible to characterize these verbs as achievements. Achievements are punctual while EO verbs have a durational component.

Previous linguistic literature is not very clear on the exact status of these verbs. Dowty (1976) describes emotion predicates in this class, which he calls 'psych-movement verbs', as stative predicates having an achievement use. VanVoorst (1992) attacks the causative analysis of EO verbs on the basis of their aspectual properties. He argues that with respect to various aspectual tests psychological predicates range with achievements and states and differ from activities and accomplishments. VanVoorst claims that all psychological predicates have the properties of 'non-punctual achievements' because, unlike genuine states, they 'take place'. He does not attempt to explain why predicates with these aspectual properties have been characterized as causatives.

The Romanian data presented in the previous section supports the conclusion that EO verbs share properties with achievements and states. One possibility is to attribute to them the event structure assumed in the previous section, a complex event structure comprising a change of state sub-event and a state sub-event. This event structure would be a fifth aspectual class, found only with psychological predicates. The disadvantage of this analysis is that the linking pattern it yields is the wrong one, as demonstrated above.

We could, alternatively, adopt VanVoorst's analysis and argue that EO verbs are non-punctual achievements. The event structure would then consist of a single event. This would leave us with the mapping problem at the point where we started. Besides, describing EO verbs as achievements, albeit 'non-punctual' is not intuitively very appealing. The arguments offered by VanVoorst for his account are not very strong. The only tests where psychological predicates behave like achievements rather than states are

passivization and co-occurrence with adverbs of intensity. VanVoorst claims that stative verbs in general do not have passive forms, which is incorrect. Dispositional emotion predicates also have passive forms, although it was argued in Chapter 4 that they behave like prototypical states.

- (14) a. Prietenii il admira/ iubesc/ urasc pe Ion
 friends CL-ACC admire/ love/ hate P-ACC Ion
 Friends admire/ love/ hate Ion
- b. Ion este admirat/ iubit/ urit de prieteni
 Ion is admire/ love/ hate-PART P friends
 Ion is admired/ loved/ hated by his friends

The remaining evidence refers to co-occurrence with adverbs of intensity. VanVoorst presents the following examples to support his claim that psychological verbs have achievement properties.

- (15) a. *He was painfully missing three teeth
 b. He could hear me without effort
- (16) a. These wars spontaneously struck me as very futile
 b. He amused me without any trouble
 c. John was easily frightened by these sales people's appearances
 d. I dislike these meals intensely

Example (15a) illustrates the behavior of states while (15b) illustrates the behavior of achievements. Sentences (16a-d) present various classes of psychological verbs. All the examples are, according to VanVoorst, acceptable, indicating that psychological verbs pair with achievements rather than with states. VanVoorst further argues that the way in which the adverb combines with the verb in the case of psychological verbs differs from the way in which it combines with state verbs, in the cases where an adverb of intensity appears to modify a stative verb.

- (17) These dogs stink terribly

According to VanVoorst, the adverb in (17) above specifies the degree of the state, i.e. the intensity of the smell, and not the ongoings of the stinking event. The adverbs in (16a-d) are argued to behave differently.

The acceptability of these sentences is not beyond dispute. It is also worth noticing that he offers no example of an EO verb in the active form. Examples like (16b) involve the agentive reading of an EO verb, which has distinct aspectual properties.

In Romanian, sentences with active forms of EO verbs modified by adverbs of intensity are not natural.

- (18) a. * Articolul l-a surprins/amuzat/ plictisit ușor/ greu pe Ion
 article-NOM surprise/ amuse/ bore with ease/difficulty P-ACC Ion
 The article surprised/ amused/ bored Ion with ease/ with difficulty
- b. *Vizitele politistului l-au speriat/ suparat spontan pe Ion
 call-NOM policeman-GEN scare/anger spontaneously P-ACC Ion
 The policeman's calls scared/ angered Ion spontaneously

Degree adverbs are acceptable only when they specify the intensity of the emotional state.

- (19) Vizitele ofiterului de politie l-au speriat/ suparat/ plictisit intens/ puțin pe Ion
 The policeman's calls scared/ angered/ bored Ion intensely/ a little

This suggests that, in Romanian at least, EO verbs pair with states rather than with achievements in this respect. The only remaining evidence for the achievement-like behavior of EO verbs is the co-occurrence with punctual adverbs or with clauses specifying a punctual interval. As mentioned above there are pragmatic limitations on the applicability of this test. However, the evidence seems to indicate that EO verbs, unlike stative emotion predicates, can be related to a point on the time axis, that they 'take place' at specific times, as VanVoorst suggested.

- (20) a. Ion l-a suparat/ speriat pe Marin ieri cind s-au impartit premiile
 Ion angered/ scared Marin yesterday, when the awards were distributed

- b. *Marin l-a iubit/respectat pe Ion ieri cind s-au impartit premiile
Marin loved/ respected Ion yesterday, when the awards were distributed

The evidence is not sufficient, however, to assign the verbs to the achievement class. Unlike similar sentences with genuine achievements, the sentences above do not say anything about the conclusion of the event. Only the initial point of the emotional event is mapped onto the time axis. It could be the case that the experiencer is still in the emotional state that was initiated at the time specified by the adverbial phrase. A sentence such as (21) below implies that the event has reached its culmination at the time indicated by the adverbial clause. Such an interpretation is not available with standard achievement predicates. It cannot be the case that the visual experience continues after the moment of time specified by the adverb. (It is worth noticing that perception verbs such as 'see' are among VanVoorst's 'non-punctual achievements').

- (21) Ion l-a vazut pe Marin ieri cind s-au impartit premiile
Ion saw Marin yesterday, when the awards were distributed

Another important difference between EO verbs and achievements is the possibility of using the present form to refer to an ongoing event. Achievements cannot be used in this way. With achievements the present form has a generic or habitual reading or it refers to a future event. Perception verbs are subject to a kind of person restriction; they are acceptable in this form only when the experiencer is in the 1st person singular. EO verbs, on the other hand, can be used in the present form with a progressive reading irrespective of the features of the experiencer.

- (22) a. Ion ajunge acasa
Ion arrive-PRES home
Ion arrives home
b. ?Ion vede casa
Ion see-PRES house
Ion sees the house

- c. Eu vad casa
I see-PRES house
I see the house
- d. Cadoul il bucura pe Ion
present cheer-PRES Ion
The present cheers Ion
- e. Purtarea ta il supara pe Ion
behavior your anger-PRES Ion
Your behavior angers Ion

Sentences (22a) and (22b) involve achievement verbs. Example (22a) has a future reading and example (22b) is acceptable only in a narrative context. Example (22c), however, is perfectly acceptable. Sentences (22d,e), with EO verbs, are most naturally interpreted as referring to an ongoing situation, although (22e) may also have a habitual reading.

The data presented above allows us to conclude that EO verbs differ from genuine achievements in important respects. The behavior of a verb belonging to an aktionsart type should be consistent with the properties of that class throughout its forms. If a verb is an achievement it is expected to behave in a predictable way in the past but also in the present form. A verb cannot be an achievement only in the past tense. What the data above indicates is the fact that, although EO verbs appear to contain specification of a point on the temporal axis, there is little evidence that this point should be interpreted as a distinct sub-event. Otherwise expressed, there is no sufficient proof for the presence of a BECOME operator in the semantic structure of EO verbs. The interpretation of sentences containing the present form of the verb is particularly important in this sense. Even if perception verbs in the present form can refer to a present moment if the Experiencer is the speaker, this does not mean that they refer to an interval. Those sentences are just true at the moment of speech. By contrast, similar sentences involving an EO verb, such as examples (22d,e) above, clearly refer to an interval of time that includes the moment of speech. As argued before, this interval of time refers to the resulting state, the state obtaining after the change.

If EO verbs are not achievements, what aspectual class do they belong to? The

remaining possibility is to treat them as states. What distinguishes EO verbs from typical states is the possibility of co-occurring with adverbial modifiers determining specific times, the fact that they seem to happen at specific times. This is not, however, an insurmountable problem. There is a generally accepted class of stative predicates which co-occur with specific time adverbial modifiers, namely stage-level predicates.

2.4. EO Verbs and Stage-Level Predicates

The distinction between stage-level and individual-level predicates has received a lot of attention in recent years, see Carlson (1977), Diesing (1992), Kratzer (1989). Stage-level predicates refer to transitory states, whereas individual-level predicates refer to permanent states. Unlike individual-level predicates, stage-level predicates can co-occur with specific time modifiers. The adjectives *vizibil* (visible) and *disponibil* (available) in (23, 24) below are stage-level predicates. Their behavior when modified by specific time adverbials contrasts with that of individual-level predicates such as *inalt* (tall, high) or *spatios* (roomy).

- (23) a. Ieri la trei Muntele Everest era vizibil
Yesterday at three Mount Everest was visible
b. *Ieri la trei Muntele Everest era inalt
Yesterday at three Mount Everest was high
- (24) a. Ieri la trei sala de sedinte era disponibilă
Yesterday at three the conference hall was available
b. *Ieri la trei sala de sedinte era spatioasă
Yesterday at three the conference hall was roomy

Kratzer (1989) argues that the distinction between stage-level and individual-level predicates can be attributed to the presence of a spatio-temporal event argument in the argument structure of the former. She supports her claim by showing that only stage-level predicates admit locative modifiers of the predicate.

The pairs below illustrate this contrast. Although (25b) is not ungrammatical, like (26b), the locative phrase does not modify the predicate, as it does in the case of the stage-level predicate in (25a), but the noun. Example (26b) is acceptable on the reading that the Northern part of Mount Everest is high and not with the meaning that Mount

Everest is high at some location North of the speaker's position.

- (25) a. Muntele Everest este vizibil la Nord
Mount Everest is visible at the North
b. Muntele Everest este inalt la Nord
Mount Everest is high in the North
- (26) a. Pompierii sunt disponibili in curte
Firemen are available in the yard
b. *Pompierii sunt inteligenti in curte
Firemen are intelligent in the yard

The claim that EO predicates are stage-level predicates is at first sight appealing. Such an analysis has already been put forth for a subclass of Finnish EO predicates ³⁾ (Pylkkanen 2000).

Such an analysis would bring an additional bonus. The ES predicates described in Chapter 4 as disposition predicates have been argued to be individual level-predicates (Diesing 1991). If EO verbs could be identified with stage-level predicates the contrast between dispositional predicates and occurrence predicates proposed in Chapter 4 could be translated into linguistic terms as the contrast between stage-level and individual-level predicates ⁴⁾. Stage-level predicates and EO verbs have in common the fact that they refer to transitory states. However, there are a number of aspects distinguishing EO verbs from stage-level predicates.

First, EO verbs do not accept locative modifiers as readily as stage-level predicates. As the sentences below indicate, a locative modifier accompanying an EO verb becomes acceptable only when it is paired with a temporal modifier. Such a restriction does not hold for stage-level predicates, as the acceptability of examples (25a) and (26a) illustrates.

- (27) a. ??Vorbele lui Ion l-au suparat pe Marin pe strada.
Ion's words angered Marin in the street
b. Vorbele lui Ion l-au suparat pe Marin ieri, pe strada.
Ion's words angered Marin yesterday, in the street
c. ??Un zgomot puternic l-a speriat pe Ion in pat
A loud noise frightened Mairn in bed

- d. Un zgomot puternic l-a speriat pe Ion ieri, in pat
 A loud noise frightened Mairn yesterday, in bed
- e. ??Cartile l-au plictisit pe Ion la biblioteca
 The books bored Ion at the library
- f. Cartile l-au plictisit pe Ion ieri, la biblioteca
 The books bored Ion yesterday, at the library

The locative modifiers in the acceptable sentences (27b,d,f) function more like specifiers for the temporal modifier than like genuine locatives. As mentioned before, EO verbs are not comfortable with very specific temporal modifiers, such as *at 3:30 p.m.*, which does not mean that they reject punctual time modification if this is expressed in a less ‘mathematical’ form. The locative modifiers above serve to restrict the time span covered by the adverb *ieri* (yesterday) in an indirect way. This suggests that if EO verbs do have an event argument, this should be characterized as a temporal event, rather than a spatio-temporal event.

A more serious difference between EO verbs and stage-level predicates is revealed by the *when*-clause test. This test is adapted from Vlach (1993). Vlach suggests a test for distinguishing statives from event predicates. The test consists in the interpretation of the predicate when it appears in the matrix and is accompanied by a *when*-clause having an achievement verb as predicate. In this context states provide a time-frame for the event expressed by the *when*-clause. Event predicates receive a different interpretation. The event referred to by the matrix and the one referred to by the *when*-clause are construed as occurring in a sequence. In Romanian the test gives even clearer results because the semantic difference is associated with morphological restrictions. Perfect forms of stative predicates in this language cannot be used in the context of a *when*-clause containing a perfect achievement. The imperfective form must be used instead.

- (28) a. Cind l-am intilnit era tinar
 when CL-ACC meet-PERF be-IMPERF young
- b. *Cind l-am intilnit a fost tinar
 when CL-ACC meet-PERF be-PERF young
 When I met him he was young

- c. Cind am telefonat pompierii erau disponibili
 when call-PERF firemen be-IMPERF available
- d. *Cind am telefonat pompierii au fost disponibili
 when call-PERF firemen be-PERF available
 Firemen were available when I called
- e. Cind m-am uitat muntele era vizibil
 when look-PERF mountain be-IMPERF visible
- f. *Cind m-am uitat muntele a fost vizibil
 when look-PERF mountain be-PERF visible
 When I looked the mountain was visible

All the sentences above have stative predicates in the matrix clause. The pair (28a,b) illustrates an individual-level predicate while the pairs (28c,d) and (28e,f) contain stage-level predicates. There is no difference between the behavior of stage-level and individual-level predicates with respect to this test. The acceptable sentences can receive only the interpretation on which the state provides the time-frame for the event referred to in the temporal clause.

The sentences below illustrate the behavior of event predicates. With these predicates both the perfect and the imperfect form can be used, with the expected difference in meaning. The imperfect form is stative and the event of the matrix clause in this case is interpreted as providing the time-frame for the event referred to by the *when*-clause. When the perfect form is used, the two events are presented as occurring in a sequence. The aspectual properties of the event predicate are irrelevant. Although the pair (29a,b) has an accomplishment for predicate, the pair (29c,d) an activity and the pair (29e,f) an achievement predicate, there are no significant differences among the sentences.

- (29) a. Cind am ajuns la hotel Ion a mincat un curcan
 when arrive-PERF P hotel Ion eat-PERF turkey
 When we reached the hotel Ion ate a turkey
- b. Cind am ajuns la hotel Ion minca un curcan
 when arrive-PERF P hotel Ion eat-IMPERF turkey
 When we reached the hotel Ion was eating a turkey

- c. Cind l-am intilnit Ion a plins
 when meet-PERF Ion cry-PERF
 When I met him Ion cried
- d. Cind l-am intilnit Ion plingea
 when meet-PERF Ion cry-IMPERF
 When I met him Ion was crying
- e. Cind am ajuns Ion a plecat
 when arrive-PERF Ion leave-PERF
 When we arrived Ion left
- f. Cind am ajuns Ion pleca
 when arrive-PERF Ion leave-IMPERF
 When we arrived, Ion was leaving

EO verbs behave in the same way as event predicates. Both the perfect and the imperfect form are available and the semantic distinction between the two is the same as in the case of other event predicates.

- (30) a. Cind i-am intilnit purtarea lui Marin l-a suparat pe Ion
 when CL-ACC meet-PERF behavior GEN-Marin anger-PERF Ion
 When I met them Marin's behavior angered Ion
- b. Cind i-am intilnit purtarea lui Marin il supara pe Ion
 when CL-ACC meet-PERF behavior GEN-Marin anger-IMPERF Ion
 When I met them Marin's behavior was angering Ion
- c. Cind am ajuns un zgomot l-a speriat pe Ion
 when arrive-PERF noise frighten-PERF Ion
 When I arrived a noise frightened Ion
- d. Cind am ajuns un zgomot il speria pe Ion
 when arrive-PERF noise frighten-IMPERF Ion
 When I arrived a noise was frightening Ion

Notice that the examples where stage-level predicates allow modification by punctual time adverbials use the imperfect rather than the perfect form of the copula, see examples (23) and (24). EO verbs, on the other hand, take the perfect form, although the

imperfect is not excluded. This seems to indicate that stage-level predicates do not actually occur at specific moments in time like event predicates. As the name deftly suggests they refer to changing stages of an individual and this allows them to be associated with points on the temporal axis. But such stages do not ‘occur’, they imply no change of state and they have no internal structure i.e. onset or end-point.

We have seen that the arguments for including a change of state component, as a separate subevent, in the event structure of EO verbs are not very strong. Although these predicates co-occur with adverbs of punctual time, their interpretation in the present tense form makes them closer to states than to any other aktionsart type. EO verbs behave like achievements only in the presence of the perfect marker. I would like to suggest that EO verbs could still be regarded as a subclass of stative verbs. Unlike prototypical states, the states associated with EO verbs display a form of internal structure. The initial point of the interval is specified.

This is consistent with the intuition that emotions like anger, surprise, fear are elicited rather than spontaneous states. They arise in specific circumstances. The initial moment is more important for characterizing these emotions than the final moment. An emotion of this kind comes specified for the circumstances when it can arise but contains no specification of the way in which it ends.

Anger, fear, surprise, pleasure will occur when the prototypical stimulus is met with and they will last for a longer or shorter period. Adverbs of punctual time locate this initial point. We mentioned before the difference in interpretation between achievements and EO verbs in this respect. Achievements imply total overlap between the event they express and the moment referred to by the adverb. EO verbs, on the other hand, are non-specific with regard to the duration of the event. It is only the initial point that is located at a certain moment on the temporal axis. The state it initiates could extend indefinitely.

This account also explains why there is a strong tendency with this class of predicates to identify temporal modifiers with the stimulus, or the ‘cause’ of the emotion. The only moment in the temporal constituency of EO verbs that has any relevance is the initial point of the state, that is, the moment when the eliciting event occurred. If a temporal clause is used with a verb in this class, it can apply only to this moment. As a consequence, the event referred to by the clause is identified with the eliciting event.

2.5. Initial Point and Change of State

If the change of state is not part of the event structure of the predicate, how does the change of state reading arise? It will be argued that the change of state reading is a combined result of the temporal structure of the predicate plus the semantic contribution of the perfect form. The use of the perfect introduces a past moment on the temporal axis irrespective of the aspectual properties of the verb. In the case of EO verbs the selected point is the initial moment of the state.

- (31) a. Cadoul l-a bucurat pe Ion
present-NOM CL-ACC cheer-PERF P-ACC Ion
The present cheered Ion
b. Ion a fost puternic
Ion-NOM be-PERF strong
Ion was strong

The state of affairs referred to by sentence (31a) began when Ion received the present and lasted for an unspecified interval of time. The use of the perfect form will single out the initial moment, already specified by the stimulus argument, rather than the uncertain time when the state comes to an end. The presence of the stimulus argument thus lends a special weight to the initial moment of the emotional state by specifying the situation marking the beginning of that state of affairs.

A sentence with a prototypical stative verb in the past form implies that the state expressed by the verb no longer holds. The function of sentence (31b) is not to refer to a past state of affairs. That is achieved by using the progressive. Sentence (31b) has the implications of a negative sentence, as illustrated by (32b). This is not the case with sentence (31a).

- (32) a. Cadoul l-a bucurat pe Ion *→ Cadoul nu îl bucura pe Ion
The present cheered Ion The present cheers Ion
b. Ion a fost puternic → Ion nu este puternic
Ion was strong Ion is strong

ES verbs like, *iubi* (love), *admira* (admire), *uri* (hate), etc. behave like prototypical states in this respect.

It might be objected that this is a hair-splitting account. What is a change of state, after all, if not the beginning of a new state? The distinction, minor as it might seem, has important consequences for the event structure of the predicates. If the change of state is included in the event structure of the predicate we obtain an event structure consisting of two subevents, one of which could be associated with the presence of the BECOME operator in logical structure. Once included in the logical structure of the predicate, the operator should make its presence felt irrespective of tense and aspect specifications. This means that the verbs should display achievement properties in the present form too. The unacceptability (despite VanVoorst's claim to the contrary) of degree adverbials modifying the ongoings of the change of state subevent, rather than the intensity of the state, would also remain unexplained.

If we exclude the change of state component from the event structure of these predicates we are left with a simple event structure containing a single subevent, a state. The peculiarity of this semantic class consists in the nature of the state. Unlike prototypical states, the states referred to by EO verbs are bounded, i.e. they contain specification of the initial point. This structure can account for the contrast between the interpretation of past and present forms. It can also explain the other aspectual properties of EO verbs.

In this section it was argued that EO verbs are, after all, a kind of stative predicates. The states expressed by these verbs are distinguished from prototypical states in having a rudimentary internal structure. Let's call these states *occurrent psychological states*. Occurrent psychological states are states with a marked onset. The presence of the onset distinguishes them from the transitory states referred to by stage-level predicates. It is not clear whether *occurrent psychological states* should be analyzed as a sub-type of stage-level states or as an independent type. What seems clear, however, is the fact that the delimitation between states and events is not as clear-cut as previously thought and that there are several intermediary categories. EO verbs can be located somewhere on the continuum separating states from events, somehow closer to events than stage-level predicates.

3. The Causative Interpretation

In the following sections we will investigate the problem of the causative interpretation of EO verbs. As mentioned in Chapter 3, it has become almost standard to attribute a causative structure to EO predicates. The analysis is based on a strong intuition regarding the interpretation of these verbs. The intuition is so strong as to make linguists blatantly ignore the linguistic reality, see the critique of Grimshaw and Pustejovsky in Chapter 3. The question is, can the aspectual structure of EO verbs proposed in this section account for this intuition?

3.1. The Source of the Causative Interpretation

In order to understand the peculiarity of EO verbs it is useful to draw a distinction between a causative situation and a causative construction. A causative situation, as defined in Shibatani(1976), is characterized by certain properties: it involves two events, e_1 and e_2 ; the events are in a particular relation, it is assumed that without the occurrence of e_1 there would be no occurrence of e_2 ; the two events are temporally ordered $e_1 > e_2$. A causative form is a form specialized in encoding such a situation. It is possible to express a causative situation without using a causative form, as in (33).

(33) John pressed the button and the lights went on

We interpret (33) as referring to a causative situation. The two events, pressing the button and the light going on, are assumed to be temporally ordered and in a dependence relation, in the sense that the lights would not go on if the button were not pressed. This does not make (33) a causative construction. The same construction can occur in different contexts without a causative interpretation.

(34) John pressed the button and entered the room

The events in (34) might be in temporal succession, but there is no implication that the second event (entering the room) would not occur in the absence of the first event.

A causative form, whether syntactic or lexical, refers to a causative situation. Such a form always makes reference to two events: the causing and the caused event. The choice of tense and aspect markers does not change this fact.

The situations described by means of sentences with EO verbs can be characterized as causative situations. The situations make reference to two events, the triggering event and the resulting emotional state. The triggering event is independent from, and prior to the emotional event. It is assumed that the emotional state would not occur in the absence of the triggering event. The active forms of EO verbs, however, do not refer to a causative situation, as described above. Compare the pairs of sentences below.

- (35) a. Articolul l-a suparat pe Ion
 article-NOM CL-ACC anger-PERF P-ACC Ion
 The article angered Ion
- b. Articolul i-a displacut lui Ion
 article-NOM CL-DAT dislike-PERF DAT Ion
 Ion disliked the article
- c. Ion a detestat articolul
 Ion-NOM detest-PERF article-ACC
 Ion detested the article
- (36) a. Articolul il supara pe Ion
 article-NOM CL-ACC anger-PROG P-ACC Ion
- b. Articolul ii displace lui Ion
 article-NOM CL-DAT dislike-PROG DAT Ion
 Ion dislikes the article
- c. Ion detesta articolul
 Ion-NOM detest-PROG article-ACC
 Ion detests the article

The sentences in (35) exemplify the behavior of the perfect and those in (36) that of the present (progressive) forms of an EO verb, of a Dative Subject verb and of an ES verb, respectively. The semantic contrast between EO verbs and the other emotion verbs is felt only in example (35a), where the past form of the verb is used. While sentences (35b) and (35c) refer to past relations, (35a) can be described as referring to a causative situation. That is, the sentences in (35) could be informally represented as below.

- (37) a. past {[EVENT (article)] CAUSE [EMOTION (Ion, article)]}
 b. past{ [EMOTION (Ion, article)]}
 c. past{ [EMOTION (Ion, article)]}

In (36), on the other hand, the sentence with an EO verb (36a) is interpreted in the same manner as the other two sentences. Rather than expressing a causative situation, the sentence describes a relation between an experiencer and an object. All the three sentences in (36) can be represented as (38) below.

- (38) [EMOTION (Ion, article)]

The term ‘emotion’ is used here in a very general sense, to refer both to an occurrent emotional state as in (35a) and (36a) or to an emotional disposition as in (35b,c) and (36b-c). The paraphrases suggested in (37) and (38) do not claim to offer formal semantic representations for the sentences in (35) and (36). They are meant as a rough description of a native speaker’s intuitions about the sentences in question.

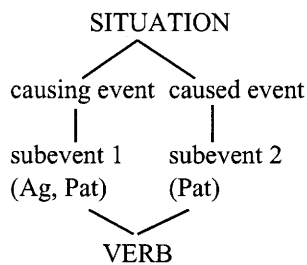
The obvious question is why the causative interpretation of (35a) fades in (36a). We discussed above the similarities between the prototypical causative situation and the situation expressed by sentences with EO verbs. These were the presence of two events, temporally ordered and in a particular dependence relation. Anticipating the discussion on the status of the causing event with EO verbs, it appears that in the case of EO verbs the event interpreted as the causing event is not included in the event structure of the predicate. It is nonetheless expressed by the construction consisting of the verb and its arguments because the stimulus argument necessarily contains information identified as the causing event. As a consequence, a sentence having an EO verb for predicate always makes reference to two events, one expressed by the subject and the other expressed by the predicate. This means that the situation encoded by an EO verb will always have some element in common with the prototypical causative situation.

We argued above that the event expressed by the verb is a bounded state and that the use of the perfect form imposes a change of state interpretation on the predicate. The moment of the change of state is identified with the initial moment of the interval expressed by the state. The event referred to by the subject is identified with the causing event. Summing up, we can say that the causative reading of sentences having for

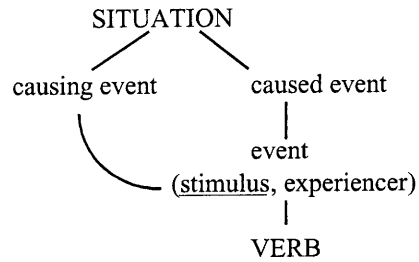
predicate past forms of EO verbs arises compositionally, due to the selectional restrictions for the subject position, and to the addition of perfect morphology. In the case of lexical causative verbs the event structure of the verb is matched straightforwardly with the causative situation.

Fig.6

(a) Lexical Causative



(b) EO Verb



What happens when the verb is in the present form? In the absence of the perfect morphology the verb is interpreted as referring to a state with no implication of a change of state. Although the element in subject position is still interpreted as referring to an event, this is no longer identified with a causing event because there is no change of state that must be linked to a cause. Instead, the construction expresses a relation between an individual and an event.

We can conclude that the causative reading is not permanently associated with these predicates. It arises only in special conditions, namely, when the presence of perfect morphology makes possible the change of state interpretation for the verb.

3.2. The Status of the Stimulus Argument with EO Verbs

We argued in Chapter 2 that Japanese emotion adjectives which subcategorize both nominals and clauses semantically select events in stimulus argument position. We observed that the interpretation of the nominals in stimulus argument position is subject to certain rules, constant across classes of adjectives. We distinguished two such interpretative rules applying to adjectives in a predictable manner, determined by the nature of the clausal argument allowed by each adjective. We concluded that adjectives which require controlled clausal arguments in stimulus position select incomplete events (the semantic correlate of VPs), whereas arguments which allow non-controlled

clausal arguments select situations (the semantic correlate of tensed clauses). The same phenomena can be observed in the case of Romanian EO verbs.

Although Romanian EO verbs admit both nominals and clauses in subject position, a nominal in this position is never interpreted as referring to the individual denoted by the noun. McCawley (1976b), refers to this phenomenon as *'the partial nature of the subject'*. The subject of an EO verb can be a partial specification of the real subject. Pesetsky (1995) also noticed that a nominal in the subject position of an EO verb does not refer to the individual denoted by the nominal, but rather to 'something about' that individual. There are no EO verbs that allow only nominal subjects. All the verbs admit clausal subjects and some allow, but do not require, a control structure. The clausal argument may appear as a direct argument of the verb, when the experiencer argument is in sentence initial position as in (39a) below, or it can be embedded under the nominal *fapt* (fact) as in (39b). The former construction is characteristic of colloquial speech and the latter is most frequently found in the literary language.

- (39) a. Pe Ion l-a suparat ca nu ai venit
 P-ACC Ion CL-ACC anger COMP NEG come-2-sg
 It angered Ion that you did not come
- b. Faptul ca nu ai venit l-a suparat pe Ion
 fact-NOM COMP NEG come-2-sg CL-ACC anger P-ACC Ion
 The fact that you did not come angered Ion
- c. Absenta ta l-a suparat pe Ion
 absence-NOM you-GEN CL-ACC anger P-ACC Ion
 Your absence angered Ion

As in Japanese, if a verb takes a controlled clause in stimulus position a nominal in the same position is interpreted in terms of a predicate prototypically associated with that nominal.

- (40) a. Pe Ion l-a amuzat sa priveasca filmul
 P-ACC Ion Cl-ACC amuse COMP watch-3-sg movie-ACC
 It amused Ion to watch the movie

- b. Filmul l-amuzat pe Ion
 movie-NOM Cl-ACC amuse P-ACC Ion
 The movie amused Ion
- c. Pe Ion l-a amuzat sa citeasca romanul
 P-ACC Ion Cl-ACC amuse COMP read-3-sg novel
 It amused Ion to read the novel
- d. Romanul l-a amuzat pe Ion
 novel-NOM Cl-ACC amuse P-ACC Ion
 The novel amused Ion

In sentences (40a) and (40c), the verb *amuză* (amuse) takes a subjunctive clause. The experiencer argument controls the subject of the clausal argument. If the stimulus argument is expressed by a nominal instead of a clause, as in examples (40b) and (40d), the nominal serves as the basis for reconstructing an activity typically associated with the entity denoted by the nominal. This is *reading* in case of a book and *watching* in the case of a movie. The stimulus of the emotion is taken to be the experience of this activity by the experiencer. The use of sentences (40b) and (40d) implies the truth of (40a) and (40c), respectively.

- (41) a. Pe Ion l-a bucurat cartea/ vinul
 P-ACC Ion CL-ACC cheer book/ wine
 The book/ wine cheered Ion
- b. Pe Ion l-a bucurat faptul ca a primit cartea/vinul
 P-ACC Ion CL-ACC cheer fact-NOM COMP receive-3-sg book/ wine
 The fact that he received the book/ wine cheered Ion

With non-control verbs, such as *bucura* (cheer, please), *supara* (anger), a nominal argument in stimulus position is interpreted as a participant in some prototypical event. Depending on the verb, the event can be more or less specified. Thus, the verb *bucura* in example (41) presupposes a stimulus event in which the experiencer is involved in the role of beneficiary or recipient. This interpretation is constant whatever the nominal in stimulus position, (41a). Other verbs such as *speria* (frighten), *mira* (surprise) are less specific. They simply imply the existence of some event in which the referent of the

nominal in stimulus position is involved. The context normally supplies the details.

Specific interpretative mechanisms are used to produce the reading for sentences with nominal arguments. We have seen in Chapter 2 that these interpretative mechanisms are associated with positions exhibiting certain selectional properties. We can conclude from the application of these interpretative mechanisms in the case of Romanian EO verbs, that these predicates exhibit the selectional properties in questions.

The selectional properties of the stimulus argument could be seen as one factor contributing to the causative interpretation of these verbs. The stimulus event is identified with the cause of the emotion in certain circumstances. This occurs when the presence of perfect morphology forces a change of state reading on the predicate. In the absence of this triggering factor the stimulus event is not interpreted as a cause, as demonstrated by the lack of a causative interpretation in non perfect contexts.

4. Proposal

If the account of EO verbs proposed above is correct, that is, if these verbs refer to emotional states involving an individual and an event, the mapping of the experiencer argument onto object position remains unexplained, given the standard projection rules. The aspectual structure of the predicates does not justify Grimshaw's analysis, since the predicates involve a single event. If mapping is determined by the Thematic Hierarchy, the experiencer argument, which is generally considered as higher than the non-experiencer, argument should be associated with the subject position, instead of the object position. In the following section we will propose an analysis of EO verbs and the related ES reflexive forms that makes crucial use of the unique semantic complexity of emotion predicates.

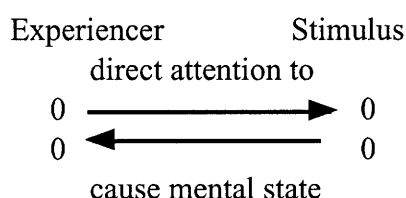
In Chapter 1 we argued that the behavior of Japanese emotion adjectives with respect to the choice of case pattern can be better understood by assuming that these adjectives have a complex semantic structure. Rather than treating emotional states as primitives, we suggested that emotional reactions involve two processes: evaluation and sensation. This analysis is very similar to Wierzbicka (1999) who argues that all emotions involve a cognitive and a physiological side. She suggests that all emotion words can be described in terms of the two primitives THING and FEEL. In this section we will apply an account along these lines to Romanian EO verbs.

4.1. The Semantic Structure of Predicates

Romanian EO verbs are occurrence emotion predicates. Occurrence emotion predicates refer to emotional episodes. All emotional episodes consist of complexes of cognitive and physiological processes. If we assume that the linguistic forms used to encode emotional episodes are sensitive to this complexity, the relation between the two arguments of an occurrence emotion predicate cannot be described through the use of unequivocally ordered argument roles. This is because the emotional situation presupposes two aspects, each associated with different roles for the two participants. Each of the two participants has a double role. We wish to argue that this peculiarity of emotional interaction gives rise to the possibility of presenting the situation from two distinct perspectives. As mentioned in Chapter 4, occurrence emotion predicates tend to appear in clusters of morphologically related forms. Romanian EO verbs are no exception to this rule. For most EO verbs there are related reflexive forms exhibiting the ES linking pattern. We will suggest that the mapping illustrated by EO verbs and their reflexive pairs results from the choice of perspective on the emotion episode.

This proposal is, at first sight, similar to Croft's account of mental predicates discussed in Chapter 3. Croft argued that the mapping variation found cross-linguistically with some mental predicates is due to the special nature of the relation between the Experiencer and the Stimulus. This was analyzed as including two processes: on the one hand, the Experiencer must direct his attention to the Stimulus, on the other hand the Stimulus causes the Experiencer's mental state. We repeat below Croft's schematic representation of mental verbs.

Fig 7



Croft argued that in encoding a mental state a language is free to choose one perspective or the other, or even both. This engenders the mapping variation found with mental

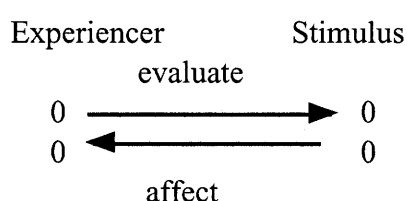
verbs, both across languages and within a single language.

It should be noted that Croft limited this analysis to his class of stative mental verbs. The EO verbs discussed in this chapter were treated by Croft as causatives. In Chapter 4 we argued that the source of syntactic variation associated with stative emotion predicates (disposition predicates) is not the special nature of the emotional relation. Case marking alternations with this class of predicates are not accompanied by semantic variation as is the case with other classes of emotion predicates. This fact suggests that no change of perspective is involved. Croft's account, however, can be applied to the analysis of EO predicates and of the morphologically related ES predicates.

We will assume that the relation between the Experiencer and the Stimulus can be further analyzed as involving two processes. One of them casts the Experiencer participant in an active role. The experiencer directs his attention and perceives a situation. He appraises the situation and selects some focal participant or property. We shall use the term 'evaluate' to cover all these perceptive and computational activities of the Experiencer. On the other hand, the Experiencer is affected by the Stimulus. He has some uncontrolled psycho-somatic reactions. This is the second component of the emotional interaction. This will be referred to as the 'affect' component.

An emotional relation necessarily includes both components. Neither of the two processes counts as an emotional relation in itself. That is, directing one's attention and appraising a Stimulus is not an emotional experience. In the same way, simply being affected by a Stimulus does not count as an emotional experience, unless the Stimulus is perceived and evaluated by the affected individual. The two processes are simultaneous and they presuppose each other. An emotion predicate refers to both aspects of the emotional interaction although it focuses on one of them. The general structure for occurrence emotion predicates will be represented by the following modified version of Croft's schema.

Fig 8



We chose the term ‘affect’ over ‘cause’ because of the undesired implications of the latter for the aspectual properties of the predicates. The term ‘affect’ can be reconciled with a stative interpretation, but this seems more difficult in the case of ‘cause’.

We can see that in an emotional interaction either of the two participants has both an active and a passive role. The Experiencer evaluates the Stimulus (active role) but it is also affected by the Stimulus (passive role). The Stimulus affects the Experiencer (active role) and is evaluated by the Experiencer (passive role). As Croft pointed out, there is no inherent directionality of causation in an emotional interaction. To this we can add that there is no inherent prominence relation between the two participants.

We will follow Croft in attributing the variation in syntactic patterns to the speaker’s freedom to choose one perspective or the other in representing the emotional experience. Emotion predicates can focus on the processing component or on the affect component. We wish to stress, however, that the choice of perspective does not entail the exclusion of the shadowed component. Both components are necessarily represented in the semantic configuration of emotion predicates. However, the mapping of arguments to syntactic positions reflects the structure of the focused component.

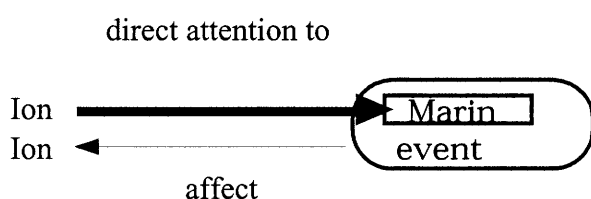
The proposed account has a number of advantages. It can explain the existence of morphologically related EO and ES pairs. Such pairs refer to emotional experience from different perspectives. It can explain the semantic differences between the EO and the ES verbs. Unlike disposition predicates, where case alternation has no semantic effect, as illustrated in Chapter 4, EO and ES predicates are not entirely synonymous. We will illustrate the proposed solution with the Romanian verb (*se*) *supara* (anger), in its EO and ES uses.

A sentence with an ES form of the verb, such as (42) below focuses on the cognitive activity of the Experiencer. It will be argued in Section 5 that the most prominent cognitive activity of the Experiencer in this particular case consists in selecting a central participant in the Stimulus situation. This is the individual deemed responsible for the angering event.

- (42) Ion s-a suparat pe Marin
Ion-NOM CL-REFL P Marin
Ion got angry with Marin

Using the schema in Fig.8, the relation expressed by sentence (42) can be represented as in Fig.9. Although the ‘Stimulus affect Experiencer’ component is not focused, it is still present in the semantic structure of the sentence. Using (42) implies the existence of an affecting situation, having Marin as one of its participants. Other cognitive processes on the part of the Experiencer are implied, besides selecting a Target for his emotion, but the choice of preposition highlights this specific process.

Fig.9

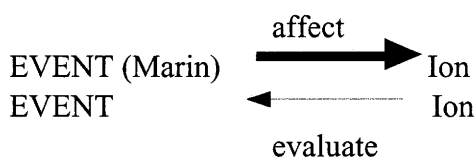


Sentence (43) presents the Experiencer as affected by the Stimulus

(43) Marin l-a suparat pe Ion
 Marin-NOM CL-ACC anger P-ACC Ion
 Marin angered Ion

Sentence (43) can be represented schematically as in Fig.10. The use of sentence (43) implies the existence of some cognitive activities on the part of the Experiencer (see McCawley (1976) and Pustejovsky (1995) for arguments). The sentence does not specify the nature of those cognitive activities like sentence (42). We cannot describe the situation in (43) in terms of ‘directing attention to’. As observed by Pesetsky, the nominal in subject position of an EO verb need not be the Target of the emotion. The nominal is interpreted relative to some event. Anger is prototypically triggered by events. The experiencer can select some focal participant to whom he attributes responsibility, but this attribution is a part of the evaluation process. When the evaluation activity is backgrounded, as in (43), only the default evaluation is assumed and the Stimulus argument refers to the ‘unprocessed’ eliciting situation.

Fig.10



This account is more consonant with the aspectual properties of EO verbs than the causative hypothesis since it does not imply that these predicates have other than stative properties. The different roles played by each of the two participants can be used to account for the linking of participants to syntactic positions.

4.2. The Mapping of Arguments

We argued above that the relation between the two participants in an emotional situation can be decomposed into two components. One of the two components can be described as the evaluation of the stimulus by the experiencer. The second component presents the experiencer as affected by the stimulus. By focusing on one or the other of the two components we obtain two distinct perspectives on the emotional situation. We shall henceforth refer to the perspective in which the first component is focused as the 'Experiencer oriented perspective' and to the perspective in which the second component is focused as the 'Stimulus oriented perspective'.

Neither of the two participants in an emotional situation is inherently more prominent. However, prominence relations do obtain within the two components. We will assume that by highlighting one of the components, the relation between participants associated with the respective component will determine the mapping of arguments to syntactic positions.

We will demonstrate below how the linking for emotion predicates expressing the 'Experiencer oriented perspective' and the 'Stimulus oriented perspective' can be calculated using Dowty proto-role theory (Dowty 1991).

Dowty argues that there are a number of contributing properties for the Agent proto-role and for the Patient proto-role. The arguments of a two-place predicate will be linked to subject or object position depending on the number of Agent and Patient proto-role contributing properties of each participant. The participant displaying the larger number of proto-agent properties will be assigned to subject position and the argument

with more proto-patient properties will be assigned to object position. The list of contributing properties is quoted below.

A. Contributing properties for the Agent Proto-Role

- a. Volitional involvement in the event
- b. Sentience (and/or perception)
- c. Causing an event or change of state in another participant
- d. Movement (relative to the position of another participant)

B. Contributing properties for the Patient Proto-Role

- a. Undergoes change of state
- b. Incremental theme
- c. Causally affected by another participant
- d. Stationary relative to movement of another participant

(Dowty 1991: 572)

The ‘Experiencer oriented perspective’ focuses on the evaluation activity of the Experiencer. The only contributing property from the list above that can be associated with this perspective is ‘*sentience*’. This is a proto-agent property and it is associated with the Experiencer argument. As a consequence the Experiencer will be linked to subject position.

The ‘stimulus oriented perspective’ presents the Experiencer as the affected participant. This has the effect of adding the proto-patient properties (B.a.) ‘*Undergoes change of state*’ and possibly (B.c.) ‘*Causally affected by another participant*’ to the contributing properties displayed by the Experiencer. The Experiencer still has a proto-agent property but in addition it has two proto-patient properties. The Stimulus will be assigned the proto-agent property (A.c.) ‘*Causing an event or change of state in another participant*’. As a result, the Experiencer and the Stimulus have one proto-agent property each. The Experiencer, however, has two proto-patient properties. This determines the linking of the Experiencer argument to object position. The subject position is, as a consequence, occupied by the Stimulus argument.

It should be noticed that the mapping solution for the predicates representing the ‘Stimulus oriented perspective’ is due not so much to the Causer status of the Stimulus as to the affected status of the Experiencer argument, the large number of

proto-patient properties. This is a desirable result, reflecting the aspectual structure of these verbs. EO verbs are statives and they refer to a resulting state. This means that although some causative relation is implied, it is not directly encoded by the verb.

5. ES Verbs in Romanian

In the following sections we will present some differences between EO and ES forms with respect to selectional properties, we will discuss the semantic role of the prepositions governing the Stimulus argument of ES verbs and we will show that the properties of ES verbs can be regarded as an argument for the account proposed in Section 4.

5. 1. Syntactic Structure

Romanian EO verbs, like those in French and in the other Romance languages, have ES pairs formed through attachment of a reflexive clitic. Reflexive verb formation is not an entirely productive process. Almost half of the EO predicates do not have reflexive counterparts. If a reflexive counterpart exists, it can be accompanied by a complement, or it can be used intransitively, as in (44b).

- (44)
- | | | | | | | |
|----|--|-------------|---------|-------|------------|----------------|
| a. | Cadoul | l-a | bucurat | pe | Ion | |
| | present | CL-aux | cheer | P-ACC | Ion | |
| | The present cheered Ion | | | | | |
| b. | Ion | s-a | bucurat | | | |
| | Ion | CL-REFL-aux | cheer | | | |
| | Ion cheered up | | | | | |
| c. | Ion | s-a | bucurat | de | cadou | |
| | Ion | CL-REFL-aux | cheer | P | present | |
| | Ion was glad about the present | | | | | |
| d. | Ion | s-a | bucurat | ca | i-ai | dat un cadou |
| | Ion | CL-REFL-aux | cheer | COMP | CL-DAT-aux | give a present |
| | Ion was glad that you gave him a present | | | | | |

With most of the verbs, the intransitive constructions are elliptical, depending on the context for their interpretation. There are some exceptions, however, including verbs

such as *bucura* (cheer, please), *amuza* (amuse), *distra* (entertain), *mira* (wonder) or *plictisi* (bore). These verbs are not achievements like the other reflexive forms, but states or activities. Constructions where these verbs are used intransitively seem to refer to the outward manifestations of the emotion, as indicated by the use of manner adverbs in the examples below.

- (45) a. Ion se bucura zgomotos
 Ion-NOM CL-REFL cheer-IMPERF noisily
 Ion was rejoicing noisily
- b. Ion se mira dind din cap
 Ion-NOM CL-REFL wonder-IMPERF give-GER P head
 Ion was shaking his head in wonder

This may indicate that the Experiencer oriented perspective does not cover only cognitive activities of the Experiencer, but also the physical manifestations accompanying the emotion. This is obviously the case for a class of Japanese emotion predicates, to be discussed in Chapter 7.

The behavior of ES reflexive predicates shows that they assign a th-role to the Stimulus argument, but fail to assign case. That is, these verbs are syntactically intransitive although semantically they take two arguments. This is demonstrated by the fact that, when the complement is expressed by a clause, no preposition is required.

The verbs allow the Stimulus argument to be expressed by a nominal or by a clause. In the latter case they require the use of a preposition, as in (44c). This can be explained as a consequence of Case Theory: A nominal needs case while a clause does not. The syntactic role of the preposition is to ensure that the Stimulus argument is case marked. Besides this syntactic role, the preposition also has a semantic function, to be discussed in detail later in this section. Prepositions are lexically selected by the verb, a fact that lends support to the idea that the Stimulus argument receives a th-role from the verb. EO verbs, by contrast, assign both thematic role and case to the Stimulus argument. This explains why clausal arguments are not entirely acceptable in Stimulus argument position. Clausal arguments do not need case and they avoid case-marked positions. To avoid this configuration the clausal argument is embedded under the noun *fapt* (fact).

5. 2. Thematic Role of the Stimulus Argument

Pesetsky (1995) attributes the differences in mapping between ES and EO verbs to the different semantic role of the non-experiencer argument. He argues that ES verbs take a Target or Subject Matter argument whereas EO verbs take a Causer argument. Several semantic differences between ES and EO verbs are associated by Pesetsky with this difference in semantic role. The fact that a nominal in the subject position of an EO verb need not refer to the individual denoted by the nominal is seen as an effect of the Causer status of the nominal. Pesetsky also observes that the use of ES verbs implies that the Experiencer evaluates the stimulus but no such implication exists for EO verbs. This property is also regarded as a consequence of the difference in semantic role between the two types of verbs, i.e. a Target must be evaluated whereas a Cause need not.

If we consider the role of the clausal complement in (42d) we realize that it cannot be described as the Target or Subject Matter of the emotion. It seems that, in the absence of the preposition, the role of the non-experiencer argument of the reflexive verb is essentially the same as that of the subject of the EO verb in sentence (42a). The sentences are repeated below for convenience.

- (42) a. Cadoul l-a bucurat pe Ion
 present CL-aux cheer P-ACC Ion
 The present cheered Ion
- d. Ion s-a bucurat ca i-ai dat un cadou
 Ion CL-REFL-aux cheer COMP CL-DAT-aux give a present
 Ion was glad that you gave him a present

As a matter of fact, it seems difficult to support the Target/Causer dichotomy, even when the ES verb takes a prepositional argument. Sentence (44c), repeated below, has the same truth conditions as (44a) and (44d). In all these cases *Ion* is glad to have received the present. If semantic value has any relevance in deciding the thematic role, these constructions should be described as involving the Causer role.

- (44) c. Ion s-a bucurat de cadou
 Ion CL-REFL-aux cheer P present
 Ion was glad about the present

The situation is different, however, in the examples below.

- (46) a. Marin l-a suparat pe Ion
 Marin CL-aux anger P-ACC Ion
 Marin angered Ion
- b. Ion s-a suparat pe Marin
 Ion CL-REFL-aux anger P Marin
 Ion got angry with Marin
- c. Articolul l-a suparat pe Ion
 article CL-aux anger P-ACC Ion
 The article angered Ion
- d.*Ion s-a suparat pe articol
 Ion CL-REFL-aux anger P article

We can discern in sentences (46a) and (46b) the semantic difference remarked by Pesetsky. In sentence (46a) the individual *Marin* must be conceived as the participant in a situation which caused Ion's anger. In (46b) he is simply the individual to whom anger is related. We can describe the role of the individual in (46b) as the Target of the emotion. The similarity between Romanian and English stops here. The target of anger in Romanian can be expressed only by a [+Human] nominal. The preposition marking the non-experiencer argument is lexically selected by the verb. The class of verbs which take a Target argument, in the sense described above, is limited to verbs expressing anger-related emotions.

- (47) a. *Ion s-a speriat pe Marin
 Ion CL-REFL frighten P Marin
- b. *Ion s-a amuzat pe Marin
 Ion CL-REFL amuse P Marin
- c. Ion s-a miniat/ infuriat/?enervat pe Marin
 Ion CL-REFL irate/ infuriate/ irritate
 Ion got irate/ furious/irritated with Marin

It seems that, depending on the choice of preposition, the prepositional argument of the

same reflexive verb can be described in terms of different thematic roles. This indicates the important semantic function played by the preposition. With a verb like *supara*, which accepts more than one type of prepositional object, we can test the validity of Pesetsky's analysis.

- (48)
- a. Ion/pierderea actelor l-a suparat pe Marin
 Ion/ loss papers-GEN CL-aux anger P-ACC Marin
 Ion/ the loss of his papers angered Marin
- b. Marin s-a suparat pe Ion
 Marin CL-REFL-aux anger P Ion
 Marin got angry at Ion
- c. Marin s-a suparat de pierderea actelor
 Marin CL-REFL-aux anger P loss papers-GEN
 Marin got angry because of the loss of his papers
- d. *Marin s-a suparat pe Ion de pierderea actelor
 Marin CL-REFL anger P Ion P loss papers-GEN
- e. Marin s-a suparat pe Ion din cauza pierderii actelor
 Marin CL-REFL anger P Ion P loss papers-GEN
 Marin got upset with Ion because of the loss of the papers

As mentioned above, the role of the argument introduced by the preposition *pe* is quite similar to Pesetsky's Target, while the nominal introduced by *de* is closer to his Causer. (Remember that his initial distinction between Causer and Target was supported by differences in interpretation and selectional restrictions. The same differences can be observed with the nominals above.)

The syntactic account for the co-occurrence restriction between a Target and a Causer argument offered by Pesetsky cannot be applied to this case, because the two arguments are prepositional. However, if we assume that the verb assigns a single th-role, which represents the stimulus of the emotion and that the preposition restricts its semantic interpretation, we can understand why (48d) is ungrammatical. The prepositions in ES verb constructions are not th-role assigners on their own, but only in combination with the verb. Since the verb assigns a single th-role, two prepositional phrases cannot be licensed without violating the th-Criterion. If a preposition that

assigns a th-role on its own is used instead, two prepositional arguments can co-occur as in (46e).

This could be seen as a rather strong argument in favor of the hypothesis that there is a unique th-role, identical with the th-role of the EO subject, which is assigned to the PP rather than to the nominal. The semantic content of the preposition in association with the semantic content of this role results in a more restricted interpretation for the nominal argument.

A verb like *supara* assigns the thematic role Stimulus irrespective of whether it is associated with the EO or with the ES linking. In the case of the ES linking the thematic role Stimulus is assigned to the prepositional object. The preposition is lexically selected by the verb. The preposition, in turn, selects a Target within the stimulus situation. This is achieved by scanning the stimulus situation for an object bearing the semantic features associated with the preposition, namely [+human], [+specific]. Thus, the thematic role of the PP is Stimulus, whereas the role of the nominal inside the PP is Target.

The choice of thematic role for the nominal inside the PP is a consequence of the specific properties of the emotion referred to by the verb. With verbs expressing emotions such as anger, which are typically directed towards a human target, the verb selects the preposition *pe*, which in turn selects the Target. Other verbs, expressing emotions of the enjoyment type, which are prototypically directed at objects, will select the preposition *cu*, the instrumental marker. Out of the range of possible stimuli, only those compatible with the instrument role will be acceptable as object of the preposition.

- (49) a. Inregistrarea/ situatia/calitatea muzicii l-a
 recording/ situation/ quality music-GEN CL-aux
 delectat pe Ion
 delight P-ACC Ion

The recording/the situation/ the quality of the music delighted Ion

- b. Ion s-a delectat cu inregistrarea/*situatia/*calitatea
 Ion CL-REFL-aux delight P recording/ *situation/ *quality
 muzicii
 music-GEN

Ion was delighted with the recording/the situation/ the quality of the music

Both abstract and concrete nominals can occur in subject position, in (47a) but only the noun *inregistrarea*(recording) which refers to a concrete object can appear as object of the preposition *cu*.

When a nominal occurs in the subject position of an EO verb we are prompted to reconstruct a stimulus situation on the basis of the semantic information provided by the noun. The individual denoted by the nominal might actually be the Target, the Subject Matter, or the Instrument in the situation which triggered the emotion. In the subject position of an EO verb there is nothing to delimit the role played by an individual in the eliciting event. A nominal will metonymically refer to the stimulus situation. The absence of a preposition in subject position is the condition for this semantic reconstruction.

When the nominal is the object of the preposition, the selectional restrictions imposed by the preposition have the effect of narrowing down the domain of the Stimulus. With a semantically transparent preposition such as *de* the range of acceptable objects seems quite unrestricted, approaching the range of elements which may occur in the subject position of the corresponding EO verb.

6. Discussion

The data presented above suggests that we do not need to increase the repertory of thematic roles in order to account for the semantic differences between EO and ES verbs. The main semantic arguments quoted in favor of the Causer/ Target distinction are summed up below:

EO verbs	ES verbs
no evaluation of stimulus	evaluation of stimulus
select events	select events or individuals

These semantic differences are compatible with the semantic structure associated in the previous section to ES and EO verbs. That is, the two types of verb illustrate two different choices of perspective on the emotional situation. ES verbs illustrate the ‘Experiencer oriented perspective’. On this perspective the Experiencer is cast in an active role, directing his attention at the Stimulus, evaluating it. The Stimulus argument can refer to the eliciting event as a whole, but it can also refer to some prominent participant in this event. We can interpret this fact as a consequence of the

Experiencer's cognitive activity: The Experiencer directs his attention to some participant in the triggering event, or to some property of the event. Pesetsky's claim that ES verbs presuppose an evaluation of the Stimulus is consistent with this analysis.

EO verbs present the emotional interaction from the 'Stimulus oriented perspective' and ES verbs present it from the 'Experiencer oriented perspective'. What characterizes the 'Stimulus oriented perspective' is the passive role of the Experiencer. The Experiencer has no active role in evaluating or interpreting the eliciting event. The triggering event is presented as such and not through the Experiencer's eyes. The Experiencer is presented as affected. This gives rise to the tendency to regard the Stimulus as the cause.

We have seen in the first section of this chapter that a thorough scrutiny of the lexical aspectual properties of Romanian EO verbs raises serious problems for the Causative Hypothesis. These verbs exhibit very peculiar aspectual properties. They have stative properties, but at the same time, they have an internal structure. Occurrent emotional states are bounded states and, like events, they seem to have temporal anchoring.

Such an event structure does not lead to the Experiencer Object linking. In order to explain the linking pattern we suggested a solution that takes into account the internal structure of emotional episodes. We argued that emotional episodes involve two simultaneous processes: evaluate and affect. The same participants are involved in both processes but their roles are different. Differences in linking result from focusing on one or the other of the two processes.

On this account, emotion predicates are closer to symmetric predicates such as *above* and *below* or *succeed* and *precede* than to causative verbs. With symmetric predicates, changing the focus changes the mapping of participants to syntactic positions. The difference between standard symmetric predicates and emotion predicates is that whereas with symmetric predicates we have a simple relation, with emotion predicates the relation is complex.

Viewed in its entirety, the relation between experiencer and stimulus lacks inherent directionality but once we decompose it into its constituent elements we obtain two distinct relations exhibiting opposite prominence relations between the participants. What is focused, in the case of emotion predicates is not one or the other of the participants, but one or the other of the two relations constituting the complex

interaction. Focusing on one of the relations imposes the prominence relations that obtain within that particular component upon the entire complex predicate. The mapping of arguments to syntactic positions is, thus, seen as a reflex of the choice of focus.

This solution deviates from the standard assumptions regarding emotion predicates, but emotion predicates are peculiar enough to deserve a peculiar treatment.

Chapter 6

Experiencer Causative Constructions in Japanese

1. Introduction

Unlike many European languages, where the causativity of EO verbs is an alleged semantic property with no formal marking, in Japanese there are emotion predicates displaying overt causative morphology. Henceforth we will refer to these forms as EXPERIENCER CAUSATIVE CONSTRUCTIONS or EXPERIENCER CAUSATIVES. Experiencer causatives seem to share some of the syntactic and semantic properties which have justified the analysis EO verbs as causatives: mapping of the experiencer argument onto object position, peculiar behavior with respect to binding, selectional restrictions. The existence of the causative forms in Japanese was seen by Pesetsky as an argument in favor of his zero-causative analysis of EO verbs in European languages. A similar claim is made by Katada (1997). This chapter will discuss the behavior of emotion verbs derived through SASE attachment and consider their semantic function. We will offer some considerations concerning the place of these forms within the general map of occurrence predicates in the language and compare it with the status of EO verbs in Romanian.

Previous literature on causative emotion verbs in Japanese has amply discussed the fact that, although these forms are derived through what appears to be affixation of the causative suffix SASE to emotion verbs, the resulting forms do not behave like regular causative forms.

The first and most important difference between causativization with emotion verbs and causativization in general is the effect on argument structure. Normally, causativization is a valence increasing operation: affixation of SASE adds a Causer argument. In the case of emotion verbs, causativization of two-place predicates yields two-place predicates instead of the expected three argument constructions. That is, causativization fails to increase valence.

A second peculiarity of these forms is the fact that the Causer seems to be identical with the object of the non-causative form, instead of being distinct from it, as is usual. As the examples below illustrate, not only is the standard causative structure

blocked but the effect of SASE affixation on argument structure appears to be similar to passivization.

- (1) a. Obaasan wa mago no kekkon o yorokonda
 grandmother-TOP grandson-GEN wedding-ACC V
 Grandmother was glad about the grandson's wedding
- b.* Nakoodo wa obaasan ni mago no
 go-between-TOP grandmother-DAT grandson-GEN
 kekkon o yorokobaseta
 wedding-ACC V-SASE
- c. Mago no kekkon ga obaasan o yorokobaseta
 grandson-GEN wedding-NOM grandmother-ACC V-SASE
 The grandson's wedding cheered the grandmother
- d. Mago no kekkon wa obaasan ni yorokobareta
 grandson-GEN wedding-TOP grandmother-DAT V-RARE

Example (1b), which adds an external Causer, is ill formed. The acceptable form in (1c) differs from the passive form (1d) only with respect to the case marking on the experiencer argument: in the causative form the experiencer is accusative while in the passive form it is marked with the particle *-ni*. The argument structure is otherwise similar. The former subject has been demoted and the former object appears in subject position.

2. Previous Accounts

Although causative emotion verbs are different from the causative forms of transitive verbs, they look quite similar to causatives based on intransitive verbs: the number of arguments and the case marking are conforming to expectations.

- (2) a. Taroo wa naita
 Taroo-TOP V
 Taroo cried
- b. Jiroo wa Taroo o nakaseta
 Jiroo-TOP Taroo-ACC V-SASE
 Jiroo made Taroo cry

A causative form derived on the basis of an intransitive verb has two arguments and the Causee can receive the accusative case, unlike the Causee in forms based on transitive constructions, which is marked with *-ni*. Noticing this similarity, several authors have suggested that causative emotion verbs are actually derived from intransitive forms.

The first account along these lines is Kuroda (1965). Kuroda argues that Japanese ES emotion verbs are weakly transitive. This means that the object can be suppressed. A sentence such as (3c) below is derived through causativization followed by the rule of Recurring Object Deletion.

- (3)
- a. Taroo-ga ongaku-o tanoshimu
Taroo-NOM music-ACC V
Taroo enjoys the music
 - b. *Causativization*
ongaku-ga Taroo-o ongaku-o tanoshimaseru
music-NOM Taroo-ACC music-ACC V-SASE
 - c. *Recurring Object Deletion*
ongaku-ga Taroo-o tanoshimaseru
music-NOM Taroo-ACC V-SASE
The music amused Taroo

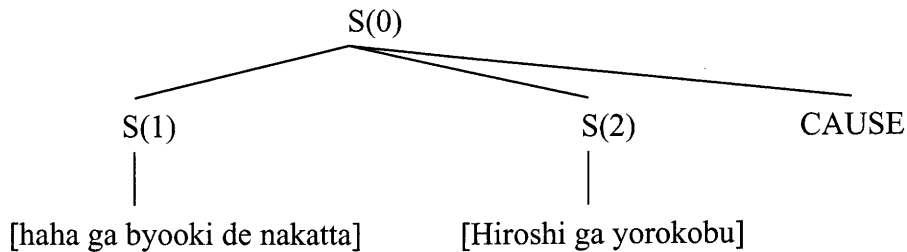
Katada (1997) proposes a version of Kuroda's analysis in which intransitivization applies before causativization. The account, though making use of more modern apparatus, loses many of the strong points in Kuroda's analysis ¹⁾. In taking an intransitive form as the base to which the causative morpheme attaches, Katada's analysis is similar to McCawley (1976)

McCawley criticizes Kuroda's rule of Recurring Object Deletion and suggests an account in which both the causative and the non-causative transitive form are derived on the basis of an intransitive form. Observing the semantic similarity relating the three sentences below, McCawley argues that they are all derived from an identical underlying structure.

- (4) a. Hiroshi wa haha ga byooki de nakatta koto o yorokonda
 Hiroshi-TOP mother-NOM sick COP NEG COMP ACC V
 Hiroshi was pleased that his mother was not sick
- b. haha ga byooki de nakatta koto ga Hiroshi o yorokobaseta
 mother-NOM sick COP NEG COMP NOM Hiroshi ACC V-SASE
 The fact that his mother was not sick pleased Hiroshi
- c. haha ga byooki de nakatta node Hiroshi wa yorokonda
 mother-NOM sick COP NEG COMP CONJ Hiroshi-TOP V
 Hiroshi was pleased because his mother was not sick

The underlying structure contains the abstract predicate CAUSE relating two clausal arguments, as illustrated in Fig 1 below, where S(1) describes the causing event and S(2) the resulting emotional state.

Fig 1



The role of the abstract predicate CAUSE is defined as follows: "...the abstract verb CAUSE relates two states of affairs in such a way that because of the first state of affairs the second state of affairs becomes true" (McCawley 1976a: 88). S(2) is an intransitive clause having for subject the experiencer and for predicate the intransitive form of the experiencer verb. If the abstract predicate surfaces as a causative morpheme we obtain the causative structure in (4b). If the BECAUSE FORMATION RULE applies we obtain the structure in (4c) where the intransitive clause takes a reason adjunct clause. The structure in (4a) is derived from the underlying form through CAUSAL OBJECT FORMATION. Causal object formation is the result of verb raising of the experiencer verb in S(2) to the V position in the matrix clause.

The account²⁾ has the merits of explaining the semantic relation between the three constructions in (4), the complementary distribution of *node* clauses and clausal

objects, the identity between the subject of the causative construction and the object of the non-causative form and the backward binding properties of the causal forms.

3. Criticism

As we have seen in the previous section, the existence of intransitive uses for the verbs that undergo experiencer causativization is crucial for the analyses proposed by McCawley and Katada. Most of the occurrence emotion verbs seem to have intransitive uses.

- (5) a. Taroo-wa purezento-o yorokonda
Taroo-TOP present-ACC V
Taroo was glad about the present
- b. Taroo-wa yorokonda
Taroo-TOP V
Taroo was glad
- (6) a. Taroo-wa musuko-ni okotteiru
Taroo-TOP son-DAT V
Taroo is angry with his son
- b. Taroo-wa okotteiru
Taroo-TOP V
Taroo is angry

This is not necessarily the case, however. There are verbs that undergo experiencer causativization although they do not have an intransitive use³⁾. The most clear example is the verb *akiru* (be fed up with), which cannot be used intransitively without implying the existence of a contextually specified object. It is hard, if not impossible, to imagine that sentence (7b) below just depicts the experiencer's state of mind without implicitly referring to the object of that state.

- (7) a. Shichoosha-wa ano haiyuu-ni akiteiru
audience-TOP that actor-DAT V
The audience is fed up with that actor

- b. ??Shichoosha-wa akiteiru
 audience-TOP V
 The audience is fed up
- c. Ano haiyuu-ga shichoosha-o akisaseta
 that actor-NOM audience-ACC V-SASE
 That actor made the audience feel fed up

If the verb *akiru* does not have an intransitive counterpart, it should be impossible for it to undergo experiencer causativization, given the analyses proposed by McCawley and Katada. The causative form, however, exists as illustrated by example (7c).

Another problem for McCawley's account is the semantic relation among the causative, the transitive and the *node*-clause constructions. McCawley argues that the three constructions are semantically equivalent. She argues that this semantic equivalence is a peculiarity of emotion verbs that distinguishes them from normal transitive verbs. Postulating a common underlying structure for the three forms explains the semantic proximity. The question is whether the semantic equivalence she assumes is real. In the examples offered by McCawley this seems to be the case, see examples (8).

- (8) a. syoonen wa zibun ga onna no ko ni moteru no o
 boy-TOP self-NOM girls-DAT be popular COMP-ACC
 yorokonda
 V
 The boy was pleased that he was popular with girls
- b. zibun ga onna no ko ni moteru node syoonen wa yorokonda
 self-NOM girls-DAT be popular CONJ boy-TOP V
 The boy was pleased because he was popular with girls
- c. zibun ga onna no ko ni moteru koto ga
 self-NOM girls-DAT be popular COMP-NOM
 syoonen o yorokobaseta
 boy-ACC V-SASE
 The fact that he was popular with girls pleased the boy

But the paraphrase relation does not always seem to obtain, as the examples below illustrate.

- (9) a. *Watashi wa ryuukoo o sakidori suru koto o tanoshindeiru*
 I-TOP fashion-ACC anticipate COMP-ACC V
 I enjoy anticipating fashion
- b. * *Watashi wa ryuukoo o sakidori suru node tanoshindeiru*
 I-TOP fashion-ACC anticipate CONJ V
- c. *Ryuukoo o sakidori suru koto ga watashi o tanoshimaseru*
 fashion-ACC anticipate COMP-NOM I-ACC V-SASE
 X's anticipating fashion pleases me
- (10) a. *Taroo wa hikooki ni noru koto o kowagatteiru*
 Taroo-TOP plane-DAT ride COMP-ACC V
 Taroo is afraid to get on/travel by plane
- b. # *Taroo wa hikooki ni noru node kowagatteiru*
 Taroo-TOP plane-DAT ride CONJ V
 Taroo is afraid (of something) because he is getting on/traveling by plane
- c. ? *Hikooki ni noru koto ga Taroo o*
 plane-DAT ride COMP-NOM Taroo-ACC
 kowagaraseta
 V-SASE

The fact that (someone) was getting on the plane frightened Taroo

It seems that the meaning of the emotion predicate is crucial. Some verbs, like *tanoshimu* (enjoy), do not allow *node* clauses, which suggests that these verbs do not have an intransitive use after all (9b). With *kowagaru* (fear) the *node* construction is acceptable but it does not have the same interpretation as the other two constructions (10b). The non-causative forms of these verbs are not in a paraphrase relation with the causative forms either. For one thing, sentences (9a) and (10a) do not have a causative flavor. More important, the clausal argument is interpreted differently in these sentences and in their causative counterparts. The non-causative constructions require control of the subject of the clausal complement by the experiencer. The unexpressed subject of *ryuukoo-o sakidori suru* and *hikooki ni noru* is the experiencer. In the causative

constructions, however, the referent of the clausal subject is interpreted as disjoint from the experiencer. This indicates that the selectional restrictions for the object of the non-causative forms are different from the selectional restrictions for the subject of the causative forms. This poses a serious problem for McCawley's and Kuroda's accounts, which presuppose identity between the two.

The paraphrase relation among the three constructions should be regarded as an accident rather than the rule. It is not the case that whenever we have one of the three types of construction we can automatically produce the remaining two constructions starting from it, as the transformational account predicts.

As we have seen, all the previous studies seem to agree in one respect: the assumption that the causative form is derived from a non-causative form at some level. Authors differ with regard to the details of the derivation. Kuroda assumes that the transitive form of the verb is the base to which SASE attaches. McCawley postulates an intransitive form which yields both causative forms and transitive forms. Katada suggests that causativization applies after intransitivization and assumes that both operations are lexical.

The manner of conceiving the derivational process has consequences for the way of describing the relation between the object of the transitive form and the subject of the causative form. For Kuroda the two are identical. If we exclude agentive causative constructions, which are derived through a different mechanism, we could describe McCawley's position on this topic as identical with Kuroda's. Katada, on the other hand, regards the two arguments as completely unrelated and stresses the idea that apparent identity, when it arises, is accidental.

We have seen that sentences with causative and non-causative forms of emotion verbs are not always equivalent. Declaring the relation accidental, as Katada does, misses important generalizations.

We propose an account of experiencer causatives making the following claims. The causative forms are not derived on the basis of the transitive verbs. The two forms, although semantically close, can have different selectional restrictions. The paraphrase relation between causative and non-causative forms holds only when the two forms have identical selectional properties.

4. Other Peculiarities of Experiencer Causatives

Before going into the details of this account we will examine more closely the syntactic and semantic peculiarities of experiencer causatives.

4.1. The Number of Arguments

We have seen that accounts of experiencer causatives are forced to assume the existence of an intransitive base to which the causative morpheme attaches in order to explain the argument structure of these forms. Emotion verbs generally take two arguments, although most of them also have an intransitive use. Why cannot the two argument construction undergo causativization? Notice that semantically related predicates, such as cognitive verbs and dispositional emotion verbs behave like standard transitives with respect to causativization.

- (11) a. Wakai keiji no jisatsu ga keishisookan ni inochi no hakanasa o
young policeman's suicide-NOM DA-DAT the frailty of life-ACC
shimijimi ni kangaesasete
deeply think-SASE
The young policeman's suicide made the DA think deeply about the
frailty of life
- b. Anata no yasashisa ga watashi ni anato o aisasete
your gentleness-NOM I-DAT you-ACC love-SASE
Your gentleness made me love you

In the sentences above, the thematic role of the subject can be described as Cause and that of the accusative object as Target of the psychological state⁴).

It is interesting to note that the subject of the causative form of cognitive verbs is always a Cause and never a Target. This is true even when there is no overt Target. Causative and non-causative sentences are not paraphrases of each other even if the same element is used in the subject position of the causative form as in the object position of the non-causative form.

- (12) a. Taroo-wa shippai-o satotta
 Taroo-TOP mistake-ACC realize
 Taroo realized his mistake
- b. Shippai-ga Taroo-o satoraseta
 mistake-NOM Taroo-ACC realize-SASE
 The mistake enlightened Taroo

As the gloss indicates, *shippai* is the target of Taroo's thoughts in (12a), but not in (12b). The noun *shippai*(mistake) in (12b) was the trigger that made Taroo understand something quite different from the mistake. In this case it triggered a form of religious epiphany. The verb *satoru* in its causative use presupposes the existence of a Target, an object of the cognitive activity, distinct from the Cause.

When selectional restrictions don't interfere by blocking the possibility of parallel forms, the paraphrase relation between causative and non-causative constructions holds with emotion verbs, as in (13) below.

- (13) a. Taroo-wa keshiki-no utsukushisa-ni odoroitte
 Taroo-TOP beauty of the landscape-DAT surprise
 Taroo was surprised at the beauty of the landscape
- b. Keshiki-no utsukushisa-ga Taroo-o odorokasette
 beauty of the landscape-NOM Taroo-ACC surprise
 The beauty of the landscape surprised Taroo

In (13b) there is no implication that the beauty of the landscape made Taroo feel surprise about anything but the beauty of the landscape. The impossibility of forming three argument constructions added to the causative interpretation of non-causative forms suggests that the thematic role of the non-experiencer argument is the same in both cases. It also suggests that this role is Cause rather than Target. When the role of the argument is felt to be less than cause-like, as in the case of verbs like *tanoshimu* (enjoy) and *kowagaru* (fear) this is due to the selectional restrictions of the ES forms and not to the presence of a different thematic role.

This situation is reminiscent of the relation between the thematic role of the non-experiencer argument with Romanian EO and ES verbs. There we argued that the

semantic contribution of the preposition restricts the function of the nominal it governs. In Japanese the same role is fulfilled by selectional restrictions. The stimulus argument of causative forms is always interpreted as a Causer. The stimulus argument of the corresponding non-causative form is interpreted as a Causer only when the verb selects event arguments. With verbs such as *tanoshimu* and *kowagaru*, which select incomplete events, like the related adjectives, the Causer reading for the stimulus argument does not arise in ES constructions.

We could explain the ban on construction with three arguments in the case of emotion verbs as a consequence of the fact that the object of the plain forms is a Cause. This would explain the paraphrase relation between causative and non-causative forms. The question that arises if we adopt this line of thought is the following: what role does the causative morpheme play? If the role of the object in plain sentences is Cause and the constructions can be paraphrased by means of causative constructions, what purpose can the addition of causative morphology serve?

Given these peculiarities of the experiencer causative construction the question of whether SASE in this construction can be identified with the standard causative morpheme is looming high.

4.2. Selectional Restrictions

The causative morpheme SASE selects two nominal arguments: a Causer and a Causee. The Causer bears the feature [+human] and the Causee is preferably [+human], though this is not obligatory. Nominals with the feature [-animate] are not acceptable in the subject position of SASE.

- (14) a. *haha wa kodomo ni gohan o tabesasete*
 mother TOP child DAT meal ACC eat-SASE
 The mother made the child eat the meal
- b. **kuufuku wa kodomo ni gohan o tabesasete*
 hunger TOP child DAT meal ACC eat-SASE

Experiencer SASE, on the other hand, requires a [+human] nominal in object position but has practically no restrictions on the selectional features of the subject, as the examples in (15) indicate. (We understand the term ‘selectional restriction’ in the old

fashioned sense. In the sense of s-selection, (Grimshaw 1979; Pesetsky 1991), causative forms s-select events.)

- (15) a. Musuko-ga Taroo-o okoraseta
son-NOM Taroo-ACC V-SASE
His son angered Taroo
- b. Musuko-no tegami-ga Taroo-o okoraseta
son-GEN letter-NOM Taroo-ACC V-SASE
His son's letter angered Taroo
- c. Musuko-ga yakusoku-o yabutta koto-ga Taroo-o okoraseta
son-NOM promise-ACC break COMP-NOM Taroo-ACC V-SASE
The fact that his son broke his promise angered Taroo

Both nominals, irrespective of their semantic features, and clauses are admitted in the subject position of experiencer causative verbs. It must be noticed, however, that nominals referring to individuals receive a 'partial interpretation'. A noun bearing the feature [+human], as in (15a) above, does not refer to an individual but to some situation involving the individual. When the nominal in subject position refers to an individual, the construction ceases to be an Experiencer Causative Construction and is interpreted as agentive, as in (16) below.

- (16) Musuko-ga waza-to Taroo-o okoraseta
son-NOM intentionally Taroo-ACC V-SASE
His son angered Taroo intentionally

Agentive constructions with emotion verbs show all the syntactic and semantic properties of standard causatives, see McCawley (1976) for arguments. This means that the selectional restriction on the subject of the Experiencer Causative are not only different but in complementary distribution with those of subject in the standard causative construction.

4.3. Lexical Aspect

In Chapter 5 we used the lexical aspectual properties of Romanian EO verbs as an

argument against the claim that these verbs are causatives. In this section we will examine the behavior of Experiencer Causatives with respect to some aspectual tests and consider the implications. If Experiencer Causatives behave like standard causatives with respect to aspectual tests, we would have reason to treat them in a parallel fashion with other causative constructions, in spite of the peculiarities observed so far. The problem is that the lexical aspectual properties of standard causatives have not received serious attention so far. To fill this gap we will briefly examine the properties of productive causative constructions in Japanese. An in-depth study of this topic is beyond the scope of this paper. The examination will be necessarily brief, and interesting problems, such as the influence of Causee case marking, will be ignored. A final conclusion will have to wait for a more thorough investigation. Some tendencies, however, seem to be quite clear.

4.3.1. Standard Causatives

We will examine the behavior of standard causative constructions with respect to five aspectual tests. These are: (a) the interpretation of the present progressive form (*-te iru*); (b) the interpretation of the present non-progressive form (*-ru*); (c) co-occurrence with punctual adverbial modifiers; (d) co-occurrence with duration adverbs; (e) co-occurrence with adverbs referring to bounded intervals (*x-kan de, in x time*).

The behavior of predicates from the four aspectual classes with respect to these tests is summed up below.

Fig.2

	State	Activity	Achievement	Accomplishment
(a)	n.a.	progressive	perfect	progressive, perfect
(b)	present	not present	not present	not present
(c)	no	?	yes	yes
(d)	yes	yes	no	?
(e)	no	no	begin	end

The *-ru* form can receive several interpretations: present, generic, habitual, historic

present or future. We will ignore the details and focus only on the ability to refer to the moment of speech. Only states have this property.

Activity verbs are not very comfortable with punctual time modifiers. If acceptable, the constructions refer to the start of the activity. States do not co-occur with punctual time modifiers.

Adverbs referring to bound intervals are entirely appropriate with accomplishment verbs. They also seem to be acceptable with achievements. In the case of accomplishments the implication is that the event denoted by the verb occurred during the interval and ended at the end of the interval. For achievements the event denoted by the verb did not occur during the interval but began at the end of the interval. The 'begin' and 'end' in Fig.2 are meant to capture this distinction. States and activities reject this type of modification.

Adverbs of duration can co-occur with activities and states but not with achievements. They also co-occur with accomplishments in Japanese but this may be mainly the effect of the lack of number and specificity, definiteness marking on the nouns. In English accomplishment cannot be modified by duration adverbs if the object has the features [+count], [+sg]. We will use this test only to distinguish between achievements and the other classes of active predicates.

States do not normally undergo causativization, so we will concentrate on the remaining three aspectual classes. We will compare the behavior of causative and non-causative forms of the same verb.

(17) *Activity: Non-causative form*

- a. Taroo-wa hashiru (not present)
Taroo runs
- b. Taroo-wa hashitteiru (progressive)
Taroo is running
- c. ?Taroo-wa san-ji-ni hashitta
Taroo ran at three
- d. Taroo-wa san jikan hashitta
Taroo ran for 3 hours
- e. *Taroo-wa san-pun-de hashitta
Taroo ran in 3 minutes

- (18) *Activity: Causative*
- a. Hanako-wa Taroo-o hashiraseru
Hanako makes Taroo run
 - b. Hanako-wa Taroo-o hashiraseteiru (progressive)
Hanako is making Taroo run
 - c. Hanako-wa san-ji-ni Taroo-o hashiraseteiru
Hanako made Taroo run at 3 o'clock
 - d. Hanako-wa Taroo-o san jikan hashiraseteiru
Hanako made Taroo run for 3 hours
 - e. Hanako-wa Taroo-o san-pun-de hashiraseteiru
Hanako made Taroo run in 3 minutes
- (19) *Achievement: Non-causative*
- a. Taroo-wa shuppatsu suru
Taroo leaves
 - b. Taroo-wa shuppatsu shiteiru (perfect)
Taroo has left
 - c. Taroo-wa san-ji-ni shuppatsu shita
Taroo left at 3 o'clock
 - d. *Taroo-wa san jikan shuppatsu shita
Taroo left for 3 hours
 - e. Taroo-wa san-pun de shuppatsu shita (begin)
Taroo left in 3 minutes
- (20) *Achievement: Causative*
- a. Hanako-wa Taroo-o shuppatsu sase-ru (not present)
Hanako makes Taroo leave
 - b. Hanako-wa Taroo-o shuppatsu sase-te iru (perfect)
Hanako has made Taroo leave
 - c. Hanako-wa san-ji-ni Taroo-o shuppatsu saseta
Hanako made Taroo leave at 3 o'clock
 - d. *Hanako-wa san jikan Taroo-o shuppatsu saseta
Taroo made Taroo leave for 3 hours
 - e. Hanako-wa san-pun-de Taroo-o shuppatsu saseta (end of causing event)
Hanako made Taroo leave in 3 minutes

- (21) *Accomplishment: Non-Causative*
- a. Taroo-wa tegami-o kaku (not present)
Taroo writes a letter
 - b. Taroo-wa tegami-o kai-te iru (progressive, perfect)
Taroo is writing, has written a letter
 - c. Taroo-wa san-ji-ni tegami-o kaita
Taroo wrote a letter at 3 o'clock
 - d. Taroo-wa san jikan tegami-o kaita
Taroo wrote a letter for 3 hours
 - e. Taroo-wa san-pun-de tegami-o kaita (end)
Taroo wrote a letter in 3 minutes
- (22) *Accomplishment: Causative*
- a. Haha-wa Taroo-ni tegami-o kakaseru (not present)
Mother makes Taroo write letters
 - b. Haha-wa Taroo-ni tegami-o kakase-te iru (progressive, perfect)
Mother is making, has made Taroo write a letter
 - c. Haha-wa san-ji-ni Taroo-ni tegami-o kakasetta
Mother made Taroo write a letter at three
 - d. Haha-wa Taroo-ni san jikan tegami-o kakasetta
Mother made Taroo write letters for 3 hours
 - e. Haha-wa san-pun-de Taroo-ni tegami-o kakasetta (end)
Mother made Taroo write a letter in 3 minutes

There are a number of factors influencing the interpretation of causative sentences with adverbial modifiers: whether the causing and the caused event are assumed to take place at the same spatio-temporal location or not, the position of the adverb in the sentence, etc. All these will be ignored. It is still possible to make some rough generalizations. These are summed up in the table below.

Fig. 3

	Caus activity	Caus achievement	Caus accomplishment
Te iru	progressive	perfect	progressive, perfect
Ru	not present	not present	not present
Pct	yes	yes	yes
Dur	yes	no	yes
Telic	yes	yes	yes

Standard causative constructions seem to be aspectually complex. The causative forms cannot be assigned to a particular aspectual class like lexical causatives. The causative morpheme itself exhibits accomplishment properties. This is suggested by the fact that all the causative forms co-occur with the adverbial phrase *san-pun-de* (in 3 minutes) with the interpretation that the causing event ended at the end of the period. Among the base verbs, only accomplishments allowed this reading. We conclude, then, that this is a property added by the causative morpheme.

The causative forms, however, cannot be identified with well-behaved accomplishments. The behavior they exhibit when modified by durational adverbs proves it. Causatives formed on the basis of activity verbs co-occur with duration adverbs while causative forms of achievement verbs do not. This suggests that the base verb is ‘alive’ inside the causative packing.

We will leave the details of how exactly the aspectual properties of the base predicate and those of the causative morpheme combine to give the aspectual properties of the causative construction to further investigation. We will concentrate for now on the three properties noticed above.

- i. the causative construction has composite aspectual properties
- ii. the causative morpheme contributes accomplishment properties
- iii. the properties of the base verb are not entirely suppressed

In the next section we will examine the properties of Experiencer Causatives and see how they compare with those of standard causatives.

4.3.2. Experiencer Causatives

The aspectual properties of emotion verbs in Japanese will be discussed in more detail in Chapter 8. These predicates seem to fall into two main classes: activities and achievements. None of the verbs are prototypical members of the respective lexical aspectual classes, but the behavior they exhibit with respect to various aspectual tests justifies sufficiently this classification. The occurrence emotion verbs that take an accusative object are activities. The verbs that take a dative object can be roughly described as achievements, though there is a lot of variation in this class. Some verbs are closer to states than to achievements.

In what follows we will examine the influence that attaching the causative morpheme has on the aspectual properties of emotion verbs.

(23) *Activity: Non-causative*

- a. Taroo-wa Hanshin-no shoori-o yorokobu (not present)
Taroo-TOP Hanshin-GEN victory-ACC V-ru
Taroo is glad of the Hanshin victory
- b. Taroo-wa Hanshin-no shoori-o yorokon-de iru (progressive)
Taroo-TOP Hanshin-GEN victory-ACC V-te iru
Taroo is cheering for the Hanshin victory
- c. ?Taroo-wa sakki Hanshin-no shoori-o yorokonda
Taroo-TOP Adv Hanshin-GEN victory-ACC V-ta
Taroo was glad of the Hanshin victory a few moments before
- c'. Taroo-wa kinoo Hanshin-no shoori-o yorokonda
Taroo-TOP Adv Hanshin-GEN victory-ACC V-ta
Yesterday Taroo was glad of the Hanshin victory
- d. Taroo-wa mikka-kan Hanshin-no shoori-o yorokonda
Taroo-TOP Adv Hanshin-GEN victory-ACC V-ta
Taroo was glad of the Hanshin victory for three days
- e. *Taroo-wa san-pun-de Hanshin-no shoori-o yorokonda
Taroo-TOP Adv Hanshin-GEN victory-ACC V-ta

(24) *Activity: Causative*

- a. Hanshin-no shoori-ga Taroo-o yorokobaseru (not present)
Hanshin-GEN victory-NOM Taroo-ACC V-SASE-ru
The Hanshin victory cheers Taroo

- b. Otoshiyori-no egao-ga kodomotachi-o yorokobaseteiru (state?)
 old people-GEN smiling face-NOM children-ACC V-SASE-te iru
 The old people's smiling faces make the children happy the children
- c. *Sakki Hanshin-no shoori-ga Taroo-o yorokobaseta
 Adv Hanshin-GEN victory-NOM Taroo-ACC V-SASE-ta
- c'. Kinoo Hanshin-no shoori-ga Taroo-o yorokobaseta
 Adv Hanshin-GEN victory-NOM Taroo-ACC V-SASE-ta
 Yesterday the Hanshin victory cheered Taroo
- d. Hanshin-no shoori-ga mikka-kan Taroo-o yorokobaseta
 Hanshin-GEN victory-NOM Adv Taroo-ACC V-SASE-ta
 The Hanshin victory cheered Taroo for three days
- e. *Hanshin-no shoori-ga san-pun-de Taroo-o yorokobaseta
 Hanshin-GEN victory-NOM Adv Taroo-ACC V-SASE-ta

(25) *Achievement: Non-causative*

- a. Taroo-wa ooki-na oto-ni odoroku (not present)
 Taroo-TOP big sound-DAT V-ru
 Taroo is startled by loud noises
- b. Taroo-wa sono ooki-na oto-ni odoroi-te iru (perfect)
 Taroo-TOP that big sound-DAT V-te iru
 Taroo is startled by that loud noise
- c. Asa no go-ji-ni Taroo-wa ooki-na oto-ni odoroitai
 Adv Taroo-TOP big sound-DAT V-ta
 Taroo was startled by a loud noise at five in the morning
- d. *Taroo-wa san-pun-kan sono ooki-na oto-ni odoroitai
 Taroo-TOP Adv that big sound-DAT V-ta
- e. *Taroo-wa san-pun-de ooki-na oto-ni odoroitai
 Taroo-TOP Adv big sound-DAT V-ta

(26) *Achievement: Causative*

- a. Ooki-na oto-ga Taroo-o odorokaseru (not present)
 big sound-NOM Taroo-ACC V-SASE
 Loud noises startle Taroo

- b. sono koudo-na gijutsu-ga hitobito-o odorokase-te iru (state?)
 that advanced technology-NOM people-ACC V-SASE-te iru
 That advanced technology surprises people
- c. Asa-no go-ji-ni ooki-na oto-ga Taroo-o odorokaseta
 Adv big sound-NOM Taroo-ACC V-SASE-ta
 A loud noise startled Taroo at five in the morning
- d. *Sono ooki-na oto-ga san-pun-kan Taroo-o odorokaseta
 that big sound-NOM Adv Taroo-ACC V-SASE-ta
- e. *Sono ooki-na oto-ga san-pun-de Taroo-o odorokaseta
 that big sound-NOM Adv Taroo-ACC V-SASE-ta

(27) *Stative-achievement: Non-causative*

- a. Taroo-wa itazura denwa-ni komaru (not present)
 Taroo-TOP naughty call-DAT V-ru
 Taroo is annoyed by naughty calls
- b. Taroo-wa itazura denwa-ni komat-te iru (perfect, state)
 Taroo-TOP naughty call-DAT V-te iru
 Taroo is annoyed by naughty calls
- c. ??Taroo-wa asa-no san-ji-ni itazura denwa-ni komatta
 Taroo-TOP Adv naughty call-DAT V-ta
- d. Taroo-wa mikka-kan itazura denwa-ni komatta
 Taroo-TOP Adv naughty call-DAT V-ta
 Taroo was annoyed by naughty calls for three days
- e. *Taroo-wa mikka-de itazura denwa-ni komatta
 Taroo-TOP Adv naughty call-DAT V-ta

(28) *Stative-achievement: Causative*

- a. Musekinin-na seijika-ga minshuu-o komaraseru (not present)
 irresponsible politician-NOM population-ACC V-SASE-ru
 Irresponsible politicians annoy the population
- b. Mizu-busoku-ga juumin-o komarase-te iru (state)
 draught-NOM inhabitants-ACC V-SASE-ru
 The inhabitants are annoyed by the draught

- c. *Asa-no san-ji-ni itazura denwa-ga Taroo-o komaraseta
 Adv naughty calls-NOM Taroo-ACC V-SASE-ta
- d. Itazura denwa-ga hito ban-juu Taroo-o komaraseta
 naughty calls-NOM Adv Taroo-ACC V-SASE-ta
 Naughty calls annoyed Taroo all night long
- e. *Itazura denwa-ga san-pun-de Taroo-o komaraseta
 naughty calls-NOM Adv Taroo-ACC V-SASE-ta

The aspectual properties of the experiencer causative forms examined are summed up in the table below.

Fig. 4

	activity	achievement	state- achievement
Te iru	state?	state?	state?
Ru	not present	not present	not present
Pct	?	yes	no
Dur	yes	no	yes
Telic	no	no	no

The behavior of these forms makes it difficult to identify them with any of the four recognized lexical aspectual classes. What is clear, however, is the fact that experiencer causatives do not have accomplishment properties, like standard causative forms. Comparing the results obtained for the three verbs examined, another fact emerges. The aspectual differences among the basic forms are, to some extent, preserved in the causative forms. If we look at the co-occurrence with duration adverbs test, we notice that the causative form *odorokaseru* in example (26d), like the plain form *odoroku* in example (25d), rejects modification by adverbs in this class. The causative formed from an inchoative is the only one that allows modification by punctual adverbs (26c).

The fact that none of the three causatives has a present reading in the *-ru* form suggests that these predicates are not states, yet the reading of the *-te iru* form seems to signal the presence of stative properties. The *-te iru* form of *odorokaseru* does not have

a ‘perfect’ reading. Example (26b), unlike example (25b), does not imply the existence of a change that marked the beginning of the state. The *-te iru* form of *yorokobaseru*, example (24b) lacks the progressive nuance of the *-te iru* form of *yorokobu* (23b). A peculiarity of the *-te iru* forms of experiencer causatives is that they seem to require plural nominals in experiencer argument position. This is true for all the verbs and distinguishes the causative from the non-causative forms.

It appears that whatever the aspectual properties exhibited by the base verb, the causative form will have similar but more state-like properties. If any aspectual properties can be associated with the morpheme SASE in experiencer causative constructions these can be described as stative. We noted that in the case of the standard causative SASE, the aspectual class of the causative construction could be described in terms of the aspectual class of the basic verb **to which an accomplishment was added**. It does not seem possible to apply the same type of description to experiencer causatives. The experiencer causative construction does not consist of the basic verb plus a state. It is more like the aspectual class of the basic verb diluted in a state. The causative form *odorokaseru* does not function as an achievement plus a state, but as a non-prototypical achievement with strong stative features.

The difference between the aspectual contribution of standard SASE and that of experiencer SASE can be concisely expressed as follows. The standard SASE adds an event to the structure of the basic predicate without altering the aspectual class of the predicate whereas experiencer SASE alters the aspectual class of the basic predicate without seeming to add an event to the basic structure.

Standard causative constructions are a conventional mode of encoding causative situations. Taking a sentence that refers to an event as its base, the causative morpheme builds from it a construction referring to the two events in a causative situation. The basic sentence provides information relative to the caused event and the morpheme SASE contributed information regarding the causing event. Aspectual properties of the causative construction are determined by this function.

It is difficult to link the aspectual properties of experiencer causative constructions to causative situations in the straightforward way this is done in the case of standard causative constructions. We have shown that, in this construction, it is not possible to set up the semantic contribution of the causative morpheme as a separate event added to the event structure of the basic form. How are the two events in the

causative situation mapped onto the event structure of the verb in this case?

4.4. Lexical Causatives

Katada (1997) claimed that experiencer verbs like *kurushimeru* (distress), *kanashimeru* (sadden) are lexical causatives. He argued that the lexical process deriving causatives from non-causative emotion verbs involves two stages. First intransitivization applies to the transitive form. Second, causativization applies to the resulting intransitive form. Katada suggests that experiencer lexical causatives are to be treated on a par with other lexical causatives in Japanese, such as *susumeru* (advance), *miseru* (show), *kiseru* (dress), etc.

Katada's proposal accounts for the argument structure properties of experiencer causatives. Katada claims that his analysis does not apply to the SASE experiencer causatives because these, unlike the forms he discusses undergo the standard process of causativization. According to Katada, emotion verbs freely allow argument increasing causativization. We have seen that facts do not support this claim. If argument structure is a guide to the type of causativization involved, the experiencer causative constructions discussed in the previous sections are closer to Katada's lexical causatives than to the regular 'syntactic' causatives.

The status of experiencer causatives is very puzzling. The selectional restrictions of the morpheme SASE, the effect on argument structure, the relation between the Causer and the object of the base verb, aspectual properties all point to a distinct process. The morphological properties of the causative forms, the semantic relation between base and derived form, the domain of application of experiencer causativization, however, do not support the idea that a lexical process is involved.

Lexical causatives are not morphologically regular, the process affects the morphological shape of the stem. Thus, besides *susumu-* *susumeru* (advance), *yasumu-* *yasumeru* (rest), there are pairs like *miru* (see)- *miseru* (show), *sasaru-* *sasu* (stick), etc. Experiencer causatives do not involve any change in the stem.

The semantic relation between lexical causatives and the related non-causative forms is not entirely predictable as the existence of pairs such as *kiru* (dress oneself) – *kiseru* (dress somebody), *miru* (see) – *miseru* (show) or *deru* (go out, leave) – *dasu* (take out) indicates. The relation between causative experiencer and the base forms is predictable. The relation cannot be identified, however, with the relation between

standard causative and non-causative forms. As mentioned before, a standard causative construction refers to a causative situation and the role of the causative morpheme is to provide information relative to the causing event where the base predicate provides information referring to the caused event.

Although it is possible to paraphrase experiencer causative constructions by making reference to a causing and a caused event, such paraphrases identify the causing event with the event referred to by the stimulus argument and the caused even with an internal state, associated with the base verb. The availability of the paraphrase hinges on the possibility to use the base verb intransitively. As observed in Section 3 not all the emotion verbs that have experiencer causative forms allow an intransitive use. Although it is easy to paraphrase (29a) below as in terms of (29c), by replacing X with the subject of (29a), Y with the object and E with the base form *yorokobu*, this does not work equally well in the case of (29b). This is because the base verb for *akisaseru* (make fed up with) is *akiru* (be fed up with). As mentioned before the verb *akiru* is not normally used intransitively and it is quite difficult to imagine the kind of state E that could be associated with this verb in the absence of an object.

- (29) a. tegami-ga obaachan-o yorokobaseta
 letter-NOM grandmother-ACC V-SASE
 The letter cheered grandmother
- b. nagai hanashi-ga kodomotachi-o akisaseta
 long talk-NOM children-ACC V-SASE
 The long speech bored the children
- c. X Cause Y Feel E

We could say that the relation between experiencer causative forms and the related non-causative forms is predictable, but not predictable on the base of constructions involving the non-causative predicate.

A further difference between experiencer causatives and lexical causatives concerns the domain the application. A lexical process need not apply in a regular fashion. As Katada observed there are lexical causative forms of experiencer verbs, such as *kurushimeru* (distress), *kanashimeru* (sadden), but no such forms as **tanoshimeru* form *tanoshimu* (enjoy) or **yorokoberu* from *yorokobu* (be glad about). Experiencer causativization applies in a very general fashion to all the occurrence emotion verbs. As

mentioned above it does not apply to dispositional predicates.

These differences suggest that assimilating experiencer causatives to lexical causatives is not a felicitous solution. Experiencer causatives do not behave either like standard causatives or like lexical causatives. What is then the status of these forms?

In Chapter 5 we discussed the fact that many of the Romanian EO verbs have reflexive forms. The same phenomenon occurs in French. Grimshaw (1982) argues that reflexive verb formation is a lexical process. Verbs which meet the semantic description for the application of the lexical rule of inchoativization are subjected to a morpho-syntactic process of reflexive clitic attachment. We argued that in the case of Romanian EO verbs the semantic effect associated with reflexive clitic attachment is to shift perspective from a Stimulus oriented perspective to an Experiencer oriented perspective. Describing the reflexive forms of EO verbs as inchoatives is not accurate since part of the reflexives are stative.

5. Proposal

We will argue that the effect of SASE attachment to Japanese emotion verbs can be described in the same terms as reflexivization of EO verbs in Romanian. Although the direction of derivation is from the EO to the ES form in Romanian and from the ES to the EO form in Japanese the similarities between the two processes are striking.

If we compare the role of causative morphology in the Japanese sentences below with the role of the reflexive clitic in the Romanian sentences, a common peculiarity becomes obvious: each of the two formatives is used in a way which deviates from its basic function. The causative morpheme in Japanese promotes an internal argument to subject position as illustrated in (30c,d) instead of adding a new argument to the constituent structure as in (30a,b). The reflexive clitic in Romanian absorbs the external argument of the EO verb, thus promoting the internal argument to subject position in (31c,d) whereas its basic function is to stand for the internal argument of the verb leaving argument structure unaffected as in the pair (31a,b).

- (30) a. Jiroo_i wa hon_j o yonda
 Jiroo-TOP book-ACC V
 Jiroo read a book

- b. Taroo_k wa Jiroo_i ni hon_j o yomaseta
 Taroo-TOP Jiroo-DAT book-ACC V-SASE
 Taroo made Jiroo read a book
- c. Taroo_i wa purezento_j o yorokonda
 Taroo-TOP present-ACC V
 Taroo was pleased with the present
- d. Purezento_j ga Taroo_i o yorokobaseta
 present-NOM Taroo-ACC V-SASE
 The present pleased Taroo
- (31) a. Maria_i l-a spatat pe Pooh_j
 Marin-NOM CL-V P-ACC Pooh
 Maria washed Pooh
- b. Maria_i s_i-a spatat
 Maria_i CL-REFL_i V
 Maria washed herself
- c. Maria_i l-a suparat pe Pooh_j
 Maria CL-V P-ACC Pooh
 Maria angered Pooh
- d. Pooh_j s_j-a suparat
 Pooh CL-REFL V
 Pooh got angry

Although the causative morpheme SASE and the reflexive clitic SE are used in a manner that deviates from their original function, the role they play in constructions with emotion verbs is not entirely disconnected from the basic use. We could say that experiencer causatives in Japanese and reflexive ES verbs in Romanian illustrate non-prototypical uses of the causative morpheme and of the clitic reflexive, respectively.

Romanian reflexive ES verbs have a spontaneous nuance compared to the EO forms. In the EO forms responsibility for triggering the emotion is mainly attributed to the Stimulus argument and the Experiencer is presented as affected. In the reflexive forms the responsibility for the emotional state is attributed to the Experiencer. This change can be related to the presence of the reflexive clitic. The basic function of the clitic is to signal co-referentiality between the actor and the undergoer in the situation

expressed by the sentence. It could be argued that in constructions with emotion verbs clitic attachment has the effect of conferring stimulus properties on the experiencer. The experiencer ceases to be merely the affected participant and takes over stimulus properties. This is in keeping with the role of the experiencer as evaluator of the situation.

What are the similarities and the differences between the standard use of the causative morpheme SASE in Japanese and the use it fulfills in experiencer causative constructions? The standard function of SASE is to create causative constructions, that is, constructions used to encode causative situations, from non-causative constructions. SASE attachment to a verb heading a non-causative construction has the following main syntactic and semantic effects. It adds an argument, the Causer, to the argument structure of the base construction. It affects the case marking properties of the subject in the base construction. It modifies the semantic role of the former subject, superimposing the Causee role on the initial role. We could alternatively describe this effect by saying that SASE attachment adds the feature [+affected] to the main participant in the base situation. Causativization also affects event structure by adding to the initial event configuration an accomplishment. As mentioned before, the accomplishment component contributes information relative to the causing event.

In experiencer causative constructions SASE signals a causative situation, but it is doubtful that it has the function of creating a causative construction. As argued above, the ES forms themselves can be associated with causative situations, the same causative situations referred to by the causative forms. Experiencer SASE does not increase valence by adding a Causer argument. It does, however, influence the case marking properties of the former subject. SASE attachment assigns the feature [+affected] to the Experiencer. The aspectual properties of experiencer causatives suggest that SASE does not contribute information relative to the causing event. In experiencer causative constructions information regarding the causing event is provided by the subject, the stimulus argument. The similarities and the differences between standard SASE and experiencer SASE are summed up in the table below.

Fig. 5

	Standard Causative	Experiencer Causative
Causative situation	yes	yes
Add Causer	yes	no
Add causing event	yes	no
Demote subject	yes	yes
Add [+affect]	yes	yes

As we noted above experiencer causative constructions are associated with causative situations, but this is not due only to the presence of the causative morpheme. The most important role of the causative morpheme in the experiencer causative construction seems to be its effect on the subject of the ES form. The attachment of causative morphology has the syntactic effect of demoting the Experiencer from the subject position and the semantic effect of assigning to the experiencer the feature [+affected].

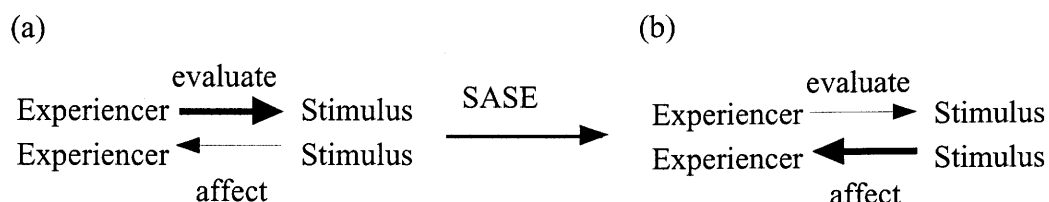
The effect of SASE attachment to emotion verbs is consistent with the function we suggested for this process, that of shifting focus from the Experiencer oriented perspective to the Stimulus oriented perspective. Causativization is not accompanied by a radical change in the argument structure and the event structure of the base form. The roles of the two participants are reversed syntactically and their relative importance in the situation is altered accordingly. The role of central participant goes from the Experiencer to the Stimulus. The Experiencer is no longer presented as active but as affected.

The linking of arguments to syntactic positions is consistent with this semantic description. In Chapter 5.4.2 we illustrated the manner in which Dowty's proto-role theory can predict the syntactic functions of the two argument in Romanian EO and reflexive ES constructions. The same mechanism applies to Japanese. ES verbs and adjectives are associated with the Experiencer oriented perspective. This perspective focuses on the perceptual and cognitive activities of the experiencer. The only property in Dowty's list that applies to this situation is '*sentience*'. It is a proto-agent property and since it refers to the experiencer, this role is linked to the subject position. Experiencer causative forms illustrate the Stimulus oriented perspective. In the Stimulus

oriented perspective, the experiencer appears affected by a triggering event. This has the effect of adding the proto-patient properties ‘*Undergoes change of state*’ and ‘*Causally affected by another participant*’ to the contributing properties displayed by the Experiencer. The Stimulus is assigned the proto-agent property ‘*Causing an event or change of state in another participant*’. This results in the EO linking.

The effect of SASE attachment can be represented graphically as in Figure 6. SASE attachment derives a predicate with the semantic properties in Fig. 6b on the basis of the predicate with the semantic description in Fig. 6a.

Fig. 6



Certain semantic differences between the causative forms and the basic ES forms provide linguistic evidence for this analysis. It will be argued in Chapter 7 that occurrence emotion verbs exhibiting the NOM-ACC case marking pattern are activity verbs. They have the semantic function of focusing on the external manifestations associated with the emotion. Notice that the display of emotion can be described as one of the active functions of the experiencer in the emotional episode, along with the cognitive and the perceptive activities. When these verbs undergo experiencer causativization the activity interpretation is lost.

The verb *okoru* (anger) means *scold* when it is used in the NOM-ACC pattern. Scolding is probably the type of behavior most frequently associated with anger. This reading is not possible with the causative form.

- (32) a. Chichi-wa kitaku-no osoi musuko-o okotta
 father-TOP return-GEN late son-ACC V
 The father scolded the son who returned late

- b. Kitaku-no osoi musuko-ga chichi-o okoraseta
 return-GEN late son-NOM father-ACC V-SASE
 The son who returned late angered father

While sentence (32a) focuses on the father's manifestation of his anger, sentence (32b) makes no claim that the father's anger was accompanied by scolding. Sentence (32b) merely presents the Experiencer as affected by the son's behavior.

The verb *tanoshimu* (enjoy) has acquired in a number of contexts the meaning *perform activity x with enjoyment*. This meaning is illustrated in (33a). Examples such as (33a) can not serve as the base for experiencer causative constructions.

- (33) a. Taroo-wa koohii-o tanoshinda
 Taroo-TOP coffee-ACC V
 Taroo is enjoying his coffee
 b. *Koohii-ga Taroo-o tanoshimaseta
 coffee-NOM Taroo-ACC V-SASE

If we compare the selectional restrictions of the adjective *tanoshii*, the verb *tanoshimu* and the causative form *tanoshimaseru* we notice that the causative is closer to the adjective than to the verb, in spite of the fact that it is morphologically related to the verb. This is not expected if the role of SASE with emotion verbs is to create a causative form on the basis of a non-causative form.

- (34) *watashi-wa koohii-ga tanoshii
 I-TOP coffee-NOM Adj

This suggests that although the morphological relation between the causative and the non-causative forms is that in Fig.7a, the semantic relation between the experiencer causative and the base verb is closer to the representation in Fig. 7b. The causative form is not directly dependent for its semantic representation on the verb. Both the verb and its causative (and the adjective when it exists) are associated with a semantic content that each form encodes in its specific way.

Fig.7



The reason why the adjective *tanoshii* seems semantically closer to the causative form than the verb *tanoshimu* could be explained as follows. Both the verb and the adjective are associated with the Experiencer oriented perspective. The verb *tanoshimu* is derived from the adjective *tanoshii*. The differences in selectional restrictions between the verb and the adjective reflect the additional semantic role of the verb, that of focusing on the emotional display. In the causative constructions the semantic content associated with the verb is shadowed and the selectional restrictions are sensitive to this fact. Consequently, the causative form is felt to be semantically closer to the adjective than to the verb.

This solution accounts for the argument structure of experiencer causative constructions, but also for their aspectual properties and for the lack of semantic gaps.

We have discussed the aspectual properties of experiencer causatives and observed that they have stronger stative features than the base verbs. The properties of experiencer causative forms are not very different from the aspectual properties of Romanian EO verbs. If the experiencer causative constructions, like EO verbs, have the role of bringing into perspective the STIMULUS AFFECT EXPERIENCER component of the emotional episode, these aspectual properties are to be expected. Experiencer causative constructions refer to resulting emotional states. This accounts for the stative features. The evaluation component is not entirely suppressed, just backgrounded. That accounts for the fact that the aspectual properties of the base predicate are still reflected by the aspectual structure of the causative construction.

We argued that experiencer causative formation is a lexical process. Lexical processes tend to give rise to accidental gaps. Experiencer causative formation seems to be entirely regular. This is a consequence of the fact that the process applies whenever it meets the required semantic description, namely a predicate implying a cognitive process doubled by a physiological process. All the occurrence emotion predicates

answer this description. The mismatch regarding selectional restrictions and the semantic relation between the verb and its causative form support the idea that a lexical, rather than a syntactic process is involved.

We will conclude that causative morphology attached to emotion verbs has the effect of shifting focus from an experiencer oriented perspective to a stimulus oriented perspective on the emotional episode by highlighting the affected status of the experiencer participant.

The analysis suggested here could be seen as a revival of the Flip Rule, criticized in McCawley (1976): the role of SASE as a genuine causative morpheme is denied and the morphological process results in an interchange of the two arguments. McCawley argued that SASE in experiencer causative constructions is not semantically empty, that these constructions are indeed causative. We do not disagree with this claim. However, we question the fact that the semantic causativity of these constructions is attributable only to the semantic contribution of SASE. As mentioned before experiencer causatives are associated with causative situations, but so are the non-causative forms.

In standard causative constructions, the addition of causative morphology has the effect of turning a non-causative episode into a causative one. The event structure of the resulting causative episode includes the episode referred to by the base predicate as a subevent. The causative and the non-causative forms do not refer to the same situation. In experiencer causative constructions things are different. Attachment of the morpheme SASE merely brings into focus the inherent (latent) causative nature of the basic situation. This account explains the close paraphrase relation often found between emotion verbs and their causative forms. Plain and causative forms of these verbs can be said to refer to the same basic situation. The semantic differences between causative and non-causative sentences are due to the different perspectives they represent.

The fact that such a reassignment of th-roles to syntactic positions is possible should be attributed to the peculiar semantic structure of emotion predicates. As discussed in Chapter 5, unlike predicates referring to physical interactions, these predicates have no inherent directionality. None of the two perspectives on the emotional episode can be considered a priori as basic.

Another argument offered by McCawley against the Flip Rule referred to the different selectional restrictions of ES and EO verbs⁹). If experiencer causative

constructions were the result of an interchange between the arguments of the base verb, they should display the same selectional restrictions as the base verb. We have seen that this is not always the case.

The effect of SASE attachment could be described more accurately as the reversing of the linking pattern of the base predicate than as the interchanging of the arguments of lexicalized forms. If the base predicate does not correspond semantically either to the ES verb or to the causative counterpart, but to an (abstract) predicate referring to the emotional interaction without focusing on any of the two constituent processes, the difference in selectional restrictions ceases to be a problem. The differences with respect to selectional restrictions are a consequence of the different choice of perspective. The similarities are due to the common semantic base.

6. Basic and Derived Perspective

A question that arises is why there are no plain EO predicates in Japanese. We have argued that the emotional episode allows two equally plausible perspectives. We will assume that a language can choose one of the two perspectives as basic and obtain the other perspective through derivational means. A similar proposal has been suggested by Nakamura (2000) ⁵⁾. On this account underived predicates describing emotional occurrences encode the basic perspective on the emotional episode chosen by a particular language. The fact that the plain form of occurrence emotion predicates in Japanese is associated with the Experiencer oriented perspective indicates that in Japanese this represents the basic conceptualization of emotional episodes. Romanian has non-derived EO predicates, which serve as the base for deriving ES predicates. This can be seen as an indication that the Stimulus oriented perspective is basic in this language.

The lack of non-derived EO predicates in Japanese suggests that the stimulus-oriented perspective is not basic in this language. We have argued that this perspective can be obtained through a shift of focus and that the role of the causative morpheme in experiencer causative constructions is to mark such a change of perspective.

In Romanian the Stimulus oriented perspective is basic but the Experiencer oriented perspective is derived. The difference between the two languages are presented in Fig.8 below.

Fig.8

	Stim-oriented	Exp-oriented
Japanese	derived--SASE-----	basic
Romanian	basic-----SE-----	derived

The strategy used by the two languages for achieving the shift of perspective is strikingly similar. Both Japanese and Romanian make use of a morpheme, normally associated with a productive morpho-syntactic process, to signal a lexical process. The role of the respective morpheme in the structure thus obtained differs substantially from its basic use. Attachment of the causative morpheme to emotion verbs in Japanese does not connect to an increase in valence and the reflexive clitic in Romanian does not signal that the external argument binds the internal argument. One of the effects that the application of the morpho-syntactic process seems to have in both Japanese and Romanian is the ‘demotion’ of the external argument (subject).

Although the role played by these morphemes in experiencer constructions differs from the standard one, it is not entirely unconnected to it. Some aspect of the basic function can be discerned in the new function of the morpheme. In a causative construction, the subject of the constituent clause is represented as affected. This could be the key to the use of SASE with experiencer verbs. We argued above that the use of the reflexive clitic in Romanian enhances the responsibility attributed to the experiencer by establishing an identity between experiencer and stimulus.

7. Discussion

The emotional lexicon of Japanese and Romanian seemed at first sight to contain few similarities. Japanese occurrence predicates are represented by ES verbs associated with two different case patterns. These verbs serve as a base for causative constructions. The repertory of emotional occurrences in Romanian includes EO verbs related to reflexive constructions. We have argued that the main difference between the two languages lies in the choice of the basic perspective on the emotional episode. Japanese adopts an Experiencer-oriented perspective while Romanian selects the Stimulus-oriented perspective. Both languages have the possibility to encode the emotional episode from a different perspective. We have argued that the shift takes place in the lexicon and

involves the non-standard use of morpho-syntactic processes. In Japanese the shifted perspective is signaled by the presence of the causative morpheme and in Romanian by that of the reflexive clitic.

The solution we have argued for opens the possibility of a cross linguistic account of emotion predicates which does not coerce the reality of a language into an imported semantic schema. The account captures the fact that the relation between causative and non-causative forms in Japanese is parallel to the relation between EO verbs and the related reflexive forms in Romance languages. This parallelism is not taken as material but as functional. More precisely we have rejected the approaches proposed by McCawley or Pesetsky, which argue that EO-ES pairs in Japanese and European languages can be analyzed in terms of the causative versus non-causative opposition. We assume that what languages have in common is the emotion schema. Languages are parameterized with respect to the choice of perspective. We have discussed Japanese as illustrating the Experiencer oriented perspective and Romanian, as an illustration of the Stimulus oriented perspective. We assume that the causative morpheme in Japanese and the reflexive clitic in Romanian have the same function. This function is to shift focus from a stimulus-oriented perspective on the emotional episode to an experiencer oriented perspective or vice versa.

Appendix

Agentive Experiencer Causatives and Backward Binding

Prototypical causative constructions in Japanese have a human Causer. With respect to the Causee there is room for variation: the Causee can be human or not, it can be directly affected by the event or may be a link in a causative chain.

- (A1)
- | | | | | |
|----|---------------------------------|-----------|-------------|----------|
| a. | Taroo wa | Jiroo o | nakaseta | |
| | Taroo-TOP | Jiroo-ACC | V-SASE | |
| | Taroo made Jiroo cry | | | |
| b. | Taroo wa | Jiroo ni | e o | kakaseta |
| | Taroo-TOP | Jiroo-DAT | picture-ACC | V-SASE |
| | Taroo made Jiroo draw a picture | | | |
| c. | Taroo wa | hon o | ochisaseta | |
| | Taroo-TOP | book-ACC | V-SASE | |
| | Taroo let the book fall | | | |

The causative forms of emotion predicates deviate from this norm by taking an event as Causer and a human as Causee. There is, however, an exception to this schema, namely the agentive use of experiencer causatives. In this case the Causer is a human agent.

- (A2) a. musume no kooi ga hahaoya o komaraseta
 daughter-GEN behavior-NOM mother-ACC V-SASE
 The daughter's behavior annoyed the mother
- b. musume wa wazato hahaoya o komaraseta
 daughter-TOP ADV Mother-ACC V-SASE
 The daughter annoyed the mother on purpose

The relation between agentive and non-agentive forms of experiencer causatives has received different explanations in the literature. McCawley (1976) considers that the two interpretations have different underlying structures. While the non-agentive form is derived from a structure in which the abstract predicate CAUSE connects two clausal arguments, the agentive structure involves the productive causativization process applying to an intransitive form of the emotion verb.

The advantage of this representation is that it can account for the differences between agentive and non-agentive forms with respect to reflexivization. McCawley notes that the non-agentive use of the experiencer causatives allows backward reflexivization while the agentive form does not.

- (A3) a. jibun_i ga byooki kamo shirenai koto ga Hiroshi_i o
 self-NOM ill MOD COMP-NOM Hiroshi-ACC
 nayamaseta
 V-SASE
 The fact that he might be ill afflicted Hiroshi
- b.* jibun_i o nikundeiru yakuza ga waza to
 self-ACC hate yakuza-NOM ADV
 Tanaka-si_i o okoraseta
 Mr Tanaka_i-ACC V-SASE
 The yakuza who hates him angered Mr Tanaka on purpose

Essential to this treatment is the status of the ‘transitive’ use of emotion verbs. As discussed in Chapter 6.2. McCawley argues that the ‘transitive’ form is derived through Causal Object Formation from the underlying structure of the non-agentive causative form. We have demonstrated that this position is difficult to sustain. If the ‘transitive’ forms are basic and not derived, however, her treatment of agentive forms becomes less appealing, because it can no longer explain why the productive transitive causativization process should be restricted to intransitive forms.

Katada (1997) denies the existence of any structural difference between agentive and non-agentive readings of experiencer causatives. Both forms are obtained through lexical causativization applied to an intransitivized form of the emotion predicate. This treatment explains the lack of parallelism between constructions with causative and non-causative forms, the unacceptability of sentences where the object of the non-causative form is human, but fails to account for the syntactic differences between agentive and non-agentive forms.

We are thus faced with a difficult choice: if we assume that the two readings, agentive and non-agentive, are the result of a structural difference, the identical argument structure Causer-Causee (exp) is puzzling. If, on the other hand, we assume that the two readings share the underlying structure, we can no longer account for the differences in their behavior. Considering the cross-linguistic ubiquity of the agentive reading with emotion verbs of the EO form, the latter position seems preferable. The agentive reading must be made somehow parasitic on the non-agentive reading. Emotion verbs are predicates which do not undergo normal causativization for semantic reasons: the emotional state of the experiencer is not controllable by an external agent. Emotions are, however, reactions to events and this peculiarity seems to lie at the base of experiencer causative forms.

We have commented on the fact that a nominal in subject position of an EO verb is not interpreted as referring to an individual but to an event. Assuming that this is what happens when a nominal referring to a human referent is the subject, we can suggest the following source for agentive causatives. The metonymical reconstruction of an event from a nominal proceeds by taking into account the most plausible role of the referent of that nominal in an event. With nominals referring to artifacts this will be patient in some activity typically associated with the object, reading for books, watching for movies, eating for food, etc. This is the phenomenon described by Pustejovsky

(1995) as coercion to event reading on the basis of the telic quale.

When the nominal refers to a human, interpretation will take into account the most unmarked role for human participants, namely that of agent. Evidence for the interpretation in terms of a default role comes from examples where the default agentive reading for a [+human] nominal is overridden by a stronger interpretation, or where a [-human] nominal receives an agentive interpretation due to pragmatic reasons.

- (A4)
- a. Renburanto wa nagaku hito o tanoshimaseta
Rembrandt-TOP ADV people-ACC V-SASE
Rembrandt has long delighted people
- b. Taroo ga nagaku hito o tanoshimaseta
Taroo-NOM ADV people-ACC V-SASE
Taroo amused the people for a long time
- c. Kitsune ga murabito o komaraseta
fox-NOM villagers-ACC V-SASE
The fox annoyed the villagers
- d. Gokiburi ga murabito o komaraseta
cockroaches-NOM villagers-ACC V-SASE
The villagers were annoyed by cockroaches

With a nominal like *Renburanto* the agentive interpretation does not easily arise because the default reading for the nominal is the one on which it refers to the artistic products rather than to the author as an agent. If we replace the nominal by a common place proper name like *Taroo*, the agentive reading emerges. In example (A4c) the nominal *kitsune* (fox), refers to an animal generally thought of as smart and deceitful, a potential agent. The default reading for (A4c) is the agentive interpretation. This is not the case if we replace *kitsune* by *gokiburi*. As cockroaches are not thought of as acting intentionally, the only acceptable reading is the non-agentive one.

Since there is no particular activity associated with agents in the way there are typical activities associated with artifacts, the content of the activity will be left unspecified and the context will provide a plausible candidate. Using Pustejovsky's terminology we can say that there is no default reading for the Agentive quale of a nominal with a human referent in the way there is for the Telic quale of a nominal

referring to a physical object. The presence of a [+human] nominal in Causer position, together with contextual clues suggesting that the actions of the human were volitional, will yield the agentive reading of experiencer causative constructions. Because the most immediate activity in which the agent could be involved is that of causing the emotional reaction of the experiencer, the unspecified actions of the agent will be interpreted as being intentionally performed in order to affect the experiencer emotionally. A sentence such as (A5) below, will yield the following implicatures regarding the interpretation of its subject (i) the nominal *Michiko* does not merely refer to the individual known by that name but serves as the basis for retrieving an event in which the individual *Michiko* and (ii) that the event consists in activities performed with the purpose of triggering Hiroshi's anger.

- (A5) Michiko wa waza to Hiroshi o okoraseta
 Michiko TOP intentionally Hiroshi ACC anger-SASE
 Michiko angered Hiroshi intentionally

This analysis of agentive experiencer causative forms implies that they have the same syntactic structure as the non-agentive forms, the differences which exist between the two forms being semantic in nature. It was pointed out above that with respect to binding, the two forms display different properties. If the syntactic structure is not different, what can be the source of this distinction? We shall suggest that a possible answer is the event structure of experiencer causatives, more precisely the participant structure of the causing event and of the caused event.

A peculiarity of experiencer causatives is the fact that the causing event need not include the experiencer as a direct participant, as evidenced by the following sentences.

- (A6) Soren ga Afugan kara tetta shita koto ga
 Soviet-NOM Afghanistan PRT withdraw COMP NOM
 sekaijuu no hitotachi o yorokobaseta
 world-GEN people-ACC please-SASE
 The fact that Soviet troops left Afghanistan pleased people all over the world

The participant in the causing event is the Red Army while the participant in the caused event is *people all over the world*. The Soviet Army does not appear in the caused event, and the experiencer is in no way involved in the causing event. As the use of the past form in the embedded clause indicates, the stimulus event is temporally independent from the resulting emotional state.

This property distinguishes emotional causation from physical causation. We have discussed in Chapters 5 and 6 the fact that EO forms do not conform to the aspectual schema of standard causatives, lexical or syntactic. Standard causative constructions can be described in terms of two events: the causing event and the caused event. The causing event involves the Causer and the Causee as direct participants; it describes the interaction between Causer and Causee. The caused event is predicated of the Causee. The presence of the Causee in both subevents is a defining property of causative predicates. Pustejovsky (1995) formulates this property as the condition on argument coherence, and defines it as follows.

ARGUMENT COHERENCE

The relation expressed by the causing event and that expressed by the resulting event must make reference to at least one parameter in common. This reference can be direct or indirect. p 186

The ‘parameter in common’ is the participant appearing in both subevents, namely the Causee. This participant need not be overtly mentioned. It is sufficient that it appear at some level in the semantic structure of the predicate, see Pustejovsky’s analysis of emotional causation in Chapter 3.

Experiencer causatives in Japanese, like EO verbs in Romanian, cover the second part of the causative chain: the caused event. Despite Pustejovsky’s claims to the contrary, see Chapter 3, a causing process, involving an interaction between Causer (actually Cause) and Causee, does not form a part of the event structure these predicates. The causing event is not included in the event structure of the predicate but appears as an argument, the subject. The event can be overtly referred to, and occur as a subject clause, or it can be implied. Non-agentive experiencer causatives do not answer the Argument Coherence requirement: the Causee, represented by the experiencer argument

in this case, is not normally a participant in the causing event.

Agentive causative forms, however, seem to conform to the Argument Coherence Condition, although indirectly. The analysis we have proposed for these predicates attributes to them an event structure parallel to the one of standard causatives. Agentive experiencer causatives refer to both causing and caused event. The information regarding the causing event is the result of the inferential process described above and not the contribution of SASE. The causing event involves two participants: the Causer, represented by the referent of the nominal in subject position, and the Causee, represented by the experiencer. The caused event presents the change of state undergone by the experiencer as a result of the Causer's activity. The experiencer is, thus, the parameter in common between causing event and caused event. It should also be noticed that the prominence relation between the two participants is clearly Causer >> Experiencer. This is also a point where agentive and non-agentive forms differ. It is also very likely that the distinct binding properties of agentive and non-agentive experiencer causatives have this point for their source.

We have argued that agentive and non-agentive experiencer causatives have the same syntactic structure. Since the analysis of EO predicates we have proposed does not attribute to them any peculiar syntactic structure, distinguishing them from standard transitive constructions, this means that structurally, a nominal in the subject position of these predicates should be able to bind an anaphor in object position. This is, indeed, the case both for agentive and non-agentive forms. The proposed analysis also predicts that the inverse binding relation should not be available syntactically. Structurally, the object nominal is not in a position which would allow it to bind an anaphor in subject position. This binding possibility does not arise with agentive forms. Non-agentive forms, on the other hand, permit violation of the structural conditions on binding.

- (A7) a. Hakarazu mo, Taroo, wa jibun, no oya o
 ADV Taroo-TOP self-GEN parents-ACC
 kanashimasete shimatta
 V-SASE
 Taroo made his parents sad, unintentionally

- b. Hanzai ni kakawatta seinen_i ga jibun_i no
 crime-DAT involve youth-NOM self-GEN
 oya o kurushimaseru no wa yoku aru koto da
 parents-ACC V-SASE COMP-TOP ADV BE thing COP
 It is common for young people involved in crime to distress their parents
- (A8) a. Michiko wa waza to Hiroshi o okoraseta
 Michiko TOP intentionally Hiroshi ACC anger-SASE
 Michiko angered Hiroshi intentionally
- b. * jibun o nikundeiru yakuza ga waza to
 self ACC hate gangster NOM intentionally
 Tanaka-si o okoraseta
 Mr Tanaka ACC anger-SASE
 The gangster who hated him angered Mr. Tanaka intentionally

As the examples above illustrate, non-agentive forms allow both backward and forward binding, while agentive forms permit only forward binding.

We would like to argue that the violation of the structural conditions on binding, in this case, has a semantic basis. The idea of accounting for Backward Binding in semantic terms is not new. Accounts in terms of thematic prominence are quite numerous. Our proposal attributes a crucial role to the peculiarity of the event structure of non-agentive experiencer predicates and more precisely to the fact that they violate the Argument Coherence Condition.

Constructions with non-agentive experiencer predicates, where backward binding occurs, present a very peculiar type of interaction between the referent of the anaphor and that of the antecedent. Namely, there is no (sub)event where the two participants are interacting directly. An individual associated with the subject of an experiencer causative is not the stimulus of the emotion, but, as repeatedly argued, a participant in the stimulus event.

Experiencer causatives present the interaction between the experiencer and the stimulus event, and not the interaction between the experiencer and the participants in the stimulus event. In the case of non-agentive forms it does not really make sense to account for binding relations on the basis of the thematic hierarchy Experiencer>Theme because there is no level where the hierarchy can be established: experiencer and theme

are participants in distinct events.

Moreover, there is no basis for establishing a prominence relation, across events, so to say, as in the case of ES verbs and other predicates taking clausal complements. In the case of ES verbs, but also in the case of verbs of saying, cognitive verbs and verbs of perception, the event denoted by the complement clause is not presented as occurring independently of the individual in subject position. The event is, for these predicates, presented as the product of some activity of this individual: verbal, cognitive, sensorial, etc. The role of the individual in this type of interaction is more prominent than the role of the event. Given the ‘authorship’ of the individual in relation to the event, we can assume that the prominence relation is transitive, that it applies not only to the event as a whole, but to its subparts as well. The speaker will be seen as more prominent than the utterance and all the elements of the utterance, the believer will be more prominent than the belief and the object of this belief.

The situation for experiencer causatives is different. The stimulus event is not interpreted by the experiencer, but presented as occurring independently, as an event. Although the schema we have proposed for the semantic analysis of these predicates attributes a higher degree of prominence to the stimulus event than to the experiencer in this construction, there is no reason to assume that this relation is transitive. Although the stimulus event as a whole plays a more prominent role than the experiencer as a participant in the emotional episode, there is no reason to believe that the participants in the stimulus event are equally prominent in their relation to the experiencer. We could argue that the relative prominence between the experiencer and the participants in the stimulus event is irresolute.

Examples of backward binding which do not involve psych verbs, seem to share the unusual event structure of the former, as illustrated by the following example due to McCawley (1976a).

- (A9) sinrai sikitte ita tuma ga jibun_i o uragitta koto ga
 Tanaka-si_i ni ningen fusin no nen o idakaseta
 The fact that his trusted wife betrayed him made Mr. Tanaka
 distrust people.

Here too, we have a non-agentive causative construction, where the cause is an

independently occurring event. The causing event appears in subject position and the situation contains no subevent where the referent of the anaphor interacts with the referent of the antecedent. The situation implies no inherent prominence relation between these two participants. These facts suggest that an account of binding in terms of thematic prominence alone might not be sufficient. The th-role of the anaphor and that of its antecedent and their order on the universal thematic scale are not sufficient for determining the direction of binding. Unless the two participants involved can be conceived as interacting directly, the thematic hierarchy is not relevant. If we assume that the existence of a fixed prominence relation between the referent of the antecedent and that of the anaphor is a supplementary condition for establishing the directionality of binding, accompanying the structural conditions, we can see why there is no fixed direction of binding associated with Japanese non-agentive experiencer causatives. In the case of agentive forms, the prominence relation is established in the causing subevent, and binding is allowed only in the direction consonant with the semantic prominence.

The peculiarity of our proposal is that it does not attempt to account for backward binding, in syntactic or semantic terms, but rather for the lack of a fixed direction of binding. Solutions which explain backward binding in structural terms or attribute it to the thematic prominence relation have difficulties in accounting for the acceptability of forward binding in inverse experiencer constructions. As mentioned above, Japanese data indicates that non-agentive experiencer causatives allow both binding directions. Any uniform account of these predicates, whether the criteria it uses be syntactic or semantic, will have to explain this variability.

Another problem with these predicates is the fact that the acceptability of binding constructions, in both directions, is not constant. Acceptability is influenced by a number of factors, such as the meaning of the predicate, the degree of embedding of the anaphor, the type of nominal in which it is embedded, etc.

- (A10) a. ??Jibun_i no musuko ga kare_i o kanashimaseta
self-GEN son-NOM he-ACC V-SASE
His son saddened him
- b. Jibun_i no musuko ga kare_i o nayamaseta
self-GEN son-NOM he-ACC V-SASE
His son troubled him

- (A11) a. Mukashi tsukutta jibun_i no sakuhin ga kare_i o
 ADV made self-GEN work-NOM he-ACC
 tanoshimaseta
 V-SASE
 The work he had created long ago delighted him
- b. Jibun_i no sakuhin ga kare_i o tanoshimaseta
 self-GEN work-NOM he-ACC V-SASE
 His own failure troubled Taroo
- (A12) a. ?Taroo_i wa jibun_i o kanashimaseta/ nayamaseta
 Taroo-TOP self-ACC V-SASE
 Taroo saddenend/ troubled himself
- b. *Jibun_i ga Taroo_i o kanashimaseta/ nayamaseta
 self-NOM Taroo-ACC V-SASE
- (A13) a. Jibun_i no shippai ga Taroo_i o nayamaseta
 self-GEN failure-NOM Taroo-ACC V-SASE
 His own failure troubled Taroo
- b. Jibun_i no shippai ga Taroo_i o kanashimaseta
 self-GEN failure-NOM Taroo-ACC V-SASE
 His own failure saddened Taroo

It seems that a condition for binding with experiencer causatives is that the anaphor be embedded (A12b). The deeper is the anaphor embedded, the more acceptable the construction (A11a,b). Backward binding is more acceptable if the NP containing the anaphor refers to an abstract referent. If the referent is human, there is a strong tendency to interpret the structure as agentive, with the result that backward binding becomes unacceptable, as illustrated by the contrast between (A10a) and (A13b).

The choice of experiencer verb plays an important role in determining the (un)acceptability of such sentences. Verbs that do not favor an agentive interpretation are more permissive in what regards the features of the nominal container of the anaphor (A10). All these apparent idiosyncrasies can be accounted for if we assume that binding must be consonant with the prominence relation between the participants and that, for these verbs, the prominence relation is not inherent to the predicate class but established contextually. The meaning of the verb, the semantic features of the nominals

involved and those of the constituents containing them can all influence the relative prominence of the individuals referred to by the anaphor and its antecedent.

A question arising in regard with this account is the relation between the semantic condition proposed and the better known structural conditions on binding. We have argued above that the contextually established prominence relation determines the direction of binding. In constructions involving backward binding the structural conditions appear to be violated. This means that the semantic condition outranks the structural conditions in Japanese, at least for this class of predicates. Such a strong conclusion is not warranted on the basis of such limited data. Binding is a very complex topic, which in spite of the attention it has received during the last 30 years appears to baffle all attempts to reach a final settlement. The event structure of emotion predicates, i.e. the fact that they appear to violate the Argument Coherence requirement, is peculiar enough, however, to deserve attention. The binding peculiarities of experiencer causatives and the fact that they disappear in the case of agentive forms, which have a different event structure, suggests that there is a correlation between event structure and binding properties. Considering the complexity of the topic, however, we would like to leave the final solution to this problem to further study.

Chapter 7

Japanese Occurrence Predicates

We have already mentioned in Chapter 4, that there are two productive morphological processes associated with emotion predicates in Japanese. The first, causativization has formed the topic of the previous chapter. In the present chapter we will discuss the semantic function of the second important morphological process, namely *-garu* affixation. As was the case with causativization the productive morphological process has a semantic correlate in a non-productive lexical process. Thus, we find pairs like *sabishii- sabishigaru*, which involve the productive affixation process and pairs of the form *tanoshii- tanoshimu*, resulting from morphological processes that are not productive in the modern language. We have argued that the role of the causative morpheme attachment to emotion verbs is to achieve a shift of perspective on the emotional episode. In this chapter we will investigate the function played by *-garu* affixation in a model which assumes that morphological processes associated with predicates referring to emotional occurrences have the semantic role of highlighting certain aspect(s) of the emotional episode.

1. -GARU Affixation

One of the most discussed points in connection with Japanese experiencer adjectives is the person restriction: in the present non-modal form, these adjectives show a strong preference for a first person experiencer. Studies treating this problem point out that affixation of the suffix *-garu* overrides the restriction, see Teramura (1982), Ooe (1975), etc.

- (1) a. Boku-wa Pochi-ni shinarete, totemo kanashii
 I-TOP Pochi-DAT die-PASS, very Adj
 I am very sad because Pochi died
- b. *Yamada-san-wa Pochi-ni shinarete, totemo kanashii
 Mr. Yamada-TOP Pochi-DAT die-PASS, very Adj
 Mr. Yamada is very sad because Pochi died

c. Saikin,	Yamada-san wa	Pochi ni	shinarete,
Adv,	Mr-Yamada-TOP	Pochi-DAT	die-PASS,
totemo	kanashigatteiru		
very	Adj-GARU		

Lately, Mr. Yamada has showed signs of sadness because Pochi died

The function of the suffix *-garu* is described in Sugioka (1986) as follows: "*Morphologically, the suffix -garu changes an adjective into a verb. In its semantic function -garu turns an 'internal feeling' predicate into an ordinary predicate with the meaning 'showing the feeling x'.*"

Sugioka further notes that the suffix *-garu* is sensitive to the argument structure of the adjective, namely to the presence of an Experiencer argument: "... *what we should note is the fact that -garu always takes the Experiencer argument of an adjective as the subject...*"

Sugioka's definition of *-garu* is essentially correct with a slight proviso. Not all the experiencer predicates seem to accept *-garu* attachment. Although emotion adjectives invariably allow *-garu* suffixation, other experiencer adjectives such as the adjectives referring to tastes or some of the adjectives expressing temperature sensations do not yield *-garu* derived verbs.

- (2) amai- *amagaru (sweet)
- nigai- *nigagaru (bitter)
- suppai- *suppagaru (sour)
- (3) atsui- atsugaru (hot)
- samui- samugaru (cold)
- tsumetai- tsumetagaru (chilly)
- atatakai- *atatakagaru (warm)
- nurui- *nurugaru (lukewarm)
- (4) itai - itagaru (painful)
- kayui- kayugaru (itchy)
- darui- *darugaru (weary)

The generalization (due to Ooe 1976) seems to be that only the adjectives which express

sensations **conventionally** associated with certain external manifestations accept *-garu* affixation. That is, a *-garu* derived verb does not merely mean ‘show the feeling x’, but refers to the standard behavior associated with the ‘feeling x’, whenever such a behavior exists. The reason why certain subjective adjectives do not allow *-garu* suffixation is the fact that people do not frequently display the associated manifestations in an easily recognizable way. Thus, it might be argued that for taste sensations there is no readily recognizable physical or physiological reaction, visible to the observer, a conventionalized reaction parallel to shivering from cold, sweating from heat, crying from sadness or smiling from happiness. This can also explain the lack of forms such as **atacakagaru*, **suzushigarū*, **nurugarū*. The adjectives *ataakai* (warm), *suzushii* (cool) and *nurui* (lukewarm) express mild sensations which are not associated with any conventionalized physical manifestation. Likewise, there are conventional reactions accompanying sensations of pain (*itai*) and itchiness (*kayui*), but not of weariness (*darui*).

This suggests that the cognitive schema for various types of sensations does not necessarily include a conventionalized behavior component as it appears to do in the case of emotions. Such behavior may exist in certain particular cases, but its association with the respective sensation is accidental rather than necessary. The fact that emotion adjectives admit *-garu* affixation without exception¹⁾ indicates that the external manifestation component is a constituent part of our understanding of the emotional episode.

We can conclude that the suffix *-garu* is the linguistic expression of an important distinction²⁾ associated with emotion predicates in Japanese, the distinction between the internal experience and the external manifestation accompanying it. External manifestations, the physical symptoms of emotions, are an essential part of the emotional experience. In most languages emotion predicates refer to the entire complex of psychosomatic manifestations, without making a distinction between the strictly internal aspects and the external ones. Dative object emotion verbs in Japanese do not seem marked for this distinction either.

2. Internal States and External Symptoms

The presence of the suffix *-garu* is not essential to the expression of the distinction between internal emotional states and their external symptoms. Verb-adjective pairs

such as *kanashii-kanashimu* (sad); *ureshii-yorokobu* (glad) seem to fulfill the same function. As was the case with the shift of perspective from an Experiencer oriented perspective to a Stimulus oriented perspective, the linguistic means of achieving the semantic end are not restricted to a single mechanism. The fact that the same semantic process is active in *-garu* affixation and in lexical pairs like those mentioned above can be demonstrated by taking into account the behavior with respect to the person restriction.

These verbs are, like *-garu* derived verbs, in complementary distribution with the corresponding adjectives when used in the non-modal present form.

- (5) a. ?Taroo wa purezento ga ureshii
 Taroo-TOP present-NOM Adj
 Taroo is pleased about the present
- b. Watashi wa purezento ga ureshii
 I-TOP present-NOM Adj
 I am pleased about the present
- c. Taroo wa purezento o yorokondeiru
 Taroo-TOP present-ACC V
 Taroo looks pleased about the present
- d. ? Watashi wa purezento o yorokondeiru
 I-TOP present-ACC V
 I look pleased about the present

Previous approaches Teramura (1982), Sugioka (1992) assume that accusative emotion verbs in Japanese form a coherent class. We argued in Chapter 4 for the opportunity of distinguishing between the emotion predicates expressing dispositions and those expressing occurrences. According to this proposal, the accusative emotion verbs can be further subdivided into verbs which express dispositions, such as *ai suru*, *nikumu*, *konomu* and verbs which express occurrences, such as *yorokobu*, *kanashimu*, *tanoshimu*. The latter do not merely denote emotional occurrences, they have a more specific meaning, namely that of referring to the external manifestation component of the emotional episode, like the *-garu* derived verbs.

The fact that verbs such as *yorokobu*, *kanashimu*, *tanoshimu* refer to the

behavior component associated with the emotion is demonstrated by examples such as (6-7) below, where the verb is accompanied by adverbs and adjunct clauses clearly indicating the presence of external manifestations. Accusative verbs expressing emotional dispositions are not acceptable in this type of context.

- (6) a. "Kore-wa ii koto datta" to yorokonda
 this-TOP good thing COP COMP V
 'This was good' he said gladly
- b. Inu wa watashi ga kaette kita no o
 dog-TOP I-NOM return COMP-ACC
 shippo o futte yorokonda
 tail-ACC wag V
 The dog showed pleasure at my return by wagging its tail
- c. Kanojo wa naite kanashinda
 she-TOP cry V
 She cried for sadness
- d. *"Kore-wa ii wain da" to kononda
 this-TOP good wine COP COMP V
 He showed his preference by saying "This wine is good"
- e. *"Suteki-na joyuu da" to aishita
 wonderful actress COP COMP V
 He showed love by saying "She's a wonderful actress"
- (7) a. *Hade-ni konomu/osoreru/kirau/aisuru
 make a show of liking/fearing/disliking/loving
- b. Hade-ni yorokobu/kowagaru/kanashimu
 make a show of being glad/frightened/sad

In (6a) *yorokobu* is used like a verb of saying. The verbal manifestation represented by the quoted utterance is conceived as part of the meaning of the verb. In (6b, c) the manner clause describes the concrete physical manifestations accompanying the emotion. In (7b) the adverb *hade-ni* modifies the manifestation component in the semantic composition of the verb.

The distinction between dispositions (*konomu*) and occurrences (*yorokobu*) is

not associated with a difference in their case marking properties. It is, however, reflected by their aspectual characteristics. As argued in Chapter 4 disposition predicates are prototypical stative predicates. Occurrence predicates, on the other hand, cannot be assigned to a single aspectual class: the adjectives have stative features, but the verbs do not. The behavior of transitive occurrence predicates, henceforth transitive occurrences, suggests that these verbs are activities. This aspectual characterization is in keeping with the semantic description suggested, namely that these verbs refer to the manifestations accompanying emotional states, what the experiencer is DOING as opposed to what he is FEELING.

An environment where transitive occurrences behave like activity verbs is *-nagara* clauses. It is known that *-nagara* clauses in Japanese receive different interpretations depending on the aspectual properties of the predicate. With activity and accomplishment verbs the *-nagara* clause describes an event taking place simultaneously with the event described by the matrix clause. With stative predicates, however, the simultaneous reading is unavailable. Instead *-nagara* is given an adversative interpretation. While disposition predicates behave like statives with respect to the *-nagara* test, transitive occurrences behave like non-stative verbs. The fact that the verbs cannot co-occur with adverbial modifiers marking a delimited time interval, *in x time*, indicates that they are not accomplishments. We may, then, conclude that **transitive occurrence predicates are activity verbs.**

- (8) a. ??Taroo-wa Kurosawa-no eiga-o konomi-nagara
 Taroo-TOP Kurosawa-GEN movie-ACC V-nagara
 biiru-o nonda
 beer-ACC drink
 Taro drank beer although/*while he enjoyed a Kurosawa movie
- b. Koohii-o tanoshimi-nagara terebi-o miru
 coffee-ACC V-nagara television-ACC watch
 Watch TV while enjoying the coffee
- .??Taroo-wa obake-o osore-nagara biiru-o nonda
 Taroo-TOP ghosts-ACC V-nagara beer-ACC drink
 Taro drank beer although/while he feared ghosts

- d. Taro-wa obake-o kowagari-nagara horaaeiga-o mita
 Taroo-TOP ghosts-ACC V-nagara horror movie-ACC watch
 Taro watched a horror movie (while) being frightened by ghosts

The interpretation of *-te iru* forms also reveals the activity character of transitive occurrences. The *-te iru* form may receive a progressive interpretation with activity verbs but not with statives. Notice that transitive occurrences can be used in the progressive form to answer questions like *nani o shite iru* (what is x doing). Again, disposition predicates behave like genuine states in disallowing this use.

- (9) a. Taroo-wa, ima, nani-o shiteiru no?
 What is Taro doing?
 b. Purezento-o yorokondeiru
 He is glad about the present
 c. Musuko-o okotteiru
 He is scolding his son
 d. *Hanako-o nikundeiru
 He hates Hanako
 e. *Wain-o konondeiru
 He likes wine

We may conclude, then, that transitive occurrence predicates related to occurrence adjectives have the function of referring to the external signs accompanying emotions³⁾. These seem to be conceived as activities rather than states. What is the function of the corresponding adjectives?

The fact that the adjectives represent emotional occurrences rather than dispositions suggests that they can be analyzable in terms of the internal structure of the emotional experience. Their aspectual properties (stative character), the morphological relation to transitive occurrences and the complementary distribution between adjectives and verbs in present non-modal contexts suggest that the role of adjectives like *ureshii*, *sabishii*, *kanashii*, within the emotional episode is to refer **only** to the occurrence of internal feelings. These adjectives cannot refer to the entire emotional episode, nor

can they be used to describe the external manifestations associated with the internal reaction.

Previous studies seem to take it for granted, on an intuitive basis, that the role of these adjectives is to give direct expression to the experiencer's subjective reactions, see Sawada (1993), Kinsui (1989), Maeda (1993), Kudo (1995), Azuma (1993), etc. We shall point out below some of the disadvantages of such a view. We consider that an objective description for the meaning of the members in the verb- adjective pair can be obtained with more ease if we start with the verb. The exact semantic role fulfilled by the adjective can be deduced on the basis of the verb's meaning. This does not mean, of course, that we deny the fact that verbs are generally derived from the adjectives. Neither of the two predicates, verb or adjective, is semantically more basic. They refer to different aspects of the emotional reaction. Establishing the semantic content for either of them becomes possible for the first time in the context of the opposition adjective -verb, and not on the basis of extralinguistic notions such as the private nature of emotions.

Many Japanese studies seem to consider quite natural the existence of a class of words specialized in expressing the speaker's private experiences. The reasoning is that emotions are internal experiences directly accessible only to the subject. Lexical items referring to emotions iconically reflect the privacy of emotional states through the person restriction. Sawada (1993), for instance argues that a speaker can refer to his emotions and sensations from an internal or from an external point of view. He writes: *"Among Japanese adjectives there are many which normally, cannot express anything except the speaker's psychological state. kanashii, nikui, itai, natsukashii, hoshii, etc, all belong to this class. This kind of typically human emotions/sensations are such that they can be expressed only from the side of the subject experiencing them directly. As they possess an inherently 'ego-centric' quality, talking about 'somebody else's pain' can be nothing more than the consequence of a judgment"* cf. Sawada(1993; 246-7). Although it is true that "talking about 'somebody else's pain' can be nothing more than the consequence of a judgment", this does, by no means, imply that lexical items which can be used to talk about one's own pain should be unable to express anything except the speaker's psychological state.

The type of reasoning illustrated by the quotation from Sawada is clearly influenced by the morphological composition of the items in question. Since adjectives

are basic and the verbs are derived, it is assumed that the function of expressing directly private experiences is also basic, while the function of describing the visible signs of the emotion is an expedient adopted in order to avoid a gap in expression.

The idea that emotions and sensations are the exclusive privilege of the experiencer is not a logical necessity. *"In what sense are my sensations private? -- Well, only I can know whether I am really in pain; another person can only surmise it. -- In one way this is wrong, and in another nonsense. If we are using the word "to know" as it is normally used (and how else are we to use it?), then other people very often know when I am in pain. --yes, but all the same not with the certainty with which I know it myself! -- It can't be said of me at all (except perhaps as a joke) that I know I am in pain. What is it supposed to mean -- except perhaps that I am in pain"* (Wittgenstein 1976: 246).

Assuming the existence of a class of words specialized in giving direct expression to such private experiences, to the "I am in pain" as opposed to "I know I am in pain" poses a number of difficulties, the first of which would be the difficulty of acquisition. *"What would it be like if human beings shewed (sic) no outward signs of pain (did not groan, grimace, etc.)? Then it would be impossible to teach a child the use of the word 'tooth-ache'. --Well, let's assume the child is a genius and itself invents a name for the sensation! -- But then, of course, he couldn't make himself understood when he used the word"* id 257. It is even less likely that a word class with no other function besides expressing private experiences should exist⁴⁾. Moreover, these adjectives, have an argument structure involving two participants and are associated with specified case marking patterns. Although the interjection-like use of an emotion adjective in a situation where the speaker exclaims: *ureshii* upon receiving good news, could be described in terms of direct expression of a subjective experience, the same description seems less fit for full sentences involving the same adjective. We consider that approaches reducing the function of emotion adjectives to the expressive role are not sufficiently justified.

What we wish to stress is the fact that, although the relation between speech participants and one of the participants' sensations or emotions might be different from the relation of the same individuals to the physical objects surrounding them, this is not a reason for considering the 'expressive' function of emotion adjectives as basic. From a linguistic point of view, their semantic content is determined on the basis of the

opposition with morphologically related verbs. As Wittgenstein phrased it, the normal language game presupposes that human behavior is the expression of a sensation, its criterion. Visible emotional behavior is just as important as hidden subjective reactions in defining the concept of emotion. The person restriction is a pragmatic effect of the peculiar status of emotions as non-material entities. Like pragmatic effects in general it is better described in terms of the basic meaning of the adjectives.

Emotion adjectives are predicates specialized in expressing the internal state component of the emotional episode. The morphologically related activity verbs focus on the corresponding external manifestations, without excluding the internal state component. There is a difference between *-garu* derived verbs and lexical forms in this respect. In certain contexts, the use of a *-garu* derived verb can give rise to interpretations in which the presence of an internal emotional state is denied. These verbs can be used to express faked emotions. This interpretation does not arise when the lexical verb is used.

- (10) a. Taroo wa kanashikunai noni kanashigatteiru
 Taroo-TOP Adj-NEG CONJ V-GARU
 Taroo displays signs of sadness although he is not sad
- b. ??Taroo wa kanashikunai noni kanashindeiru
 Taroo-TOP Adj-NEG CONJ V

This could be a consequence of the presence of an overt morpheme, associated with the semantic feature [+ manifestation] in the first case. We could assume that with *-garu* derived verbs the manifestation component of the emotion is detachable from the internal state it signals, that it can be referred to as an independent event. This is why these verbs can be used to refer to insincere emotional behavior. In this respect they contrast with lexically derived verbs which focus on the external manifestations of the emotion but, at the same time, presuppose the existence of an accompanying internal state. Internal state and external manifestation are the two facets of the same phenomenon and the fact that a lexical item brings one of the two sides into focus does not mean that the existence of the other side is denied.

The distinction between emotion predicates whose major function is to refer to internal states and predicates specialized in describing the manifestations accompanying

those states is not found in English, French, Romanian or in other European languages. This fact could be attributed to the basic perspective on emotional episodes adopted by these languages. Because the Stimulus-oriented perspective is basic in Romanian, predicate roots which focus on aspects of the emotional experiencer having the experiencer as central participant are not available in this language. In Japanese, on the other hand, the Experiencer-oriented perspective is basic. Consequently, the main function of emotion predicates is to relate aspects of the emotional interaction casting such facets of the emotional experience. Emotion adjectives and transitive occurrences in Japanese express these two essential aspects of the emotional reaction.

3. The Person Restriction

The person restriction as evinced by emotion adjectives has figured prominently in the Japanese literature on psychological predicates, so much that it is not an overstatement to say that psychological predicates owe much of their presence in linguistic articles to this property. The question most frequently asked is why these adjectives favor the first person experiencer. The person restriction associated with the corresponding verbs has not received the same amount of attention⁵⁾ although the existence of emotion verbs which cannot be used with a first person experiencer in the present form is at least as odd as the existence of emotion adjectives which allow only a first person experiencer in the same circumstances. For some reason, the general tendency is to understand the term ‘person restriction’ as referring basically to the restriction manifested by adjectives, and treat the constraint on the subject of the related verbs as a side effect of this restriction, see also the discussion in the previous section. A rather generally accepted idea is that the person restriction occurs with the adjectives and that *-garu* affixation, like the use of evidentials, has the function of overriding it. Given this function, the respective forms are excluded from contexts where the person restriction does not arise, i.e. with a first person experiencer. A frequently seen paradigm looks like (11) below.

- (11) a. ?Taroo wa ureshii
 Taroo-TOP Adj
 Taroo is sad
- b. Taroo wa ureshigatteiru/ ureshisoo da/ ureshii yoo da/ ureshii rashii.....
 Taroo-TOP Adj-GARU/Adj-soo da/ Adj-yoo da/ Adj-rashii.....
 Taroo shows signs of sadness/ looks/ seems/ may be sad..

- c. ?watashi wa ureshigatteiru/ ureshisoo da/ ureshii yoo da/ ureshii rashii.....
 I-TOP Adj-GARU/Adj-soo da/ Adj-yoo da/ Adj-rashii.....
 I show signs of sadness/ look/ seem/ may be sad...

Although the suffix *-garu* and the evidentials display the same restrictions in this context this is not sufficient for reducing the role of *-garu* with experiencer predicates to the function of an evidential. The function of the suffix *-garu* is to shift perspective from an internal state to its external consequences, and such a shift of perspective is significant only in the case of emotion predicates. The fact that Japanese exploits linguistically this aspect of the semantic structure of emotion predicates while other languages do not, may be connected with the existence of a well developed system of evidentials in the language. Evidentials, however, belong not to the object referred to, but to the manner in which information about it has been collected, whereas *-garu* is associated with a lexical distinction present in the linguistic object.

This short discussion has made it clear that the person restriction manifested by transitive occurrences is not generally regarded as being on a par with the person restriction associated with adjectives. This is because, as we mentioned before, previous literature (Hosokawa 1989; Iwasaki 1993; Sawada 1993; Kudo 1995, etc) seems to be based on a model which regards the ‘privileged access’ of the experiencer to his emotional state as a general defining feature of emotions. This has had the consequence that the person restriction has achieved a central status in the characterization of the emotional lexicon of Japanese.

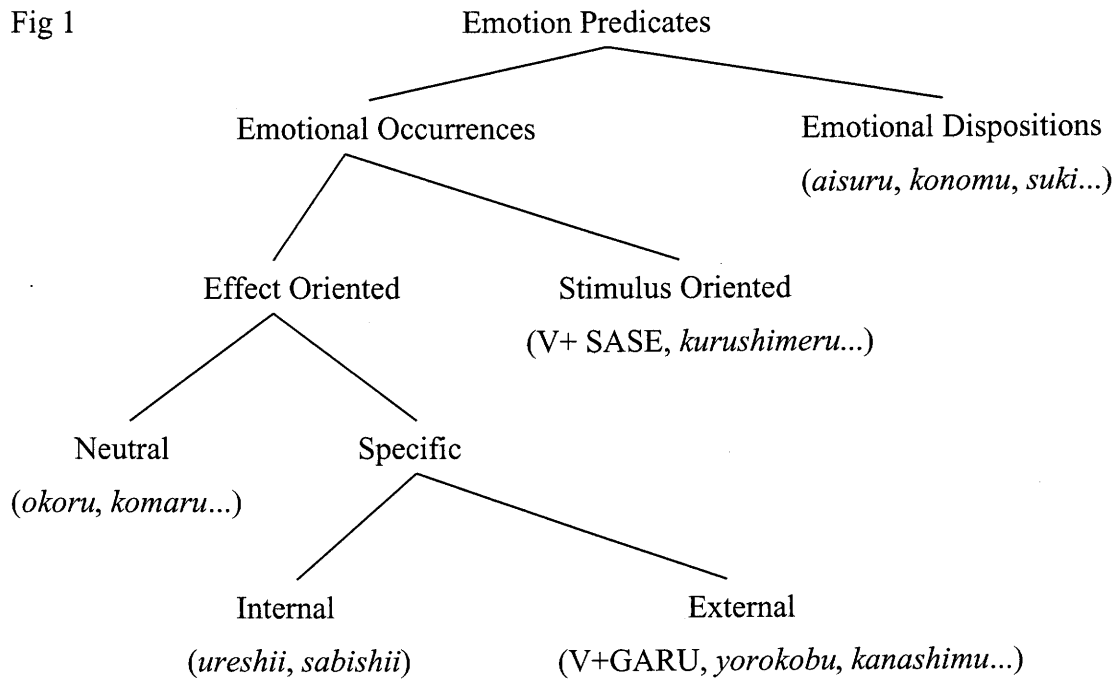
"One area in which Japanese and English differ is in the presentation of information regarding the internal feelings or psychological state of a person. Whereas English treats such information as accessible to others, Japanese treats it as accessible only to the person concerned. In other words, in Japanese the speaker cannot report in a direct form the psychological state of anyone but himself. " (Shibatani 1990: p383)

This type of account cannot explain the absence of a person restriction with a large number of emotion predicates except by resorting to ad hoc explanations in terms of degree of subjectivity.

- (12) a. Taroo-wa Hanako-o aishiteiru/nikundeiru/suki/kirai
 Taroo-TOP Hanako-ACC V/Adj
 Taroo loves/hates/likes/dislikes Hanako
- b. Watashi-wa Hanako-o aishiteiru/nikundeiru/suki/kirai
 I-TOP Hanako-ACC V/Adj
 I love/hate/like/dislike Hanako
- (13) a. (watashi wa) itazuradenwa ni komatteiru
 I-TOP mischievous calls-DAT V
 I am annoyed at mischievous phone calls
- b. Taroo wa itazuradenwa ni komatteiru
 Taroo-TOP mischievous calls-DAT V
 Taroo is annoyed at mischievous phone calls

On our account the fact that the restriction is found with only a limited number of emotion predicates finds a natural explanation. Predicates expressing emotional dispositions are not sensitive to the internal constitution of the emotional episode and, hence, not subject to the restriction, see Chapter 4. The dative emotion verbs relate emotional occurrences from an Experiencer-oriented perspective, but do not zoom in onto the specific details of the emotional reaction. They are opaque to the internal state versus external manifestation distinction and consequently do not evince the person restriction. Only the predicates lexically marked for specifying the distinction between the internal and the external symptoms of the emotion will be subject to such restrictions.

Fig 1



Moreover, the complementary distribution between the subject of verbs and that of the related adjectives in certain contexts is predicted on the basis of their meaning.

- (14)
- | | | | | |
|-----|--------------------------------------|-----------|-------------|--------------|
| a. | Haha-wa | musuko-no | seikoo-o | yorokondeiru |
| | mother-TOP | son-GEN | success-ACC | V |
| | Mother is glad for her son's success | | | |
| b.? | Watashi-wa | musuko-no | seikoo-o | yorokondeiru |
| | I-TOP | son-GEN | success-ACC | V |
| | I am glad of my son's success | | | |
| c. | Watashi-wa | musuko-no | seikoo-ga | ureshii |
| | I-TOP | son-GEN | success-ACC | Adj |
| | I am glad of my son's success | | | |
| d.? | Haha-wa | musuko-no | seikoo-ga | ureshii |
| | mother-TOP | son-GEN | success-ACC | Adj |
| | Mother is glad for her son's success | | | |

The person restriction is a pragmatic consequence of the lexical composition of these predicates: it is more likely that a person will choose a form specialized in expressing

internal states, rather than external manifestations, to refer to an emotional episode occurring at the time of speech and in which he is the experiencer; on the other hand, if the experiencer is a third party the form specialized in referring to the external manifestations will be preferred to the form expressing internal states. This is because we are more likely to be aware of our own emotions through the experienced internal states than through the physical evidence, although we are more likely to detect its presence in others through the outer signs. The selective use of certain predicates determined by the role of the speaker (experiencer or simple spectator) is not a peculiarity of Japanese, due to its special way of presenting psychological information but arises whenever the choice of a predicate is pragmatically more appropriate, and the language offers a choice. Even in English, when a choice exists, as it does in the case of perception verbs: *see-watch*; *hear-listen to*, it seems more normal to report one's visual experience using the verb *see* but to describe the man gazing at the clouds by means of the verb *watch*.

This means that the person restriction is not a general property of the Japanese lexicon of emotion. Nor is it a property of emotions that they should be inaccessible to anyone except the person experiencing them. It is merely a property of the predicates lexically marked for the internal experience-external manifestation distinction that they have pragmatically determined preferences for certain types of subjects. The preferences are not absolute and can be overridden given the appropriate context.

4. Discussion

In the last four chapters we have proposed a model for the analysis of emotion predicates which makes crucial use of distinctions such as *dispositions* and *occurrences*, *cognitive* and *physiological* processes constituting the emotional state, *internal state* and *external manifestation*. All these notions are among the basic tools for analyzing emotions proposed by psychologists. It could be argued that their proper domain is psychology and that importing them into the field of linguistic analysis results in an unnecessary burdening of this domain. Some of the distinctions proposed in these chapters might prove upon further analysis to be reducible to more general linguistic notions. As it is, the model we have introduced accounts in a fairly satisfactory manner for at least two problems which were either left unexplained or given ad hoc explanations in previous studies.

- i. Delimiting the domain of application for experiencer causativization
- ii. Delimiting the domain of the person restriction

The question as to which verbs are associated with experiencer causative forms has not yet received, to our knowledge, a satisfactory answer. We have argued that occurrence predicates allow a shift in perspective and that the role of experiencer causativization is to achieve this shift. This predicts that only occurrence predicates will have associated experiencer causative form. Case pattern and the availability of intransitive forms are not relevant.

With respect to the domain of the person restriction we have argued above, that it is a reflex of the lexical distinction between predicates expressing internal emotional states and predicates referring to the conventionally associated manifestations. This limits the domain of the restrictions to the lexical items associated with the respective distinction and it predicts that the restriction should appear with both classes of predicates in a different but complementary shape.

Another advantage of this model is that it seems to offer a promising starting point for a cross-linguistic analysis. We have shown that two completely unrelated languages such as Japanese and Romanian can be given a uniform and unbiased account. Although a strict parallelism between formal classes was not possible, the two languages displaying major differences with respect to the syntactic properties of emotion predicates, the use of the proposed model permitted us to reveal the functional parallelism between apparently unrelated forms. Thus, it was demonstrated that the role of the causative morpheme in Japanese can be described in the same terms as that of the reflexive clitic in Romanian and that selectional restrictions in Japanese and prepositions in Romanian are the associated with the same type of semantic structure and play the same part in it. Naturally, the cross-linguistic value of the model cannot be determined on the basis of two languages. Future research will have to confirm its suitability for the study of other linguistic systems.

Chapter 8

Case Marking with Emotion Predicates

1. The Problem

We have argued that the two participants in an emotional event are the Experiencer and the Stimulus. This argument structure is constant across emotion predicates and the mapping from semantic roles to syntactic positions is determined by the perspective on the emotional episode adopted. In the Stimulus-oriented perspective the Stimulus is assigned to subject position and the Experiencer to object position. If the Experiencer-oriented perspective is selected the reverse mapping occurs: subject Experiencer and object Stimulus.

In languages like Romanian, English, French, etc., the apparent differences with respect to the semantic role of the Stimulus argument in EO and ES verb constructions can be traced back to the presence of a preposition in the latter case. We have argued in Chapter 5 that the role of the Stimulus in ES sentences like (1) below, results compositionally from the combination of the semantic role assigned by the predicate and the semantic content contributed by the preposition.

- (1)
- | | | | | | |
|----|-------------------------------------|---------|-----------|-----------|---------------|
| a. | Marin | s-a | suparat | pe | Ion |
| | Marin-NOM | CL-REFL | V | P | Ion |
| | Marin got angry with Ion | | | | |
| b. | Marin | s-a | distrat | cu | noul computer |
| | Marin-NOM | CL-REFL | V | P | new computer |
| | Marin had fun with the new computer | | | | |
| c. | Marin | s-a | plictisit | de | joaca |
| | Marin-NOM | CL-REFL | V | P | playing |
| | Marin got fed up with playing | | | | |

This account makes crucial use of the semantic contribution of the prepositions used in ES constructions. How are we to explain the differences among various ES constructions in Japanese, considering the meager contribution of case particles to

semantic interpretation?

As the following examples illustrate there are three ES patterns available. Ignoring for the moment the possibility of dative case marking for the Experiencer argument in (2a), this means that the Stimulus argument can be case marked with the nominative, as in example (2a), with the accusative as in (2b) or with the dative, as in (2c).

- (2)
- | | | | |
|----|---|--------------|-----------|
| a. | watashi (ni)wa sensei no | shinsetsu ga | ureshii |
| | I-(DAT)-TOP teacher-GEN | kindness-NOM | Adj |
| | I am glad about the teacher's kindness | | |
| b. | Taroo wa sensei no | shinsetsu o | yorokonda |
| | Taroo-TOP teacher-GEN | kindness-ACC | V |
| | I am glad about the teacher's kindness | | |
| c. | Taroo wa sensei no | shinsetsu ni | odoroita |
| | Taroo-TOP teacher-GEN | kindness-DAT | V |
| | I was surprised at the teacher's kindness | | |

It is difficult to see how the strategy we used to account for the semantic interpretation of the constructions in (1) could be applied to Japanese. Although we could define the particle *-ni* as a locative marker, there is no similar semantic description available for the particles *-ga* and *-o*. These particles are used as surface markers of structural case and it is widely agreed that their semantic contribution is practically null.

The generally accepted account for the structures in (2a) and (2b) is achieved in syntactic terms: (2b) involves a transitive predicate which structurally assigns nominative to its subject and accusative to its object, while (2a) is an unaccusative structure, see Kuroda (1978), Takezawa (1987), Saito (1982).

Why are the predicates in (2a) unaccusative and those in (2b) transitive? Since we have argued against an answer in terms of distinct *th*-roles we have to posit another level as the interface between semantic and syntactic structure. A semantic fact, discussed in the syntactic approaches quoted, is the aspectual difference between (2a) and (2b). The predicates associated with the syntactic structure in (2a) are generally stative.

Although transitive predicates are not associated with a single aspectual class,

it has been argued in Hopper & Thompson (1980) that kinesis is one of the defining properties of the transitive prototype. We discussed in Chapter 4 that transitive emotion verbs can be divided into two subclasses depending on their aspectual properties. The verbs morphologically associated with emotion adjectives, *yorokobu*, *kanashimu*, *tanoshimu*, were argued to describe the external activities associated with emotional states. In Chapter 7 we demonstrated that aspectually, these verbs are activities. In Chapter 6 we suggested that Dowty's proto-role theory can predict the syntactic functions of the two arguments in Japanese constructions with occurrence emotion predicates. We pointed out that ES verbs and adjectives are associated with the Experiencer oriented perspective. The experiencer exhibits the proto-agent property 'sentience' and this determines the ES linking. The accusative experiencer verbs have an additional proto-agent property, namely 'movement (relative to the position of another participant)'. Not only the experiencer is associated with stronger proto-agent properties than in other ES constructions but the property added is 'kinesis'. The transitive case marking would be a consequence of this fact.

We could represent the case pattern distinction illustrated by sentences (2a) and (2b) in terms of aspectual properties, as follows:

Aspectual Class		Syntactic Structure		Case Pattern
state	--	unaccusative	--	ni/ga--ga
activity	--	transitive	---	ga--o

If the difference in case marking between (2a) and (2b) is attributed in previous literature to a structural distinction, the difference between (2b) and (2c), is generally accounted for in terms of argument structure. As mentioned before, the stimulus of the transitive emotion verbs, (2b), has been identified with the Object (or Theme) of the emotion while the Stimulus of the verbs in (c) with the Source (Teramura 1982), or Cause (Sugioka 1992).

Claiming that the dative argument of verbs such as *odoroku*, *akiru*, *komaru*, etc., is a Cause is equivalent to saying that this argument bears the same role as the subject in experiencer causative constructions, but is different from the role of the accusative argument with verbs such as *kanashimu*, *tanoshimu*. Since there are experiencer causatives associated with both nominative accusative verbs and

nominative- dative verbs, an account which identifies the role of the subject in causative constructions with the role of the dative argument in nominative- dative verb constructions would have to explain why causativization results in a change of argument structure with accusative verbs (A) but not with dative verbs (B).

Base form	Derived form
A. [Exp-NOM Th-ACC V]	→ [Cause-NOM Exp-ACC V]+SASE
B. [Exp-NOM Cause-DAT V]	→ [Cause-NOM Exp-ACC V]+SASE

Moreover, if the role of the non-experiencer argument in nominative- dative constructions is a Cause, it should be assigned to the subject position, assuming Pesetsky's thematic hierarchy Cause>Experiencer>Theme.

We could alternatively claim that the dative object of *odoroku* is not a Cause, but a Source of emotion, as argued by Teramura. This claim would lead to an undesirable multiplication of the thematic roles associated with emotion verbs: Theme, Cause, Source.

We conclude that an account of the case marking properties of emotion verbs in Japanese in terms of argument structure is not desirable. Instead we would like to suggest an account which takes aspectual properties as relevant for case marking.

1.1. The Aspectual Properties of Dative-Object Verbs

We have argued so far for the role of aspectual distinction in determining the case marking properties of emotion adjectives and of the morphologically associated transitive verbs. In the following section we will consider the aspectual properties of dative verbs.

Testing the aspectual properties of emotion verbs is not always very easy. Most aspectual tests involve co-occurrence restrictions with temporal adverbials. Given the nature of emotion predicates, the presence of temporal modifiers is not always felicitous. The examples which follow are no exception. To the extent to which these examples can be interpreted, however, they point to a semantic distinction between dative- object verbs and other types of emotion predicates.

1.1.1. Adverbial Modification

A frequently used aspectual test is the acceptability of sentences containing adverbs of

duration. This test distinguishes between achievements and the other classes of predicates. Achievements cannot co-occur with adverbial modifiers indicating duration.

- (3)
- a. mikka-kan musuko-o okotta
 Adv son-ACC V
 scold the son for 3 days
- b. *mikka-kan ano kiji-ni okotta
 Adv that article-DAT V
 be angry at the article for 3 days
- c. *Hanshin-no shoori-ni mikka-kan odorita
 hanshin-GEN victory-DAT Adv V
 be surprised at the Hanshin victory for 3 days
- d. *mikka-kan ano haiyuu no engi ni akita
 Adv that actor-GEN movies-DAT V
 get fed up with that actor's movies for three days
- e. *sensei wa mikka-kan gakuseitachi no taido no
 teacher-TOP Adv students-GEN attitude-GEN
 warusa ni akireta
 badness-DAT V
 The teacher was surprised with the student's bad attitude for three days
- f. *sarutachi wa san-jikan ori ni haitte kita neko ni
 monkeys-TOP Adv cage-DAT enter cat-DAT
 awateta
 V
 The monkeys got flurried at the cat that entered their cage for three hours

Dative-object verbs seem to behave like achievements with respect to this test. Unfortunately, this is not always the case. Some dative -object verbs accept modification by adverbs of duration, as illustrated by the following examples.

- (4) a. *ichinen-kan musuko no seiseki ga*
 Adv son-GEN scores-NOM
agaranai koto ni komatta
 improve-NEG COMP-DAT V
 be troubled for a year by the fact that the son's scores don't improve
- b. *kare wa mikka-kan itazuradenwa ni nayanda*
 he-TOP Adv mischievous calls-DAT V
 He was distressed for three days by mischievous calls

Verbs like *komaru*, *nayamu* behave like states and activities with respect to this test.

If we consider more closely the interpretation of sentences in which the verb is modified by a duration adverb, however, we can discern a difference between accusative and dative verbs.

- (5) a. *mikka-kan kono purezento-o yorokonda*
 Adv this present-ACC V
 be glad about the present for 3 days
- b. *mikka-kan purezento-o yorokonda*
 Adv present-ACC V
- c. ?*mikka-kan kono itazuradenwa ni komatta*
 Adv this mischievous call-DAT V
 be troubled by this mischievous call for 3 days
- d. *mikka-kan itazuradenwa ni komatta*
 Adv mischievous calls-DAT V
 be troubled by mischievous calls for 3 days

Sentences with accusative verbs are more natural when the stimulus argument is expressed by means of a singular NP. The preferred interpretation for the examples involving accusative verbs is one in which a unique stimulus triggers a reaction which continues over the designated interval. If a dative verb is used, however, the preferred interpretation is one involving several triggering occasions. This is illustrated by the fact that a singular interpretation for the NP is less acceptable in stimulus argument position

than a plural interpretation. The interpretation in terms of several triggering occasions is not very plausible for activity verbs.

Dowty (1979) pointed out, that the presence of a plural indefinite or of a mass noun in a sentence having an achievement verb for predicate turns that verb into an activity. This observation could be used to explain the activity-like behavior of dative emotion verbs in (5). We could assume that these verbs are achievements and that the presence of an indefinite plural object converts them into activities. The lower acceptability of constructions in which a duration adverbial modifies a verb which takes a stimulus interpreted as singular could be seen as an argument in favor of this analysis. Although this is not very strong evidence, the test indicates that there is at least one interpretation of *komaru*, which implies an achievement-like reading.

Among the four aspectual classes: states, activities, achievements and accomplishments, only the last admit modification by adverbs which denote a telic interval, *in x time*.

- (6)
- | | | | | |
|----|---|-----------------------|-------------|----------|
| a. | *mikka-de | purezento-o | yorokonda | |
| | Adv | present-ACC | V | |
| | be glad of the present in 3 days | | | |
| b. | *mikka-de | shippai-o | kanashinda | |
| | Adv | failure-ACC | V | |
| | grieve the failure in 3 days | | | |
| c. | *mikka-de | Hanshin-no | shoori-ni | odoroita |
| | Adv | Hanshin-GEN | victory-DAT | V |
| | be surprised at the Hanshin victory in 3 days | | | |
| d. | *mikka-de | itazuradenwa-ni | komatta | |
| | Adv | mischievous calls-DAT | V | |
| | be annoyed by calls in 3 days | | | |
| e. | mikka-de | okane-ni | komatta | |
| | Adv | money-DAT | V | |
| | run out of money in 3 days | | | |
| f. | mikka de | ano omocha ni | akita | |
| | Adv | that toy-DAT | V | |

As the examples above indicate dative object verbs do not behave uniformly with respect to this test either. The number of verbs which allow a telic adverbial modifier is limited to *akiru* (grow tired of) and one of the two readings of *komaru* (run out of).

The interpretation of such sentences suggests, however, that they are not to be identified with accomplishments. With accomplishment verbs, a telic adverb will delimit the process leading to the change of state. Sentence (7a) implies that during the interval of three days (7b) is true and on the fourth day (7b) ceases to hold and (7c) becomes true.

- (7)
- | | | | | |
|----|-------------------------------------|-----------|---------------|-------|
| a. | Taroo wa | mikka de | ronbun o | kaita |
| | Taroo-TOP | Adv | paper-ACC | V |
| | Taroo wrote the paper in three days | | | |
| b. | Taroo wa | ronbun o | kaiteiru | |
| | Taroo-TOP | paper-ACC | V-progressive | |
| | Taroo is writing the paper | | | |
| c. | Taroo wa | ronbun o | kaiteinai | |
| | Taroo-TOP | paper-ACC | V-pres-NEG | |

The implications are quite different for emotion verbs. By uttering (6e) or (6f) above, we do not imply that during the interval the experiencer is subject to the emotion and this state of affairs ceases when the interval is over. On the contrary, what (6e) and (6f) imply is that during the interval, the experiencer is not yet affected by the emotion but after the interval has been consumed, he begins to fully experience it. The interval delimits the change of state. Verbs like *akiru* and *komaru*, used in the sense of ‘be troubled by lack of...’, then, describe gradual changes of state.

It seems that as far as their aspectual properties are concerned, dative verbs are closest to achievements. The change of emotional state they describe can be more or less sudden. Pesetsky (1995) suggests that the nature of the onset of the emotion referred to by the verb could influence the aspectual properties. Verbs expressing emotions which come on suddenly behave more like non-statives, while the verbs associated with emotions that grow imperceptibly behave more like states with respect to aspectual tests. This distinction could be relevant in the case of Japanese dative verbs, too.

- (8) a. *totsuzen okotta, odoroitte, ?awateta*
suddenly get angry/ surprised/ flurried
b. *totsuzen ?komatta, *nayanda, *akita*
suddenly get troubled/afflicted/ tired of..

In the case of *awateru* the adverb *totsuzen* (suddenly) is less than acceptable because it sounds redundant. In (8b), on the other hand, the change expressed by the verbs is not one that occurs suddenly.

1.1.2. Person Restriction

Treating dative verbs as achievements permits to explain their selective behavior with respect to the choice of subject in certain contexts. It has been observed that although emotion verbs allow aspectual markers, there are some restrictions on the choice of subject with some verbal forms.

Taking the presence of aspectual distinctions as the starting point, Kudo (1995) groups Japanese verbs into three classes: dynamic verbs, which display aspectual oppositions, stative verbs which do not, and mental verbs. The peculiarity of the last category of verbs is the fact that although they formally display aspectual oppositions, these are not used to mark temporal distinctions but have a modal function. Kudo argues that verbs referring to inner states are like dynamic verbs in manifesting the SURU/SHITEIRU distinction.

The aspectual distinction is meaningful because these verbs, like verbs of movement involve a temporal development. However, given the private nature of mental and sensorial experiences, modal and person features interfere, and the SURU/SHITEIRU forms are no longer associated with the basic aspectual distinction between perfect and progressive. Kudo claims that a third person subject can occur only with the *-te iru* form of these verbs, while the occurrence of a first person subject is not limited in this manner. She comments that "the SHITEIRU form expresses continuity, just as it does in the case of verbs of external movement, and both SHITEIRU and SHITEITA give rise to descriptive- verificative sentences freed from person limitations" (Kudo, 1995;89).

- (9) a. omae no baka nimo akireru, ne
Your stupidity surprises me, you know!
- b. odoroku,wa! honto ni!
I'm surprised, really
- c. ano toki wa jissai yowarimashita
I was really in trouble then
- (10) a. maa, akireta! yoku sonna kattena koto ga ieru wa ne!
Well, I'm surprised! How can you say anything so selfish!
- b. iya, odoroiita na. choodo uwasa o shiteita tokoro nan desu yo!
Well, I'm surprised! We were just talking about you!

According to Kudo, when the experiencer is the speaker the *-ru* form and the *-ta* form of the verb can be used to refer to the occurring emotional state. The role of the two forms can be described as expressive behavior. Since they are no longer associated with tense- aspect distinctions the two forms compete. The difference between them consists in the fact that the present form is interpreted as more 'active' than the past form.

- (11) a. sonna koto o iwarete mo komarimasu
What you are saying is causing me trouble
- b. iya, komarimashita nee
Well, I'm in trouble
- c. are de, sensei nan dakara akireru wa ne
I'm shocked, and he calls himself a teacher!
- c. maa, akireta
Well, I'm surprised.

The category of mental verbs includes, besides verbs referring to emotions, cognitive verbs and verbs referring to sensations. Throughout the book Kudo treats mental verbs as if they represented a coherent aspectual class. We have argued in this chapter that emotion verbs can be classified into three (lexical) aspectual classes. The modal function of certain forms discussed by Kudo is found only with one of these three

classes, namely with dative object verbs. No other type of mental verb exhibits these properties.

- (12) a. *konna koto o iwareru to
 such thing-ACC tell-PASS COMP
 yorokobu, kanashimu, tanoshimu, nikumu
 V-PROG (accusative object)
 I'm glad, sad, pleased, I hate to hear such a thing
- b. konna koto o iwareru to
 such thing-ACC tell-PASS COMP
 odoroku, komaru, nayamu, ?awateru, *okoru,
 V-PROG (dative object)
 I'm surprised, troubled, afflicted, ?flurried, *angry to hear such a thing
- (13) a. maa, akireta, odoroitai, akita, komatta, *okotta, *nayanda!
 INTERJ, V-PERF (dative object)
 Well, I'm surprised, fed up, troubled, *angry, *afflicted
- b. *maa, yorokonda, kanashinda, tanoshinda, nikunda, aishita!
 INTERJ, V-PERF (accusative object)
 Well, I'm glad, sad, pleased, I hate, love

We shall argue that the modal function associated with these verbs arises as a result of their lexical aspectual properties. In spite of its apparent credibility Kudo's account is not justified either in terms of logic or of data coverage.

The mechanism through which the basic function of tense and aspect markers gives rise, or rather gives place, to the postulated expressive function is not sufficiently clear. The connection between continuous aspect and the descriptive function, for instance, is taken as self-evident although it is not a necessary one. Nor is it clear why the present form should be felt as more active than the past in modal uses. Kudo's discussion of the influence of tense markers on the illocutionary force of performative verbs such as *ayamaru* (apologize), *yakusoku suru* (promise), etc., suggests that she might envisage a parallel treatment for the modal- expressive function of emotion verbs, but the parallelism is not explicitly drawn. As a consequence the connection between the experiencer's privileged access to his internal states and the expressive function of

aspectual markers with mental verbs remains obscure.

The claim that the basic function of aspectual markers is replaced in the case emotion verbs by a modal-expressive function does not seem to be correct. In reality, tense and aspect markers retain their basic function. In addition, certain forms are associated with a ‘modal’ function. This function is available only when the experiencer is the speaker.

- (14) a. kare wa itazuradenwa ni komatteiru/*komaru
he-TOP mischievous calls-DAT V-teiru/*ru
He is annoyed by mischievous calls
- b. kare wa ano shinbun kiji ni okotteiru/??okoru
he-TOP than newspaper article-DAT V-teiru/*ru
He is angry at that newspaper article
- c. shinin no sensei ga gakuseitachi no muchi ni
new teacher-NOM student’s ignorance-DAT
odoroiteiru/??odoroku
V-teiru/*ru
The new teacher is surprised at the students’ ignorance

The sentences above describe occurring emotional events. The fact that only the progressive form is acceptable can be accounted for in terms of the aspectual properties of these verbs. Since these verbs are not states, it is predictable that the non-progressive form cannot be used to describe an unfolding event. This is true even when the experiencer is the speaker.

- (15) a. watashi wa itazuradenwa ni komatteiru/*komaru
I-TOP mischievous calls-DAT V-teiru/*ru
I am annoyed by mischievous calls
- b. watashi wa ano shinbun kiji ni okotteiru/??okoru
I-TOP that newspaper article-DAT V-teiru/*ru
I am angry at that newspaper article
- c. watashi wa gakuseitachi no muchi ni odoroiteiru/??odoroku
I-TOP student’s ignorance-DAT V-teiru/*ru
I am surprised at the students’ ignorance

The present form of non-stative verbs is used to refer to a future event. This is not possible for a progressive form.

- (16) a. sono hanashi o kiitara sensei wa kitto
 that story-ACC hear-if teacher-TOP Adv
 okoru/odoroku(daroo)
 V-ru (MOD)
 The teacher is sure to be angry/ surprised if he hears that story
- b. *sono hanashi o kiitara sensei wa kitto
 that story-ACC hear-if teacher-TOP Adv
 okotteiru/odoroiteiru
 V-teiru
- c. sonna koto saretara kare datte komaru/ nayamu daroo
 such thing do-PASS he Adv V-ru (MOD)
 He will sure to be troubled/ afflicted if anything like that happens to him
- d. *sonna koto saretara kare datte komatteiru/ nayandeiru
 such thing do-PASS he Adv V-teiru

In the examples above the *-ru* form refers to hypothetical future events. Unlike physical activities, emotions cannot be planned in advance and it makes no sense to talk about emotional schedules in the way we talk about trains leaving according to the pre-established timetable. This explains the quasi-obligatory presence of the modal auxiliary, and not the loss of the tense-aspect distinctions by the non-progressive verbal form.

Progressive and non-progressive forms retain their function in the past, too.

- (17) a. takebayashi de okane o mitsuketa toki
 bamboo groove-LOC money-ACC find-COMP
 Taroo wa komatta
 Taroo-TOP V-ta
 Taroo was troubled to find that money in the bamboo groove
- b. takebayashi de okane o mitsuketa toki
 bamboo groove-LOC money-ACC find-COMP
 Taro wa komatteita
 Taroo-TOP V-teita
 Taroo was in trouble when he found that money in the bamboo groove

- c. ano josei ni deatta toki
 that woman-DAT meet-COMP
 Taroo wa kekkon shiyoo ka dooka nayanda
 Taroo-TOP marry or not V-ta
 When he met that woman Taroo couldn't decide whether to marry her or not
- d. ano josei ni deatta toki
 that woman-DAT meet-COMP
 Taro wa kekkon shiyoo ka dooka nayandeita
 Taroo-TOP marry or not V-teita
 When he met that woman Taroo was considering whether to marry or not
- e. kinpatsu no musuko o mita toki Taroo wa okotta
 bleached hair-GEN son-ACC see-COMP Taroo-TOP V-ta
 Taroo got angry when he saw his son's bleached hair
- f. kinpatsu no musuko o mita toki Taro wa okotteita
 bleached hair-GEN son-ACC see-COMP Taroo-TOP V-teita
 Taroo was in a state of anger when he saw his son's bleached hair

The past non-progressive form implies, with all the verbs above, that the experiencer was not in the respective emotional state prior to the time of the event described by the *toki* clause, and that the event described by that clause was responsible for the emotional change. The use of the progressive form gives rise to the implication that the emotional state of the experiencer had been continuing for some time prior to the event referred to by the *toki* clause.

It is clear that the basic function of tense and aspect markers is intact irrespective of the person features of the experiencer. Kudo seems to imply that the modal-expressive function of aspectual markers is basic in the case of emotion verbs and that the use of the progressive form can release the verbs from the person restriction they are normally subject to, cf. (Kudo, 1995; 89-93). The opposite appears to be the case. Kudo's treatment is reminiscent of the accounts for the person restriction with emotion adjectives. We have argued in Chapter 7 that declaring the expressive use the unique semantic function of these adjectives is based on a fallacious identification between use and meaning. The same is true for Kudo's proposal.

Dative emotion verbs are aspectually non-stative verbs. We have argued that

they can be described as achievements. The modal-expressive function is not basic, but derived. The privileged access of the experiencer to his internal state is not relevant for the basic, non-modal use of these verbs, it does not interfere with the temporal function of tense-aspect markers. The speaker-experiencer's privileged access becomes important, however, in accounting for 'modal' uses. These uses do not result from a neutralization of the aspectual distinctions. The fact that modal uses arise only with emotion verbs belonging to a particular lexical aspectual class, achievements, indicates that these uses exploit the verb's aspectual properties. In other words, the aspectual properties of dative verbs are not replaced by a new function but give rise to it. We shall try to clarify the concrete manner in which lexical-aspectual properties are connected to the modal function.

Assuming that we are right in classifying these verbs as achievements, the present continuous form will refer to the state resulting from the change. The non-continuous forms will associate the change with a moment in time, future for the present form and past for the past form, just as it happens with achievement verbs denoting physical changes. Even in the modal use, the association between past form and past change and present form and future change can be discerned. In the examples (11) from Kudo, repeated here as (18), this fact is obvious.

- (18) a. *sonna koto o iwarete mo komarimasu*
 What you are saying is causing me trouble
 b. *iya, komarimashita nee*
 Well, I'm in trouble
 c. *are de, sensei nan dakara akireru wa ne*
 I'm shocked, and he calls himself a teacher!
 c. *maa, akireta*
 Well, I'm surprised.

Past and present forms are associated with different types of context. The forms are not freely interchangeable as we would expect if the only difference were the more or less active character of the emotion.

- (19) a. **sonna koto o iwarete mo komatta/akireta*

- b. *are de, sensei nan dakara akireta wa nee
- c.?? iya, odoroku na. choodo uwasa o shiteita tokoro nan desu yo!
- d. *ano toki wa jissai yowarimasu

The examples where the present form is preferred are compatible with a future interpretation of the verb. Unlike the examples in (16), a modal cannot be used. We have argued that emotional states are not predictable and cannot be voluntarily planned. However, the use of emotion verbs in (18a) and (18c) is reminiscent of utterances like (20) below, in which the speaker makes predictions or announces his intentions.

- (20)
- a. isoganai to okureru
If you don't hurry we'll be late
 - b. watashi wa moo kaerimasu
I'm leaving!

The experiencer not only has privileged access to his current emotional state, he can also predict and control his emotions to a certain degree. Utterances like (18a) and (18c) can be understood as announcing immediate emotional changes. In the absence of modals the occurrence of the emotion is presented as a certainty, thus expressing the speaker's commitment. This could be the reason why present forms are felt as involving more active emotions. The use of the non-progressive present form to refer in a vivid manner to one's emotional states is reminiscent of the use of 'promise' in English to lend authority to an utterance.

- (21) I've had a bustling afternoon, I promise you

The past forms can be interpreted as referring to a change of state which has just occurred. As argued before, the change itself is not likely to be accessible to an external observer, although some of its consequences might be. In choosing the past form of the verb instead of the progressive form when talking about his current emotional state, a speaker refers to this otherwise imperceptible inner change and thus contributes information which the hearer cannot obtain by himself. This is why in such utterances the expressive function is felt as more important than the descriptive function.

It is interesting to note, in this sense, the fact that the modal use of the past form generally requires a minimal context. When various arguments and modifiers are added, the modal-expressive nuance fades, giving way to the descriptive use. (22) below can no longer be interpreted as a modal-expressive utterance.

- (22) kinoo, watashi wa ano kiji o yonde odorita
Yesterday when I read that article I was surprised

The expressive function of the past form crucially relies on two factors. The first is aspect: these verbs express changes. Asserting the occurrence of the change counts as a declaration of the emotion. The second is the experiencer's privileged access to the change (but not to all its effects). Regarding the first point, it must be noted that the past tense of accusative verbs, which were argued to be activities, cannot be used in this manner. The verb *nayamu*, which behaves more like a stative with respect to aspectual tests does not seem to be used in this manner either, because the change component does not represent an important part in the cognitive schema of this predicate. The utterances in (23b) can be interpreted as referring to past events, but not as expressing unfolding emotional states.

- (23) a. odorita/akireta/komatta waa/ naa
b. *yorokonda/kanashinda/ tanoshinda/nayanda waa/naa

The fact that the verb *okoru* (get angry) in the past non-progressive form does not give rise to modal interpretations argues for the importance of the privileged access. The verb *okoru* expresses an emotion intimately associated with external manifestations. The use of the transitive form of the verb to refer to the activity of scolding is ample evidence for this fact. The occurrence of this emotion is, then, visible to external witnesses. Consequently, we can assume that announcing the occurrence of the change of state does not have the same informative value as it has with other verbs. The modal-expressive use of the verb will be limited to the present form.

- (24) hayaku yamenaito, okoru zo !
If you don't stop immediately, I'll be angry

We have seen that the modal uses of dative emotion verbs, far from demonstrating the loss of aspectual distinctions, offer supporting evidence for the analysis of these verbs as achievements.

1.3. Aspect and Case Marking with Occurrence Predicates

The three aspectual classes we have distinguished are associated with case patterns in the manner illustrated below.

ACTIVITY----	-----EXPERIENCER-GA	STIMULUS-O
ACHIEVEMENT-----	EXPERIENCER-GA	STIMULUS-NI
STATE-----	-----EXPERIENCER-GA/NI	STIMULUS-GA

Although the aspectual description seems to be generally correct, some of the verbs are better examples of achievements than others. Thus *odoroku* (surprize) is a better example of achievement than *komaru* (distress). In the same way, *yorokobu* (rejoice) is more activity-like than *kanashimu* (sadden). This could be attributed to prototype effects. Assuming that case marking is associated with verbs on the basis of a semantic prototype which specifies their aspectual properties, some verbs will be included in a class not because they are identical with the prototype, but because it fits their semantic description better than other prototypes. The question of non-prototypical cases is too complex to receive a final solution in this paper. We shall leave the problem to further research.

A more serious problem for this approach is posed by transitive stative verbs such as *aisuru* (love), *nikumu* (hate), *kirau* (dislike), etc. As argued in Chapter 4 these verbs are prototypical states. Moreover, they present a number of peculiarities distinguishing them from activity emotion verbs: they are generally not subject to the person restriction, they are not associated with experiencer causative forms. When adjective -verb pairs sharing a common morphological base exist, the relation cannot be described in terms of the internal state- external manifestation distinction. In spite of all these facts, these verbs share the case marking properties with verbs such as *yorokobu*, *kanashimu*, *tanoshimu*. Does the existence of these verbs disconfirm our hypothesis about the role of lexical aspectual features in determining the case pattern for emotion verbs in Japanese? In the next sections we shall argue that the transitive case pattern is

associated with these verbs ‘by default’.

2. Case Patterns with Emotion Predicates Expressing Dispositions

We have argued in Chapter 4 that a major distinction among emotion predicates is that between predicates referring to dispositions and those referring to occurrences of emotions. We have justified this distinction on the basis of differences with respect to aspectual properties, selectional restrictions, morphological phenomena, etc. We have concluded that in Japanese predicates referring to emotional dispositions can be transitive verbs like *ai suru* (love), *nikumu* (hate), *konomu* (prefer), *kirau* (dislike), or adjectives like *suki da* (like), *kirai da* (dislike), *kawaii* (be dear to), etc.

2.1. The Case Marking of Non-Transitive Predicates

The adjectives referring to dispositions occur only in the double nominative pattern, unlike the adjectives which were argued to refer to emotional occurrences, which admit the dative- nominative case marking, too.

- (25)
- | | | | |
|-----|--------------------------|----------------|----------|
| a. | watashi wa | Hanako ga | suki |
| | I-TOP | Hanako-Nom | Adj |
| | I like Hanako | | |
| b.* | watashi ni wa | Hanako ga | suki |
| | I-DAT-TOP | Hanako-Nom | Adj |
| c. | watashi wa | kono paatii ga | tanoshii |
| | I-TOP | this party-NOM | Adj |
| d. | watashi ni wa | kono paatii ga | tanoshii |
| | I-DAT- TOP | this party-NOM | Adj |
| | I am enjoying this party | | |

We could argue that the difference with respect to case marking reflects a difference in the temporal structure of these predicates. The emotions referred to by *ureshii* and similar adjectives are transitory states occurring at specific moments in time. Dispositions are supposed to hold over an undetermined interval and cannot be said to take place at a specific moment. Compared to occurrences, dispositions can be characterized as prototypical states. Occurrences diverge from the stative prototype.

Their most important feature seems to be the fact that they include reference to the onset of the state. What occurs at specific moments in time is the change of state marking the initial point of the state. This aspectual distinction can be related to the distinct case marking properties by assuming that prototypical states are associated with the double nominative pattern whereas transitory states are characterized by the nominative/dative alternation.

The distribution of the two case patterns with other classes of predicates seems to support such a conclusion. The dative- nominative alternation is found with the verbs *wakaru*, *dekiru* and with potential forms. These predicates can be described as occurrences, although they have a property reading too. These verbs can denote occurrences of events involving the respective property.

- (26)
- | | | | |
|----|---|--------------------------|---------|
| a. | Taroo (ni)wa | eigo ga | wakaru |
| | Taroo (DAT)-TOP | English-NOM | V |
| | Taroo can speak English | | |
| b. | Taroo (ni)wa | kotae ga | wakatta |
| | Taroo (DAT)-TOP | answer-NOM | V |
| | Taroo knew the answer/ Taroo could solve this problem | | |
| c. | Taro (ni)wa | muzukashii kanji ga | kakeru |
| | Taroo- (DAT)-TOP | difficult character | V-POT |
| | Taroo can write difficult characters | | |
| d. | Taro (ni)wa | kono muzukushii kanji ga | kaketa |
| | Taroo- (DAT)-TOP | this difficult character | V-POT |
| | Taroo can/could write this difficult character | | |

Sentences (26a) and (26c) illustrate the property reading of the predicates, the disposition reading. Sentences (26b) and (26d) refer to an occurrence, an instantiation of the respective property. The role of the past tense morpheme in (26b) and (26d) is to mark the onset of the state expressed by the predicate. The features of the object nominal, its specificity, and the tense of the predicate can trigger an occurrent reading for these verbs.

The double nominative pattern is very spread with adjectives in constructions expressing inherent properties (27a). It is also found in desiderative constructions, as

illustrated by (27b) and (27c). Although the latter can be described as transitory states, they are not occurrence predicates. Desiderative predicates cannot refer to the onset of the respective state, whatever the properties of the object nominal and the tense form of the predicate.

- (27) a. zoo wa hana ga nagai
 elephant-TOP nose-NOM Adj
 The elephant's trunk is long
- b. watashi wa ichigo ga tabetai
 I-TOP strawberries-NOM V-TAI
 I want to eat strawberries
- c. watashi wa sono ichigo ga tabetakatta
 I-TOP that strawberries-NOM V-TAI-PAST

As the pair below illustrates the verb *wakaru* in its past form can refer to a change of state, given the appropriate triggering context. The *-toki* clause in (28a) marks the moment when *Taroo* found the answer. The desiderative form, in the same context, behaves like a typical state. In the sentence with the past form the desiderative predicate is interpreted as the background against which the event of seeing the paining occurred. The sentence cannot receive an interpretation parallel to (28a), namely one in which the seeing event and the desire occur in temporal succession. In order to obtain such a reading the inchoative form must be used as in (28c).

- (28) a. sono zu o mita toki
 that figure ACC see COMP
 Taroo wa kotae ga wakatta
 Taroo TOP answer know-PAST
 Taroo discovered the answer when he saw that figure
- b. sono e o mita toki
 that painting ACC see
 watashi wa ichigo ga tabetakatta
 I TOP strawberries NOM eat-TAI-PAST
 I had a craving for strawberries when I saw that picture

c. sono e o mita toki
 that painting ACC see COMP
 watashi wa ichigo ga tabetaku natta
 I TOP strawberries NOM eat-TAI-INCH-PAST
 Seeing that picture gave me a craving for strawberries

One of the differences between emotion predicates referring to dispositions and emotion predicates referring to occurrences was argued to be the manner in which the predicate relates to the specific constituency of the emotional event. We argued in Chapter 4 that the internal structure of the emotional event is not reflected in the semantic content of disposition predicates. Disposition predicates are not states because they refer to the internal reactions of the experiencer but because they ignore the constituency of emotional episodes and present them, instead, as relations between two participants.

Case frames seem to be associated with stative predicates as below:

PROTOTYPICAL STATE-----	EXPERIENCER –GA	STIMULUS-GA
OCCURRENT STATE-----	EXPERIENCER-GA/NI	STIMULUS-GA

2.2. The Case Marking of Transitive Predicates

The use of the transitive case pattern with verbs expressing emotional dispositions is not predictable on the basis of the semantic properties of these verbs qua emotion predicates. We will argue that a domain shift has occurred in this case, driven no so much by the similarity between the properties of emotional dispositions and those of the transitive semantic prototype, as by the lack of significant distinctions between the two domains. We will argue that the transitive case pattern functions as a default case marking pattern, which applies to a two argument construction which does not present semantic properties sufficiently divergent from the transitive prototype to block its application. We will first illustrate this analysis with data from Romanian because in this language we find stronger evidence for such an approach. In the second part of this section we shall present some arguments in favor of adopting the same treatment for Japanese.

2.3. Transitive ES Verbs in Romanian

As discussed in Caluianu (2000) different theoretical frameworks make different

predictions about the degree of transitivity of ES and EO verbs. In the generative grammar framework ES verbs are regarded as syntactically unproblematic while EO verbs are considered exceptional. ES verbs are treated as bona fide transitive verbs, while EO verbs have been argued to be only apparently transitive. Their underlying structure is that of unaccusative verbs.

Analyzed from the perspective of the prototype theory of Hopper & Thompson (1980), neither ES nor EO verbs are prototypical transitives. Computing the degree of closeness to the transitive prototype, according to the evaluation scale suggested by H&T we reach, however, the conclusion that EO verbs are semantically closer to the transitive prototype.

Among the semantic features making up the scale are number of participants, aspectual features (kinesis, telicity, punctuality), participant features: volitionality and potency of the A and affectedness and individuation of the O, mode (realis vs. irrealis), etc. EO verbs are closer to prototypical transitives in terms of aspect, O features, and mode. For instance while ES verbs are genuine states, EO verbs are not: they have a possible punctual reading. This means that, as far as aspect is concerned, EO verb clauses have a higher degree of transitivity. With regard to the participant features, the Experiencer of EO verbs is a highly individuated, affected O. This contrasts with the object of ES verbs, which is neither affected, nor individuated. With respect to prototypical A features, both ES and EO verbs get low scores: the subject for both types of verb is non-volitional and has low potency. EO verbs can refer to real events, while ES verbs cannot. This means that EO verbs are closer to prototypical transitives than ES verbs in terms of mode (prototypical transitives are realis).

Slight as the difference might be, semantically, ES verbs seem to be more remote from the transitive prototype than EO verbs. An interesting characteristic of Romanian is the fact that EO verbs do not present the syntactic peculiarities which have prompted the unaccusative analysis¹⁾. The deviations of EO verbs from the standard behavior of transitive verbs can be accounted for in semantic terms. ES verbs, on the other hand, although behaving in most cases like typical transitives display some significant deviations from the expected behavior. In the following section we shall briefly present the properties of EO and ES verbs in Romanian. For a more detailed discussion see Caluianu (2000).

2.4. Syntactic Properties of EO and ES Verbs in Romanian

Among the most important arguments for the underlying unaccusativity of EO verbs are their binding properties, the existence of adjectival passives and the ‘passive’ nominalizations. It is claimed that EO verbs differ from ES verbs and from the majority of transitive verbs in allowing backward binding, binding of an anaphor in subject position by an antecedent in object position and by disfavoring forward binding, that is binding of an anaphor in object position by the subject. These verbs do not have corresponding verbal passive constructions but form instead adjectival passives. The nominalizations based on EO verbs do not have a structure parallel to the active clause, as is usual with nominals derived from transitive verbs but are parallel to passive constructions.

Romanian EO verbs do not display these properties. The fact can be partly attributed to morpho-syntactic peculiarities of this language not connected with EO verbs, but the effect, whatever its cause, is that there is little or no basis for setting EO verbs apart from the rest of the transitive verbs.

2.4.1. Binding

The nature of anaphoric elements in Romanian does not permit a number of configurations. Romanian has no nominative or genitive anaphor. The accusative and dative anaphors are clitics, a fact which dramatically limits their distribution. Reflexive forms, for instance, cannot appear as the object of prepositions. Due to the poor repertory of anaphoric pronouns, the personal pronouns are less constrained with regard to their distribution than their English counterparts. In (29a) the personal pronoun *el* appears in a context where English rules out a pronoun coindexed with the subject NP.

- (29) a. Ion_i a scris o carte despre el_{i,j}
Ion wrote a book about PRON
‘John_i wrote a book about him/himself.’
- b. Ion_i a scris o carte despre sine_{i,*j}
Ion wrote a book about REFL
‘John_i wrote a book about himself.’

2.4.1.1. Backward Binding

The only candidate to the status of long distance anaphor is an anaphoric noun, *sine*,

whose distribution is considerably limited by semantic and stylistic factors.

- (30) a. O carte despre sine_{i,*j} l_i-a lovit
 INDEF book about self CL-PRON-ACC hit
 pe Ion_i la cap
 P-ACC Ion P head
 ‘A book about himself hit Ion on the head.’
- b. O carte despre el_{i,j} l_i-a lovit
 INDEF book about PRON CL-PRON-ACC hit
 pe Ion_i la cap
 P-ACC Ion P head
 ‘A book about him/himself hit Ion on the head.’

As the examples above illustrate, ‘backward binding’, or rather ‘backward coreference’ is not restricted to psychological predicates. The fact that (31) below is acceptable cannot be regarded as evidence for the peculiarity of EO verbs.

- (31) Zvonurile despre sine_i l-au suparat pe Ion_i
 rumors about self CL-PRON-ACC anger P-ACC Ion
 The rumors about himself angered Ion

2.4.1.2. Forward Binding

It has been argued that in Romance languages such as French or Italian a reflexive clitic cannot be bound by the subject of EO verbs. This property of EO verbs is considered evidence for the derived nature of their subject "*a reliable test for discriminating between deep and derived subjects in Romance is the ability to bind an anaphoric clitic*" (Belletti and Rizzi, 1988; 295).

The properties of reflexive clitics in Romanian seem to parallel very closely those of their counterparts in other Romance languages, formally and functionally. Like the reflexive clitics in French, for instance, the reflexive clitics in Romanian can function as anaphor, inchoative marker, middle marker, and generic pronoun. However, the Romanian data seem to point to a quite different conclusion. Out of over 80 EO verbs, more than 20 readily admit a reflexive interpretation of the clitic and about 30,

though not clearly allowing the reflexive interpretation do not clearly exclude it either. Only about 30 verbs, less than a half of the total, fit B&R's observation.

- (32) a. *Ion se deznadajduieste
 Ion CL-REFL-ACC despair
 '*Ion despairs himself.'
- b. (*) Ion se bucura
 Ion CL-REFL-ACC gladden
 '*Ion gladdens himself.'
 'Ion rejoices.'
- c. Ion se uimeste
 Ion CL-REFL-ACC amaze
 'Ion amazes himself.'
- d. Ion se plictiseste
 Ion CL-REFL-ACC bore
 'Ion is boring himself.'
 'Ion is getting bored.'

Examples (32a-b) do not admit a reflexive interpretation. Sentence (32b) is acceptable on the inchoative reading. Both (32c) and (32d) accept a reflexive interpretation, with the difference that (32d) can be interpreted as an inchoative while (32c) cannot.

The fairly large number of verbs which admit a reflexive interpretation of the clitic suggests that the ban on reflexivization with EO verbs, if it exists, has semantico-pragmatic rather than syntactic roots.

2.4.1.3. Passive Binding

So far, it seems as if Romanian EO verbs were completely well-behaved with respect to binding. This conclusion is not entirely correct. EO verbs, unlike other verbs, admit anaphoric binding of the prepositional argument in passive constructions. Compare example (33c), which has an EO verb for predicate with (33a), a non-psych construction with (33b), where the predicate is an ES verb.

- (33) a. ?? Ion_i este spalat/pictat/imbracat de (catre) sine_i
 ‘John is washed/painted/dressed by himself.’
 b. ?? Ion_i este iubit/urit/admirat de (catre) sine_i
 ‘John is loved/hated/admired by himself.’
 c. Ion_i este amuzat/plictisit/enervat de sine_i
 ‘John is amused/bored/irritated by himself.’

The status of passive constructions with EO verbs will be discussed in the next section. Whether adjectival or verbal, the passives above demonstrate that the Experiencer argument can bind the Stimulus argument. The active constructions discussed above have illustrated the reverse possibility: an Experiencer bound by the Stimulus. The peculiarity of EO verbs in Romanian with respect to binding can be summed up as follows:

Binding with EO Verbs in Romanian

Given the appropriate structural conditions either of the arguments can bind the other.

This situation poses a problem for an account of binding based on thematic hierarchies. In allowing either argument to bind the other as well as allowing binding of the ‘demoted’ argument in passive constructions, Romanian EO verbs can be said to possess peculiar properties with regard to binding. This, however, does not seem to constitute evidence for a peculiar syntactic structure. Pollard & Sag (1992) suggest that binding in passive constructions is not ungrammatical but that it is ruled out for pragmatic reasons. The semantic properties of EO verbs render both binding perspectives pragmatically acceptable. We have argued that emotional episodes allow two perspectives. This amounts to saying that neither of the two participants is a priori more prominent than the other. The EO verbs select the Stimulus-oriented perspective and, as a consequence, the stimulus argument acquires a more prominent status. In the passive construction, however, the syntactic status, and with it the relative prominence of the arguments, changes²⁾.

2.4.2. Passivization

Adjectival passives in English have certain properties which distinguish them from verbal passives. The subject of the corresponding active sentence need not appear in a *by*-phrase. The choice of preposition is lexically determined. They allow adjectival intensifiers such as *very*. They yield negative forms derived through *un*- prefixation. They can appear in the complement of verbs which select adjectival complements such as *consider*, *remain*, *seem*, *sound*, *look*; they occur in pre-nominal position, etc., (Bresnan 1982; Levin & Rappaport 1986). The passives of EO verbs in English display all these properties.

The existence of adjectival passive constructions in Romanian is not so clear, or to be more precise, the existence of adjectival passives associated with EO verbs is not. Example (36) illustrates a typical transitive clause and the associated passive construction. In (34) the predicate is an ES verb and in (35) an EO verb. Both ES and EO verbs seem to undergo passivization with the same ease in Romanian.

(34) a. Ion_i o_i iubeste pe Ana_i
Ion CL-PRON-ACC love P-ACC Ana
'Ion loves Ana.'

b. Ana este iubita de Ion
Ana is loved P Ion
'Ana is loved by Ion.'

(35) a. Stirea_i-a surprins pe Ion_i
news CL-PRON-ACC surprise P-ACC Ion
'The news surprised Ion.'

b. Ion a fost surprins de stire
Ion was surprised P news
'Ion was surprised by the news.'

(36) a. Ion a mincatmarul
Ion ate apple
'Ion ate the apple.'

b. Marula fost mincat de Ion
Applewas eaten P Ion
'The apple was eaten by Ion.'

The tests used to distinguish adjectival passives from verbal passives in English are not helpful when applied to Romanian. While in English application of these tests to EO and ES verbs yields different results, in Romanian, passive constructions based on EO verbs behave very much like the majority of transitive verbs, see Caluianu (2000) for a detailed discussion.

The passive constructions related to ES verbs, however, display a curious property. The ‘demoted subject’ in a passive construction is the object of the preposition *de* in Romanian. When the semantic role of the argument is agent, it can be marked with the complex preposition *de catre*. The experiencer argument of ES verbs can be optionally marked with *de catre* in spite of the fact that there is no semantic justification for this.

With EO verbs the use of *de catre* is limited to the agentive interpretation. If a verb lacks the agentive interpretation the use of *de catre* becomes unacceptable, as illustrated by the contrast between examples (37g, i) which have an agentive reading and (37k) which does not.

- (37)
- a. Ion este admirat **de catre** subalternii lui
 - b. Ion este admirat **de** subalternii lui
‘Ion is admired by his employees.’
 - c. Ion a fost iubit **de catre** elevii lui
 - d. Ion a fost iubit **de** elevii lui
‘Ion was loved by his students’
 - e. Ion este respectat **de catre** prieteni
 - f. Ion este respectat **de** prieteni
‘Ion is respected by his friends.’
 - g. (*)Ion a fost enervat **de catre** Marin
 - h. Ion a fost enervat **de** Marin
‘Ion was irritated by Marin.’
 - i. (*)Ion a fost suparat **de catre** Marin
 - j. Ion a fost suparat **de** Marin
‘Ion was angered by Marin.’
 - k. *Ion a fost preocupat **de catre** elevii lui

1. Ion a fost preocupat **de** elevii lui
 ‘Ion was preoccupied by his students.’

The semantic properties of ES verbs do not support an identification of the Experiencer with the Agent. These verbs are generally stative, and the role of the Experiencer is not particularly dynamic. The use of *de catre* has no semantic effect: it does not imply that the role of the Experiencer is more active, it does not introduce any Agent features whatsoever. The significance of this property of ES verbs will be discussed in Section 2.5.

2.4.3. Nominalization

Romanian nominalizations based on two argument verbs are always passive: the object of the verb is genitive-marked and the subject appears as the object of the preposition used to mark the demoted subject in passive constructions.

- (38) a. Germania a invadat Franta
 Germany-NOM V France-ACC
 Germany invaded France
- b. invadarea Frantei de (catre) Germania
 N France-GEN P Germany
 the German invasion of France
- c. *invadarea Germanei de Franta
 N Germany-GEN P France
- (39) a. Furtuna a smuls copacii
 storm-NOM V trees-ACC
 The storm has uprooted the trees
- b. smulgerea copacilor de furtuna
 N trees-GEN P storm
 the storm’s uprooting of the trees

Nominalizations of EO verbs are not always possible, but when they exist, they are unexceptional. The experiencer argument is genitive marked and the stimulus argument appears as the object of a preposition. As expected *de catre* is not acceptable as a

marker of the stimulus argument in nominalizations of non-agentive EO verbs. Instead, we find the prepositions lexically selected by the verbs. The verb *supara* (anger) is accompanied by the preposition *pe* (40b), the verb *uimi* (surprise) by the preposition *la* (40d).

- (40) a. Marin l-a suparat pe Ion
 Marin-NOM CL-aux V P-ACC Ion
 Marin angered Ion
- b. supararea lui Ion pe Marin
 N Ion-GEN P Marin
 Ion's anger at Marin
- c. Aflarea stirii l-a uimit pe Ion
 hearing-NOM news-GEN CL-aux V P-ACC Ion
 Hearing that news surprised Ion
- d. uimirea lui Ion la aflarea stirii
 N GEN-Ion P hearing news-GEN
 Ion's surprise upon hearing the news

The behavior of ES verbs with respect to nominalization is peculiar. Unlike standard transitives, these verbs do not freely admit nominalization. When nominalized forms exist they do not display the expected argument structure and the expected choice of preposition.

- (41) a. Ion o iubeste/admira/respecta/uraste pe Maria
 Ion-NOM V P-ACC Maria
 Ion loves/ admires/ respects/ hates Maria
- b. iubirea/admiratia/respectul/ura lui Ion pentru Maria
 N GEN-Ion P Maria
 Ion's love/ admiration/ respect/ hate for Maria
- c. *iubirea/admiratia/respectul/ura Mariei de catre Ion
 N Maria-GEN P(*de catre*) Ion

As demonstrated by the unacceptability of (41c) the object of the verb cannot be marked

with the genitive and the subject cannot be the object of *de catre*. Instead, the subject of the verb appears as a genitival and the object as a prepositional phrase. The preposition selected by ES verbs to mark the stimulus argument in nominalizations is *pentru*, the marker of adjuncts bearing the beneficiary role.

The behavior of ES verbs with respect to nominalization is totally unexpected when we consider the properties of ES-related passive constructions. We have seen in the previous section that, as far as passivization is concerned, ES verbs behave like agentive verbs. Their nominalization pattern distinguishes them from transitives and ranges them along with unaccusative verbs: the subject is assigned the genitive case and the other argument, if there is one, is marked with a lexically selected preposition. Unlike unaccusative verbs, which can be accompanied by the lexically selected preposition in both verbal and nominal constructions, see the pairs (42c,d) and (42e,f) below, ES verbs allow the prepositional element to surface only in the nominalized forms. In the verbal construction, the element marked with a preposition in the nominalization appears in direct object position, marked with the accusative case.

- (42)
- | | | | | | | |
|----|---------------------------------|--------------|---------|------------|-----|--|
| a. | A | sosit | Ion | | | |
| | aux | V | Ion-NOM | | | |
| | Ion has arrived | | | | | |
| b. | sosirea | lui Ion | | | | |
| | N | GEN-Ion | | | | |
| | Ion's arrival | | | | | |
| c. | Domnul | s-a | inaltat | la | cer | |
| | Our Lord-NOM | CL-REFL | V | P | sky | |
| | Our Lord has risen to Heaven | | | | | |
| d. | inaltarea | Domnului | la | cer | | |
| | N | Our Lord-GEN | P | sky | | |
| | Our Lord's ascension to Heavens | | | | | |
| e. | Ion | a ramas | in | strinatate | | |
| | Ion-NOM | V | P | abroad | | |
| | Ion has remained abroad | | | | | |

f. raminerea	lui Ion	in	strainatate
N	GEN-Ion	P	abroad
Ion's remaining abroad			

The contrast in the behavior of ES verbs with respect to passivization and nominalization suggests that the accusative case marking of the stimulus argument of these predicates should not be regarded as an instance of structural accusative case assignment. Neither the semantic properties, nor the syntactic behavior justify such a treatment. The different behavior of ES verbs with respect to passivization and nominalization is certainly a consequence of the morpho-syntactic status of the two processes, a topic we shall not pursue in this paper. What this discussion has demonstrated, we hope, is the fact that in Romanian ES verbs display more marked properties than EO verbs. While EO verbs behave in a manner which is predictable on the basis of their semantic description, **ES verbs exhibit mismatches between their syntactic and their semantic behavior.** What is particularly interesting about these verbs is their apparently random behavior in different syntactic structures. Before presenting a hypothesis regarding this paradoxical behavior we would like to examine the properties of Dative experiencer verbs.

2.5. Dative Experiencer Verbs

Some emotion verbs in Romanian have Dative Experiencer and Nominative Stimulus. The Nominative controls verbal agreement, it is selected as the antecedent for anaphoric binding, in short it behaves like a subject. A passive-like construction which changes word order, thus shifting focus from Experiencer to Stimulus, and affects verb morphology like the passive is possible with these verbs, but it sounds stilted and is limited to a subset of the active constructions, namely to those where the Stimulus argument is expressed through an abstract nominal (43b).

- (43) a. Lui Marin_i ii_i place cartea/Ana/lingusirea
 DAT-Marin CL-PRON-DAT like book/Ana/flattery
 ‘Marin likes the book/Ana/flattery.’

- b. ?Cartea/??Ana/lingusirea ii_i este placuta
 ?book/??Ana/flattery CL-PRON-DAT is liked
 lui Marin_i
 DAT-Marin
 ‘The book/Ana/flattery is agreeable to Ion.’

The same predicates can occur with an alternative case configuration: Nominative Experiencer and Accusative Stimulus. The construction is used only when both Experiencer and Stimulus arguments are [+human] and [+definite].

- (44) a. Toti au placut-o_i pe Ana_i
 Everybody liked CL-PRON-ACC P-ACC Ana
 ‘Everybody liked Ana.’
- b. *Toti au placut cartea/lingusirea
 everybody liked book/flattery
- c. *Ciinele tau a placut-o_i pe Ana_i
 dog your liked CL-PRON-ACC P-ACC Ana
 ‘Your dog liked Ana.’

The Nominative-Accusative pattern permits passivization. What is interesting is the fact that in passive constructions, the semantic restriction on the Stimulus argument disappears. This contrasts with the passive-like construction in (43b) where the semantic constraints were stricter than in the corresponding active form. While it could be argued that the alternation between the Dative-Nominative pattern and the transitive pattern in active constructions is limited to situations closer to the transitive semantic prototype, the passive form is subject to no semantic constraints (45).

- (45) Ana/cartea/?lingusirea a fost placuta de toti
 Ana/book/flattery was liked P everybody
 ‘Ana/the book/the flattery was liked by everybody.’

A shift from the Dative-Nominative pattern to the Nominative-Accusative pattern seems to be taking place. In active sentences the presence of certain properties rendering the

construction closer to the transitive prototype are required for the shift to occur. The passive form has more freedom of occurrence. This could be attributed to the fact that the passive of the transitive form has the same argument structure as the dative experiencer form, namely stimulus subject but also to the fact that the passive-like form of Dative experiencer verbs is so unwieldy. The case shift occurring with Dative experiencer verbs could be seen as an illustration of the motive (one of the motives?) behind the spread of the transitive pattern to non-agentive verbs. The transitive pattern, normally used to encode agentive episodes, is replacing other case patterns by virtue of its versatility, its capacity to present an episode from a number of alternative perspectives.

We have argued in the preceding section that the semantics of ES verbs does not support an identification of the experiencer with an agent. The import of the agentive schema in the passive construction can be better explained in a negative rather than in a positive way. Namely, although the thematic role of the subject of ES verbs is not agent, the semantic properties of this nominal, in relation to the other participant in the episode described by the predicate is not incompatible with the agentive prototype. That is, although the subject and object nominals of ES verbs have no active agent or patient characteristics, they display no non-agent or non-patient features either. Most of the verbs in this class involve relations between two human participants. This permitted the spread of the transitive (agentive) sentence pattern. In contrast with ES verbs, EO verbs describe situations which clearly deviate from the agent-patient interaction: the subject is [-animate], the object is [+human] and can be argued to have responsibility for the outcome of the episode (unless the Experiencer directs his attention to the Stimulus there is no emotional episode). Consequently assimilation with the agentive construction is blocked.

The position advocated here is that, at least as far as emotion verbs in Romanian are concerned, a syntactic pattern normally associated with a particular semantic prototype is extended to fairly non-prototypical constructions as a result of its 'user friendliness'. It could be argued that the transitive prototype is still present in a very diluted form through the difference in prominence between the two participants. The Experiencer argument being more prominent is assimilated to the Proto-Agent role (Dowty 1991). Even if we adopt such an analysis in order to explain the linking between thematic roles and grammatical functions, this does not explain the agent

marking on the experiencer argument in passive constructions with ES verbs.

The behavior of the Dative experiencer verb *place* suggests that the availability of the passive construction could be seen as the motor for the extension of the transitive pattern. If we regard the transitive sentence pattern as a surface configuration widely associated with two-place predicates, making available the use of a passive construction permitting the encoding of the same episode from an alternative perspective, the behavior of Romanian ES verbs ceases to be a curiosity. The surface transitive pattern and the associated passive construction, in its most prototypical form, the agentive construction, have been borrowed to encode an asymmetrical binary relation. The use of the transitive sentence pattern is not associated with any sensible semantic effect. Other syntactic properties associated with the syntactic configuration normally underlying constructions of this form are not present: these verbs lack standard transitive nominalizations.

2.6. Transitive Emotion Verbs in Japanese

We would like to suggest that the use of the transitive pattern with emotion verbs expressing dispositions in Japanese can be attributed to the factors at work in Romanian ES verb constructions.

A spread of the nominative -accusative case pattern to non-transitive predicates, reminiscent in its details to the extension of the transitive pattern to dative experiencer verbs in Romanian, is occurring in Japanese. The adjectives *suki* (like), *kirai* (dislike), which normally require the double nominative case pattern, allow the accusative case marking of the stimulus argument when this is expressed by a [+human] nominal.

- (46)
- | | | | |
|----|--------------------|----------------|------------|
| a. | Taroo wa | biiru ga/*o | suki/kirai |
| | Taroo-TOP | beer-NOM/*ACC | Adj |
| | Taroo likes beer | | |
| b. | Taroo wa | Hanako ga/o | suki/kirai |
| | Taroo-TOP | Hanako-NOM/ACC | Adj |
| | Taroo likes Hanako | | |

Accounting for the presence of the accusative in syntactic terms is not easy. The interpretation of these sentences does not seem to justify an account in semantic terms

either. The adjectives do not acquire a different, more ‘active’ sense, and the two participants do not gain any agent-like or patient-like properties. The nominative-accusative case marking seems to be, rather, a consequence of the expansion of the transitive sentence pattern. The expansion proceeds from the more prototypical cases, here from constructions involving two human participants.

It is interesting that the adjectives *suki/kirai* in Japanese have verbal counterparts. Unlike the adjective-verb pairs of predicates expressing occurrences *kanashii-kanashimu*, *tanoshii-tanoshimu*, these verb-adjective pairs are not associated with a regular, perceptible semantic distinction. The difference can be characterized in syntactic terms: the verbs, unlike the adjectives, allow passive constructions.

The behavior of the verb *suku* (like) is very significant. The verb is not frequently used in the spoken language. Examples of the active form of the verb are found mostly in song lyrics and literary texts.

- (47) a. doomo, suisai ya yusai-wa boku-o amari suite-wa kurenai rashikute
 Water-color and oil painting seem not to agree with me, somehow
home2.highway.ne.jp/nori-p/Draw/Drawing.htm
- b. dokushoka-no Kozasa-kun-wa naze-ka hei-hei-bon-bon-na
 watashi-o sui-te kure, shiba-shiba asobi-ni kuru...
 For some reason, the book loving Kozasa-kun took a liking to me and
 came to visit frequently...
www.sanada.or.jp/contents/mystery4/essey.html

The active form is frequently used combined with other forms in idiomatic coordinate phrases, such as *suite sukarete* (like and be liked), *suite sukanu* (like and not like), *suite-mo horenu* (like without falling in love), etc. The use of the verb *suku* rather than the adjective *suki* in such contexts is clearly justified by stylistic reasons.

An advantage of the verb *suku* over its adjectival counterpart is the availability of a passive construction. Unlike the active form *suku*, the passive form *sukareru* is frequently found in everyday speech and lacks the literary nuance of the former.

- (48) a. fudoosanyasan-ni sukareru kyaku
 customers liked by real estate agents

- b. josei-to kodomo-ni sukareru yoo doryoku suru
make efforts in order to be liked by women and children
- c. tanin-kara sukareru yoo-ni furumau
behave so as to be liked by people

The situation is quite similar to the case of Romanian verb *place* (like) discussed in the previous section. We have, on the one hand, a construction in which syntax reflects semantic properties of a predicate (the adjective) and on the other hand, a construction which can be regarded as a consequence of the spread of the transitive prototype to a non-prototypical domain. The semantically justified construction is syntactically less versatile than the syntactic transitive construction, and this fact has semantic and pragmatic consequences. Adjectives, and verbs in non-canonical constructions, lack the alternative perspective on the situation provided by passive constructions.

In Romanian, noticing the mismatches between the semantic and the syntactic properties of ES verbs we have suggested that the transitive sentence pattern is associated with these verbs not in virtue of their semantic properties, but by default. In the absence of blocking properties, the transitive sentence pattern is applied to mental predicates as a default pattern for encoding asymmetrical binary relations³⁾.

Although Japanese transitive verbs referring to emotional dispositions, *aisuru*, *nikumu*, *konomu*, etc, do not manifest any significant syntactic peculiarities, we propose to analyze the transitive case marking in stative verb constructions in a similar way. We argued in Section 1 that the relevant interface between semantic level and syntactic level (case assignment) with occurrence emotion predicates in Japanese is aspect. We also argued that verbs exhibiting the NOM-ACC pattern are activities and suggested a connection between the higher kinesic of these predicates and the accusative case frame. Transitive verbs referring to emotional dispositions are prototypical states. If we take aspect as the interface from semantic to syntactic structure the case frame expected would be the double nominative pattern. The type of relations described by these verbs, as reflected by aspectual properties, are not sufficiently close to the semantic transitive prototype to justify the claim that the Nominative- Accusative case marking is not actively triggered by the semantic content of the verbal root.

As Shibatani (1999) points out, the canonical transitive pattern in Japanese "reflects the speaker's conceptualization of the experience as involving higher

transitivity". It is difficult to argue on the basis of their semantic properties, that verbs such as *aisuru*, *kirau* or *konomu* and adjectives such as *suki da* are conceived as involving a higher degree of transitivity than verbs such as *okoru* or *odoroku*. What these predicates have in common with the transitive prototype is the type of participants involved. These verbs generally refer to relations between individuals. Occurrence predicates tend to express relations between an individual and an event. In this respect dispositional verbs are closer to the transitive prototype than occurrence verbs such as *okoru* or *odoroku*. The nature of the participants involved does not seem sufficient to actively trigger the accusative case marking. In spite of the transitive case pattern used, the experiencer argument of an adjective like *suki da* exhibits no agentive properties. Nor is the experiencer argument of the verbs *aisuru*, *kirau* or *konomu* possessed of more agentive features than the experiencer of dative verbs. The use of the transitive sentence pattern can be said to reflect not the absolute semantic properties of the participants in the event referred to by the predicates, but rather the relative prominence of the two participants.

In the previous sections we argued for a relation between the case marking properties exhibited by several types of Japanese emotion predicates and their lexical aspectual properties. The lexical aspectual properties of a predicate are determined by the properties of the event referred to by means of the predicate. We argued that occurrence emotion predicates focus on different processes composing the emotional experience. The lexical aspectual properties of a predicate vary depending on the type of process it is associated with. The case marking properties are sensitive to this semantic distinction. Dispositional predicates seem to deviate from this generalization. Verbs like *ai suru* (love), *konomu* (prefer), *nikumu* (hate) are associated with the NOM-ACC although they are not activity verbs, but prototypical states. This suggests that the case marking mechanism responsible for the NOM-ACC case array with these verbs is not the same as the case marking mechanism at work in the case of occurrence predicates. As mentioned before, the case marking properties of these predicates are determined by the features of the participants rather than by the type of event associated with the predicate.

The dispositional predicates describe emotions as asymmetrical binary relations. The relative prominence of the two participants determines the mapping of arguments to syntactic positions. We have seen that in the case of some dispositional

adjectives there is a competition between the double nominative case pattern and the transitive (NOM-ACC) case pattern. The transitive sentence pattern tends to win in contexts that are closer to the transitive prototype. Verbs like *ai suru* (love), *konomu* (prefer), *nikumu* (hate) exhibit selectional properties similar to those of *suki da* used transitively, i.e. they generally require two human participants. The use of the transitive sentence pattern with these verbs could be attributed to their selectional properties. This use can be described as a non-prototypical use of the transitive sentence pattern.

In Chapter 4 we suggested that dispositional predicates and occurrence predicates are associated with two distinct conceptualizations of emotions. The fact that a number of dispositional predicates require a distinct case assignment mechanism supports this idea.

3. Discussion

The present chapter has proposed a number of mechanisms accounting for the case marking properties of emotion verbs. The solution we suggest surpasses in complexity all previous proposals. Major work on this topic is characterized by the attempt to align the formal variation associated with this class of predicates with universal principles, such as UTAH. Belletti & Rizzi (1988), Grimshaw (1991) or Pesetsky (1995) are efforts to find a unique semantic or syntactic principle able to explain the behavior of formally different classes of emotion verbs. In this chapter we have suggested that formally identical classes of emotion verbs, such as the two types of transitive emotion verbs in Japanese, have distinct semantic structures, corresponding to different conceptualizations of emotions, and are associated with the surface syntactic form through distinct mechanisms. The case marking mechanisms at work in the emotional lexicon are far from uniform cross-linguistically. We have also proposed that the interface level between semantics and syntax might differ in Japanese and Romanian. While aspect could provide the interface between semantic structures and syntactic form in Japanese, this component plays no major role in explaining the case marking patterns associated with Romanian emotion predicates. Such a result is in keeping with the position advocated throughout this paper, namely, that emotion predicates are more complex than was previously assumed.

Conclusions

This dissertation has investigated the consequences of applying a different set of assumptions regarding the semantic content to the analysis of emotion predicates. Whereas most previous studies regard emotion predicates as labels for internal states, the position adopted in this paper is that emotion predicates refer to emotion episodes. Emotion episodes can be represented as scripts with slots that specify the prototypical triggering situation, the cognitive processes and the internal reactions (internal states) as well as the accompanying outward manifestations that characterize a particular emotion.

"Emotions are complex, organized states (analogous to, not the same, as syndromes) consisting of cognitive appraisals, action impulses, and patterned somatic reactions. Each emotion quality (e.g., anger, anxiety, joy) is distinguished by a different pattern of components, which is what urges the analogy to a syndrome. Moreover, the three components are subjectively experienced as a whole, that is, as a single phenomenon as opposite to separate and distinct responses. When one component is missing from the perception, the experience is not a proper emotion although it may contain some of the appropriate elements." Lazarus, Kanner and Folkman (1980)

Although the components of the emotional episode are perceived as a whole, each casts the participants in a different role. As a consequence, it is not possible to characterize the participants in the emotional episode in terms of unambiguously ordered thematic roles.

In the introduction we mentioned that notions like *experiencer*, *stimulus* and *emotional state* will be reconsidered in the course of the dissertation. Indeed, the notion of *emotional state* as a primitive has been replaced by a complex structure involving cognitive and physiological processes. Although the labels *experiencer* and *stimulus* have been preserved, the content of these roles is regarded in a different light. The two participants could be said to form a thematic hierarchy of their own, distinct from the thematic hierarchies associated with predicates referring to physical relations. We argued that there is no inherent prominence relation between the experiencer and the

stimulus argument. Individual emotion predicates can focus on one or another aspect of the emotion episode. The relation between participants associated with the focused component determines the mapping to syntactic positions for the respective predicate. Since different aspects imply different relations, the mapping options will be multiple.

One of the declared aims of this paper was to find an explanation for the fact that an unusually large number of sentence patterns is associated with a fairly restricted semantic domain. We referred to this property of the emotional lexicon as the mismatch between semantic uniformity and syntactic variation.

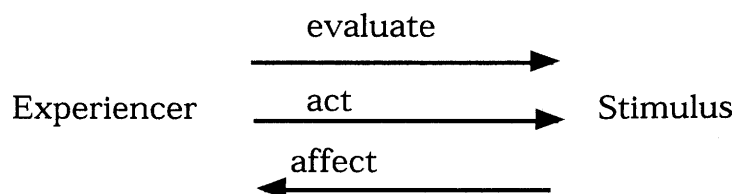
The answer we proposed to this problem was that the semantic uniformity is only illusory. There is no real mismatch between semantics and syntax. Predicates that seem at first sight in a paraphrase relation are actually referring to distinct aspects of the emotional episode. Mapping properties reflect the semantic content of each individual predicate.

- (1) a. Taroo-(ni)-wa tomodachi-no uragiri-ga kanashikatta
 Taroo-(DAT)-TOP friend-GEN betrayal-NOM Adj
 Taroo was saddened by his friend's betrayal
- b. Taroo-wa tomodachi-no uragiri-o kanashinda
 Taroo-TOP friend-GEN betrayal-ACC V
 Taroo grieved his friend's betrayal
- c. tomodachi-no uragiri-ga Taroo-o kanashimaseta
 friend-GEN betrayal-NOM Taroo-ACC V-SASE
 His friend's betrayal saddened Taroo

What the three predicates above have in common is the fact that they are all associated with the script for the emotion called sadness. According to the analysis suggested in this paper, the emotional episode can be minimally represented as in Fig 1 below. All the three predicates in (1) are associated with this schema, but each focuses on a different component. The adjective and the verb have in common the fact that they focus on the active role played by the experiencer in the emotional episode. They differ in that the adjective in (1a) focuses on the internal state of the experiencer and the verb in (1b) on the outward manifestations of the emotion. The causative form in (1c) highlights the affected status of the experiencer. As a consequence, the causative form is

associated with the EO mapping. The adjective and the verb exhibit the ES mapping option.

Fig 1



Japanese has the possibility of highlighting three aspects of the emotional episode. The possibility is not exploited in the lexicalization of all the emotion predicates. A number of predicates make only a two-way distinction, between an experiencer oriented perspective and a stimulus oriented perspective. As a consequence, there are four semantic types of emotion predicates, associated with four distinct sentence patterns.

Fig 2

Semantic type	Sentence pattern	
Experiencer-oriented	Experiencer-GA	Stimulus-NI
Experiencer-oriented (internal)	Experiencer-GA/-NI	Stimulus-GA
Experiencer-oriented (external)	Experiencer-GA	Stimulus-O
Stimulus-oriented	Experiencer-O	Stimulus-GA

Another claim of this paper is that not all the items currently described as emotion predicates fit this label to the same degree. Most of the previous work on psychological predicates, that includes emotion predicates, is mainly concerned with the linking problem. If the set of ES predicates and that of EO predicates were disjoint, the linking problem would lose much of its appeal. (It would be much more plausible to assign the two types of predicates to distinct semantic classes.) It is the existence of semantically related pairs such as *fear* and *frighten* that has stimulated research in this area. As a

consequence the scope of the inquiry has extended beyond morphologically related items such as *be angry* (ES) and *anger* (EO) to ES- EO pairs such as *like* (ES) and *please* (EO). Even where morphological evidence lacks, linguists analyze the pairs as evidencing the same type of semantic relation, cf. Pesetsky (1995; 57), Croft (1991; 216-218).

In Chapter 4 of the paper we argued that it makes no sense to compare *like* with *please* or *suki da* (like) with *tanoshimu* (enjoy). Differences with respect to aspectual properties, selectional restrictions, morphological behavior suggest that two very different types of predicates are included under the label of emotion predicates. It is not possible to derive one type from the other, semantically or morphologically. The comparison between *suki da* and *tanoshimu* is not going to lead to very interesting conclusions. If there is a possibility of comparison it is between *suki da* on the one hand and the cluster *tanoshii- tanoshimu- tanoshimaseru* on the other hand.

We argued that predicates like *suki da* and predicates like *tanoshii* presuppose different conceptualizations of emotions. We proposed the term dispositional predicates to refer to the former and occurrence predicates to refer to the latter. In Chapter 8 we suggested that dispositional predicates and occurrence predicates involve not only distinct conceptualizations of emotions, but also distinct case marking mechanisms. We have argued that, in a sense, only occurrence predicates fully deserve the label of ‘emotion predicates’, since only occurrence predicates reflect in their semantic structure the internal constituency of emotional episodes and give expression to the peculiarities which set emotional episodes apart from other types of events. Disposition predicates assimilate emotions with other types of binary relations and are not sensitive to the internal constituency of emotional episodes.

The source of formal variation with emotion predicates is their semantic complexity. This complexity is fully exploited by occurrence predicates. This observation has led us to the hypothesis that fruitful cross-linguistic studies should be possible especially for this class of predicates. In Chapters 5-7 we propose an account of occurrence predicates in Japanese and Romanian, based on the following assumptions:

- a. Morphologically related occurrence predicates reflect different choices of perspective on the emotional episode
- b. Languages may differ with respect to the choice of the basic perspective on

the emotional episode

- c. The number of aspects of the emotional episode brought into perspective is subject to cross-linguistic variation
- d. The shift from the basic perspective on the emotional episode to a non-basic perspective can be achieved through morphological means

As a result, it was possible to discern some striking similarities between the two languages beyond the apparently incompatible data. Japanese has morphologically causative emotion verbs and Romanian has reflexive verbs. There are non-derived EO verbs in Romanian but not in Japanese. This difference was argued to reflect the difference between the two languages with respect to their choice of the basic perspective on the emotional episode. In Japanese the Experiencer oriented perspective is basic, whereas in Romanian the Stimulus oriented perspective is basic. The causative forms in Japanese and the reflexive forms in Romanian were argued to fulfill the same function: that of shifting the focus from the basic to a non-basic perspective on the emotional episode. Seen in this light, the mechanisms used by the two languages are very similar. Both languages use a productive morpho-syntactic rule in a non-standard manner for lexical purposes.

Although the data from Japanese and Romanian proved amenable to a uniform treatment there is no claim regarding the universality of this analysis. This paper is not a typological work. Further study might show that the set of assumptions used here could provide the basis for an extended cross-linguistic account, or that the assumptions must be reconsidered.

Although further investigation might show that the approach advocated in this paper is off the mark, it is beyond doubt that the standard assumptions in the literature on psychological predicates seriously need to be reconsidered. The idea that EO verbs are causatives is so deeply ingrained that researchers assume it without stopping to examine the significance of this description. In Chapter 3 we showed how very influential works, such as Grimshaw (1991) and Pustejovsky (1995), put forth analyses of EO verbs that make crucial use of the lexical aspectual properties of these predicates, without performing even the most perfunctory aspectual tests.

In Chapter 5 we offered a detailed account of the lexical aspectual properties of Romanian EO verbs. These verbs exhibit unexpected aspectual properties, almost the

mirror-image of the attributed description. These properties are incompatible with the accounts proposed by Grimshaw, and Pustejovsky. They also raise doubts with respect to the correctness of the accounts advocated in Croft (1991) and Pesetsky (1995). In chapter 6 we demonstrated that even for a language like Japanese, where EO predicates exhibit overt causative morphology, a straightforward causative account is wrought with difficulties. It may be possible to find a way of integrating the aspectual properties of EO verbs within the causative analysis but such a task cannot be achieved by ignoring the linguistic facts.

Taking the causative hypothesis for a proven fact has had the effect of obviating a number of interesting theoretical problems related to emotion predicates. Although the present paper has done little more than scratch the surface, the following theoretical problems have emerged.

One such topic is related to the theory of lexical aspect. The properties of EO predicates do not fit smoothly in any of the known aspectual classes. The question that arises is: should the number of lexical aspectual classes be multiplied or are the boundaries between classes less tight than previously thought? In Chapter 5 we suggested that the distinction between states and events (activities, achievements, accomplishments) may not be a binary choice. Non-prototypical stative predicates such as stage-level predicates and occurrence emotion predicates could be regarded as intermediate classes, filling the gap between states and the other aspectual classes.

Another problem is the relation between aspect and selectional properties. It is known that the semantic properties of the arguments influence the aspectual properties of the clause. There are formal accounts of this relation (Dowty 1979, Krifka 1992). We noticed a connection between the selectional properties of the subject and the aspectual class of the emotion predicate. There is a tendency for predicates that select individuals in subject position to behave like prototypical states, our dispositional predicates. The emotion predicates that select events in subject position, the EO verbs, exhibit a form of boundedness. The initial point of the interval covered by the verb is specified. The mechanism through which the selectional properties of the subject and the aspectual properties of the clause are related needs further investigation.

A curious phenomenon that could be termed 'event incorporation' occurs with this class of predicates. If the subject position of a verb that normally selects an event is occupied by an agent, i.e. an individual acting intentionally, the verb behaves like an

accomplishment. This phenomenon is illustrated by the pair of sentences, below.

- (2) a. *Purtarea lui Ion l-a speriat pe Marin in trei minute (non-volitional)
behavior GEN-Ion scare P-ACC Marin in 3 minutes
b. Ion l-a speriat pe Marin in 3 minute (volitional)
Ion-NOM frighten P-ACC Marin in 3 minutes
Ion frightened Marin in 3 minutes

The causing event and the caused event are encoded in distinct fashions in the two constructions. In the non-agentive form the causing event appears as an argument whereas in the agentive construction it is included in the event structure of the predicate.

The phenomenon is quite robust cross-linguistically. There are reasons to believe that the agentive reading is derived on the basis of the non-agentive reading, see the Appendix to Chapter 6. Both the agentive and the non-agentive forms are referred to in the literature as causatives. It is clear, though, that the term causative has distinct interpretations. The linguistic literature does not contain a sufficiently clear discussion of the various senses of the term 'causative' and the relation between this notion and other linguistic properties of predicates.

Causativity in physics and philosophy is defined as a relation between two events. Causative forms in language generally describe relations between an individual and an event. In linguistics, the concept of Causer plays a much more important role than it does in physics and in philosophy. Much of the literature on emotion predicates cultivates an ambiguity between Cause and Causer.

This brings us to the third problem: the relation between causativity and aspect. Dowty proposes a very appealing account that links causative interpretation with aspectual properties. Grimshaw pursues the idea and offers a model where causative interpretation, lexical aspect and mapping are all inter-related. The idea that there is a connection between causativity and aspect seems to be preponderant, though Van Valin (1997) denies the existence of such a link.

Many of the accounts of emotion predicates assuming a connection between causativity and aspect either wrongly attribute accomplishment properties to the EO verbs (Grimshaw, Pustejovsky) or simply state the relation causativity- aspect without discussing the concrete manner in which the two are related. Drijkoningen (2000), for

instance, places causative verbs on a par with activities and achievements as an aktionsart type. To our knowledge, there is no work seriously examining the aspectual behavior of emotion predicates except VanVoorst (1992). We have seen that emotion predicates, EO predicates in particular, do not exhibit the aspectual properties expected of causative verbs. Moreover, the causative interpretation is not uniformly associated with these predicates. It is strongly felt in the perfect but tends to fade in non-perfect forms. Van Valin argues that our intuitions about meaning, more specifically the possibility of paraphrase by means of an overt causative construction, are sufficient proof of the causativity of a predicate. Emotion predicates show that our intuitions can falter. Does this mean that the causative interpretation is subject to prototype effects? Should causativity be regarded, like lexical aspect, as a property of the clause rather than a property of the predicate? Do certain semantic configurations associate with a stronger causative interpretation?

The approach suggested in this paper may not be the correct one, but the fact that it raises questions like those mentioned above is encouraging.

Discussing the reason why the collaboration between linguists and psychologists is not more fruitful, Miller writes:

For what it is worth, my own view is that linguists and psychologists subscribe to different theories of explanation. Linguists tend to accept simplifications as explanations. For example, a grammarian who can replace language-specific rewriting rules with X-bar theory and lexicalization feels he has explained something: the work formerly done by a vast array of specific rules can now be done with a simple schema. (Miller 1990: 321)

If simplification is, indeed, the quality most valued in linguistic research, this dissertation is not going to meet with much approval from linguists. The shortcomings of previous studies have suggested that a richer apparatus might be needed, in order to do justice to the intricacies of psychological predicates. To remedy this defect a number of concepts were borrowed from the psychologist's tool box. Further study might prove that more was borrowed than was necessary and that many of the notions used in the paper can be reduced to independently motivated linguistic categories. The schema offered in this dissertation is certainly not a 'simple schema', but it accounts for the

formal properties of emotion predicates on the basis of semantic distinctions motivated by the speakers' understanding of emotional experience.

Notes

Introduction

1 There are several labels associated with this role: Theme, Target, Object, Cause, Stimulus. Some of the labels, like Theme and Object, refer to the same role. Others are associated with semantic and syntactic distinctions. Chapter 3 of the dissertation will discuss Pesetsky's (1995) proposal, according to which the syntactic differences between classes of psych predicates are attributable to a difference in their argument structure, more precisely, to a difference in the role of the non-experiencer argument. In this paper we shall argue that differences in the argument structure of emotion predicates, even when semantically justified, do not influence the syntactic properties and cannot provide a formal basis for classifying psych (or emotion) predicates. Consequently, we will refer throughout the paper to the second argument of emotion predicates using a unique label that of STIMULUS argument. The *stimulus* of an emotion is the element responsible for triggering the emotion. The STIMULUS argument of an emotion predicate is the argument referring to the stimulus of the emotion.

Chapter 1

1 Some adjectives like '*hoshii*' and '*suki*' also display the case pattern (iii), but this is rather the exception than the rule with adjectives.

iii. Experiencer-ga Stimulus-o

It is generally considered a generalization of the verbal case marking pattern (Dubinsky 1992).

2 The IPAL electronic dictionary of adjectives lists up only: *itai* (painful), *urusai* (loud), *okashii* (funny), *omoshiroi* (interesting), *kitsui* (hard), *tamaranai* (unbearable) and *mezurashii* (curious) for pattern (ii), while the rest of psychological adjectives, including *ureshii* (glad), *kanashii* (sad), *sabishii* (lonely), etc are marked only for the (NP-ga) NP-ga pattern. This does not seem to be correct. As Teramura (1984) points out, most psychological adjectives, with the exception of '*suki/kirai* (like/dislike)' '*hoshii* (want)' can be found with a *-ni* marked experiencer. Teramura argues that case marking of the experiencer argument is rather unstable and there is a lot of speaker variation. He explains

the fact as a consequence of the tendency to leave the Experiencer argument unexpressed. (p143-4)

3 Shibatani (1999) is an exception. The author proposes a semantic distinction associated with the two case patterns throughout their uses. In a nutshell, Shibatani's theory is that the double nominative pattern presupposes a higher degree of dependency between the first argument and the clause formed by the second argument and the predicate. Although the account proposed in this chapter will be different, it is not incompatible with Shibatani's conclusion.

4 This is a simplified account. The presence of a zero-morpheme does not necessarily block all derivational processes. Derivational morphemes display selectional restrictions. Some morphemes can attach only to roots, while others admit attachment to derived forms. Even if they admit affixation to already derived forms, there are co-occurrence restrictions among derivational morphemes. That is, not all morphemes can attach to an element which has already undergone zero-morpheme derivation. The nominalizing suffix *-sa* in Japanese attaches to the majority of adjectives and nominal adjectives, but there are exceptions especially among the latter class. Most importantly, *-sa* does not seem to attach to nominal adjectives derived through zero-affixation from nouns, ex: *anshin*, *baka*, etc. It could be argued that incompatibility with a zero-morpheme is a property of *-sa*.

5 The question naturally arising is what happens to the Theme argument of the base adjective. It can be argued that this argument is suppressed for case reasons. Adjectives are generally analyzed as unaccusatives, that is, they take a single internal argument. Since adjectives do not assign case to their arguments, these are assigned *-ga* by adjectival inflection. After attachment of the morpheme 'FEEL', the Theme argument of the base adjective can no longer be assigned case by inflection, as the derivational zero morpheme now intervenes between the adjectival base and inflection. As it cannot receive case, the nominal is ruled out by Case Filter, a syntactic mechanism which blocks the realization of nominals which are not case marked. As mentioned at the beginning of this chapter, the Theme argument represents the stimulus of the psychological state. In these constructions the stimulus of the sensation can be expressed as a clausal element, as in (1a). The clausal element in this structure can be regarded as the semantic counterpart of the Theme argument in the *-ni/-ga* construction. The construction is acceptable because clauses do not require case marking. This indicates that the Theme/Stimulus argument is still present in the semantic structure of the adjective as a default argument, in the sense of Pustejovsky (1995) which defines default arguments as parameters which participate in the logical expressions in the qualia, but which are not necessarily expressed syntactically.

6 The *-ni* marked adjunct is not appropriate if there is no connection between the referent of the *-ni* NP and that of the Theme NP. The referent of the *-ni* marked NP must be a potential user of the object referred to by the nominative NP. A sentence such as (i), where there is no implication of any relation between the referent of the 1st person pronoun and the building, is not well formed.

- (i) Kono biru-wa watashi-ni-wa takai
this building-TOP I-ni-TOP tall
This building is (too) tall for me

7 Adjectives in this class have a basic intransitive use in which they refer to properties. The properties in question are not related to sensations, as was the case with temperature and taste adjectives, but presuppose a form of evaluation. This makes the use of the ‘evaluation’ pattern particularly congenial to these items. It should be noted that neither the presence of a dative marked experiencer, nor *-garu* affixation bring a change of meaning similar to the one noticed with sensation adjectives. This may be seen as a consequence of the presence of an evaluation component in the lexical entry for the adjective.

These adjectives also make obvious the difficulties of applying the zero-morpheme analysis to other semantic classes. We argued that the argument structure of the zero-morpheme FEEL consists of an Experiencer and a Locus of the sensation. As example (22d) shows, the second argument of these adjectives, on their sensation reading, does not represent a Locus, but the Theme or rather the Stimulus of the sensation. If we are dealing with the same morpheme, the difference in argument structure needs an explanation. Otherwise we are forced to postulate the existence of several semantically close but not identical zero-morphemes, a not very desirable solution. A construction approach would not run into these difficulties.

Chapter 2

1 Thus, for instance, Hida and Asada (1991), besides providing a description of the conditions for appropriate use of each adjective, classifies them in terms of their ‘image’, i.e. the emotional effect. This is measured on a seven-point scale going from negative (minus) to positive. According to this approach, *tanoshii* earns +3 points, the same as *ureshii*; *urayamashii* (envious) is 0, *hazukashii* (shameful) has two variants, one evaluated as 0 and the other -2; *kanashii* (sad) is -3 like *kowai*, etc.

2 The criteria for classifying psych adjectives reflect my understanding of the works cited rather

than the declared intentions of the authors. Part of the works referred to are general classifications of adjectives in Japanese, but some of the tests proposed can also serve to classify psych adjectives. For example, Nishio offers a battery of tests for delimiting between subjective and objective adjectives and illustrates them with concrete examples. Not all the subjective adjectives discussed behave identically with respect to these tests. On closer scrutiny, it appears that the items where differences among subjective adjectives occur, refer to selectional restrictions. Consequently, I describe Nishio's classification as having selectional restrictions for criterion.

3 Thus, Teramura (1973) classifies adjectives in terms of case marking and the obligativity of the Experiencer argument. He obtains thus two classes, emotion adjectives (*kanjookeiyoshi*) which can mark the experiencer argument with the particles *-ni* or *-ga* and emotional evaluation adjectives (*kanjoo-teki handan keiyoshi*) which allow only *-ni* marking for the experiencer. In his later work he weakens this distinction and states that basically all experiencer adjectives allow *-ga* to mark the experiencer, cf. Teramura (1983: 146). The main distinction between the two subclasses is the availability of a reading where the experiencer argument is backgrounded and the theme argument becomes the topic.

4 Ooe (1975) proposes a more elaborate classification by distinguishing between obligatory and optional status for both Experiencer and Stimulus arguments, obtaining, thus, 5 subclasses.

5 In recent literature, Grimshaw (1979) and (1981), Pesetsky (1991), the terms *subcategorization* and *selectional restrictions* have been replaced by *c-selection* and *s-selection*, respectively. Pesetsky (1991) argues that the notion of subcategorization is not only redundant, but it actually leads to wrong predictions. In his latest work Pesetsky argues that even the more limited notion of c-selection, selection of the syntactic category of the argument, is too strong and proposes a further limitation embodied by the notion of l-selection, (lexical-selection) which has for its vocabulary subcategories of syntactic categories, individual words or features and is limited only to terminal strings. In spite of this, we shall continue to use the term 'subcategorization' in the present paper to refer to the list of syntactic categories that a predicate can th-mark, cf. Pesetsky (1991). This is mainly because the position of subcategorization frames in the architecture of the linguistic theory is not relevant for the purposes of the present investigation, a bottom up account of emotion predicates in Japanese. Given the rather well established status of the term 'subcategorization' we prefer to retain it for convenience sake and avoid theorizing on this topic. Besides, the authors arguing against the notion of subcategorization attribute a very important role to s-selection. This presupposes a level of analysis where the s-selection properties of the items under

discussion are known. This is not the case in the present paper, the s-selection properties of emotion adjectives are to be determined. The surface syntactic realization of the stimulus argument, by whatever term this is referred to, will prove to be a useful tool in discovering the semantic status of the argument. We do not attribute any particular theoretical significance to subcategorization frames, above this practical role.

The conclusion reached in this chapter is not at odds with the idea that s-selection properties are basic. It can be argued that the semantic properties of the stimulus argument, its ontological status, determine its syntactic realization. The relation between s-selection and c-selection (or rather l-selection), as advocated by Grimshaw and Pesetsky, is mediated through the Context Principle in association with Canonical Structural Realization. Offering an account of CSR in Japanese is beyond the scope of this paper. Consequently discussion of the relation between s-selection and c-selection will be left to another occasion.

6 In Nishio *ureshii*, *kanashii* on the one hand and *nikui* on the other, differ with respect to the possibility of taking [+human] nominals in stimulus argument position; while *nikui* accepts [+human] nominals the other two adjectives do not. Hosokawa includes *ureshii*, *kanashii*, *tanoshii*, *nikui* in his class A-3, adjectives that take a *koto* Stimulus argument. He notes that the argument may be realized either as a sentence or as a nominal, and that *nikui* frequently appears with a [+human] complement. However, he offers no example of a sentence where *nikui* allows a clausal complement. The only example of a sentential complement involves '*nikurashii*', but without context it is not easy to appreciate whether it is a genuine example of a sentential complement or a case of nominal deletion.

(i)	jochuu-to	onaji-ni	yobu-no-ga	nikurashikute
	maid-PRT	same-DAT	call-COMP-NOM	hateful-COMP
	tamaranai			
	unbearable			

(She) found it unbearably hateful to be called in the same way as the maid

7 It is not argued here that the construction taking a nominal modified by a relative clause as complement is synonymous with the one taking a clausal complement. What is important is that while certain adjectives allow the Stimulus to be expressed through both constructions, other adjectives, of which *nikui* is the clearest example, admit only nominals in Stimulus argument position.)

8 Although examples (12d) is well formed, it cannot refer to a specific occasion, but to a past habit. In order to refer to a specific past event (12b) must be used. This signifies that the morpheme *-ta* on the matrix predicate cannot be associated with a specific reading in (12d). The situation is reminiscent of the aspectual dependence of accomplishment verbs on the mass/count distinction in the direct object. With a [+count] object the verbs are accomplishments whereas a [-count] object gives rise to an activity reading. In the same way, a non-specific tense feature on the Stimulus argument of this class of emotion adjectives will force a non-specific (habitual) reading on the matrix predicate, whereas a specific reading will determine a specific reading for the matrix predicate. This property will not be further investigated in this paper. What counts for the current discussion, however, is the fact that matrix and embedded clause are temporally dependent. I thank Prof. Sunagawa for pointing this aspect to me.

9 The *-ru* form is rather an aspectual marker and does not bear tense features.

10 Syntactically, (17b,c) are unobjectionable; the Experiencer can be coindexed with the embedded subject (the subject of *-te morau* in the case of (17b) and the embedded tense is not free. The fact that the use of *ureshii* is favored in this context is due to the lexical content of the adjective. Semantically, (17b,c) represent the ideal context for the use of *ureshii*. As will be argued below, *ureshii* requires that the Experiencer be involved in the Stimulus event in the role of Beneficiary, precisely the role in which the experiencer is cast in (17b,c).

11 The literature on the semantics of control has proposed factors such as the role of the participant in the matrix situation in bringing about the participant event (the event denoted by the embedded clause), the dependency relation between the matrix and the participant situation (Farcas 1988). These factors are not sufficient to distinguish between control and non-control adjectives in Japanese. As argued before, emotion adjectives, irrespective of their control properties refer to ‘emotional episodes’ episodes in which a Stimulus triggers an emotional reaction of an Experiencer. In this sense all adjectives denoting emotions describe situation in which the referent of the Experiencer argument is not in a position to control, in the sense of bringing about, the situation denoted by the embedded clause.

Pesetsky (1995) argued that the Stimulus argument of a psychological predicate can have different roles: it represents the Cause of the emotion for verbs such as *frighten*, *surprise*, *amuse* and the Target or Subject Matter in the case of verbs such as *fear*, *like*, *hate*. The distinction of the semantic role of the Stimulus is reflected by a different mapping between semantic roles and syntactic functions. While verbs in the same class have the Stimulus in subject position, for verbs in the second class the Stimulus

argument appears in object position. It is hard to argue for a similar distinction in the case of Japanese psych-adjectives since no difference regarding the mapping to syntax differentiates among the various members of the class; all psych adjectives display the same case marking possibilities. We are forced to conclude that the semantic role of the Stimulus is the same for both control and non-control adjectives.

12 It might be argued that the term ‘assert’ is too strong. However, the use of adjectives in this class normally presupposes the occurrence of an event. The adjectives are not normally used intransitively, like predicates referring to physiological states: *nemui*, *tsukareteiru*, etc. There are some differences of degree among adjectives. Some like *kanashii* (sad) appear more comfortable in the absence of a specific triggering event, while others, like *urayamashii* (envy) do not make sense on the mood reading. Even with adjectives like *kanashii* the intransitive use is the marked option. Expressions like ‘*nan to naku kanashii*’ (I feel sad for no reason in particular) do not show that the triggering event can be dispensed with. The urge to stress the fact that the emotion is unelicited marks this case as the exception, rather than the rule.

13 This process is similar to the phenomenon called COERCION in Pustejovsky (1995). Pustejovsky noticed that in interpreting the nominal in object position for verbs such as *enjoy* we perform a metonymical reconstruction of an event on the basis of the information provided by the nominal. The information is contained in the nominal’s lexical structure, more specifically in the component of the lexical structure he calls *qualia structure*. The *qualia structure* contains information regarding the composition, origin, purpose of the object denoted by the nominal. The nominal *book* in sentence (i) below will be coerced to an event interpretation. The default reading for the event is provided by the *telic quale* of the nominal, the *quale* coding information about the use of the object, in this case reading.

(i) I enjoyed the book

Although coercion can account for the interpretation of nominals in stimulus position of control predicates it cannot explain the behavior of non-control adjectives. Pustejovsky argues that the lexicon contains more information than it has been hitherto thought. We have mentioned *qualia structure* as part of a lexical entry. Besides, a predicate will be specified for event structure and argument structure. We have seen that sentences with nominals in stimulus position of non-control adjectives yield quite complex and specific implicatures. Although this information must be somehow contained in the semantic description of the adjective it does not seem possible, or desirable to include it in the lexical entry, even if we adopt Pustejovsky’s view of the lexicon. The interpretation of sentences in which non-control

adjectives take a nominal stimulus argument are better explained as the result of conventional implicatures. Once we have opted for implicatures rather than coercion in the case of non-control adjectives it seems more natural to adopt the same type of account in the case of non-control adjectives. Rather than using the mechanism of coercion we could say that control adjectives conventionally imply that the experiencer is involved in some activity, or to use the terminology introduced above, that a property is attributed to the experiencer. The specification of the activity is achieved on the basis of a nominal by retrieving the prototypical activity associated with that nominal.

14 The Ortony schema contains a variable that could be related to the control property, and this is **the strength of unit**, the degree to which the actual agent of the stimulus event is in a cognitive unit with the self. We could argue that control adjectives are adjectives expressing reactions to events, and which have high strength of unit: the agent is identical with the experiencer. Such a formulation would be, however, too strong. As argued in sections 2.2.2. and 2.2.3., the experiencer can be coreferential with some other participant in the stimulus event, ex 14-16 besides the Agent. In order to capture this fact we could reformulate the notion of strength of unit in such a way as to include not only the agent but also any participant in the stimulus event. Control adjectives would be adjectives displaying high strength of unit, in this sense. Introducing the notion of strength of unit does not enable us to predict correctly the class of control predicates. There are adjectives like *hazukashii* which imply a high degree of involvement of the experiencer in the stimulus event without belonging, for this, to the class of obligatory control adjectives.

15 The most obvious objection to this treatment is that Dowty's proposal is meant to account for structures displaying all the three control properties: (i) non finite form of the embedded predicate, (ii) the presence of a null argument in the embedded clause and (iii) the coreferentiality relation between this null element and an element in the matrix clause. As pointed out before, properties (ii) and (iii) may be absent from the Japanese structures under discussion. This seems to jeopardize an analysis within Dowty's framework: the presence of an overt subject in the embedded clause would seem to argue against interpreting these phrases as properties.

It should be noted, however, that even when the embedded subject and the Experiencer are not coindexed, the embedded clause always contains some element which is coindexed with the Experiencer. The most natural sentences are those where the 'gap' occurs in the subject position of the embedded clause. Sentences where the item interpreted as coreferential with the Experiencer is found in some other position are less acceptable, although they are better than constructions where the embedded clause contains no element which could be coindexed with the matrix subject.

Another important point is that, if we accept the VP internal subject hypothesis, we can still argue that the complement of *tanoshii* type adjectives is not a full sentence, but a VP. This treatment is in keeping with the properties of these adjectives. As argued before, the complement of adjectives in this class is always subject to tense control by the matrix predicate. The embedded clause, improperly called so, does not refer to actual events. It does not have a truth value. Dowty's analysis of control structures as predicates taking as complements VPs which semantically express properties, is still applicable. Japanese psych adjectives displaying tense control could be regarded as relations between individuals and properties.

16 There are some constructions that seem to contradict this observation.

- (i) a. *hazukashii-hanashi*
 embarrassing story
- b. *ureshii-yatsu*
 silly guy

In these cases we have an adjective belonging to the non-control class in adnominal modifier position. Unlike the examples in (39b,c) the phrase need not be interpreted relative to a particular experiencer, but can be seen as a simply attributing a property. It will be noticed, however, that there is a distinction between these cases and the objective reading of control adjectives. The meaning of the adjective is, in this case, slightly different from the normal interpretation. Thus, *hazukashii*, besides its initial sense of 'embarrassing' gets the additional sense of indecent. In the case of *ureshii* the semantic change is even more considerable. In (ib) *ureshii* means 'silly', 'naive'. This leads us to conclude that we do not deal with the same process as in the case of control adjectives. If for control adjectives we could posit a productive derivational rule deriving one-place, attributive adjectives from two-place psychological adjectives, in the case of non-control adjectives there seems to be a non-productive semantic shift.

17 There is a reading of *nikui* which could be described as an objective reading, that is the use of *nikui* in the sense of 'admirable'. As in the case of objective readings based on non-control adjectives the semantic shift is considerable. It is quite reasonable to argue that in this case, too, we are not dealing with a productive rule but with a case of homophony.

18 This distinction is reminiscent of the distinction between individual-level and stage-level

predicates. The relation between stage-level predicates and emotion predicates will be discussed in Chapter 5.

Chapter 3

1 Although Japanese and Romanian are similar in having a large number of constructions available for encoding emotions, the similarity, naturally, stops here. The Nominative-Dative pattern, found in Japanese, is not associated with emotion predicates in Romanian, and the double Nominative pattern is altogether unavailable. Japanese, on the other hand, has no reflexive verbs. Even the Nominative-Accusative and the Dative Nominative patterns, found in both languages, can be shown, upon closer scrutiny, to display quite different properties. The Dative Experiencer in Japanese has more subject properties than the Dative Experiencer in Romanian. It will be argued that the Nominative-Accusative class in Japanese can be divided into two subclasses, depending on the aspectual properties of the predicates. The ‘activity’ subclass is peculiar to Japanese and cannot be found in Romanian.

2 The analysis proposed by Belletti and Rizzi is inspired by the account proposed by Perlmutter (1984) for another class of emotion verbs, verbs which, like *piacere* in Italian, mark the experiencer argument with the dative and the theme argument with the nominative case. Perlmutter noted that the dative argument of such verbs displays both subject and object properties. Like subjects it can control into a complement clause and it can be the antecedent of a reflexive, unlike subjects, the dative does not control agreement, it does not allow quantifier float and it cannot be controlled. The solution offered by Perlmutter is inversion: the experiencer argument is an underlying subject which finished as an indirect object in surface structure. Perlmutter regards the existence of structures involving the same predicates in which the experiencer appears as a nominative subject as an argument for his account. He does not discuss the relation between the two constructions and does not try to offer a semantic motivation for the inversion. The lack of semantic motivation for the proposed structure is what B&R’s analysis has in common with Perlmutter’s account and what stimulated the search for alternative solutions.

3 Pesetsky observes that the class of EO verbs is not completely uniform semantically: that some verbs have stronger stative features than others do. He also notes that the manner of outbreak of the emotion may have syntactic consequences: verbs which refer to imperceptibly growing emotions such as *bore*, *preoccupy* have stative character. Bouchard discusses the influence of the expressiveness of the stimulus on the availability of a reflexive form with EO verbs. Neither of the authors attempts to integrate

these observations in their systematic account of EO verbs.

4 Belletti and Rizzi (1988) argued that in the underlying structure of EO verbs the experiencer argument is more prominent than the Theme argument, but it does not surface in subject position because it is assigned inherent accusative case. The nominative case remains unassigned and the theme argument moves to subject position to receive it. On their analysis, EO verbs are not transitives but unaccusatives. This account is supported by arguments regarding the behavior of EO verbs with respect to passivization, reflexivization, *ne*-cliticization, etc. EO verbs do not passivize, they have adjectival rather than verbal passives. A nominal in subject position cannot be the antecedent of an anaphor in object position, but the reverse; namely a nominal in object position anteceding an anaphor in subject position is acceptable.

5 VanVoorst argues that all emotion verbs have the same aspectual status, combining the properties of states and achievements. We shall show later that VanVoorst's aspectual characterization of emotion predicates, though true with respect to EO verbs, is not entirely accurate as far as ES verbs are concerned.

6 The behavior of EO verbs with respect to nominalization was noticed and discussed before in Amritavalli (1980), Rappaport (1983), Grimshaw (1991). Grimshaw argued that EO verbs do not have related process nominals, but only result nominals. The derivation of process nominals is a syntactic process applying to predicates which have an external argument and resulting in the absorption of this argument. The reason EO verbs do not have related process nominals is that they lack an external argument. Result nominals, on the other hand are derived in the lexicon and do not require an external argument. She supported her argument by paradigms such as (i) below.

- (i) a. John's public embarrassment/humiliation of Mary
- b. Mary's embarrassment/humiliation
- c. The embarrassment/humiliation of the by standards

The nominal in (ia) is an agentive process nominal and the one in (ib) is a result nominal. In (ic) we have a double ambiguity, between the interpretation as a result nominal and the interpretation as an agentive process nominal, and not the three-way ambiguity which would arise if the non-agentive EO verbs had an external argument; the non-agentive process reading is not available in (ic).

7 The crucial role played by the reflexive clitic is explained in the following manner. Assuming that the external argument of the bound experiencer roots must be controlled by an internal argument, the reflexive clitic construction is the only structure available for these verbs. The reflexive clitic is argued to occupy the external argument position. In order to be able to control it, the internal argument, the experiencer, must move to a position from which it c-commands the external argument. Given the clitic nature of the reflexive, it does not occupy the IP Spec of the verb, leaving this position empty for the experiencer argument to move into. Such a configuration is dependent on the availability of reflexive clitics. Regarding the nature of the controlled argument, Pesetsky suggests that it might be similar to the ambient *it* which occurs with weather verbs, as in *it rained*, *it snowed*, etc. With emotion verbs the semantic role of the argument would be to express the internal cause of the emotion, whence the name of A-Causer or Ambient-Causer.

8 In Romanian nominalizations of transitive verbs are always passive. EO verbs pattern with regular transitives in marking the verbal object with the genitive. They differ, however, in the marking of the subject argument. In nominalizations of agentive transitives the subject of the verb is marked with the same preposition as the passive agent. The stimulus argument of an EO verb cannot receive this marking when the verb is nominalized, or passivized. Instead, the prepositions used to mark the stimulus in reflexive or adjectival passive constructions are used. This is not surprising, in view of the fact that these verbs do not take an agent argument and, consequently, cannot co-occur with the passive agent marker. Besides, the fact that the passive agent marker is used in nominalizations indicates that, in Romanian, nominals can th-mark a single argument and that a distinct th-marker is necessary in order to assign a thematic role to other arguments of the base verb. The choice of th-marker is obviously determined by the argument structure of the verb. As a consequence, a verb which does not assign an agent role will not have a nominal form in which the subject argument appears accompanied by agentive marking.

- (i) a. Barbarii au distrus Roma
 barbarians aux destroy Rome
 The barbarians destroyed Rome
- b. distrugerea Romei de catre barbari
 destruction Rome-GEN P barbarians
 destruction Rome-gen P barbarians
- c. *distrugerea barbarilor de Roma
 destruction barbarians-GEN P Rome

(ii)	a.	Studiul	il	plictisește	pe	Marin
		studying	CL	bore	P-ACC	Marin
		Studying bores Marin				
	b.	plictiseala	lui Marin	<u>de</u>	studiu	
		boredom	GEN-Marin	P	studying	
		Marin's boredom with studying				
	c.	*plictiseala	studiului	de	Marin	
		boredom	study-GEN	P	Marin	

The verb in (i) is agentive. In the nominalization the agent appears in a prepositional phrase, accompanied by the agent marker *de catre*. Unlike the agentive verb in (i) the nominalization of the emotion verb in (ii) marks the verbal subject with *de*, the preposition used to mark non-agentive subjects in passive constructions. Depending on the verb, other choices of preposition are available; i.e. the prepositions idiomatically used in reflexive and passive constructions can occur in nominalizations, too.

9 In spite of the formal notation, Pustejovsky's analysis at this point is far from clear. He posits a syntactic structure for EO verbs, where the experiencer argument controls into the subject clause, the clause expressing the perception event identified with the causing event. At the same time, he includes the very same event in the event structure of the verb and marks it as head. The only way to derive the aspectual properties of EO verbs would be by somehow excorporating the causing event from the event structure of the verb and placing it in subject position. Unless such an operation is performed, the failure of EO verbs to behave like accomplishments is not predicted by the proposed description. Pustejovsky does not propose any such operation. Instead he makes some rather vague and unconvincing remarks on the, supposed, influence of *reconstructed event type* from the subject position on the aspectual interpretation of the experiencer predicate. (cf.: Pustejovsky, 1995: 213)

10 It seems that only part of the EO verbs impose on the nominal in subject position the type of interpretation predicted by Pustejovsky. This property is linked in Romanian to the verb's ability to take a subjunctive clausal complement. In this case, the experiencer controls the subject of the subjunctive clause. Romanian EO verbs allow nominal arguments, clausal arguments introduced by the noun *fapt* (fact) and, sometimes experiencer controlled subjunctive clauses in subject position. Basically all EO verbs admit subjunctive clausal complements where the predicate of the complement clause is a perception verb like *auzi* (hear) or *vedea* (see). Some EO verbs admit a wider range of predicates in the

subjunctive clause. These are the verbs for which the interpretation of nominals referring to artifacts proceeds in the manner described by Pustejovsky.

- (i) a. ?Pe Ion l-a chinuit sa auda
P-ACC Ion CL-aux torture COMP hear
cum va certati
how you quarrel
It distressed Ion to hear how you were quarreling
- b. *Pe Ion il chinuie sa vorbeasca
P-ACC Ion CL torture COMP talk
- c. Pe Ion l-a chinuit cartea/ filmul
P-ACC Ion CL-aux torture book/movie
The book/movie distressed Ion
- (ii) a. Pe Ion l-a amuzat sa vada
P-ACC Ion CL-aux amuse COMP see
ca toti danseaza
COMP all dance
It amused Ion to see that everyone was dancing
- b. Pe Ion il amuza sa danseze
P-ACC Ion CL amuse COMP dance
It amuses Ion to dance
- c. Pe Ion l-a amuzat cartea/ filmul
P-ACC Ion CL-aux amuse book/movie
The book/movie amused Ion
- (iii) a. Pe Ion l-a mirat sa auda
P-ACC Ion CL-aux surprise COMP hear
ca ai plecat
COMP you left
It surprised Ion to hear that you left
- b. *Pe Ion l-a mirat sa citeasca ziarul
P-ACC Ion CL-aux surprise COMP read newspaper

c. Pe Ion l-a mirat cartea/ filmul
 P-ACC Ion CL-aux surprise book/movie
 The book/movie surprised Ion

The interpretation of the nominative nominal is different in each of the three examples above. In (iic) we have an interpretation along the lines of Pustejovsky's analysis. With the verb *mira* (surprise) for predicate, there is no unique default interpretation. In the absence of a clarifying context we tend to think that something about the content of the book/ movie or something related to the release of the book/ movie caused Ion's surprise. In order to interpret (ic) we need more imagination, as there is no available default reading. These examples show that there is no ready-made interpretation for nominal subjects of EO verbs. The fact that controlled clauses involving perception predicates are possible with most verbs, albeit the variation in acceptability, see (ia), gives support to Pustejovsky's claim that the emotion can be elicited by an experiencing event. The rest of the data, however, seems to indicate that experiencing events are just one of the possible causes of emotions, not the only one.

There is a subclass of EO verbs which display all the three symptoms discussed by Pustejovsky: open allusion to an experiencing event in the subject clause, control by the experiencer argument into the subject clause, metonymical interpretation of a nominal argument. Verbs in this category are: *amuza* (amuse), *calma* (calm), *distra* (divert), *delecta* (delight), *dezgusta* (disgust), *enerva* (irritate), *infuria* (infuriate), *inveseli* (cheer), *plictisi* (bore), *scirbi* (nauseate). But even for these verbs, it is difficult to defend the position that an experiencing event is always linguistically implied.

11 A possible candidate would be *know*, or rather *come to know*. Since these clauses are factive, we would need a factive verb. This rules out *believe* as a possible candidate. It is not clear that making *know* an obligatory component of the linguistic structure of emotions is a welcome move. Notice that deleting the head nominal *fapt* and treating the constituent as an event at the semantic level does not solve the problem. We would still need to supply the experiencing predicate on the basis of the event.

12 Van Valin and LaPolla are more careful and offer the following paraphrase for the same sentence.

(i) The dog caused the boy to fear/be afraid

While the *be afraid* variant is an acceptable English sentence, the paraphrase with *fear* is not.

Chapter 4

1 The verbs *fear* and *frighten* are etymologically related.

2 The distinction between dispositions and occurrences is more frequently used in the philosophical domain. In psychology it is more common to refer to the distinction between states and traits.

"Typically, person attributes are viewed as more or less statelike or more or less traitlike. The two concepts are not sharply differentiated because they overlap in meaning. Terms denoting moods and feelings refer to brief and temporary experiences that are manifested sporadically and irregularly. In general states are feelings and moods evoked by situational pressures, social-environmental conditions, or temporary physiological changes. Traits, in contrast, are viewed as stable, long-lasting, behaviors manifested in a variety of situations" (Maurice Lorr 1989: 38).

The temporal contrast implied is the same, but as the use of the term 'attributes' in the quotation above indicates, psychologists have in mind mainly properties, one place predicates, rather than two place predicates. Since we adopt the view of emotion as 'intentional states', states directed or triggered by a stimulus and discuss mainly two argument predicates, we shall adopt the terminology favored by philosophers.

Chapter 5

1 In Romanian there is no distinct marking for the progressive in the present, although there is in the past. In spite of the lack of formal marking, the restrictions regarding possible interpretations are the expected ones. A sentence such as (9a) will receive a progressive interpretation rather than a habitual or generic one, given the properties of the internal argument. For this reason (9a) was treated as semantically expressing the progressive. The fact that the implication relation holds in the past, where the progressive is properly marked, proves the point.

2 Romanian has three past forms: *perfectul compus* (the complex perfect), *perfectul simplu* (the simple perfect) and *imperfectul* (the imperfective). The last is progressive and the first two are non-

progressive. The simple perfect is not used much in the standard language. The complex perfect covers a semantic area corresponding roughly to that expressed by means of the past tense and the present perfect in English.

3 The discussion is limited to stative causative emotion predicates. Finnish has two aspectually distinct classes of EO predicates, both formed by attaching causative morphology to ES forms. The EO predicates discussed in this chapter are semantically closer to the non-stative EO predicates in Finnish.

4 This possibility was suggested to me by Prof. Takezawa Koichi (p.c.).

Chapter 6

1 Another account of experiencer causatives which makes crucial use of the assumption that the input for causativization is an intransitive form is Katada (1997). Katada borrows heavily from Kuroda (1965) and in the process loses sight of some major intuitions in the original analysis. The basic tenets of his account are:

- i. experiencer verbs are weakly transitive, i.e. they can undergo a process of intransitivization
- ii. the input of causativization is the intransitive form
- iii. there is no identity between the subject of the causative form and the object of the plain form. When such an identity obtains it is accidental

Katada's analysis fails on the following counts. In his eagerness to simplify the lexical rule of causativization he denies the difference between agentive and non-agentive readings of experiencer causatives. McCawley (1976) offers convincing proof that the two readings are associated with different syntactic properties.

His account does not explain why causativization must follow intransitivization in the case of experiencer verbs, why standard causative constructions involving experiencer verbs are unacceptable. He does not explain why the cause in experiencer causative construction is never marked with *-ni*, not even when the causer is an agent. (Kuroda blocked the possibility of *-ni* marking by assuming that recurrent object reduction applies after *-o* replacement). His discarding the identity between the referent of the subject of the causative form and the object of the plain form as a

mere accident is not convincing: if this were so, why does this accident fail to occur with other weakly transitive verbs? What is more, the evidence he offers for the weakly transitive nature of experiencer verbs is questionable. While Kuroda avoided the argument from interpretation (we can understand the sentence without reference to any object), Katada makes heavy and dubious use of it. He argues, for instance, that a sentence like “*Hanako ga totemo kanashinda*” can be interpreted without implying the existence of an object.

The more palpable evidence for intransitivization is blatantly mistaken. He defines a weakly transitive verb as one which embedded in a causative structure gives rise to an ambiguity: the cause can be conceived either as subject or as object of the constituent predicate. He offers (iv) as illustration, but a look at the verbs which he declares are weakly transitive, example (v) shows that they give rise to no ambiguity: the cause is always identified as the subject. Kuroda’s initial definition made the correct prediction.

- (iv) Jiko no nyuusu ga [yukue fumei no musuko] o shinpai saseta
 The news of the accident worried the missing son
 The news of the accident made someone worry about the missing son
- (v) Jiko no nyuusu ga [yukue fumei no musuko] o kurushimeta
 The news of the accident pained the missing son

A point in Kuroda’s initial analysis which was criticized by McCawley was the rule of recurrent object deletion. Kuroda assumed that the underlying structure of experiencer causatives is of the form (vi) and the surface form is derived by means of object deletion. He stressed that the derivation is available only for experiencer verbs.

- (vi) ongaku ga [John o ongaku o tanoshim]-saseru
 music-NOM [John-ACC music-ACC V] SASE

McCawley challenged the analysis by pointing out that it cannot account for sentences where the causer has the features [+Human]. Such nominals are not allowed in object position of the plain forms. Katada solves the problem of the object by applying intransitivization before causativization. As we have seen the solution is problematic.

2 The details of the analysis are actually more complex. McCawley argues that S(1) contains

an abstract perception predicate whose subject is again the experiencer. It is the experiencer in this position which antecedes an anaphor contained in S(2). This analysis is borrowed by Pustejovsky and rephrased in terms of his theory of the Generative Lexicon. The arguments offered by McCawley to support the postulation of a perception predicate consist in the availability of sentences such as (i) and the unacceptability of sentences such as (ii).

- (i) Hiroshi wa, haha ga gan de nakatta koto o
 shitte/ satotte/ kiite/ hakkenshite yorokonda
 Knowing/ realizing/ hearing/ discovering that mother did not have cancer pleased Hiroshi
- (ii) *Hiroshi wa, haha ga gan de nakatta koto o soozoo shite/ hitei shite yorokonda
 Imagining/ denying that mother did not have cancer pleased Hiroshi

Pustejovsky argues for the presence of an experiencing predicate in the subject of Experiencer Object verbs in English on the basis of the interpretation of nominals in this position. He observes the semantic similarity between sentences (iii) and (iv) below and suggests that metonymic reconstruction of an event on the basis of the subject nominal in (iii) is forced by the semantic structure of the experiencer predicate.

- (iii) Books bore me
- (iv) Reading books bores me

Both authors sin by introducing redundant information in the syntactic or lexical structure of these verbs. There are contexts where, although we interpret the subject of an EO verb as referring to an event, this is not an experiencing event. Take for instance (v) below.

- (v) Sono purezento ga haha o yorokobaseta
 That present pleased mother

What caused mother's joy seems to be not perceiving the present but receiving it. The fact that the experiencer is aware of the stimulus of the emotion is part of the preparatory conditions on the emotional situation and need not be specified in the syntax or in the lexical description of the emotion predicate. As argued in chapter 2, however, the fact that these predicate select events in subject position needs to be specified in the lexicon.

3 The existence of a genuinely intransitive form of the verb is difficult to decide in Japanese because the language allows object deletion. It is difficult to ascertain whether a sentence missing the object is a case of contextual object drop or evidence for the existence of an intransitive form. That is why Kuroda talked about intransitivization of emotion verbs only in the context of causativization.

4 Pesetsky argued that Causer and Target cannot co-occur. This restriction would rule out the three argument construction with *odoroku*, but it would equally rule out the constructions with *satoru*, *kangaeru* and *ai suru*.

5 Nakamura (2000:215) addresses the question of “whether or not there is any predictable pattern in the typological distribution of two-place psych verbs”, and suggests that languages can differ in their choice of the basic event schema. He notes that significant differences among languages are observed in the case of causative-inchoative pairs of psych verbs. Taking morphological markedness as a guide to conceptual markedness, Nakamura concludes that some languages, such as Japanese have a change-of-state part as their basic event schema, whereas other languages, such as French, Russian, Icelandic, etc. are causation oriented.

Although we have explicitly rejected the inchoative- causative analysis of emotion predicates, Nakamura's conclusions are very close to the approach suggested here in three respects: (i) the assumption that languages are parametrized with respect to the choice of basic perspective on emotional events, (ii) the role played by morphology in shifting the perspective and (iii) signaling conceptual markedness.

Nakamura seems to regard the typological distinction in the choice of basic event schema for psychological verbs as the reflex of a more general orientation of the languages discussed. The behavior of psych verbs is seen as an argument in favor of the hypothesis that that Japanese is a ‘BECOME’ language, while English is a ‘DO’ language (cf. Nakamura op.cit.: 217).

As already mentioned, the present paper is not a typological work. Our main purpose is to offer an account of emotion predicates that will suggest an explanation for the formal variation observed in this lexical domain. We have argued that the formal variation found with emotion predicates can be traced back to the complexity of emotional episodes. Our approach predicts that significant differences among languages are not limited to two patterns, but can involve any number of patterns. Whether the choice of one or another perspective by a specific language is symptomatic of a more general tendency of the respective language, is a matter beyond the scope of this paper.

Chapter 7

1 Adjectives like *suki*, *kirai*, *konomashii* do not display the person restriction. As mentioned before, this is not a consequence of their reduced degree of subjectivity but the fact that they express emotional dispositions. The person restriction was argued to occur only with emotion predicates expressing occurrences.

2 Psychological tests have demonstrated that there is a large amount of cross-cultural stability in the (facial) expression of emotion and in the recognition of such expression. This observation lies at the base of the ‘efference theory’ which claims that there is an underlying innate emotion program for each of a number of primary emotions (Izard 1977; Eckman 1972). The program includes automatic messages to the facial musculature, with the effect that, unless voluntarily controlled, facial expression will change accordingly. It is very likely that the laymen’s understanding of emotions reflects the important role played by outer emotional manifestations. In Japanese this information has been linguistically encoded and as a semantic feature defining a class of predicates.

3 This description is not new. It is present in Sugioka’s definition of the effect of *-garu* affixation. Nishio (1993) stresses the activity characteristics of these verbs. In his semantic analysis of the verb *yorokobu* he points out the fact that, unlike the semantically related adjective *ureshii*, the verb does not express the emotional state itself, but the ‘movements’ of the experiencer. He adds that the activities of the experiencer are presented in an objective fashion. We consider the introductions of notions such as ‘objective’ and ‘subjective’ unfortunate. Although such notions are useful for a pragmatic analysis they do not seem to have any palpable reflection in the lexical composition of emotion predicates in Japanese.

4 The expressive function of emotional statements, such as *I love you*, has been discussed by philosophers. Lyons (1980) argues that emotional statements can be used to: report emotions, interpret them and express them. The expressive use, unlike the others, is present only in first person statements, but its status is not unanimously recognized. The expressive function of emotional statements, if accepted, is on a par with other emotional manifestations, like tone of voice, facial expression, etc. It is not to be confused with the meaning of emotion predicates. It seems that researchers like Sawada who identify declare the expressive function the unique role of emotion adjectives in Japanese fall victims to this very confusion.

5 Maeda (1993), for instance, comments that the person restriction is strong with adjectives although it is rarely associated with verbs.

Chapter 8

1 The correctness of the unaccusative analysis for EO verbs in English and other European languages has been challenged on syntactic grounds by Pesetsky (1995) and on semantic grounds by Bouchard (1995). As discussed in Caluianu (1999) there is a lot of disagreement among researchers with respect to the interpretation of the data.

2 In chapter 5 we suggested as a possible source for the lack of a fixed direction of binding with Japanese experiencer causatives the event structure of these predicates. We argued that, unlike most predicates, these forms do not contain in their event structure a subevent where the referent of the anaphor and that of its antecedent interact directly. In the absence of such a (sub)event the prominence relation between the two participants cannot be established. We suggested that in Japanese this semantic configuration inhibits the application of the structural conditions on binding. The same event structure can be attributed to Romanian EO verbs. Unlike Japanese, however, the structural condition on binding cannot be violated in this language, owing probably to the morpho-syntactic peculiarities of anaphoric elements. The lack of a fixed directionality of binding, present with other predicates, is found in this language too.

3 We could regard this expansion of the transitive pattern as a case of DOMAIN SHIFT. Croft characterized DOMAIN SHIFT as the process through which a form used in a particular domain is extended to apply to a parallel domain. The parallelism in this case is provided by the features of the participants. The constructions which allow the use of the transitive pattern with adjectives involve two human participants, and are in this sense, conform to the transitive prototype.

References

- 浅原由愛(et al), (1989) 「感情を表わす形容詞の類義関係」『日本語の語彙の構造 2』、昭和 63 年アンケート調査報告、荻野網男(編)
- 東弘子(1993) 「統辞的特徴による感情形容詞の意味記述」『名古屋大学国語国文学』第七十二号抜刷
- Belletti, Adriana and Luigi Rizzi (1988) Psych verbs and θ -theory, *Natural Language and Linguistic Theory* 6, 291-352.
- Bouchard, Denis (1995) *The Semantics of Syntax*, Chicago: The University of Chicago Press.
- Bresnan, Joan (ed.) (1982) *The Mental Representation of Grammatical Relations*, Cambridge: The MIT Press.
- Caluianu, Daniela (1996) Case patterns with subjective adjectives, *Tsukuba Ooyoo Gengogaku Kenkyuu* 3, 27-40.
- , --- (1999) Semantic parameters of emotion predicates in Japanese and Romanian, *Proceedings of the 118th meeting of the Linguistic Society of Japan*, 213-218.
- , --- (2000) Emotion verbs in Romanian, In Ritsuko Kikusawa and Kan Sasaki (eds.), *Modern Approaches to Transitivity*, 143-194. Tokyo: Kurosio Publishers.
- Carlson, Greg (1977), *Reference to Kinds in English*, Ph.D. dissertation, University of Massachusetts, Amherst
- Chomsky (1970) Remarks on nominalization, In R.A. Jacobs and P.S. Rosenbaum (eds.), *Readings in English Transformational Grammar*, 184-221. Waltham, MA.: Ginn.
- Croft, William (1991) *Syntactic Categories and Grammatical Relations*, Chicago: The University of Chicago Press.
- Diesing, Molly (1991) *Indefinites*, Cambridge: The MIT Press
- Dowty David (1979) *Word Meaning and Montague Grammar*, Dordrecht: D. Reidel Publishing Company.
- , --- (1985) On Recent Analysis of the Semantics of Control, *Linguistics and Philosophy* 8, 291-331
- , --- (1991) Thematic proto-roles and argument selection, *Language* 67, 547-619.
- Drijkoningen, Frank (2000) Experiencer Objects, In Peter Coopmans, Martin Everaert

- and Jane Grimshaw (eds.), *Lexical Specification and Insertion*, John Benjamins Publishing Company, Amsterdam, Philadelphia
- Dubinsky, Stanley (1992) Case assignment to VP-adjoined positions: nominative objects in Japanese, *Linguistics* 30, 872-910
- Eckman, P. (1972) Universals and cultural differences in facial expressions of emotion, In J. Cole (ed.), *Nebraska Symposium on Motivation* Vol. 19, 207-283. Lincoln: University of Nebraska Press
- Farkas, Donka (1992) On Obviation, In Ivan A. Sag and Anna Szabolcsi (eds.), *Lexical Matters*, Stanford: CSLI.
- Filip, Hana (1996) Psychological predicates and the syntax-semantics interface, In Adele Goldberg (ed.), *Conceptual Structure, Discourse and Language*. 131-147. Stanford: CSLI.
- Fisher, Agneta H. (1991) *Emotion Scripts: A study of the social and cognitive facets of emotions*, DSWO Press, Leiden University
- Goldberg, Adele (1995) *Constructions*, Chicago: Chicago University Press.
- Grimshaw, Jane (1979) Complement selection and the lexicon, *Linguistic Inquiry* 10, 279-326.
- , --- (1981) Form, function and the language acquisition device, In C.L. Baker and J.J. McCarthy (eds.), *The Logical Problem of Language Acquisition*, Cambridge: The MIT Press.
- , --- (1982) On the lexical representation of Romance reflexive clitics, In Joan Bresnan (ed.) 1982, 87-148.
- , --- (1991) *Argument Structure*, Cambridge: The MIT Press.
- Harris, Paul L. (1993) Understanding Emotion, In Michael Lewis and Jeannette M. Haviland (eds.), *Handbook of Emotions*, 242-3. New York: The Guilford Press.
- Hopper, Paul and Sandra Thompson (1980) Transitivity in Grammar and Discourse, *Language* 56, 251-299.
- 飛田良文・浅田秀子 (1991) 『現代形容詞用法辞典』東京堂出版
- 細川英雄 (1989) 「現代日本語の形容詞の分類について」『国語学』158
- Hume, David (1978/1739) *A Treatise of Human Nature*, Oxford University Press
- Iwasaki, Shoichi (1993) Subjectivity in Grammar and Discourse, *Studies in Discourse and Grammar* Vol 2, Amsterdam: John Benjamins Publishing Company.
- Izard, C. (1977) *Human Emotions*, New York: Plenum Press

- Jacobson, Pauline (1990) Raising as Function Composition, *Linguistics and Philosophy* 13.
- Katada, Fusa (1997) Experience versus Non-Experience Assymetries in the Causative System, In James R. Black and Virginia Motapanyane (eds.), *Clitics, Pronouns and Movement*. 133-150. Amsterdam: John Benjamins Publishing Company.
- Kenny, Anthony (1963) *Action, Emotion and Will*, London: Routledge and Kegan Paul.
- 金水敏 (1989) 「報告」についての覚書『日本語のモダリティ』仁田義雄・益岡隆志編,くろしお出版、東京
- Kratzer, Angelika (1989) Stage and Individual Level Predicates, In *Papers on Quantification*, NSF Grant Report, Department of Linguistics, University of Massachusetts, Amherst.
- 工藤真由美 (1995) 『テンス・アスペクト体系とテキスト』ひつじ書房.
- Kuroda S.-Y. (1965) Causative Forms in Japanese, *Foundations of Language* 1, 30-50
- , --- (1978) Case marking, canonical sentence patterns and counter-Equi in Japanese (a preliminary survey), In J. Hinds and I. Howards (eds.), *Problems in Japanese Syntax and Semantics*, Tokyo: Kaitakusha
- Lakoff, George (1965) *On the Nature of Syntactic Irregularity*, Unpublished PhD. dissertation. Indiana University.
- , --- (1970) *Irregularity in Syntax*, New York: Holt, Rinehalt and Winston, Inc.
- Lakoff, G. and Z. Kovecses (1987) The cognitive model of anger in American English, In D. Holland and N. Quinn (eds.), *Cultural Models in Language and Thought*. 195-222. Cambridge: Cambridge University Press.
- Landau, Idan (1999) Psych-adjectives and semantic selection, *The Linguistic Review* 16, 333-358.
- Lazarus, Richard S., Kanner Allen D., and Folkman Susan (1980) Emotions: a Cognitive-Phenomenological Analysis, In Robert Plutchik and Henry Kellerman (eds.), *Emotion, Theory, Research and Experience*, vol 1, Academic Press, Inc.
- Levin, Beth (1993) *English Verb Classes and Alternations: A Preliminary Investigation*, Chicago: The University of Chicago Press.
- Levin, Beth and Malka Rappaport (1986) The formation of adjectival passives, *Linguistic Inquiry* 17: 623-663.
- Lidz, J. (1995) On the Non-Existence of Reflexive Clitics, In Audra Dainora *et al* (eds.),

CLS 31, Vol 2: *The Parasession on Clitics*.

- Lorr, M. (1989) Models and methods for measurement of mood, In James A. Russell
Lyons, William (1980) *Emotion*, Cambridge Studies in Philosophy, Cambridge:
Cambridge University Press.
- McCawley, Noriko A. (1976) On Experiencer Causatives, In Masayoshi Shibatani (ed.),
Syntax and Semantics 6, 181-205, New York: Academic Press.
- , --- (1976) Reflexivization: A Transformational Approach, In Masayoshi Shibatani
(ed.), *Syntax and Semantics* 5, 51-115, New York: Academic Press.
- Miller, George and Christiane Fellbaum (1991) Semantic Networks of English, in Beth
Levin and Steven Pinker (eds.) *Lexical and Conceptual Semantics*, 197-229,
Cambridge, MA: Blackwell
- Nakamura, Wataru (2000) Psych Verbs and a Typology of Event Structures, In Ritsuko
Kikusawa and Kan Sasaki (eds.), *Modern Approaches to Transitivity*, 195-223.
Tokyo: Kurosio Publishers.
- 西尾 寅弥 (1972) 『形容詞の意味・用法の記述的研究』 国立国語研究所報告44、
秀英出版
- 大江三郎 (1975) 『日英語の比較研究』 南雲堂
- Ortony, Andrew, Gerald L. Clore, and Allan Collins (1988) *The Cognitive Structure of
Emotions*, Cambridge: Cambridge University Press.
- Perlmutter, David M. (1984) Working 1s and Inversion in Italian, Japanese and Quecha,
In D. Perlmutter and C. Rosen (eds.), *Studies in Relational Grammar* 2,
Chicago: The University of Chicago Press.
- Pesetsky, David (1991) *Zero Syntax II*, MS. MIT.
- , --- (1995) *Zero Syntax*. Cambridge: The MIT Press
- Pollard, Carl and Ivan Sag (1992) Anaphors in English and the scope of binding theory,
Linguistic Inquiry 23: 261-303.
- Pustejovsky, James (1995) *The Generative Lexicon*, Cambridge: The MIT Press.
- Pylkkanen, Liina (2000) On Stativity and Causation, In Carol Tenny and James
Pustejovsky (eds.) *Events as Grammatical Objects*, CSLI Publications, Stanford,
California
- Russell, J.A. (1989) Culture, scripts and children's understanding of emotion, In C.
Saarni and P.L. Harris (eds.), *Children's Understanding of Emotion*. 293-319.
Cambridge: Cambridge University Press.

- Saito, Mamoru (1982) Case marking in Japanese: a preliminary study, MS. MIT.
- 澤田治美 (1993) 『視点と主観性—日本語助動詞の分析—』 ひつじ書房
- Scherer, R. Klaus (ed.) (1988) *Facets of Emotion-Recent Research*, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Shibatani, Masayoshi (1976) Causativization, In Masayoshi Shibatani (ed.), *Syntax and Semantics 5*, 51- 115, New York: Academic Press
- , --- (1990) *The Languages of Japan*, Cambridge: Cambridge University Press.
- , --- (1999) Non-canoninal constructions in Japanese, MS. Kobe University.
- de Sousa, Ronald (1987) *The Rationality of Emotion*, Cambridge: The MIT Press.
- Sperber, Dan and Deirdre Wilson (1986) *Relevance: Communication and Cognition*, Oxford: Blackwell.
- Sugioka, Yoko (1986) *Interaction of Derivational Morphology and Syntax in Japanese and English*, New York: Garland Publishing.
- 杉岡洋子 (1992) 「心理述語についての考察」、慶応義塾大学言語文化研究所記要、第 24 号, 361-373.
- Takezawa, Koichi (1987) *A configurational approach to case marking in Japanese*, Unpublished Ph.D. dissertation, University of Washington, Seattle.
- 寺村秀夫 (1973) 「感情表現のシンタクス」『言語』
- , --- (1982) 『日本語のシンタクスと意味』、第一巻、くろしお出版、東京
- 時枝誠(1959) 『古典解釈のための日本文法』、至文堂
- Van Valin, Robert and Randy LaPolla (1997) *Syntax*, Cambridge Textbooks in Linguistics, Cambridge University Press.
- Van Voorst, Jan (1992) The aspectual semantics of psychological verbs, *Linguistics and Philosophy* 15, 65-92.
- White, Geoffrey M. (1994) Affecting Culture: Emotion and Morality in Everyday Life, In Kitayama Shinobu and Markus Hazel Rose (eds.), *Emotion and Culture: Empirical Studies of Mutual Influence*, 219-239, American Psychological Association Washington, DC.
- Wierzbicka, Anna (1992) *Semantics, Culture and Cognition*, Oxford: Oxford University Press.
- , --- (1994) Emotion, language and cultural scripts, In S. Kitayama and H.R. Markus (eds.), *Emotion and Culture*. Washington, DC.: American Psychological Association.

---, --- (1999) *Emotions across Languages and Cultures*, Cambridge University Press

Wittgenstein, L (1976) *Philosophical Investigations*, Oxford: Basil Blackwell.

* * * (1990) 日本語基本形容詞辞書 IPAL(Basic Adjectives),情報処理振興事業協会