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# *Rethinking Italian psychological verbs*

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| **Coordinatrice del Dottorato** | **Tutrice del dotttorando** |
|---|---|
| **Prof. Alessandra Giorgi** | **Prof. Alessandra Giorgi** |

*The philosophers have only interpreted the world in various ways.*
*The point, however, is to change it.*

(K. Marx, *Theses On Feuerbach*)

*Omnia sunt communia.*
(Wu Ming, *Q*)

CONTENT

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**Abstract:**

In the literature, psych-verbs are known to exhibit some peculiar properties with respect to the theta-assignment, in that their Experiencers can be realized either a subjects (Subj-Exp verbs) or objects (Obj-Exp verbs) (Pesetsky 1995, Arad 1998), contrary to what predicted by the UTAH (Baker 1988). Traditionally, Subj-Exp verbs have been analysed as transitive, while Obj-Exp verbs as unaccusative (Belletti&Rizzi 1988). In the present work, new empirical data contrasting this hypothesis will be presented and an alternative account for their special behaviour with respect to different diagnostics will be proposed. In particular, the claim will be made that the interplay between the semantics and the syntax of psych-verbs plays a crucial role in their derivation and that the linear differences between different classes of psych-verbs are the superficial manifestation of different syntactic derivations. More specifically, it will be shown that the Subj-Exp vs. Obj-Exp distinction is related the absence vs. presence, respectively, of a causative zero-morpheme.

# FOREWORD

This work is divided into five sections. Section I is a brief introduction to the proposed analysis. A presentation of the issue and state of the art will follow[1].

Section II contains a brief review of the main publications concerning Italian psychological verbs (henceforth psych-verbs). In Italian, these predicates seem to have a "free" syntax with respect to word-order and other linguistic diagnostics. As a consequence, Italian psych-verbs present a challenge to the the widely assumed syntactic generalization stated in the UTAH (Baker, 1988).

In the remainder of the section, I will discuss the analysis proposed by Belletti and Rizzi (1988). According to the authors, psych-verbs can be subdivided into three classes, i.e., *temere* (to fear), *preoccupare* (to worry) and *piacere* (to please) verbs. I show that such an analysis can no longer be maintained. In particular, I will reconsider psych-verbs on the basis of the diagnostics adopted by Belletti and Rizzi (1988) and on the basis of additional linguistic tests. I will show that a cross-linguistic perspective must be adopted for the analysis of psych-verbs. Furthermore, I will propose that psych-verbs are all denominal[2].

In section III, I will further discuss the proposal outlined above, reconsidering psych-verbs on the basis of the Distributed Morphology approach. In particular, I will first show that psych-verbs can be decomposed into analytic constructions, consisting of a light verb such as *fare* 'to make' and a nominal element indicating a mental state. Subsequently, I will show that psych-verbs such as *impaurire* (to frighten) and *preoccupare* (to worry) are the synthetic counterpart of analytic psycho-constructions such as *fare paura* (lit. to make fear) and *dare preoccupazione* (lit. to give worries). In particular, I will propose that psych-verbs merge as a combination of three basic elements, i.e., an Experiencer, a nominal denoting a mental state, and a Theme (in Belletti and Rizzi's 1988 terms). In the remainder of the section, I will discuss each of these basic units in more detail. In particular, I will reconsider the role of Experiencers. Starting from Longobardi (1997) and Landau (2010), I will propose that Experiencers do not merge as bare

1 The descriptive issue raised by psychological verbs lies in their anomalous syntax, which appears to resist a uniform analysis under a null hypothesis.

2 The principle tenet of this first part is that the analysis proposed by Belletti and Rizzi (1988) lumps together verbs that behave differently with respect to different diagnostics.

NPs. Instead, they are governed by a locative preposition, which can be overtly or covertly realized at PF. Moreover, I will show that all psych-verbs have a causative component, which is responsible for their inherent causative semantics. Therefore, the main tenet of this section will be that the interface between the syntax and semantics of psych-verbs plays a key role in their behaviour. To conclude, I will discuss whether the conceptual structure of psych-verbs influences the initial syntactic structure of such predicates.

In Section IV, I will introduce the main claim about the syntactic structure of psych-verbs. In particular, I will argue that their VP has a more fine-grained structure than one proposed in the literature so far. Moreover, I will focus on the idea that psych-verbs denote something which happens inside the mind (as emotions are a response to some external stimulus) and I will consider the potential consequences of this fact. In this respects, I will argue that the the interplay between the semantics and the syntax of such verbs plays a crucial role. In particular, I will suggest that their semantics is compositionally built up in the syntax. Moreover, I will argue that psych-verbs merge as analytic verbs and that synthetic psych-verbs such as *preoccupare* (to worry) are the result of a syntactic derivation. I will also propose that the VP of psych-verbs has to be split into three more projections (similarly to Ramchand's 2008 First Phase Syntax hypothesis). On the basis of Alexiadou (2001), and Baker (2003), it will be argued that the basic units of psych-verbs -- the mental states -- merge as uncategorized elements. Taking this into account, I will consider these nominal elements to be the base of the derivation of psych-verbs, as Hale and Keyser's (2002) propose for denominal English verbs such as *water*.

Furthermore, I will propose that all psych-verbs have a causative semantics and that the specific syntax of psych-verbs can be captured by introducing a dedicated functional projection, which I shall dub PsychP. It will be shown that such a functional projection is responsible for the particular behaviour exhibited by psych-verbs. In particular, I will claim that the main difference between *preoccupare* (to worry) and *piacere* (to please) psych-verbs is due to the presence or absence of such a projection within their syntactic structure.

Section V contains the final conclusions and further speculations. In particular, it will be shown that the analysis proposed can predict various linguistic phenomena, some of which have not been accounted for before.

In addition to this, I will show that the proposed analysis, which is based on the behaviour of Italian psych-verbs, can also be extended to other languages. In

particular, it will be argued that some properties of Italian psychological verbs can be systematically predicted in other languages too (e.g., the inherent causative nature, see sec. 13.3). In this respect, it will be shown that, cross-linguistically, psych-verbs can be either analytic, i.e., composed by a nominal denoting a mental state plus a light verb such as *to be* or *to make* – or synthetic, which obtain when the the nominal and the light verb combine. Some psych-constructions can also be obtained by combining a causative light verb with a mental state. From a typological point of view, it will be shown that languages can vary with respect to the analytic and synthetic realizations of psychological predicates.

In conclusion, the main claim that will be advanced in this work is that the semantics of psych-verbs deeply influences their initial syntactic structure or, viceversa, that their syntactic derivation influences their overall semantics.

# SECTION I
# INTRODUCTION

## 0 PSYCHOLOGICAL VERBS ANALYSIS
## a brief introduction

Psych-verbs express Experiencers' feelings about some entity or event, or their emotional response to an external stimulus, which can be either an object, a person, or an event. Psych-verbs describe something happening inside the mind, that is, something individual. In other words, psych-verbs do not describe an event or an action but a response to such things.

From a syntactic point of view, psych-verbs exhibit some peculiar properties with respect to theta-assignement, in that the Experiencer can be realized either as a subject or as an object[3]. In the literature, different analyses of psych-verbs have been proposed, although a comprehensive analysis is still missing.

The fact that Experiencers can surface as either the subject or the object contradicts the UTAH (Baker,1988). Their behaviour with respect to auxiliary selection seems to be problematic as well. In Italian some psych-verbs select *avere* (to have) as their auxiliary, in spite of the fact that they have been analysed as unaccusatives. After Belletti and Rizzi's (1988) (henceforth B&R) seminal work, many authors have proposed different accounts for this phenomenon.

From a classificatory point of view, psych-verbs have been initially subdivided into two classes, i.e., Subject Experiencer psych-verbs (henceforth Subj-Exp verbs) and Object Experiencer psych-verbs (henceforth Obj-Exp verbs), given their possibility to select either an Experiencer or a Theme as their subject. According to B&R, Obj-Exp psych-verbs class is generic as well, as it lumps together two independent subclasses, i.e., *preoccupare* (to worry) verbs and

3 As I will show later on, psych-verbs present other features that are interesting and pose a serious challenge for many of the core assumptions of the contemporary lingustic analysis.

*piacere* (to please) verbs, which instead must be kept distinct by virtue of the different Case they assign to their Experiencer, i.e., Accusative and Dative case, respectively. Following this preliminary observation, psych-verbs have been accordingly classified as belonging to one of the following three classes: Class I --*temere* (to fear) --, Class II --*preoccupare* (to worry)--, Class III --*piacere* (to please)[4]. Moreover, B&R analyse *temere* (to fear) verbs as transitives, whereas both *preoccupare* (to worry) and *piacere* (to please) are treated as unaccusatives.
In B&R's analysis some empirical facts regarding the behaviour of psych-verbs are not accounted for, such as the different auxiliary selection (see sec. II for the discussion of further points). According to B&R, all Obj-Exp should select *essere* (to be), by virtue of their unaccusative nature. However, while *preoccupare* (to worry) verbs select *avere* (to have), *piacere* (to please) verbs select *essere* (to be).
As for the interplay between syntax and semantics (see Foreword), psych-verbs are peculiar because they express an event taking place inside the mind. Many authors – including Pesetsky (1995), Arad (1998), and Landau (2010) among others -- considered this particular features to be crucial, though for different reasons. Moreover, Bouchard (1992) defines psych-verbs as predicates describing a specific relation between an Experiencer and a psych-state (psy-chose in his term). According to the author, Experiencers can host the emotions or feelings that the psy-chose refers to (Bouchard 1992:32). Adopting Bouchard's view, I argue that the classification of psych-verbs proposed in B&R should be expanded in order to include an additional subclass, i.e., that of non-incorporated verbs. In particular, I claim that the three classes of psych-verbs traditionally invoked can be grouped together in a wider category, i.e., that of *synthetic* psych-verbs (or *incorporated*, in Bouchard's terms). This means that, in addition to synthetic psych-verbs, one then has to take into account analytic ones as well (cf. *non-incorporated verbs* in Bouchard's (992 terms). In section III, following Bouchard (1992, 1995) and Arad (1998, 2000), I will propose that analytic psych-constructions and synthetic psych-verbs are strictly related to each other, in the sense that each synthetic psych-verb has an analytic psych-construction countepart – e.g., *impaurire* (to frighten) and *fare paura a* (lit. to make fear into). Moreover, I will suggest that they are semantically related as well. As for their syntax, I propose the following hypothesis:

4 *Temere* (to fear), *preoccupare* (to worry) and *piacere* (to please) in B&R's terminology, Class I, II and III in the rest of the literature.

1. all psych-verbs share the same syntactic structure.

Throughout this work, evidence in favour of (1) will be provided. In what follows, I shall lay the foundations of my analysis.

Following Pesetsky (1995), I claim that Subj-Exp verbs differ from Obj-Exp ones due to the presence or absence of a causative zero-morpheme in their structure. More precisely, I claim that the syntactic structures of Obj-Exp verbs contains a causative zero-morpheme which is absent in Subj-Exp ones. Consequently, I argue that Obj-Exp verbs depict causative events – e.g., cause somebody to be sad—whereas Subj-Exp verbs do not. Nevertheless, contrary to Pesetsky (1995), I argue that such a causative element does not merge as an adjunct, but it is rather merged in a functional projection, dubbed PsychP. The presence of such a causative morpheme in PsychP accounts for two important properties.

First of all, it forces the Trigger (of emotion) -- Theme in B&R, Causer in Pesetsky (1995) -- to raise to specIP and not the Experiencer. On the contrary, if this element is absent, as in Subj-Exp verbs, Experiencers can raise to SpecIP. In the literature, it has widely been noted that if the Agent theta-role is assigned, it always surfaces as the grammatical subject. Given that psych-verbs do not select Agents, I claim that the element expressing the subject grammatical role depends on the presence or absence of the causative zero-morpheme.

Secondly, its presence accounts for the causative semantics exhibited by all Obj-Exp verbs, and is also involved in the relation between Experiencers and *mental states*. Moreover, such constructions can express different types of causativity, e.g., intentional vs. unintentional. Bearing these points in mind, I propose that the different degree of causativity expressed by Obj-Exp verbs depends on the presence or absence of a second causative zero-morpheme. In particular, although Obj-Exp verbs contain at least one basic causative zero-morpheme in their structure, they can incorporate an additional one, which is similar to one proposed in Pesetksy (1995). The psych-verbs which incorporate this second causative morpheme inherit a different causative semantics than those incorporating only the basic causative one. In particular, I show that some Obj-Exp verbs depict agentive-like "events" -- where the Experiencer's emotion has been triggered intentionally-- while others do not. In other words, the syntactic structure of Obj-Exp verbs contains either a single causative zero-morpheme (basic), dubbed STIMULUS, or two, i.e., STIMULUS and CAUSE, respectively. These

morphemes occupy two different structural, i.e., STIMULUS is internal to the VP, whereas CAUSE is external. In Section III, ch.9, I will provide further evidence in favour of the existence of both causative zero-morphemes. Furthermore, I will show that the two can co-occur in the same sentence.

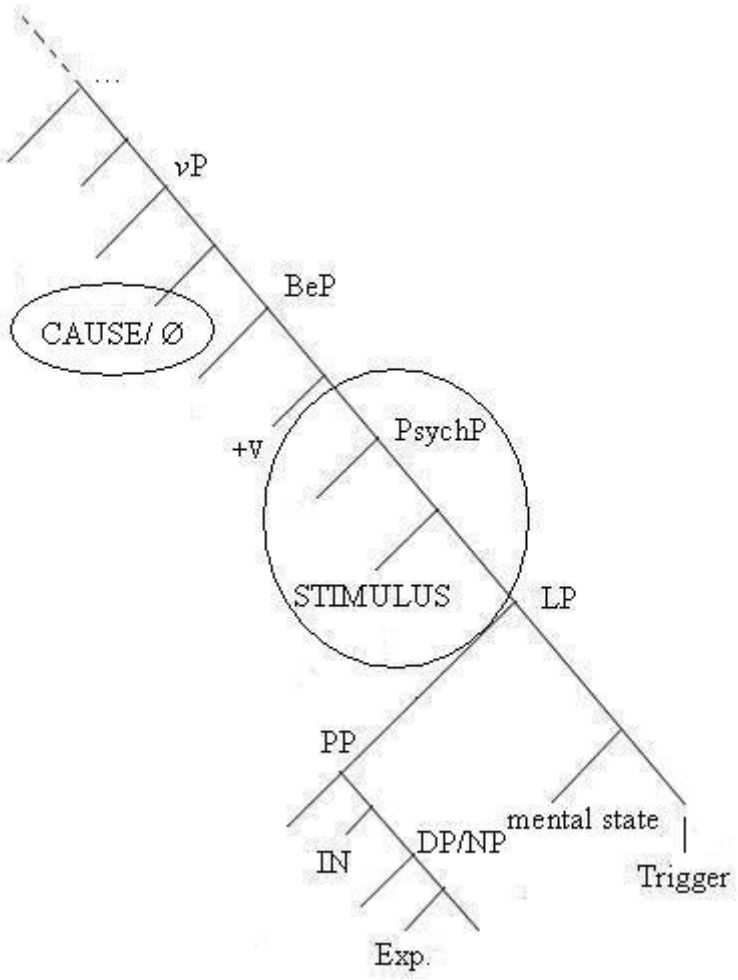
In section III (ch.10), I will show that synthetic psych-verbs such as *impaurire* (to frighten) and *preocccupare* (to worry) are denominal, in that they are derived from their analytic counterparts, i.e., *fare paura* (lit. make fear) and *dare preoccupazione* (lit. give worries). Following Ramchand (2008) and Baker (2003), I will show that the VP of psych-verbs has a complex structure. In ch.12, I will show that analytic psych-constructions reflect the syntactic composition of such predicates, in that each element of these constructions occupies a specific position in different projections.

Finally, following Landau (2010), I will also argue that Experiencers enter the structure as complements of a locative preposition, either *in* (in) or *a* (to/into), which is apparent in all analytic psych-constructions -- cf. mettere/fare paura a (lit. give/make fear into). In particular, I will show that the fact that Experiencers are governed by a locative preposition applies both to synthetic psych-verbs and to their analytic counterpart, as *impaurire* (to frighten) and *mettere paura a* (lit. make fear into), respectively. Moreover, I will show that the syntactic difference between *piacere* (to please) and *preoccupare* (to worry) verbs is related to the presence of a locative preposition. In particular, I will show that the Experiencers of *piacere* (to please) verbs are governed by the dative preposition *a*, which is itself complement of a locative preposition.

As for the VP structure of psych-verbs, I propose that all psych-verbs project a light *v* and, depending on the type of *v*, an external argument -- as in (2)[5]. Moreover, the preposition introducing the Experiencer can be either overt or not, i.e., ∅:

5 Each element of the analysis proposed in (2) will be discussed in further details in the following sections.

2.




The structure in (2) represents the core of the present analysis. The circled projection is specific of Obj-Exp verbs. Also note that that locative prepositions can either select a DP selecting the NP Experiencer or can directly select the NP Experiencer.

# CHAPTER 1
# INTRODUCING THE TOPIC

In the following subsections, I will review the proposals made in the literature about the structure of the VP projected by psych-verbs, their thematic structure and the correspondence with nominal forms and auxiliary selection.

## 1.1. SOME ISSUES OF VERB SYNTAX

Before looking at the syntax of psych-verbs in particular and the proposals made in the literature, I will briefly discuss two issues regarding verb syntax in general that will be relevant for my proposal, i.e., unaccusative vs. unergative and argument structure.

### 1.1.1. UNACCUSATIVE VS UNERGATIVE

From a classificatory point of view, verbs have been divided into three main groups, i.e., transitives, unergatives and unaccusatives[6]. In Italian, in particular, the unaccusative vs. unergative distinction has been studied intensively -- see Perlmutter (1978), Burzio (1986) and Belletti and Rizzi (1981), among others.
According to Burzio (1986), unaccusatives and unergatives are structurally different. First of all, although both kind of verbs have an external argument, only unaccusative verbs show *ne*-cliticization (of it, of them) (Ne-Cl). Consider (1):

1. a.Ne arrivano molti.
   of-them arrive many
   Many of them arrive.
   b.*Ne telefonano molti
   of-them telephone many
   Many of them telephone (Burzio 1986:20, (2))

6 A brief introduction of the unaccusative vs. unergative distinction follows, given the unaccusative analysis of psych-verbs introduced in B&R and the contrastive data of Section II.

Moreover, unaccusative verbs select *essere* (to be) as their auxiliary, whereas unergative verbs select *avere* (to have). Burzio (1986) claims that, although in Italian *virtually any type of sentence with pre-verbal subject has a counterpart in which the 'subject' appears to the right of the verb* (...), post-verbal subjects of transitive and unergative sentences result *from rightward NP- movement*, while the unaccusative's ones are *simply base-generated in* their *position* (Burzio 1986:22). In particular, Burzio refers to the linear subject of unaccusative verbs as an *inverted subject* (i-subject in Burzio's 1986 terms)[7]. As widely assumed in the literature, some unaccusative verbs can also have a transitive version -- the AVB/BV alternation in Burzio's (1986) terms -- where V is a verb and A,B are noun phrases. An example of a verb that can be used with both a transitive and an unaccusative structure is *affondare* (to sink):

2. a. L'artiglieria affondò due navi nemiche.
   *The artillery sank two enemy ships*.
   b. Affondarono due navi.
   *two ships sank.*
   c. Due navi nemiche affondarono.
   *Two enemy ships sank*.(Burzio 1986:25/26)

Note that in (2), as with Ne-Cl, the inverted subject is related to a direct object. According to Burzio (1986), the linear subjects of unaccusative verbs in (2b) and (2c) establish a relation similar to the passive one. Moreover, unaccusative and unergative verbs also differ in terms of the *si* construction, as in *Mario si sbaglia* (lit. Mario himself mistakes 'Mario is mistaken'). Following Burzio (1986), there are unaccusatives that cannot be used with *si* (himself) (*Mario si parte, lit. Mario himself starts) and other ones that can be used with the *inherent*(-reflexive) *si*[8],

7 Note however that Burzio (1986) talks about *inverted subjects* from a mere descriptive point of view, without implying any kind of obbligatory subject movement for such verbs.

8 Note that, although unaccusative verbs cannot be used with *si* (himself), many transitive verbs, i.e., *rompere* (to break), turn into unaccusative verbs if used with *si* (himself). Burzio refers to that *si* as to the "*ergative si*":

(i) Giovanni rompe il vetro.
Giovanni breaks the glass.
(ii) Il vetro si rompe.
The glass breaks.

i.e *sbagliare* (to mistake) (Burzio 1986:40).On the other hand, unergatives such as *telefonare* (to telephone) cannot[9].

Concluding this section, unaccusative and unergative verbs also differ in terms of auxiliary selection. Unaccusative verbs select *essere* (to be), whereas unergatives select *avere* (to have). According to Burzio (1986), this distiction can be accounted in much the same way as the Ne-Cl above.

### 1.1.2. ARGUMENT AND THEMATIC STRUCTURE

Verbs are classified according to the type of VP in which the verb typically occurs (Haegeman 1991:34)[10]. There are verbs subcategorizing for one, two or three arguments or, in other words mono, bi or three-argumental verbs. Although the argument structure of verbs predict the number of constituents needed, it does not necessarily predict their type.

According to the Projection Principle (PP), all the arguments of a predicate must be syntactically represented (Chomsky, 1986). Optional constituents are possible as well and are are traditionally labelled *adjuncts*.

Consider the following examples with *arrestare* (to arrest), which selects two arguments:

3.a. Il poliziotto arrestò il ladro
the policeman arrested the thief
*The policeman has arrested the thief.*

b. * Il poliziotto arrestò.
the policeman arrested
*The policeman arrested someone.*

c. * Il poliziotto arrestò il ladro gli appartamenti.
the policeman arrested the thief the flats

---

9 Unergative verbs can be used in *si* constructions though that *si* has a different value. In the literature it has been dubbed *impersonal si*. Consider the following sentence:

(i) Gli si telefona spesso.
to him one telephones often
We phone him often.

10 The argumental structure is not the only element that determines how the sentence has to be built. In particular, the theta-grid also has a role with respect to sentence composition.

*The policeman arrested that flats thief.*

d. Il poliziotto arrestò il ladro / degli appartamenti / dopo un lungo lavoro di indagine.
The policeman arrested the thief /of the flats/after a long work of investigation
*The policeman has arrested that flats thief/only after a long investigation period.*

As we can see in (3), both the absence of an argument, as in (5b), and the presence of an extra one as *gli appartamenti* (the flats) in (5c), lead to ungrammaticality. Other elements can be inserted in a sentence as adjuncts as in (5d)[11]. The argument structure of *arrestare* (to arrest) in (5) requires two elements. The argument structure of a verb is not always straightforward, in that some arguments can be omitted. Also note that nouns and verbs might share the same argument structure (see ch.12).
As for the Thematic structure, I shall simply note that the Agent theta role is assigned to those arguments that bring about a state of affairs but that, differently from instruments or causers**,** must be conscious or sentient. On the other hand, the Experiencer theta-role is assigned to those arguments that undergo a sensory, cognitive, or emotional experience. Finally, the Theme theta-role is assigned to those arguments which are affected by the event denoted by the verb.

## 1.2. **NOMINALIZATIONS**

According to Chomsky (1970), the grammatical relations established within the syntactic structure determine the semantics of the interpretation. More specifically, verbs and related nominals, such as *marginalize* and *marginalization*, share the same semantics, which is related to the shared structure (as proposed in the Distributed Morphology approach). Although this relation is hardly controversial, there are some cases in which this is unclear, as in *transmit* and *transmission*.

11 Note that with unaccusative and unergative verbs non-thematically selected arguments can be dismissed. Nevertheless, with Obj-Exp verbs, it is not be possible to omit neither subjects nor Experiencers

Nominalization is the linguistic process whereby expressions of different categories, mainly verbs and adjectives, are turned into nouns, as in (6) and (7), respectively. In Italian, in particular, there are two main nominalizers, i.e., *-zione* and *–ità*:

4. distruggere>distruzione
   destroy>destruction

5. nasale>nasalità
   nasal>nasality

Deverbal nominals denote processes or events. For example, *distruzione* (destruction) in (6a) bears the same semantic relation to the noun phrases *i barbari* (the barbarians) and *la città di Roma* (the city of Rome) as *distrussero* (destroy+PAST) in (6b).

6. a. La distruzione della città di Roma (da parte) dei barbari.
      the destruction of the city of Rome (by) the barbarians
      *Rome's destructions by the barbarians.*
   b. I barbari distrussero la città di Roma.
      The barbarians destroyed the city of Rome
      *Barbarians destroyed the city of Rome.*

Given their deverbal status, nominalizations select the same arguments as their verbal counterpart, which establish the same semantic relations as well. However, there are some cases in which the inherent semantic relation of nominalizations is not immediately apparent -- i.e., some nominalizations can hardly be analysed as deverbal nominals. In Italian for instance, there are nominals -- i.e., *espressione* (expression) or *sviluppo* (development) -- that seem to have no verbal counterpart (cf. 7c). Nevertheless, they have to be considered deverbal -- i.e., derived from verbs by some regular morphological process, cf. (7a-b):

7. a. espressione< esprimere
      expression< express
   b. sviluppo<sviluppare

development<develop

c. esame
exam/examination

This opacity -- i.e., the fact that, unlike *distruzione* (destruction) , they do not seem to be related to any verbs -- is probably due to the fact that some derived nominals behave like simple nominals, just like *dogs* or *table*. It has been proposed that they have a more complex syntactic structure than simple nominals, given that deverbal nominals have verb-like properties -- e.g., as opposed to simple nominals they can subcategorize.

Moreover, nominals have generally been divided into derived nominals or gerunds. Many works on nominals acknowledge a further distinction between concrete and abstract nominals and between result and process nominals – see among others: Borer (1993); Grimshaw (1986, 1990); Zubizarreta (1987); Levin and Rappaport (1988). Grimshaw (1990) argues that certain nominals are associated with an event structure and others are not, cf. complex/process vs result nouns [12] . She claims that nominals denoting complex events such as *the development of aggressive behaviour* have an argument structure, like verbs, whereas nouns denoting *simple events* such as *trip* and *result* do not. Moreover, result nominals can be both derived or non-derived. The ambiguity between a complex event interpretation and a result interpretation with nominals such as *sviluppo* (development) follows. In the former reading the noun is similar to the verb *sviluppare* (to develop), whereas in the latter it is closer to nouns such as *porta* (door), cf. (8):

8. a. Il vostro sviluppo di quest'area è un ottima cosa.
the your devolpment of this aerea is a good thing
*Your developting of this area is good.*
b. Bisogna sempre puntare allo sviluppo.
need always aim to development
W*e always have to improve.*

12 Grimshaw slightly contrasts the dichotomy *Process* vs *Result* (Borer 1993, Zubizarreta 1987) arguing that these labels "do not provide an illuminating way of characterizing the entire range of relevant cases the real distinction. I will argue that the real distinction is between nouns that have associated event structure, which I will call *complex* event nominals, and nouns that do not" (Grimshaw 1990:49).

Process and complex nominals show verbal properties, such as accusative case assignment to the internal argument, and denote an event. Process nouns have a complex event structure that can be broken down into various aspectual subparts, as in (9):

9. a. He paints pictures featuring the recent disturbances in Los Angeles.
   b. [John's painting a picture featuring the recent disturbances in Los Angeles] caused a huge riot among the art people.

## 1.3. **AUXILIARY SELECTION**

As mentioned in 1.1.2, the distinction between unaccusatives and unergatives affects auxiliary selection as well. Burzio (1986) proposes the ESSERE ALIGNMENT (10) to account for the *essere* (to be) selection:

10. The auxiliary will be realized as *essere* whenever a binding relation exists between the subject and a nominal 'contiguous' to the verb.
    (Burzio 1986: 55, (86a))

According to Burzio, *a nominal contiguous to the verb* is a nominal which is either part of the verbal morphology -- i.e., a clitic -- or a direct object (Burzio 1986:56,(87a)). The ESSERE ALIGNMENT rule allows for the following subcases: a binding relation between the subject and a clitic; a binding relation between the subject and the direct object. Hence, unaccusative verbs are analysed as having a contiguous internal argument, in Burzio's terms. On the basis of the assumption that the selection of *avere* (to have) is a reflex of a different structure (in which the linear subjct is not derived), unergative verbs select an external argument as their argument. This phenomenon is also known as *Split intransitivity*. In English, it can be seen in resultatives (cf. *The gate swung open* vs. **Joanna shouted hoarse*) and in Locative Inversion constructions (Levin and Rappaport Hovav (1995, 2005)). Kayne (1993) claims that auxiliary *have* and the main verb *have* should be conceived in a parallel fashion (Kayne 1993:3). Furthermore, he proposes that English has a non-overt prepositional (oblique) D° in possessive constructions. The possessor DP moves through its Spec and the representation $D/P_e$ is the result of the incorporation of the possessive DP to

SpecD° (Kayne 1993:7). Therefore, he proposes that the auxiliary *have* is the result of the incorporation of a D/P° with BE, as in (11):

11. $DP_{subj/i}$ $D/P_e$+BE[$_{DP}$ [e]$_i$ D/P°...[$_{VP}$ [e]$_i$ V DP]

Kayne considers (11) to be responsible for the *have* aux selection. In particular, D/P+BE is spelled out as HAVE, yielding for instance, with V=*break* and $DP_{obj}$ =the window, to "John has broken the window" (Kayne 1993:8). Following such a proposal, in Italian subjects of transitive verbs must move through Spec,DP and the incorporation of D/P° to BE must take place.

Alternative approaches focused more on the semantic properties of each verb. According to these approaches (e.g., Dowty, 1979), unaccusative verbs involve patient-like entities, whereas unergatives tend to select agentive ones.

In addition to these previous approaches, a combination of the two has been proposed, i.e., a syntactic-semantic one, see Sorace (2000). According to the author, auxiliary selection is sensitive to both the aspectual and the thematic dimensions. She also claims that *verbs that are maximally specified along one or the other dimension tend to be categorical in their choice of auxiliary: the two key notions are telic change, which strongly correlates with BE, and agentive unaffecting process, which strongly correlates with HAVE. Verbs that are underspecified with respect to one or both dimensions exhibit variation* (Sorace 2000:861-2). According to this proposal, verbs are associated with an event-structure template that can be conceptualized in terms of two distinct aspectual subevents, i.e., a process, on the one hand, and a transition or a state, on the other. Moreover, all transition verbs include a state component which may refer to the final or intermediate achievement of a conclusion. Following Sorace, all verbs denoting a process, as psych-verbs -- see ch. 9 -- are atelic, but they can be further differentiated according to the nature of the causation determining the process (process verbs vary systematically in the extent to which the causer is an intentional agent), affectedness and density -- i.e., the extent to which one can find a smaller version of the predicate within the predicate itself (Sorace 2000:862)[13]. On the basis of this analysis, Sorace proposes the Auxiliary Selection Hierarchy (ASH) hypothesis, which represents a gradient sensitivity to

13 According to a*ffectedness*, the subject of an activity is both the Agent and the Experiencer of the process.

the aspectual and lexical semantic characteristics of individual verbs. These aspectual parameters are deemed to be potentially universal (Legendre & Sorace 2003).

In this approach, verbs in the ASH are placed in a continuum which goes from change of location verbs, such as *arrivare* (to arrive), *andare* (to go) – which are low in agentivity and high in telicity -- to controlled non-motional processes, such as *giocare* (to play), *parlare* (to talk) – which are high in agentivity and low in telicity. According to Sorace's proposal, auxiliary *avere* (to have) is then selected when the verb is high in agentivity or, in other words, when the lexical semantic properties of the verb require the presence of an agent/actor.

# SECTION II
# ITALIAN PSYCHOLOGICAL VERBS

## CHAPTER 2
## PSYCHOLOGICAL VERBS AND Θ -THEORY

In this section, a review of B&R will be presented. This work considers only marginally *piacere* (to please) verbs and the *temere* (to fear) verbs and is more specifically focused on the *preoccupare* (to worry) verbs, instead.

## 2.1. **INTRODUCTION**

After introducing the three primitive lexical classes of Italian psych-verbs as in (1), B&R analyse both the *temere* (to fear) and the *preoccupare* (to worry) class as transitive verbs, with an apparent inversion in the assignment of the θ-roles: *the subject is the Experiencer and the object the Theme with* ***temere*** (to fear), *while the subject is the Theme and the object the Experiencer with the* ***preoccupare*** (to worry) (B&R: 292).

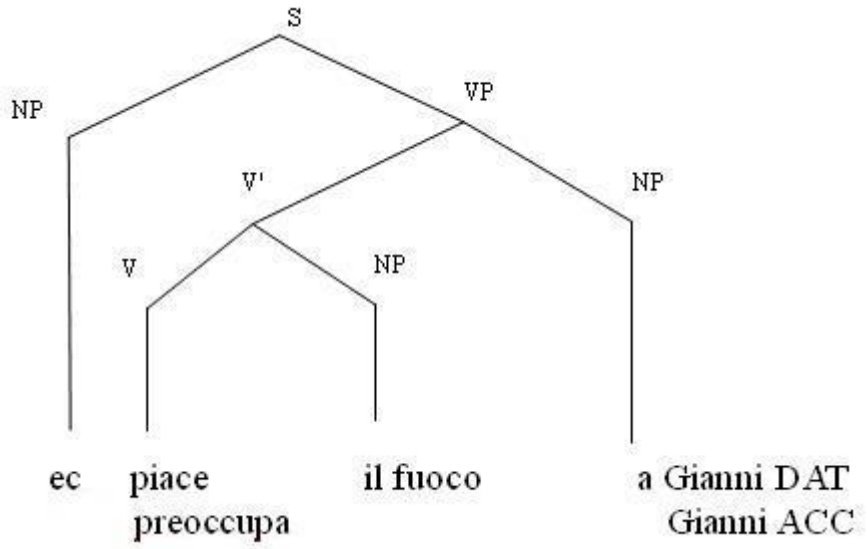
1. a. Gianni teme questo.
   John fears this
   *John fears this.*
   b. Questo preoccupa Gianni.
   This worries John
   *This worries John.*
   c. Questo piace a Gianni/ A Gianni piace questo[14].
   This likes to John / To John likes this

14 Note that the prepositional dative, i.e., a+NP, is free to move, while the accusative must remain in configuration with the verb in order to have its Case realized.

*This pleases John.*

The main assumption made in B&R is that the D-structure configurations of *temere* (to fear) verbs such as in (1a) completely differ from those of *preoccupare* (to worry) and *piacere* (to please) verbs, as in (1b) and (1c), respectively. In particular, the authors argue that the D-structure configuration of *temere* (to fear) verbs resembles the one of normal transitive, whereas the D-structure configurations of *preoccupare* (to worry) and *piacere* (to please) resembles more that of double object constructions, albeit with a non-thematic subject position, as in (2):

2.



## 2.2. PREOCCUPARE PSYCH-VERBS FOLLOWING B&R

### 2.2.1. THE SUBJECT OF *PREOCCUPARE* IS NOT A DEEP SUBJECT[15]

B&R analyse the superficial subjects of *preoccupare* (to worry) and *piacere* (to please) verbs as derived ones. In order to support this analysis, they claim that the subject of (1b-c) exhibits a cluster of properties typical of derived subjects. In this review, I will consider mainly B&R's data and analysis concerning the *preoccupare* (to worry) verbs.

#### 2.2.2.1. ANAPHORIC CLITICIZATION

The first test B&R introduce in order to prove their derived-subject hypothesis is related to the binding of an anaphoric clitic. Consider the following examples:

3. a Gianni si è fotografato.
   John himself is photographed
   *John took a picture of himself* (B&R, 7)
   b *Gianni si sembra simpatico.
   John to himself seems nice
   *John considesr himself nice.* (B&R, 8b)

While the deep subject in (3a) can bind a reflexive clitic, the derived subject of raising constructions in (3b) and passives cannot. Examples similar to (3b) involving a derived subject are ill-formed because the argument filling the θ-subject position cannot be connected to its trace, due to the intervention of the coindexed clitic. B&R's assume that the ungrammaticality of (3b) is a clear example of the filter in (4):

4. *$NP_i$...$si_i$...$e_i$

15 In this briefly not all the properties introduced by B&R will be taken into consideration. In particular in ch.4 the data confuting B&R concern only some aspects of their work. Concerning *preoccupare* (to worry) verbs, I will not discuss the section on the *Infinitival Vps with fare*.

B&R show that *temere* (to fear) and the *preoccupare* (to worry) verbs contrast systematically with respect to anaphoric cliticization. For example, in (5) we can see that while the subject of *temere* (to fear) can bind a reflexive clitic, the subject of *preoccupare* (to worry) cannot. This in turn seems to support the derived subject hypothesis, e.g., the ill-formedness of (5b) can be straightforwardly derived from (4):

5. a. Gianni si teme.
   John himself fears
   *John fears himself*. (B&R, 10a)
   b * Gianni si preoccupa.
   John himself worries
   *John worries himself*. (B&R 10b)

Nevertheless, B&R note that there are apparent counterexamples that undermine their hypothesis. For instance, in (6) the subject of *spaventare* (to frighten) binds the reflexive clitic *si*:

6. Quei due si spaventano intenzionalmente ogni volta che ne hanno l'occasione.
   Those two their selves frighten intentionally every time that of it have the possibility
   *These two guys frighten each other intentionally every time they can.*

Recall that *spaventare* (to frighten) is a *preoccupare* (to worry) psych-verb. B&R note that the grammaticality of (6) could be related to the role of *quei due* (those two) in the sentence. According to B&R, the human subjects in (6) intentionally do something to induce their emotive reactions. But this fact is not surprising for B&R. In (6) *quei due* (those two guys) is an Agent *hence there is no reason to assume anything else than a simple transitive structure with a deep agentive subject*, (therefore) *the compatibility with an anaphoric clitic is expected* (B&R:298).
Following B&R then, *preoccupare* (to worry) verbs have two possible syntactic structures, which roughly correlate with the thematic-role of the subject. This is, at first glance, counterintuitive with respect to the self-evident similarity between

(5b) and (6). Later on in the discussion, I will show that the apparent counterexample in (6) can be accounted for without postulating two different syntactic structures.

2.2.2.2. ARBITRARY PRO

The second diagnostic B&R give to support their derived-subject hypothesis concerns the properties of arbitrary *pro* subject, which in Italian is specified as third person plural (*loro* 'they'). The arbitrary interpretation allowed by this *pro* does not imply semantic plurality. Instead, there is simply no commitment as to the real number of the argument in question. B&R stress that the relevant property is that the *arb* interpretation is not possible with all verb classes and structures (B&R: 299). The discriminating property seems to be that the *arb* interpretation is incompatible with unaccusative structures. Compare (7a) and (7b):

7. a. *pro* hanno telefonato a casa mia.
   somebody have telephoned at house my
   *Someone called at my place*. (B&R 22a)
   b. **pro* sono arrivati a casa mia[16].
   Somebody are arrived at house my
   *They arrived at my place*. (B&R 23a)

B&R argue that *it appears that **arb** interpretation is licensed through θ-marking: the external θ-role of the VP is first assigned to INFL under sisterhood, and is then transmitted by INFL to the subject NP under government* (B&R: 300-1).

8. a. Evidentemente, in questo paese per anni *pro* hanno temuto il terremoto.
   Evidently, in this country for years people have feared the earthquake
   *Evidently, in this country, people have feared the earthquake for years.*
   (B&R 24a)
   b. *Evidentemente, in questo paese per anni *pro* hanno preoccupato il presidente.

16 The * refers to the *arb* interpretation only. The same example with the definite pronominal interpretation of the null subject is indeed acceptable.

Evidently, in this country for years people worried the president
*Evidently, in this country, people have worried the earthquake for years.*
(B&R 24b)

2.2.2.3. THE CAUSATIVE CONSTRUCTION

Burzio (1986) shows that structures containing a derived subject cannot be embedded under the causative construction in Italian. B&R argue that *temere* (to fear) and *preoccupare* (to worry) verbs differ sharply as to their possibility to be embedded under a causative verb, as shown in (9). Example (9b) is ruled out because (i) the trace is not bound by its antecedence at S-structure and (ii) proper binding cannot be restored through reconstruction of the moved VP, for the reasons discussed in Burzio (1986).

9. a. Questo lo ha fatto apprezzare ancora di più a Mario.
This him has made estimate even more to Mario.
*This made Mario estimating him even more.* (B&R (31a))
b. *Questo lo ha fatto preoccupare ancora di più a Mario
This made Mario worry him even more
*This made Mario worrying him even more* (B&R (31b)).

2.2.2.4. PASSIVE

B&R stress that structures with non-thematic subjects cannot undergo passivization and that *passivization* (should be) *excluded with the psych-verbs of the **preoccupare** class*. Furthermore, *apparent passive structures like* (10) ((47) in B&R)) *are instances of adjectival passivization* (B&R: 309).

10. Gianni è disgustato dalla corruzione in questo paese.
John is disgusted by the corruption in this country
*John is disgusted by the corruption of this country.*

I will now consider additional data concerning two of the tests used by B&R to support such a claim. First of all, the *da* (by)-phrase in (10) can be pronominalized with *ne* (of it), and the whole structure can occur in a reduced

relative. Yet, this is not possible with the participial form. Consider the following examples:

11. a. la sola persona che ne è affascinata
    the only person that of it is fascinated
    *the only one who got fascinated by it*
    b. la sola persona affascinata da questa prospettiva
    the only person fascinated by this perspective
    *the only person that has been fascinated by this perspective*
    c. *La sola persona affascinatane.
    The only person fascinated by it
    *The only person fascinated by it.* (B&R ex (51))

Secondly, some psych-verbs of the *preoccupare* (to worry) class have irregular participial form derivations:

12. a. Le sue idee mi stufano/stancano/entusiasmano.
    The his/her ideas me bore/tire out/ fill with enthusiasm
    *His/her idea tired me /bore me/fills me with enthusiasm*
    b. ?Sono stufato/stancato/entusiasmato dalle sue idee.
    I am bored/tired/enthusiastic by the his/her ideas
    *I am so bored/tired/enthusiastic of his/her ideas.*

According to B&R, these verbs have corresponding irregular adjectival forms, i.e., *stufo* (tired), *stanco* (exhausted), *entusiasta* (excited). Consequently, B&R claim that this contrast recalls the Kiparsky's (1973) BLOCKING PRINCIPLE, i.e., the existence of an irregular (adjectival) form blocks the regular formation (of the adjectival participle).

#### 2.2.2.5. PROPERTIES OF THE OBJECT OF PREOCCUPARE[17]

In the structural representation given by B&R for the *preoccupare* (to worry) verbs, the Experiencer is not a configurational object but the sister of V', whereas the canonical object position is filled by the Theme at D-structure and by his trace at S-structure. In other words, the Experiencer is a sort of second object. On the basis of this, B&R expect the Experiencer to lack typical properties of canonical objects, as for instance the transparency to extraction processes, cf. *extraction of **ne** from the object of **preoccupare** produces deviant structure, even though the violation seems weaker than in cases of wh-extraction* (B&R: 330) [18].

13. a. *La compagnia di cui questo fatto preoccupa il presidente.
the company of which this fact worries the president
*The company of which worries the president.*
b. *?Questo fatto ne preoccupa il presidente.
this fact of-it worries the president
*This makes the president worried about it.*
c. ??Questo fatto ne preoccupa molti.
this fact of-them worries many
*This fact makes many of them worried about it.*(B&R:330 ex(96))

## 2.2.3. PIACERE PSYCH-VERBS ACCORDING TO B&R

#### 2.2.3.1. BASIC PROPERTIES

The salient property of the *piacere* (to please) class is its argument reversibility. *Piacere* (to please) verbs have the following properties:

17 As in the preceding section, not all the properties relating the object of the *preoccupare* (to worry) verbs discussed by B&R will be taken into consideration here.

18 B&R recall that extraction is not possible from postverbal subjects of unergative verbs too:

(i) Il ragazzo di cui amavi la sorella
the boy of whom you loved the sister
(ii)??Il ragazzo di cui ti amava la sorella.
the boy of whom loved you the sister

A: the NP carrying the Experiencer θ-role is marked with dative Case;
B: the aspectual auxiliary selected by these verbs is *essere* 'be';
C: both orders, i.e., Experiencer V Theme and vice-versa, are possible.

Following Burzio (1986), B&R classify the verbs of the *piacere* (to please) class as unaccusatives with, *unquestionably*, nonthematic subject position. Therefore, the only difference with the *preoccupare* (to worry) verbs is the dative inherent Case assigned to the Experiencer. For B&R *the contrast between the second and the third class with respect to permutability thus seems to be a simple consequence of the nature of the inherent Case assigned: the dative preposition/Case marker frees its object from any further Case-theoretic constraint, hence movement is free, whereas an accusative-marked NP cannot be extracted from the VP if the Case realization is to be met* (B&R: 336).

2.2.3.2. MORE ON WORD ORDER

Property C of *piacere* (to please) verbs refers to the fact that, despite their grammatical role, both the Theme and Experiencer can potentially precede the verb -- compare (14a) with (14b). However, it is interesting to note that structures with both arguments following the verbs are deviant, as in (14c):

14. a. Le tue idee piacciono a Gianni
your ideas please to John
*Your ideas please John.*
b. A Gianni piacciono le tue idee.
to John please your ideas
*John likes your ideas.*
c. *Piacciono le tue idee a Gianni.[19]
please your ideas please to John

19 Note that the other post verbal order, i.e., V Experiencer Theme, is only slightly deviant (i). A focalized Experience makes the sentence even less marginal, as in (ii):

(i) ?*Piacciono a Gianni le tue idee.
Please to Gianni your ideas
(ii) ?Piacciono A GIANNI le tue idee
Please to Gianni your ideas

*Your ideas please John.*

Given these data, one could conclude that either the D-structure never surfaces as such, or the B&R's hypothesis is not on the right track[20]. B&R show that the same happens with both *temere* (to fear) and *preoccupare* (to worry) verbs. Given that the same VOS order is deviant also with other non-eventive verbs, though not with normal eventive verbs (cf. (15) and (16)), B&R conclude that only eventive predicates allow a referentially vacuous predication and have all the arguments in the VP at S-structure:

15. a. Questa casa appartiene a Gianni.
this house belongs to John
*This house belongs to John.*
b. A Gianni appartiene questa casa.
to John belongs this house
*John owns this house.*
c. Appartiene questa casa a Gianni.[21]
belongs this house to John
*This HOUSE belongs to John.*

16. Mi ha mandato una lettera il Presidente.
to me sent a letter the president
*I received a letter from the President.*

B&R conclude by saying that, *in terms of* their *system*, a sentence like (14c) *is excluded by, among other things, Case-theoretic considerations: the Theme must be moved to allow accusative Case to be assigned to the Experiencer under string adjacency* (Stowell 1981)

20 As it will be clearer as this analysis procede, I claim that B&R analysis should be revised. In particular, in addition to the word order issue,there are other aspects that are not predicted by their analysis.

21 As in fn.19, the other post verbal order is more acceptable, consider the following examples:

(i) Appartiene a Gianni questa casa.
Belongs to Gianni this house.
(ii) Appartiene A GIANNI questa casa.
Belongs to Gianni this house.

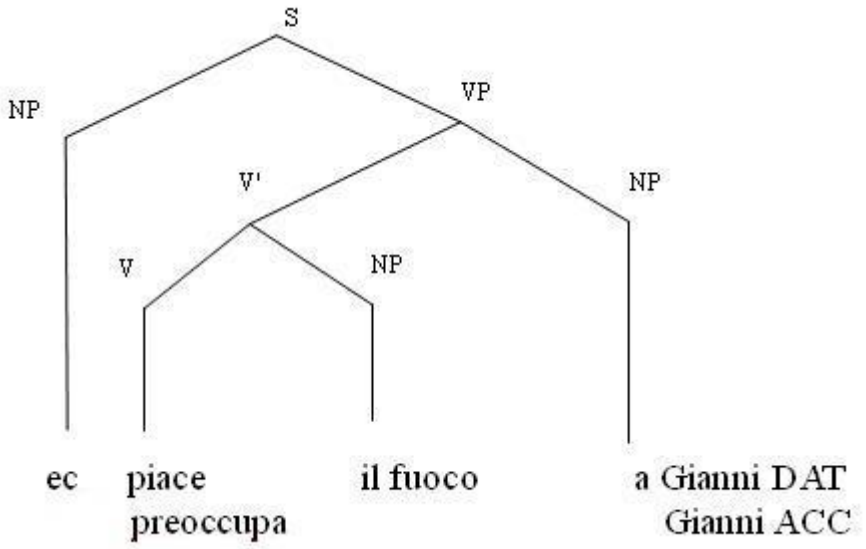
# CHAPTER 3
# OTHER STUDIES ON ITALIAN PSYCH-VERBS

In this section I will propose a review of additional literature concerning Italian psych-verbs. In particular, I will take into accont different analysis that consider Italian psych-verbs from three different points of view. These analysis are all centred on B&R pionering work reviewed above. For the sake of simplicity, in the following discussion I will focus the attention on the core of these new proposals only.

## 3.1 THE SUBJECT OF PSYCH-VERBS AND CASE THEORY

In his review of the theoretical framework proposed by B&R, Saltarelli (1992) focuses his attention on the author's proposal about the mapping of both θ-roles in a VP-internal position. This hypothesis, according to Saltarelli (1992), is not entirely straightforward for two reasons: *it requires suspension of the 'underscore θ-role' procedure on lexical representation specifically for the classes of psych-verbs; further, an asymmetrically c-commanding relation between the Experiencer and the Theme must also be stipulated* (Saltarelli:254).
Given B&R's syntactic representation (1) and the rule of move-α, Saltarelli claims that their non-thematic hypothesis is problematic.

1.




In particular, this representation runs into an apparent problem of overgeneration caused by the ergative syntactic structure proposed by B&R for both the *preoccupare* (to worry) and the *piacere* (to please), as in (2)-(3). Following B&R (B&R: 340), the unacceptable structures must be banned by stipulation.

2. a. *preoccupa questo Gianni.
   worries this John
   *This worries John.*
   b. *Gianni preoccupa questo $_e$.
   John worries this
   *This worries John.*
   c. Questo preoccupa Gianni.
   This worries John
   *This worries John.*

3. a. *Piace questo a Gianni.
   Likes this to John
   *John likes this.*
   b. A Gianni piace questo.
   To John likes this

*John likes this.*

c. Questo piace a Gianni.
This likes John
*John likes this.*

According to Saltarelli, this state of affairs has undesirable consequences for the proposed analysis. First of all, the stipulatively banned structures are *exactly those proposed at the D-structure as a characterization of the uniformity of psych-verbs in the relation between thematic and the syntactic structure* (...) *the banning of V-initial structures* (2a, 3a) *is unexpected, since that is the canonical word order of Italian unaccusative verbs* (Saltarelli 1992: 254). Secondly, while the movement in (3c) is allowed (*questo* 'this' moves to subject position for Nominative Case assignment), the one in (3b) should not, in that *a Gianni* 'to Gianni' has inherent Case assigned by the preposition inserted at D-structure (Chomsky 1986).
Finally, Saltarelli discusses the possibility of having the Experiencer in a preverbal position in (3b), but not (2b). Following B&R, (3b) is possible in that prepositional datives (a+NP) are free to move, whereas (2b) ungrammatical in that Accusative must remain in configuration with the verb in order for the Case to be realized. However, Evidence from Spanish (4) does not support this explanation:

4. a. *Preocupa esto a Juan.
worries this to Juan
*This worries John.*

b. *A Juan preocupa esto.
to John worries this
*This worries John.*

c. Esto preocupa a Juan.
this worries John
*This worries John.*

Note that in Spanish the realization of inherent Accusative Case is prepositional, just like the Dative Case in Italian (cf. (2)). According to Saltarelli, a theory of Italian psych-verbs which is consistent with the UTAH should: a) depart from the null hypothesis, which includes minimally Case specification in the lexical representation of the Case-grid; b) adopt a suspension of the selection of the

external argument; c) stipulate the *asymmetrical c-commanding relation between the Experiencer and the Theme*, as schematized in (5):

5. a. Inherent Case marking specification;
   b. suspension of the external theta-positions;
   c. DS specifications.

Therefore, Saltarelli proposes a new account in which *preoccupare* (to worry) verbs may require a different analysis from the *piacere* (to please) verbs. He starts from considering the 'arguments reversibility'[22] of all the psych-verbs and makes a preliminary distinction between reversible (6a) and non-reversible (6b) verbs, i.e., *piacere* (to please) and *temere* (to fear) respectively[23]:

6. a. EXP-V-THEME/THEME-V-EXP> *piacere*
   b. EXP-V-THEME> *temere*

In structures such as (2c), the Experiencer is not an inherently marked accusative argument but rather the subject of the DS. It eventually receives Accusative case in its derived structural position, i.e., the object position. The thematic path representations of *piacere* (to please) and *temere* (to fear) in (6) lead to the lexical representations in (7):

7. a. temere (to fear)/odiare (to hate)/desiderare (to desire) (Exp, Theme)
   b. piacere (to please)/ mancare (to need, to lack)(Exp oriented) (ExpDAT, Theme)

Note that the lexical representation in (7) corresponds very much to B&R's distinction between *piacere* (to please) and *temere* (to fear) verbs. Nevertheless, Saltarelli's analysis contrasts with B&R's in that it is based on the notion of *argument reversability*, which is not characterized by move-α but by the mapping principle in (8):

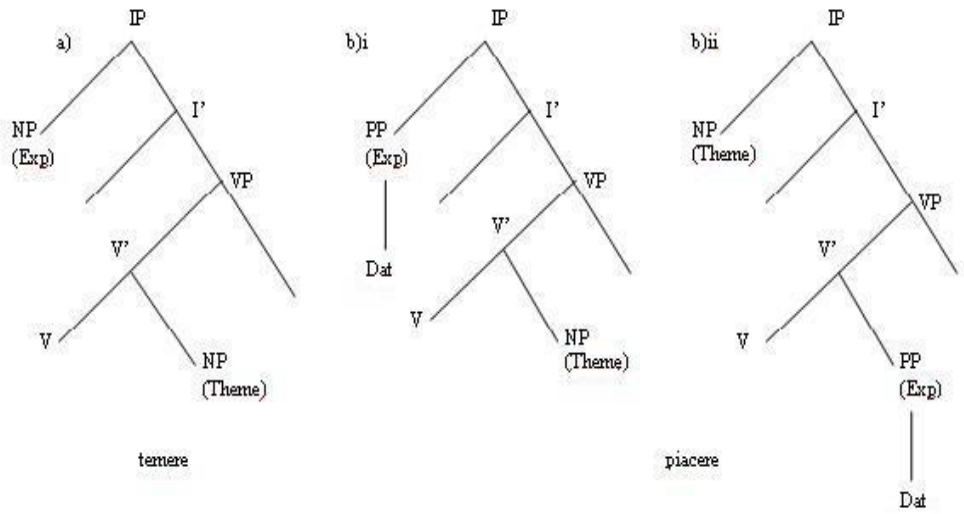
22 Reversibility refers to the capacity of assuming two syntactic paths, cf. (3). *Preoccupare* (to worry) and *temere* (to fear) have only one possible path.

23 It should be noted that reversibility excludes *preoccupare* (to worry) verbs from both classes in that they don't allow EXP-V-THEME path (Saltarelli 1992:257).

8. a. Assign <u>*Theta*</u> to specifier position
   b. Assign *Theta*

The mapping principle in (8) *'freely' projects the arguments of reversible predicates* (Saltarelli 1990:258). The author also claims that the crucial distinction between *temere* (to fear) and *piacere* (to please) is the argument reversibility option available with the latter but not with the former, as in (6).
Moreover, Saltarelli assumes that under the null hypothesis thematic roles are assigned to either the Specifier or the Complement position. Furthermore, given the different thematic paths shown in (6), he claims that the mapping principle in (8) would identify only one possible syntactic structure for *temere* (to fear) verbs but two syntactic structures for *piacere* (to please) verbs, as in (9):

9.




In addition to this, the author emphasizes that there is independent empirical evidence for invoking two initially identical DSs for *piacere* (to please) and *temere* (to fear) verbs. One technical advantage of considering both *piacere* (to please) and *temere* (to fear) as having the same DS is that the overgeneration problem introduced in (2-3) does not arise.
Additional evidence in support of (9b) concerns the binding properties of *piacere* (to please) verbs. In Italian, both arguments can bind a local anaphor. This fact seems to be predicted by (9b), in that both the Exp and the Theme are assigned to subject position at DS. Consider (10):

10. a. A Liliana piace (Gianni più che) se stessa.
to Liliana likes Gianni more than herself
*Liliana likes Gianni more than herself.*
b. Liliana non piace (nemmeno) a se stessa.
Liliana not likes not even to herself
*Liliana does not even like herself.*

On the basis of (9), the Experiencer may c-commands the Theme (10a) or may be c-commanded by it (10b). According to the author, in (9b) Principle A of the binding theory is uniformly satisfied both at DS and at SS, as required by principles B and C.
Finally, Saltarelli discusses *preoccupare* (to worry) verbs. In particular, he notes that these verbs, contrary to the others, entail some kind of causativity, as in (11b). Hence, it is plausible to assume a different analysis on the basis of considerations related to Theta and Case assignment.

11. a. Il tempo preoccupa Gianni.
The weather worries John
*The weather worries John.*
b. Il tempo fa preoccupare Gianni.
The weather makes worry John
*The weather causes John to worry*.

The author adopts Franco's (1990) approach, which derives constructions like (9a) from complex underlying structures in which: *the Experiencer is projected as subject of a lexically inchoative predicate (i.e., preoccupar(si) 'to become worried'); the inchoative structure is s-selected as the complement of a phonologically null CAUSATIVE head which also projects the Cause nominal (i.e., il tempo 'the weather') as its external Theta-role in the Specifier position* (Saltarelli 1990:265). This analysis parallels Baker's (1988) causativization hypothesis. According to Saltarelli, accusative Case assignment to Experiencers follows from Case theory. In particular, after adjunction of the psych-verb to the causative head, its subject forms a chain with its closest governor, i.e., the CAUSATIVE head, which assigns accusative Case.

To conclude, the author claims that the empirical and theoretical consequences of his theory of reversibility include a uniform typological view of the language, which unfolds from the general theory of Case.

## 3.2 ITALIAN PSYCH VERBS IN A THEORY OF PREDICATION

Rubin (1990) analyses psych-verbs from a rather new perspective, i.e., he proposes a lexical characterization. In the first part of his work, all Italian psych-verbs are tested with respect to different diagnostics. His results are summarised as follows: *psych verbs of class I* (*temere* verbs) *and II* (*preoccupare* verbs) *pattern alike and contrast with the class III* (*piacere* verbs) *with respect to the perfect auxiliary* (…). *Furthermore, psychological predicates of class II differentiate themselves from class I predicates in that these latter, like transitives, allow* ***venire*** *'to come' as (passive) auxiliary, while class II don't. Under causativization, each of the three psychological verbs pattern differently, class I with transitives,, class III with ergatives, class II with no other type* (Rubin 1990: 229).

Rubin then introduces the framework of structural configuration and lexical representation. He adopts the framework in Bowers (1990), arguing in favor of an independent functional category called Pr(edication) between I and V. Following Chierchia (1985, 1989), Bowers proposes that the function of this category is that of instantiating a predication relation. He also claims that theta-role assignment is compositional and proceeds from the innermost to the outermost theta-role in a theta-structure. Following Larson (1988), Bowers claims that direct internal arguments are base-generated in Spec,V, the structural nominative case is assigned at Spec,I, and the structural accusative in Spec,V. Rubin assumes that the structural dative is assigned instead to the complement of V.

After considering class I and III psych-verbs, which behave as normal transitive and ergative verbs, respectively, Rubin considers class III psych- verbs in further detail. The theta-structure and the theta-roles of class I -*temere* (to fear) - and III – *piacere* (to please)- can be represented as in (12) and (13):

12. Class I : [[[]$\theta_2$] $\theta_1$] $\theta_1$= experiencer, $\theta_2$ =theme

Class I psych-verbs assign a theme theta-role to Spec,V (object position) and an Experiencer theta-role to Spec,Pr (external argument position). In Italian Spec,V receives structural accusative case, whereas the Theme theta-role, raised from Spec,Pr to Spec,I receives structural nominative case.

13. Class III : [[[]$\theta_3$] $\theta_2$] $\theta_3$= experiencer, $\theta_2$ =theme

Class III psych-verbs assign an Experiencer theta-role to their complement (indirect object position), which receives structural dative case, and a theme theta-role to Spec,V. The argument in Spec,V must raise to Spec,I, through Spec,Pr, to acquire nominative case, in order to avoid a violation of the principle which underlies Burzio's generalization (1986).
Class II psych-verbs have a different thematic structure with respect to both class I and class III:

14. Class II : [[[$\theta_3$]] $\theta_1$] $\theta_3$= experiencer, $\theta_1$ =stimulus
    |
    -case

Rubin stresses that there are two aspects in (14) worth noting. First of all, class II psych-verbs are similar to unergatives with respect to the positions in which their theta-roles are saturated. Second, this representation includes the specification that the argument which is saturated in the complement position does not receive case in that position. The latter argument is therefore forced to move to a case position, i.e., Spec,V, in order to satisfy the Case filter.
In the last section, Rubin analyses the behaviour of Italian psych-verbs with respect to auxiliary selection, passivization, causativization and anaphoric clitics.
As for auxiliaries, Rubin argues that it is possible to adopt a process of auxiliary selection which refers to this difference in the base-generated position of the arguments of verbs, much in the spirit of Burzio's (1986):

15. The auxiliary will be realized as *Essere* whenever a '*binding relation*' exists between the subject and a 'nominal contiguous to the verb'.

Class I and II psych-verbs share the property of having an external argument with transitives and unergatives, which results in an NP-trace relationship between

Spec,I and an argument position outside VP (Rubin1990:234). Class III are unaccusatives and thus correctly predicted to occur with *essere* (to be).
As for passivization, the author argues that the fact that class II psych-verbs cannot appear with the passive auxiliary *venire* (to come) follows straightforwardly from the unergative nature of this class, i.e., unergative verbs do not passivize in Italian, unlike transitives. According to Rubin, the crucial question, instead, is why class II should be able to form adjectival passives, unlike other unergatives. According to Rubin this is due to the fact that *passive raising and raising in general are constrained by properties of the verb or auxiliary in whose environment they occur* (Rubin 1990:235). He assumes then that *venire* (to come), as an auxiliary, can occur with transitive verbs, whereas *essere* (to be) allows any NPs specifier of its complement to raise past it. Rubin argues that adjectival passives are possible with *preoccupare* 'worry' psych verbs given the looser requirements of the auxiliary *essere* 'be'. In particular, *even an argument which raises into Spec,V can continue to raise past essere,* as it occurs with raising verbs such as sembrare 'to seem'. Since the internal argument of other unergatives does not raise from its base-generated position, (adjectival) passives of normal unergatives will be ruled out by Extended Projection Principle"(Rubin 1990:235).
As for causativization, he proposes the following rule (16):

16. Demotion to argument:
    An external theta-role of a verbal argument of a causative may be saturated by an argument in an internal argument position, provided that no other theta-role is already saturated in that position.
    e.g., [[[]] $\theta_1$] > [[[]$\theta_1$]] but *[[[] $\theta_2$] $\theta_1$] > [[[]$\theta_1$]]

Rubin also notes that in causative constructions arguments realized as nominative subjects in normal contexts may hold the accusative or the dative case if and only if no other argument of the infinitive verb appears. While this analysis predicts straightforwardly the behaviour of class I verbs, which pattern like transitive verbs, class II behaves slightly differently. The external theta-role of causativized constructions such as "*questo lo ha fatto preoccupare ancora di più a Mario*" 'this made Mario worry even more' has been saturated by an argument in complement position, which means that accusative arguments cannot saturate its

theta-role. Consequently, these constructions end up having both the trace of the accusative argument and the dative phrase *a Mario* in the complement position of V, which yelds their ungrammaticality.
As for the binding issue, class II verbs and verbs like *stancarsi* 'getting tired' and *ubriacarsi* 'getting drunk' share the property of having external non-agentive arguments, which are coindexed with affected internal arguments. Rubin identifies 'inchoativity' in the following way:

17. Inchoativity is the co-indexation of a non-agent external argument and a (non-focal) affected internal argument.

Neither transitives nor class I verbs meet the requirements in (17), since they have agentive subjects and unaffected internal arguments, respectively. Class II instead meets the requirements of (17).

## 3.3 PSYCH-MOVEMENT AS *P* INCORPORATION: EVIDENCE FROM ITALIAN (1990)

Farrell (1989) discusses one of B&R's predictions concerning *preoccupare* (to worry) verbs, i.e., the fact that they should behave like those constructions with subjects binding object traces. He aims at showing that *there are phenomena in Italian that are sensitive to this sort of binding configuration and the* preoccupare*-type psych-verbs fail to behave as predicted* (Farrell 1989:108). He proposes instead that the Stimulus (Theme in B&R) *preoccupare* (to worry) verbs is an underlying PP subject.
The first problem identified by Farell in B&R's NP-movement analysis has to do with Perfect Auxiliary Selection (PAS). The generalization concerning PAS (18) is that *essere* (to be) is selected when the subject is in a binding relation with another element (as shown by Burzio, 1986). Farell then discusses the assumption made by B&R in order to get rid of the *preoccupare* (to worry) problematic auxiliary choice, which is:

18. A verb takes *avere* (to have) if it has the capacity to assign accusative Case (structural or inherent), and *essere* (to be) otherwise (B&R).

Following Farrell (1989), (18) is problematic in that, for instance, reflexives clauses (19a) with an accusative object (19b) select *essere* (to be) as their auxiliary:

19. a. Giorgio si è/*ha comprato questi libri.
George himself is/has bought these books
*George bought himself these books.*
b. Giorgio se li è comprati.
George himself they is bought
*George bought them for himself.*

Given the failure of the generalization in (18), the author suggests that (20) better captures better the phenomenon in (19):

20. Perfect Auxiliary Selection:
*Essere* is selected in clause *b* if there is a CHAIN in *b* containing the subject of *b* and some other link in an A-position, otherwise *avere* is chosen.

If (20) is correct, the analysis proposed by B&R for the *preoccupare* (to worry) verbs in (1) cannot be on the right track.
According Farrell (1989), B&R's proposal fails to account for the PPA (Past Participle Agreement). Past participles (PP) in Italian do not agree with subjects of transitive and unergative clauses. In addition, agreement with an indirect object is not possible either, as in (21a-b), even if it is realized as a pronominal clitic, as in (21c):

21. a. Eva ha bevuto/*a/?e due birre
Eve has drunk-o (MASC)/-a (FEM)/-e (FEM-PL) two beers
*Eve has drunk two beers.*
b. Eva ha tossito/*a
Eve has coughed-o (MASC)/-a (FEM)
*Eve has coughed.*
c. Giovanni le ha telefonato/*a
John her has phoned-o(to him)/-a(to her)

*John called her.*

Instead, agreement takes place in constructions with a derived subject, as in (22a-b). Furthermore, direct object clitics trigger agreement, cf. (22c):

22. a. Eva è tornata/*o a casa
Eve has coughed-o (MASC)/-a (FEM)
*Eva returned home.*
b. Eva fu difesa/*o da Giorgio.
Eve was defended-o (MASC)/-a (FEM) by George
*George defended Eve.*
c. Eva le ha bevute (le birre).
Eve them has drunk (the beers)
*Eva has drunk them* (beers).

Following Burzio (1986), Farrell claims that the PP agrees with an element holding a binding relation with its direct object, as in (23):

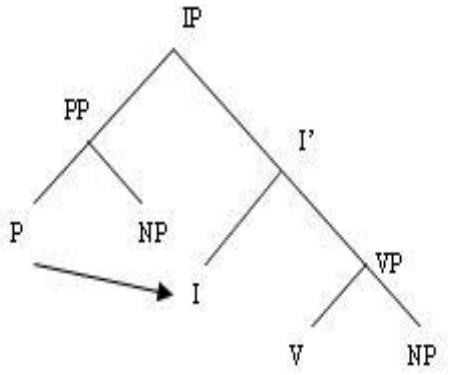
23. Past Participle Agreement:
A past participle *p* agrees in number and gender with the head of a multiple-linked CHAIN containing an NP in an A-position governed by *p*.

The analysis proposed in (1) by B&R predicts that the subjects of *preoccupare* (to worry) verbs should determine PPA, contrary to (24):

24. Questa idea ha entusiasmato/*a le donne.
this idea has excited-o (MASC)/-a (FEM) the women
*This idea excited the women.*

*The most straightforward way of squaring the analysis of the* preoccupare *psych-verbs with the PPA and PAS facts is to assume that the Stimulus is simply a subject- both at S-structure and at D-structure* (Farrell 1989:112). In order to account for the derived subject properties of *preoccupare* (to worry) verbs construction as well, Farrell assumes that Stimulus is both a base-generated and a derived subject, as in (25):

25.




In particular, Farrell claims that the Stimulus is not generated as an NP but as a PP. In order to support this idea, he argues that it appears with an overt P, at least in a productive number of cases, as the one in (26):

26. Gianni non si preoccupa di/per cose simili.
    John not himself worries of/for things similar
    S*uch things usually don't worry John*.

The key idea is that the P incorporates into I° in Baker's (1988) sense, which in turn allows I° to govern and Case-mark the NP at S-structure. Farrell suggests that there is an instance of Dative movement on the opposite site of the tree, or better *this NP is a clausal subject in Case-theoretic terms, but a prepositional object in theta-theoretic terms* (Farrell 1989:112). In other words, he claims that the traditional distinction between direct and indirect internal arguments should be extended to external arguments too.
Farrell then explains how this distinction can account for the derived subject properties of *preoccupare* (to worry) verbs.
As for the third person plural null pronoun with an *arbitrary* interpretation, he observes that this reading is available with unergative and transitive verbs, but not with unaccusative verbs:

27. a. Lo hanno cercato: era un signore anziano.

him have looked for: was a man elderly
*Some has looked for him: it was an elderly man.*

b. *Sono venuti a vedere: era una signora anziana.
are-3rdPLU come to see: was a lady elderly
*Someone dropped by to see: it was an elderly lady.*

c. *Hanno colpito il giornalista per l'estrema gentilezza: era il tuo amico.
have-3rdPLU impressed the journalist due to the estreme kindness:was the your friend
*Someone impressed the journalist for its extreme kindness: it was your friend*.

*Preoccupare* (to worry) verbs pattern along with unaccusative verbs. This is is not surprising, given that the subject of these verbs is a derived one. In addition, we need to assume that the condition is that *pro*arb must get a direct external θ-role. In other words, we can assume that *pro*arb must be θ-marked by I°, which entails that Stimulus, which is θ-marked by a preposition, fails to meet the condition.
The issue of reflexive clitics is illustrated in (28):

28. a. Gianni si ammira.
John himself admires
*John admires himself.*

b. *Gianni si preoccupa.
John himself worries
*John worries himself.*

c. *Eva si è stata affidata da Gianni
Eve herself is been entrusted by John
*John made Eve to entrust herself to her.*

According to Farrell, the reflexive must be assigned the the direct external θ-role of a verb, a restriction that follows straightforwardly from the fact that an indirect θ-role must be assigned to a PP, by definition, which is not the case of a reflexive clitic.
As for passivization constructions which exhibit the auxiliary *venire* (to come), Farrell (1989) claims that the impossibility for *preoccupare* (to worry) verbs to

undergo this kind of passivization can be considered to be an instance of the same kind of restriction. In particular, if the passive morpheme is an argument clitic in I (Baker, Johnson and Roberts 1989), then it is intrinsically incompatible with an indirect θ-role.

Farrell concludes his work by arguing that his proposal provides a plausible account for the fact that *preoccupare* (to worry) verbs show evidence that their subjects are derived only with respect to the phenomena having to do with the argument structure. *They have an external argument-but one that differs in a fundamental way from the external argument of canonical transitive verbs* (Farrell 1989: 115).

# CHAPTER 4
# A DISCUSSION OF B&R ANALYSIS

In the sections above I have reported the data supporting the unaccusative analysis proposed by B&R for Obj-Exp verbs[24]. In what follows, I shall reconsider their unaccusative analysis in the light of new data.

B&R's predicates have been re-tested with respect to auxiliary selection, nominalizations, argument structure, present participial form, *ne*-extraction and passive constructions. The aim of this work is to determine whether or not all psych-verbs that are expected to belong to one of the above mentioned subclasses behave consistently with respect to these diagnostics. In other words, if two or more verbs belong to the same class, we should expect them to behave in the same fashion with respect to the above tests. In the following discussion, I shall demonstrate that this is not the case, especially for the *preoccupare* (to worry) verbs. Consequently, the B&R Obj-Exp unaccusative analysis has to be be revised in order to account for their special behaviour.

Following Pesetsky (1995), I claim that B&R's Obj-Exp unaccusative analysis partially accounts for most empirical facts, although some data are not correctly predicted by their proposal. As noted by Pesetsky (1995), *in Italian and in English there are indeed Obj-Exp verbs that have properties associated with unaccusativity, but only a proper subset of the Obj-Exp verbs fall into this category*. Leaving aside *piacere* (to please) verbs (that can be considered real unaccusatives), some *preoccupare* (to worry) verbs actually pattern with unaccusatives.

In the following section, I reconsider the syntax psych-verbs in the light of new data. From a classificatory point of view, I first sorted them following B&R, i.e., looking at Case assignment properties. In doing so, I found out that, at least in Italian, most psych-verbs belong to the *preoccupare* (to worry )class [25].

24 In particular, Landau (2010) support of the B&R analysis, whereas Pesetsky (1995), Arad (1988) and Taegoo (1998) argue that B&R's unaccusative analysis cannot be maintained given that it cannot account entirely for psych-verbs aspects.

25 See the Appendix I.

## 4.1 A BRIEF CLASSIFICATION

Tab.1 shows that the biggest subclass of psych-verbs is the one of *preoccupare* (to worry), whereas *piacere* (to please) is the smallest one (cf. the Appendix for a complete classification of Italian psych-verbs):

| **PREOCCUPARE**<br>**psych-verbs** | **TEMERE**<br>**psych-verbs** | **PIACERE**<br>**psych-verbs** |
|---|---|---|
| accontentare (to satisfy) | adorare (to worship) | dispiacere (to displease) |
| addolorare (to sadden) | amare (to love) | dolere (to hurt) |
| allarmare(to alarm) | ammirare (to admire) | gustare (to enjoy) |
| angosciare (to distress) | apprezzare (to appreciate) | interessare (to interest) |
| angustiare (to worry) | detestare (to detest) | nuocere (to be harmful) |
| annoiare (to annoy) | disprezzare (to despise) | piacere (to please) |
| calmare (to calm) | idolatrare (to idolatrize) | |
| colpire (to strike) | invidiare (to envy) | |
| commuovere (to touch) | odiare (to hate) | |
| compiacere (to gratify) | preferire (to prefer) | |
| confondere (to confuse) | soffrire (to suffer) | |
| confortare (to confort) | sopportare (to endure) | |
| disgustare (to disgust) | stimare (to value) | |
| divertire (to amuse) | temere (to fear) | |
| eccitare (to excite) | tollerare (to tolerate) | |
| esaltare (to elate) | tribolare (to suffer) | |
| esasperare (to exasperate) | | |
| immalinconire(to make sb melancholy) | | |
| impaurire (to frighten) | | |
| impietosire (to move to pity) | | |
| impressionare (to impress) | | |
| incantare (to charm) | | |
| inquietare (to trouble) | | |
| lusingare (to flatter) | | |

| | | |
|---|---|---|
| meravigliare (to astonish) | | |
| nauseare (to nauseate) | | |
| offendere (to offend) | | |
| ossessionare (to obsess) | | |
| preoccupare (to worry) | | |
| rallegrare (to gladden) | | |
| rincoglionire (to have sb. go nuts) | | |
| scandalizzare (to scandalize) | | |
| sconcertare (to puzzle) | | |
| turbare (to disturb) | | |
| umiliare (to umiliate) | | |

Tab.1 A short sample of the psych-verbs subdivision following B&R classification.

## 4.2 NOMINALIZATIONS

Chomsky (1970) claims that verbs and nouns share complement-taking properties in some fundamental respects, as illustrated by the pair in (1).

1. a. The enemy destroyed the city.
   b. The enemy's destruction of the city.

According to the author, there are three kinds of possible nominal constructions, i.e., gerundive (2a), derived (2b) and mixed nominalizations (2c)[26]:

2. a. John's criticizing the book.
   b. The barbarians destruction of the city.
   c. Belushi's mixing of drugs led to his demise.

Three facts presented in Chomsky (1970) are relevant for the present analysis.
First of all, not all nominal formations are productive[27]. Lees (1960), cited in Alexiadou (2001:2), argues that *all verbs have a corresponding gerund, but not*

26 The third type is called *mixed*, given that such nominals have the form of a gerund and the syntax of a derived nominal.

*all of them give the corresponding derived nominal. Moreover, only in the gerundive context* (…) *the presence of an auxiliary is licit*. On the contrary, nominal formation is apparently more productive in Italian than in English[28]. Still, not all verbs have a derived nominal counterpart.

Secondly, there seems to be an idiosyncratic relation between the derived nominal and the verb. While verbs can be easily retrieved from all gerundive nominals, the same is not possible with derived nominals[29]. This seems to be true also for Italian (see sec. 1.3 for a discussion).

Thirdly, some roots are not specified for lexical category, and they can surface in a different morphological form when they appear in noun position than when they appear in verb position, e.g,, *destroy - destruction, refuse - refusal*.

### 4.2.1. RESULT VS PROCESS NOMINALS

In the literature, it has been proposed that elements such as nouns and verbs can be defined as roots which combine with functional heads in order to have their categorial status determined. Nevertheless, although nouns and verbs are semantically related, the hypothesis that nouns too have an argumental structure has not been accepted as uncontroversial. Many authors, including Anderson (1983), Higginbotham (1983), and Dowty (1989), among others, have argued that nouns crucially differ from verbs in that the only the latter take arguments. In this respect, Grimshaw (1990) argues that some nouns denote complex events. For example, the nominal construction *the examination of the students* denotes a complex event and has an argument structure, just like the corresponding verb. On

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27 Chomsky *gives three examples of structures that only survive in gerundive nominalizations: Raising to subject, tough-sentences and certain psych constructions. Below is the pattern for raising exemplified*:

a. Harry was certain to win the prize.
b. Harry's being certain to win the prize...
c. *Harry's certainty to win the prize... (no Raising within NP) (Lundquist, 2008)

28 *La critica di Giovanni è stata utile* (Johns' critics of the book has been helpful) vs. *Gianni criticando il libro è stato molto utile* (John's criticizing the book has been helpful).

29 Chomsky gives examples like *marriage, construction* and *laughter* where it's not obvious how to get the slightly idiosyncratic readings of these nominalizations (Lundquist, 2008).

the other hand, other nominals, like those denoting simple events, do not have an argument structure. Similar to the latter group, nominals such as *trip* and *race* and *result,* and *exam* do not have an argument structure. Given that not all nominals share verbal structure, it has been proposed to divide nominals into process and result nominals (see Grimshaw, 1990, among others). According to recent works (see Alexiadou ,2001, among others) process nominals are syntactically related to verbs. Consequently, it follows that process nominals and verbs share the same initial syntactic structure[30]. Alexiadou (2001) argues that the difference between process and result nominals is that the former include a set of functional categories standardly associated with verbal clauses that bring about the process or event reading, while the latter lack such projections (Alexiadou 2001:10). According to Alexiadou (2009), based on Gimshaw (1990) and Borer (2003) process and result nominals properties are as follows:

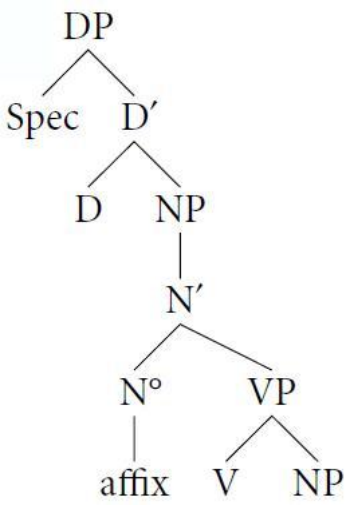
| Result nominals | Process nominals |
|---|---|
| non-θ-assigner | θ-assigner |
| no event reading | event reading |
| no agent-oriented modifiers | agent-oriented modifiers |
| subjects are possessive | subjects are arguments |
| no implicit argument control… | implicit argument control… |

Tab.2 Result and Process nominals properties (Alexiadou , 2009)

As for the origin of the distinction between result and process nominals, Alexiadou (2001) argues that the verb-like properties of process nominals (cf Tab.2) are to be attributed to the presence of a VP node inside these nominals. On the other hand, it has been argued that result nominals do not include a VP, hence their lack of argument structure. Thefore, those who argue in favour of the VP-like structure analysis distinguish between nominal inserted in a verbal domain and nominals inserted in a nominal domain. As for the former, they propose the structure in (3):

30 I consider in fact only result nominals as pure nominals, i.e., not derived and only semantically related to the verbs. On the contrary, I consider process nominals and verbs deriving from the same lexical root.

3.




According to them, result nominals are directly inserted under N°.
Nevertheless, other linguists (see Borer 2005 and Bierwisch 2009, among others), argue that nominalization is an essentially lexical phenomenon with well defined syntactic and semantic conditions and consequences (Bierwisch 2009:281). In the latter approach, nominalization is considered as related to the role of idiosyncratic information and the condition of underspecification. On the other hand, the syntactic aspect relates more to the combination of heads and complements and to the semantic consequences of such a combination. The major controversy concerns the question of whether lexical information is involved or not in the conditions that detemine the nominal or verbal character of the construction under investigation. In particular, if lexical items lack syntactic information then all derivational processes (as nominalization) cannot be considered as lexical phenomena. In sec.12.2, I will return to Alexiadou (2001). In the next section instead, an analysis of psych-verbs nominals formation process is proposed.

### 4.2.2. A CAUSATIVE DENOTING DEVICE**:** NOMINALIZATION

In addition to turning verbs into nouns, I claim that process of nominalization is important also for another reason, i.e., by nominalising an Italian psych-verb, it is possible to highlight its inherent causative semantics. Contrary to Pesetsky (1995), I propose that the causative properties of psych-verbs show up also in nominal forms (see sec.13.2). Note *in passim* that these properties could not be

predicted under the B&R's unaccusative analysis. Nevertheless, I will show that psych-verbs nominal forms entail some kind of causativity.
If the unaccusative hypothesis is not on the right track, as it will be shown in further detail, can we classify *preoccupare* (to worry) verbs as traditional transitives? Consider (4):

4. **Tutte queste tue teorie mi** hanno confuso profondamente.
   All these your theories me-cl have confused deeply
   *I got really confused by all these theories of yours.*

On the basis of (4), I propose that the thematic role hold by the subject is not the same as the one hold by *Marco* in (5):

5. Marco ha lanciato il pallone lontano con un calcio.
   Marco has thrown the ball far away with a kick
   *Mark has kicked the ball far away.*

While the transitive verb *lanciare* (to throw) assigns an Agent theta-role to *Marco* in (6), *confondere* (to confuse) does not. Consequently, *tutte queste tue teorie* (all these theories of yours) in (5) cannot be considered as an Agent. Nevertheless, the Experiencer *mi* 'me-cl' feels *confused* in response to some external stimuli, that can be intentionally or not have been caused by a third element. It is easily to imagine a situation in which someone discusses her ideas for hours and changes her mind so many times that she unintentionally makes the audience feel confused. This means that, no matter how intentional it was, she has just ***caused*** that kind of feeling. Differently from unaccusative verbs then, *preoccupare* (to worry) verbs assign an Agent-alike theta-role to their subjects. Consequently, I propose that psych-verbs do not assign an AGENT theta-role to their subject, but rather a CAUSER one. I will further show that the notion of CAUSE is too generic, in that the CAUSE function in psych-verbs is different in nature from the CAUSE posited for prototypical transitive verbs as *kill* or *destroy* (see ch.13). To sum up, it is clear that the psychological state (psych-state) of the Experiencer is forced by a third participant, whatever this may be. In what follows, I will analyse psych-verbs with respect to a causative-denoting device, i.e., psych-verbs nominalizations.

Nominalizations express a strong relationship between the nominalized feeling and an external CAUSE, as in (6):

6. a. Mario preoccupa sempre tanto i suoi genitori.
   Mario worries always a lot the his parents
   *Mario always alarms his parents.*
   b. La *preoccupazione* dei genitori di Mario **per** i suoi voti è grandissima.
   The anxiety of the parents of Mario for the his school marks is very big
   *Mario's school marks seriously worries his parents.*
   c. Quel goal all'ultimo minuto ha deluso tutti, soprattutto Marco.
   That goal at the last minute has disappointed everybody, especially Mark
   *That one minute to time goal disappointed everybody, especially Mark.*
   d. La delusione di Marco **per** aver perso la finale all'ultimo minuto è stata molto forte.
   The disappointment of Marco for have lost the final at the last minute is been very strong.
   *Marco's disappointment for having lost the final at the very last minute was huge.*

Note that in (6b) the causative nature of *preoccupare* (to worry) verbs nominal shows up clearly, as witnessed by the presence of the preposition *per* (for). Although *per* literally means 'for/through', it can also stand for *a causa di* (lit. due to), given the appropriate causative context. If this kind of nominals expresse causation, then changing *per* (for) with *a causa di* (due to) should not cause any effects, i.e., the sentence should preserve the original meaning. Consider (7):

7. La *preoccupazione* dei genitori di Mario **a causa dei** suoi voti è grandissima.
   The anxiety of the parents of Mario due tohis school marks is very big
   *Mario's school marks seriously worries his parents.*

Moreover, it is clear that in (6d) Marco's feeling of disappointment is due to the fact that he lost the match at the last minute. To sum up, although not all nominalizations have a causative semantics, this seems to be true instead for psych-nominalizations. Consequently, it is necessary to analyse all psych-verbs with respect to the their nominalization process to determine whether or not they behave in the same fashion. In the next section, data concerning psych-verbs nominalizations will be then provided.

Before that, recall that B&R subdivide psych-verbs into three classes (*temere* –to fear, *preoccupare* -- to worry -- and *piacere* – to please). Consequently, we expect these classes to be consistent with respect to most linguistics diagnostics.

As for the nominals derivation, all *temere* (to fear) verbs should either nominalize or not and the same should be true for both the *preoccupare* (to worry) and the *piacere* (to please) verbs. Furthermore, given the different syntactic structure of Subj-Exp verbs and Obj-Exp verbs in B&R's analysis, both *preoccupare* (to worry) and *piacere* (to please) should behave differently from the *temere* (to fear)[31].

## 4.2.3. NOMINALIZATIONS AND ITALIAN PSYCH-VERBS

In this section, I will test the behaviour of *preoccupare* (to worry) verbs with respect to nominalization constructions. To anticipate the discussion, data will show that *preoccupare* (to worry) is not a homogeneous class.

### 4.2.3.1. DATA

The causativity of psych-verbs' nominalizations reflect the relationship of cause and effect established between the events and the emotive reaction of Experiencers. Still, such a causativity is not always apparent. While both *sopportazione* (tolerance/patience) and *emozione* (emotion), which derive from *sopportare* (to tolerate) and *emozionare* (to move/touch) (a *temere* 'fear 'and a *preoccupare* 'worry' verb, respectively), are possible, *piacimento*, a deverbal nominal derived from *piacere* (to please) is not , cf. (8)-(9)-(10):

31 Recall that B&R consider both the *preoccupare* (to worry) and the *piacere* (to please) verbs as unaccusative verbs.

8. a. I genitori di Luigi sopportano tutte le sue marachelle.
   the parents of Luigi tolerate every of his tricks
   *Luigi's parents tolerate all the tricks he makes.*
   b. La sopportazione di tutti ha un limite.
   the tolerance of everybody has a limit.
   *There's a limit to one's tolerance/patience.*

9. a. Questa partita ha emozionato tutti.
   this match has touched everybody
   *This match has touched (deeply) everybody.*
   b. L'emozione per/di essere qui con voi è molto grande.
   the emotion for/to be here with you (it) is very big
   *It's such an emotion being here with you guys.*

10. a. Il gelato piace molto a Marco.
    The ice-cream pleases a lot to Marco
    *Mark likes the ice-cream a lot*.
    b. *Il piacimento di Marco per il gelato è onesto.
    the likeness of Mark for the ice-cream is sincere.
    *Mark really likes ice-cream.*

The impossibility for *piacere* (to please) to nominalise (10) is only one single piece of a wider issue. In particular, the resistance of *piacere* (to please) verbs to nominalise is merely a by-product of their derivational process. Note that it would not be correct to argue that *piacere* (to please) verbs cannot undergo a nominalisation process *per se*. Instead, this has to do with the fact that their nominals counterparts are simply morphologically different from *preoccupare* (to worry) and *temere* (to fear) derived nominals, cf. (11). Therefore, I propose that *piacere* (to please) verbs too can be nominalised, although in a different manner with respect to *preoccupare* (to worry) and *temere* (to fear):

11. Il piacere di Marco per la lettura supera quello per lo sport.
    The pleasure of Marco for the reading overcome the one for the sport
    *Marco is more into reading than into sports.*

(11) also shows that *piacere* (to please) nominalizations share the same PF form as their infinitive, i.e., *piacere* (pleasure) from *piacere* (to please), *spiacere* (being sad) from *spiacere* (to make sb. sad). As mentioned above, my claim is that the difference between *spiacere* and *preoccupazione* (worry) does not have to do with the derivation (from verbs to nouns), but rather with the elements merged in the structure and incorporated through the derivation[32]. In particular, while all psych-verbs undergo the same morphological derivation, the incorporated elements might be different in terms of phonetic output. This last topic will be discussed in further detail later on.

These differences seem to link together the *temere* (to fear) and the *preoccupare* (to worry) classes and set them apart from the *piacere* (to please) one. Furthermore, this goes on a par with the fact that the former psych-verbs select the auxiliary *avere* (to have), while *piacere* (to please) verbs select *essere* (to be)[33].

Note, however, that the *preoccupare* (to worry) class, unlike the *temere* (to fear) one, is far from being homogeneous. For example, many *preoccupare* (to worry) verbs do not nominalize, as shown in (12):

12. a. La sua recente scomparsa ha addolorato tutti noi.
his recent passing has sadden all of us
*His/her death really sadden us all.*
b. *L'addoloramento/addolorazione dei suoi amici.
the sadness of his/her friends
*his/her sadness*

Therefore, the alleged homogeneity of the *preoccupare* (to worry) verbs proposed in B&R, (12b) cannot be maintained. On the contrary, both the *temere* (to fear) and the *piacere* (to please) subclasses are quite homogeneous, as shown by the fact that only a few verbs of both classes do not nominalize, e.g., *compiangere* (to pity), *inorridire* (to horrify), *paventare* (to dread), *pazientare* (to

32 In ch. 12, I will support the hypothesis that the difference in the nominalization depends on categorial status of the the elements merged within the structure. In particular, I claim that Experiencers merge as either a NP or a DP (see ch.8).

33 This is topic will be further discussed in sec. 4.3.

have patience), *rinsavire* (to come to one's senses) and *sgradire* (to not like st.) in the *temere* (to fear) class and *garbare* (to like) in the *piacere* (to please) class[34].
Note that, in addition to *addolorare* (to sadden), many other psych-verbs do not nominalize, which means that (12b) is not an isolated case. In tab.1, a small sample of the results about the possibility of nominalization of *preoccupare* (to worry) verbs is reported (a blank space indicates that the nominalization is not possible).

| PREOCCUPARE *class* | Nominalization |
|---|---|
| addolorare (to sadden) | |
| affascinare (to fascinate) | *affascinamento*[35] |
| allarmare (to alarm) | |
| amareggiare (to embitter) | amareggiamento (embittered) |
| attristare (to afflict) | |
| avvincere (to captivate) | |
| consolare (to console) | consolazione (consolation) |
| desolare (to desolate) | desolazione (desolation) |
| disorientare (to disorient) | disorientamento (disorientation) |
| divertire (to amuse) | divertimento (amusement) |
| esasperare (to exasperate) | esasperazione (exasperation) |
| impaurire (to frighten) | |
| impensierire (to worry sb.) | |
| incuriosire (to intrigue sb.) | |
| indispettire (to vex) | |
| ingelosire (to make sb. jealous) | |
| innervosire (to get sb. nervous) | |
| insospettire (to arouse sb.'s suspicion ) | |

34 I will show below that all the impossible psych-verb nominalisations have a common origin, which has to do both with the morpho-syntactic process and a strong causative nature entailed by some psych-verbs.

35 *Affascinamento* is not a proper psych-nominal in the sense that it is not the result of an action, whether intentional or not. In fact, following both Italian dictionaries (Sabatini Coletti and Devoto Oli), *affascinamento* basically means "the ability of fascinate", therefore I consider it as a pseudo-nominalization. Other pseudo-nominalizations as the psych-state *innamoramento* (falling in love) are not the result of any external stimulus but something else. As for *innamoramento* (falling in love), it describe the "moment in which the process of falling in love starts" therefore not the consequence of somebody/something's else action.

| | |
|---|---|
| mortificare (to mortify) | mortificazione (mortification) |
| oltraggiare (to outrage) | oltraggi-o/-amento (outraged) |
| rattristare (to make sad) | |
| sbigottire(to dismay) | sbigottimento (dismay) |
| spazientire (to test sb.'s patience) | |
| spoetizzare(to takemagic *out* of th.) | |
| stimolare (to stimulate) | stimolazione (stimulating) |
| svelenire | |
| urtare (to irritate/annoy) | |

Tab. 1 A sample of the nominalizations of the *preoccupare* (to worry )verbs class.

It is also worth pointing out that almost all the non-nominalizing verbs in tab.1 seem to have something in common[36]. Consider for example *rattristare* (to afflict) in (13):

13. Questa situazione rattrista moltissimo tutta la nostra famiglia.
    This situation make sadden very much all the our family
    *This situation sadden our family entirely.*

From a morphological point of view, *rattristare* (to afflict) is composed by *ri* (again) plus *attristare* (make sad). Since *rattristare* (to afflict) is not the only verbs starting with *ri* which cannot nominalize, I propose that the affix *ri* blocks the nominalization. In other words, assuming that *riattristare* (to afflict) is the result of some morphological derivation that puts together *ri* and *attristare*, it is reasonable to argue that this morphological derivation blocks the nominalization of this verb. If this hypothesis proves to be correct, we expect that other *preoccupare* (to worry) verbs starting with the same prefix are not able to nominalize. Consider the case of *rallegrare* (to cheer up). This verb similar to *rattristare* (to sadden), in that it can be decomposed exactly in the same way, i.e *ri+allegrare*. Nevertheless, as opposed to *rattristare*, it can be nominalized, cf. (14):

36 I will show in ch. 7 that all the non-nominalizing verbs seem made up of a locative preposition, and a psych-state. Moreover, I consider that the locative preposition can be visible (overtly realized) or not (phonetically null).

14. Il battesimo è una festa religiosa che porta gioia e rallegramento.
    The baptism is a feast religious that brings joy and good time
    *The baptism is a feast that means both joy and good time together.*

The possibility to nominalize *rallegrare* (to cheer up), therefore, shows that the complex composition hypothesis proposed for *rattristare* (to sadden) apparently does not always hold. Note however that there is one crucial difference between *rattristare* (to sadden) and *rallegrare* (to cheer up), i.e., *attristare* (to sadden), which is a psych-verb too — cf.tab.1—can be further decomposed in *a+triste* (sad), whereas *allegrare* cannot[37]. Note that *attristare* cannot be nominalized either. Consequently, the distinction between *rallegrare* (to cheer up) and *rattristrare* (to sadden) follows straightforwardly, since **attristare* (to sadden) cannot nominalize, *rattristare* (to sadden) cannot either.

To sum up, *rattristare* (to sadden) and *rallegrare* (to cheer up) cannot be considered morphologically similar, the former being decomposable as *r-at-trist-are*, while the latter as *r-allegr-are.* Therefore, the fact that both *rattristare* (to sadden) and *attristare* (to sadden) cannot have a nominal derivation could be linked to the presence of the prefix *a-*, which, contrary to the negative prefix *a-*, indicates some kind of movement[38]. Note that *rallegrare* (to cheer up), on the other hand, does not contain it.

Consider now another example of a non-nominalizing verb starting with *a-*, such as *affascinare* (to fascinate) (cf. Tab.1 above)[12]. Following both Devoto-Oli and Sabatini-Coletti dictionaries, *affascinare* (to fascinate) is composed by *a+fascino*, the prefix *a* having exactly the same meaning as the one in (*r-)*at-*trist-are*. The compound nature of some of the *preoccupare* (to worry) verbs is even more evident with verbs like *impaurire* (to frighten), which can be morphologically decomposed as *in+paur+ire.* The prefix *in-* of this verb entails some kind of

37 Although *allegrare* (to cheer up) itself is a verb, I consider it different from *attristare* (to sadden). In particular, I consider the latter as a real derived verb whereas I consider the former as the verbalized form of the adjective *allegro* (happy).

38 Italian has two different *a-* prefixes, one from Latin and the other from Greek, with two different meaning. The former, as mentioned above entails a kind of approach or movement from one place to another (i.e., *avvicinare* ‘ draw up'), whereas the latter introduce a negative value (i.e., *analcolico* ‘nonalcoholic ’).

movement, similarly to *a-*[39]. Therefore, It is plausible to link the ungrammaticality of some psych-verbs' nominalization to their morphological composition.

If this approach is on the right track, it should generalize to verbs of this class composed by either *a* or *in*, plus either a noun or an adjective. Consider the compounded psych-verbs starting with *a-*. Data show that some of these compounded psych-verbs seem to contradict the compound-constraint just introduced, in that they can actually nominalise (see the Appendix I). Nevertheless, it plausible to argue that this constraint does not affect these verbs for two reasons. First of all, they cannot be considered compound verbs, unlike *rattristare* (to sadden). Secondly, their alleged nominal forms cannot be equated to those derived from psych-verb such as *impaurire* (to frighten), as they do not express the result of a process or the reaction to an external stimulus, cf. *Appassionamento* (involvement) (see ch.13 for further detail).

Let us consider now some instances psych-verbs starting with *in* which seem to nominalize. Consider for instance the case of *innamorare* (to enamour), from which the noun *innamoramento* (falling in love) can be derived. Although this derivation is grammatical, it cannot be consider as a proper counterexample in that, contrary to nominal forms such as *impaurimento* (frightening), it simply denotes the starting-point of a psychological state (i.e., the one of *being in love*), and not the result of some external processes, just like *affascinamento* from *affascinare* (to fascinate). Therefore, the compound constraint seems to hold.

Given that verbs starting with *in-* have a more evident compound nature, I grouped together all *preoccupare* (to worry) verbs starting with *in-*, in order to check the possibility of nominalization within this group.

| PSYCH-V STARTING WITH *I(N)*- | | |
|---|---|---|
| *imbarazzare* (embarrass) | *incrudelire* (make sb. Cruel) | *innervosire* (make sb. Nervous) |
| *imbestialire* (get sb. Mad) | *incuriosire* (intrigue sb) | *inorgoglire* |
| *immalinconire* (sadden) | *indiavolare* | *inorridire* (horrify) |
| *impallidire* (pale) | indignare (make sb indignant) | inquietare (disturb) |
| *impaurire* (frighten) | *indispettire* (pique) | *insospettire*[40] |

39 Following the Sabatini-Coletti dictionary, the prefix *in-* used to turn adjectives, nouns or verbs into verbs entails a displacement from one place into another and/or the the fact that something is inside a place like *inscatolare* 'to box up' which can be semantically decomposed by put x inside a box.

| | | |
|---|---|---|
| *impazientire* (lose patience) | indisporre (upset) | intenerire (touch) |
| *impazzire* (go mad) | indottrinare (indoctrinate) | intimidire (intimidate) |
| *impensierire* (worry sb.) | *inebetire* (make sb. Stupid) | intimorire (frighten) |
| *impermalire* (get sb. Annoyed) | inebriare (inebriate) | intontire (numb) |
| *impietosire* (move to pity) | *infastidire* (vex) | intristire (languish) |
| *impressionare* (impress) | infatuare (make sb. Infatuated) | invaghire[26] |
| inasprire (embitter) | *inferocire* (make sb ferocious) | invasare (obsess) |
| incantare (bewitch) | infervorare (make sb excited) | *invelenire* (embitter) |
| *incattivire* (make sb. Bad) | *infiammare* (make sb excited) | *invogliare*[26] |
| incoraggiare (encourage) | infuriare (enrage) | istupidire (male sb stupid) |
| *incollerire* (make sb. Angry) | *ingelosire* (make sb. Jealous) | |
| incretinire (make sb. Stupid) | *innamorare* (enamour) | |

Tab2 A list of the *preoccupare* (to worry) verbs that starts with *i*(n); non-nominalizing psychological verbs in italics .

Tab.2 lists all the *preoccupare* (to worry) verbs that starts with *in*- and shows that most of them do not nominalize[41]. Although many non-nominalizing psych-verbs do not start with *in*- or *a*-, we could speculate that the element responsible for blocking the nominalisation of *preoccupare* (to worry) verbs is precisely this kind of prefix, which is nothing but a locative preposition (*a* 'to' and *in* 'in'[42]). Nevertheless, we still have to account for the impossibility of nominalise all those psych-verbs that are not compounded verbs, nor start with *a*- or *in*-.

40 *invaghire*: make somebody infatuated
*insospettire: a*rouse somebody's suspicion
*invogliare*: prompt somebody to do something

41 In *italics* all the *preoccupare* (to worry) verbs that do not nominalize.

42 Although it is not a locative preposition, another another prefix with a locative semantic is present within psych-verbs, i.e., i.e., *s*-, which can be translated as *out of*. In particular, *spregiare* (to despise) can be composed as *s-pregi-are*, similarly to *addolorare* (to sadden) and *impaurire* (to frighten) above.Concerning its meaning, *spregiare something* can be paraphrased as 'take/remove *pregio* out of something'.

As for this latter point, I claim that, although this is not always visible, all psych-verbs are compounded verbs and the locative preposition is silent[43]. Consider non-nominalizing verb such as *allarmare* (to alarm) in (15):

15. a. Gianni allarma sempre tutti per niente.
John alarm always everybody for nothing
*John always puts everybody in alarms for nothing.*
b. L'annuncio dei terroristi ha messo tutti in allarme.
the announcement of the terrorists has put everybody in alarm
*Terrorist's threat put all the people in alarm.*

Although *allarme* (to alarm) is not a compound as *impaurire* (to frighten), a silent preposition is incorporated within the verb. In particular, *allarmare* (to alarm) is the synthetic counterpart of *mettere in allarme* (put in alarm), in which the preposition is visible, as shown in (15b). Furthermore, (15) tells us that potentially any *preoccupare* (to worry) verbs have an incorporated locative affix. Then, the question arises why this should be the case and why most of these verbs can nominalise, whereas some others cannot. See ch. 12 for a proposal. For the time being, just note that the locative prepositions *in* and *a* seem to play an important role in psych-verbs constructions. In particular, I consider these prepositions to be the marker of a more complex syntactic structure than the ones proposed so far (see B&R, Arad 2000, Pesetsky 1995 among others). In other words, I invoke a more fine-grained analysis of the structure of psych-verbs. In the following sections, further data in favour of this hypothesis will be provided.

### 4.2.4. INTERIM CONCLUSION

In this section, I have shown that not all the *preoccupare* (to worry) verbs nominalize, a fact which is not expected under the analysis proposed by B&R. This is due to the complexity of the morphology of these verbs, which can be either visible, as it is the case for verbs beginning with *in-* or *a-*, or not. I have also shown that most non-nominalizing psych-verbs begin with *in-* and that this

43 In ch. 8, it will be shown that prepositions play an important role in psych-verbs derivation. Moreover, it will be also shown that they are always present, either overtly (visible at PF) or not (visible only at LF).

prefix is semantically related to the Italian locative preposition *in* 'in'. Consequently, I have suggested that these prepositions play a key-role in the analysis of psych-verbs.

## 4.3 **AUXILIARY SELECTION**

### 4.3.1. INTRODUCTION

As mentioned above, in Italian there is a simple past and a present perfect, both of them expressing perfective aspect. As well-known, the auxiliary *per se* does not introduce any lexical meaning cf.(16):

16. a. Ieri sono andato al mercato.
yesterday am gone at the market
*Yesterday I have been to the market.*
b. Ieri andai al mercato.
yesterday went at the market
*Yesterday I went to the market.*

As shown in (16), the auxiliary plays essentially a functional role given the identical meaning of both sentences. The functional nature of auxiliaries is cross-linguistically valid; in this respect, consider for instance polysynthetic languages. In such languages, auxiliaries, in addition to not influencing the overall semantic of the predicate, are merely affixed to predicates. Consider the Chukchi sentence in (17):

17. Təmeyŋəlevtpəɣtərkən.
*t-ə-meyŋ-ə-levt-pəɣt-ə-rkən*
SG.SUBJ-great-head-hurt-PRES
*I have a fierce headache* (Skorik 1961: 102)

Let us analyse how another polysynthetic language, as the Siberian Yupik, deals with auxiliary:

18. a *aglaat-∅ -aqa (> aglaataqa)*
walk -PRF-TR.1s.A+3s.O
'I have carried it.'

b. *aglaat-ima-aqa (> aglaasimaqa)*
walk -PST-TR.1s.A+3s.O
'I carried it.'

c. *aglaat-ima-ngit -aqa (> aglaasimangitaqa)*
walk -PST-NEG-TR.1s.A+3s.O
'I did not carry it.'

d. *aglaat-na -ngit -aqa (> aglaannanghitaqa)*
walk -FUT-NEG-TR.1s.A+3s.O
'I will not carry it.' (Vakhtin 2009:71)

Both (17) and (18) confirm the functional roles of auxiliaries within the structure. Taking this into account, I propose that the different auxiliary selection within psych-verbs depends totally on the syntactic derivation (see sec. 8.3.2. above and 13.2.3 below). Let us discuss more in detail the Italian auxiliary selection with non psych-verbs now.

As in other Romance and Germanic languages, in Italian some verbs select *avere* (to have) (henceforth A) whereas others select *essere* (to be) (henceforth E)[44]. The selection of the auxiliary, *as many other kinds of syntactic behavior, is sensitive* to (many dimensions, like) *the aspectual and thematic* properties (Grimshaw, 1990 and Baker, 1997 cited in Sorace 2000: 861).

For instance, verbs like *correre* (to run) (19) and *affondare* (to sink) (20) select their auxilary depending on either the telicity vs atelicity of the event or on the number of NP that the verb select respectively[45].

19. a. Marco *ha* corso per tutta la giornata.
Mark has run for alla the day
*Mark has run all the day long.*

44 Recall sec.1.3.

45 *Correre* (to run) and *affondare* (to sink) select either E or A depending on the aspectual value or on the number of NPs they select respectively.

b. Gianni *è* corso subito a casa dopo la lezione.
John is run immediately at home after lesson
*John has run home straight after lesson.*

20. a. L'esercito nemico ha affondato la nave in poco tempo.
the army enemy has sank the ship in a few time
*The enemy army has sank the ship easily.*
b. La nave *è* affondata velocemente.
the ship is sank fast
*The ship has sank fast.*

On these basis, the generalization that the aux A is selected with transitive predicates and a subclass of intransitive verbs (unergatives) and the aux E is selected by another subclasses of intransitive verbs (unaccusatives) follows. This phenomenon, called "Split intransitivity", does not concern only Italian. Moreover, it directly confirms the Unaccusative Hypothesis (Perlmutter, 1978 and Burzio, 1981), i.e., that intransitive verbs must be classified as either unaccusatives or unergatives [46]. Italian unergative verbs select A, and the unaccusative verbs selects E.

### 4.3.2. AUXILIARY SELECTION AND ITALIAN PSYCH-VERBS

The unaccusative hypothesis proposed by B&R for the *preoccupare* (to worry) and *piacere* (to please) classifies them as unaccusative verbs with two internal arguments. On such bases, we should expect that both *preoccupare* (to worry) and *piacere* (to please) verbs select E. Furthermore, one of their internal arguments become the sentential subject just in the course of the derivation (as in Burzio's 1986 hypothesis of E selection). Let us take into consideration *piacere* (to please) verbs:

21. a Il gelato piace sempre tanto ai bambini
the ice-cream likes always so much to kids

46 The Split intrasitivity phenomenon is present also in French (see "*Split intransitivity in French: an optimality-theoretic perspective"* by Legendre and Sorace) Russian (see "*Measure NPs and Split Intransitivity in Russian"* by Francesca Fici) and in Bantu languages (see among others Kangira 2004).

*Ice-cream is always a pleasure for all kids.*

b. Il gelato è piaciuto tanto ai bambini
the ice-cream is liked so much ti the kids
*The ice cream is pleased a lot to kids.*

In (21), *piacere* (to please) selects E as its auxiliary, according to the unaccusative analysis proposed by B&R. Nevertheless, other psych-verbs belonging to the same class, i.e., *convenire* (to be worthwhile/convenient), contradict B&R's assumption. *Convenire* (to be convenient) in fact selects both A and E as in (22-23):

22. a. Conviene a tutti accettare questo accordo.
advisable to everybody accept this agreement
*It is advisable to all of us accepting this agreement* .

b. L'accordo di ieri **è** convenuto a tutti per una serie di motivazioni.
the agreement of yesterday is worth to everybody for a series of motivation
*The agreement reached yesterday has pros for everybody, from many point of views.*

23. a. Mia madre conviene con me che questo gioco è pericoloso.
My mother agrees with me that this game is dangerous
*My mother and I both agree that this is a dangerous game.*

b. Tutti i presenti **hanno** convenuto sulla necessità di rinviare la riunione.
All the present have agreed upon the necessity to postpone the meeting
*Everybody thought that it would be a better idea to postpone the meeting.*

In the literature (see Lepschy and Lepschy 1988 and Bentley 2006), it has been proposed that the alternation of E and A in (22) and (23) depends on the existence of two lexical entries for *convenire* (to be convenient), each of which with different aspectual and thematic representations[47 ; 48]. Such verbs have been

47 *Convenire* (to be worthy) can be translated either as (be worthwhile) or as (agree) depending on the context.

considered as *vivere* (to live), which can be interpreted as *essere vivo* (to be alive) or as *aver sperimentato* (to have experienced), a state and an activity respectively (24-25). In this respect, consider the following examples:

24. a. I miei zii sono vissuti cent'anni.
the my uncles (and aunts) are lived hundred years
*My uncles lived one hundred years.*
b ?I miei zii hanno vissuto cent'anni.
the my uncles (and aunts) have lived hundred years
*My uncles have lived a hundred years.*

25. a. ?I miei zii sono vissuti qui tre anni.
the my uncles (and aunts) are lived here three years
*My uncles have lived here for three years.*
b. I miei zii hanno vissuto qui tre anni.
the my uncles have lived here three years
*My uncles (and aunts) have lived here three years.*

Starting from *piacere* (to please) verbs analysis, this can be a possible account for all such verbs selecting both E and A. Nevertheless, let us note that these verbs resemble traditional transitive verbs used metaphorically, i.e., describing a state of mind (26b)[49]. Consider the case of *premere* (to push) below:

26. a. L'autista ha premuto troppo tardi il pedale del freno
the driver has pushed too late the of the foot pedal of the brake
*The driver has slowed down too late.*
b. La questione di Marco mi preme moltissimo.
the question of Mark me push very much
*I am really concerned about Mark's situation.*

48 Lepschy and Lepschy (1988) claim that some verbs have more than one entry depending on the number of possible meanings it entails (the polysemous analysis).

49 As it will be shown later on, includes also transitive verbs used metaphorically are part of the. *preoccupare* (to worry) class.

Moreover, contrary to verbs such as *correre* (to run) and *affondare* (to sink) the alternation with verbs like *convenire* (to be convenient) is not due to telicity (cf. (19) and (20)). Taking these data into account, I shall consider verbs such as *convenire* (to be convenient) not as proper psych-verbs but as traditional eventive verbs used metaphorically -- i.e., to describe people's emotions -- as *rompere* (to break) can be.
Finally, within the *piacere* (to please) class, two verbs, *repellere* (to bother) and *nuocere* (to harm) select only A as their auxiliary, (27):

27. a. Il tuo modo di agire mi repelle.
the your way of acting me repel
*Your behaviour really bothers me.*
b. La tua intransigenza gli *ha* nuociuto moltissimo.
the your intransigence to him has harmed very much
*Your firm behaviour seriously harmed him.*

Concluding, *piacere* (to please) class is not a homogenous with respect to aux selection. Let us turn our attention now to the *preoccupare* (to worry) class.
Under the unaccusative analysis, psych-verbs such as *impressionare* (to impress) should select E and not A as its auxiliary. Contrary to this expectation, *impressionare* (to impress) in (28b) select A as its auxiliary.

28. a. I film di guerra con molti effetti speciali impressionano sempre tutti.
the movie of war with so effects special impress always everybody
*War movies with all their special effects always impress everybody.*
b. Il film di stasera non ha/*è impressionato proprio nessuno.
the movie of tonight not has/is impressed really nobody
*Tonight movie hasn't really impressed anybody at all.*

The sentences in (28) contraddict the predicions based on the B&R's unaccusative analysis. Let us consider another *preoccupare* (to worry) verb, i.e., *stancare* (to wear/tire sb. out):

29. a. Le tue continue prediche mi stancano.
the your continuous sermons me tired

*Your continuing reproaches tired me out so much.*

b. Il figlio di Luigi mi ha/ *é proprio stancato.
the son of Luigi me has/is really tired out
*Luigi' son has really annoyed me.*

As shown in (29b), *stancare* (to wear/tire sb. out) selects A as well, thence contadicting B&R hypothesis , at least for a subset the *preoccupare* (to worry) class. Moreover, as with *piacere* (to please) verbs above, some *preoccupare* (to worry) verbs too select both A and E. Let us consider the following examples:

30. a. Gianni ogni volta ci rimbecillisce tutti con le sue chiacchiere.
John every time us fools everybody with the his chats
*John always fools all of us with his chats.*

b. Spero non sia rimbecillito completamente con gli anni.
hope-1stSING fooled completely with the years
*I hope he didn't fooled complete over the years .*

31. a. La risposta dell'alunno ha stupito tutta la commissione.
the answer of the pupil has all the commission
*The answer gave by the pupil amazed the commission.*

b. ?Non stupisco (davvero) sentendo queste notizie.
not amaze (really) hearing these news
*I am really not amazed by none of these news.*

32. a. La sua morte ha sbigottito profondamente il vicinato.
His/her death has dismay deeply the neighbourhood
*The neighbourhood has been shocked by his/her death.*

b. A quelle parole sbigottimmo guardandoci tutti negli occhi.
At those wprds dismayed-1stPLU looking-to us everybody in the eyes
*At those words, everybody dismayed staring at each other eyes.*

Note that, although marginal, the unaccusative version in (31b) is nevertheless possible.

Note also that *preoccupare* (to worry) verbs select E in reflexive-*si* constructions, just like traditional transitives cf.(33):

33. Il giudice si è convinto della sua innocenza
    the judge himself is convinced of the his/her innocence
    *The judge has been convinced about his/her innocence.*

In this respect then, the E selection in (33) is not particularly telling about the structural nature of these verbs. It is in fanct commonly believed that all reflexive verbs trigger E selection (Burzio, 1986, Kayne 1993). Let us consider (34):

34. a. Angelo ha mangiato solo mezza mela in tutta la mattinata
       Angelo has eaten only half apple in all the morning
       *Angelo has only eaten a half of an apple in all morning.*
    b. Angelo *si* è mangiato solo mezza mela in tutta la mattina
       Angelo himself-refl. is eaten only half apple in all the morning
       *Angelo has eaten only a half of an apple in all morning.*

Based on the data above, I conclude that *preoccupare* (to worry) verbs do not select E and that this is particularly relevant. Let us see why. As said above, the subject of verb E selecting verbs is always a derived one. According to Burzio (1986), *it appears that in all the cases requiring E the subject enters into a certain relation with another element* (Burzio, 1986; 55-56). In this respect, he proposes the following rule:

35. ESSERE ASSIGNMENT: the auxiliary will be realized as essere whenever a 'binding relation' exists between the subject and a 'nominal contiguous to the verb'.

The grammatical subject of the sentence is therefore related to the trace in the object position, cf. (36):

36. a. $[\text{Maria}]_i$ è stata accusata $t_i$
       Mary is been accused
       *Mary has been accused*.
    b. $[\text{Maria}]_i$ si è accusata $t_i$
       Mary herself is accused
       *Mary accused herself* .

c. [ Maria]i è arrivata ti
Maria is arrived ( *fem* )
*Mary has come* (Burzio, 1986; ex.(90))

Based on (35), (36) and the impossibility for verbs like *stancare* (to annoy) to select E (29b), I propose that the grammatical subject of *preoccupare* (to worry) verbs is not related to object position, i.e., it is not a derived one. Taking this into account the generalization in (37) follows:

37. The grammatical subject of *preoccupare* (to worry) verbs is not a derived one since it is not the internal argument of the verb.

Based on the data above, I assume that there is no binding relation between the subjects of *preoccupare* (to worry) verbs and the nominal contiguous to the verb, as assumed (35) (Burzio 1986). Therefore data above weaken the unaccusative analysis for *preoccupare* (to worry) verbs. Concluding, *preoccupare* (to worry) verbs analysis should to be reviewed.
The question can be paraphrased in the following terms: are *preoccupare* (to worry) verbs transitive or unergative verbs? Or, alternatively, is it reasonable to consider *preoccupare* (to worry) unaccusative verbs regardless of the A auxiliary selection? Given that I will return to these points in ch.13, for the time being, let us say that they cannot be considered neither transitives nor unaccusatives, as they do not homogeneously pattern with neither of the mentioned classes. In this respect, consider the passive test in (38) and (39):

38. a. Il gioco della loro squadra ha impressionato tutta la stampa locale.
the game of the team has impressed all the media local
*Their team play has impressed all the local press*
b. Siamo stati tutti molto impressionati dal loro gioco di squadra.
are-1PLU been all very impressed by the their play of team
*We have all been very impressed by how the team has played.*

39. a. La sua ignoranza stupisce ogni giorno più persone.
the his/her ignorance astonishes every day more people
*His/Her ignorance astonishes more and more people every day.*

b. *Sono stato stupefatto dalla sua ignoranza[50].
am been astonished by the your ignorance
*Your ignorance amazes me.*

The passive test in (38) and (39) tells us that the situation is not homogeneous, in that only some *preoccupare* (to worry) verbs can passivize. I will focus on passive construction later, for now let us stress that no *preoccupare* (to worry) verbs selects E.

### 4.3.3. INTERIM CONCLUSION

In this section, I considered *preoccupare* (to worry) verbs with respect to auxiliary selection. Data showed that the B&R prediction concerning *preoccupare* (to worry) and the *piacere* (to please) auxiliary selection -- i.e., E -- cannot be maintained. Although *piacere* (to please) verbs indeed select E, *preoccupare* (to worry) verbs do not. Latter psych-verbs always select A. Given the ESSERE ASSIGNMENT rule (Burzio 1986), I propose that *piacere* (to please) verbs are truly unaccusatives, whereas *preoccupare* (to worry) verbs are not. Based on the ESSERE ASSIGNMENT rule above, I assumed that the subject of *preoccupare* (to worry) are not derived one, whereas those of *piacere* (to please) verbs are. The passive test shows that *preoccupare* (to worry) verbs cannot be considered as pure transitives either.

## 4.4 **ARGUMENT STRUCTURE**

### 4.4.1. MISSING ARGUMENTS

#### 4.4.1.1. MISSING SUBJECTS

Among Romance languages, Italian constructions lacking subjects are, despite the EPP, perfectly possible. Let us consider the following sentences:

50 Replacing *sono* (am) with *rimasto* (remained) makes the sentence grammatical:

(i) Sono rimasto stupefatto dalla sua decisione.
(I) am remained astonished by his decision.

40. a. L'altra sera, Gianni ha dipinto il muro in due ore.
the other night Gianni have painted the wall in two hours
*Last night Gianni spent two hours painting the wall.*
b. L'altra sera, $_e$ ha dipinto tutto il muro in due ore.
the other night have-1SING painted all the wall in two hours
*Last night he spent two hours painting the wall.*

Note that this phenomenon has been observed also in languages typologically distant from Italian, such as Chinese, since Perlmutter (1971). Languages which allow for the missing subject have generally been described as *pro*-drop languages. Recall that whether a language can have a null subject (by dropping it) or not concerns the *pro*-drop parameter. Pro-drop languages aside, subjects have be to present in the senteces. What about the objects? To answer to this question, I will briefly introduce Rizzi's (1986) work on null objects.

4.4.1.2. MISSING OBJECTS

In Italian, it is possible to have transitive verbs used intransitively, i.e., selecting only the external argument. Consider the sentences in (41):

41. a. Il serial killer della riviera ha ucciso le sue vittime di notte.
The serial killer of the Riviera has killed all his/her victims of night
*The Riviera serial killer has killed all his/her victim during the night.*
b. Questo serial killer uccide (quasi) sempre di notte.
this serial killer kills (almost) always of night
*This serial killer has killed almost his/her victims by night.*

As shown in (41), *uccidere* (to kill) might select one or two arguments. Nevertheless, this is not always possible, i.e., the object can be omitted only in some circumstances. Let us consider the following sentences:

42. a. Il ragazzo ha comprato un chilo di pane al supermercato.
The boy has bought one kilo of bread at the supermarket
*The boy bough one kilo of bread at the supermarket.*
b. *Il ragazzo ha comperato/compera (sempre/tutti gli anni) $_e$.

The boy has bought/buys (always/all the years)
*The boy has bought.*

According to Rizzi (1986), I assume that not all transitive verbs can be used intransitively but only those verbs that seem to subcategorise for some kind of indefinite or recoverable elements[51]. The fact that verbs like *uccidere* (to kill) have not an overt object is accountable in two possible ways, i.e., in terms of (i) two sets of theta marking and subcategorization properties specified in the verb (Chomsky 1981, 67f.) or (ii) two independent lexical entries[52]. The constructions in (42b) are ungrammatical under both analyses. It has been proposed that the reasons why some transitive verbs can be used intransitively whereas others cannot follows from a different setting of the parameter licensing *pro* (see Rizzi 1986). Let us now focus on unaccusative and unergative verbs:

43. a. Irene è dimagrita di 3 kili in un solo mese
Irene is lost weight of 31 kilos in one only month
*Irene has lost 31kilos in just one month.*
b. Irene dimagrisce rapidamente
Irene looses weight rapidly
*Irene looses weight easily.*
c. Marco è tornato a casa per pranzo alle due.
Marco is back at home to lunch at the two
*Mark has been back to lunch at two.*
d. Marco torna sempre per le due.
Marco comes back always by two
Mark is always back by two.

44. a. Luigi ha telefonato a Marco tutto il pomeriggio.
Luigi has phoned at Marco all the afternoon
*Luigi continuously phoned to Mark all afternoon long.*

51 This kind of analysis has been applied to German and Chinese (Huang (1984)), Japanese (Hasegawa (1985)), Swedish (E. Engdahl, cf. Huang (1989)), Spanish (Campos (1986)), European Portuguese (Raposo (1986)), and French (Authier (1989)).

52 The same pattern is shown by verbs like *respirare* (to breath), *mangiare* (to eat), and *vedere* (to see).

b. Luigi ha telefonato per tutto il pomeriggio.
Luigi has phoned all the afternoon
*Luigi made phone calls for all the afternoon.*
c. Giorgio ha vinto le ultime due lotterie di fine anno.
Giorgio has won the last due lottery of end year
*Giorgio won the last end of the year lottery.*
d. Giorgio vince sempre.
Giorgio win always
*Giorgio always win.*

As shown in (43)-(44), unaccusative and unergative verbs can appear with a derived subject only. This is not surprising at all given that these verbs select only one argument, either internal or external respectively.
Based on the data above, the grammaticality of (41) can be accounted for either by saying that for some reasons some transitive verbs might select only the external argument or that the object position can be filled by a licit occurrence of an understood element, the latter hypothesis being deeply discussed in Rizzi (1986). Before proceeding to psych-verbs, let us focus on some relevant aspects of Rizzi (1986).

4.4.1.3. NULL OBJECTS IN ITALIAN

Let us consider now the following sentences:

45. a. Le notizie dei servizi segreti portarono i comandanti a decidere per l'attacco immediato.
the news of the secret services brought the commanders to decide to attack
*News from the intelligence service lead the commander to attack.*
b. Le notizie dei servizi segreti portarono $_e$ a decidere per l'attacco immediato.
the news of the services secret brought to decide for an attack immediate
*News from the intelligence service lead the commander to immediately attack.*

c. ?$_e$ Portarono $_e$ a decidere per l'attacco immediato.
brought to decide for an attack immediate
*They force them to immediately attack.*

In addition to the posibility of lacking superficial subjects, the NP object too can be missed without any minimal influence for the sentence, as in (45b). Note that, despite the marginal result, in Italian both elements can be null, cf. (45c).

Nevertheless the characteristics of null objects are different from those of null subjects, for example the former can have only a non specific interpretation whereas a null subject can have both a specific and a non-specific interpretation. According to Rizzi (1986), for an object to be dropped it has be interpreted as arbitratry (non-specific)[53]. The implicit object shown in (45b) is not only understood (or implied) but it also has an important active role within the sentence, compare (45) with (46).

46. a. Un dottore serio visita $_{e\text{i}}$ nudi$_\text{i}$.
a doctor serious visit naked
*A serious should visit all patient naked.*
b. *Ieri il medico ha visitato nuda
yesterday the doctor-MASC has visited naked-FEM
*Yesterday, the doctor visited his/her patient naked.*

Since the arbitrary restriction for missing objects, (46b) is ungrammatical because the sentences needs a specific interpretation. Rizzi (1986; 519) proposes indeed that a "null object has to be licensed" but also identified[54]. Based on these facts, Rizzi (1986) proposes then that null objects can be interpreted only if they have been assigned *arb* by the verb which associates *pro* with an arbitrary interpretation:

53 The underlying object has the (+ masculine;+ plural) features.

54 The fact that both Italian (in general) and English (with some verbs) allow *arb* interpretation of an understood object follows from the fact that both languages have (47). Nevertheless, the fact that the understood object can be syntactically active in Italian, but not in English follows from the different setting of the parameter in the licensing schema ("*pro* is governed by $X_y$°").

47. *Arb* interpretation
    Assign *arb* to the direct thematic role.

Concluding, Rizzi suggested that *arb* interpretation of the *pro* basically are the same that of the arbitrary PRO, i.e.,: [-human, +generic,+plural].

### 4.4.2. NULL OBJECT AND ITALIAN PSYCH-VERBS

As suggeste in the preceding section, in Italian, both subjects and objects can be understood arguments. Though with some restrictions, the understood elements can be analyzed as *pro*s. In the spirit of Rizzi (1986), the restriction in (i) follows:

(i) To licence a null object a verb has to subcategorise for two arguments, an internal and an external argument.

Consequently, neither unaccusative nor unergative verbs can subcategorise for a null object. Based on (i), I will show Obj-Exp verbs select more than one argument, but let us consider first how B&R's analyses deals with this diagnostic.

Given B&R's unaccusative analysis for Obj-Exp verbs, neither *preoccupare* (to worry) nor *piacere* (to please) verbs should select an arbitrary object *pro* as verbs such as *uccidere* (to kill) above. Therefore, only psych-verbs selecting just external arguments -- either *in situ* or derived – should be find. On one hand, this seems to be the case. Let us consider (48)-(49) for instance:

48. a. I film d'essai annoiano sempre tutti.
       Film essay bore always everybody.
       *Film essay are seriously boring to anyone.*
    b. Questo è uno di quei film che annoiano.
       This is one of those films that bore
       *This is one of those boring movies.*

49. a. L'ennesimo aumento del prezzo del carburante ha indispettito moltissimo i consumatori.

the nth increase of the price of the fuel has vexed very much the consumers

*The nth increase of the fuel price has vexed seriously all the consumers.*

b. Indispettisce lo spazio dato alla società civile a scapito dei poteri partitici da Zapatero.

vex the space given to the society civil at the expense of powers parties by Zapatero

*Zapatero has vexed many people by giving more power to the citizens at the expenses of the politicians*

Note that both *indispettire* (to vex) and *annoiare* (to annoy) are *preoccupare* (to worry) verbs. *Piacere* (to please) verbs show a similar pattern:

50. a. Il gelato piace a tutti i bambini del mondo.
the ice-cream likes to all the kids in the world
*All the kids in the world love ice-creams.*

b. Il gelato generalmente piace.
the ice-cream generally likes
*Generally, ice-cream pleases everybody.*

On the other hand, *temere* (to fear) verbs do not seem to select an arbitrary *pro*. In fact, *temere* (to fear) constructions lacking the direct object are ungrammatical, consider (51):

51. a. I tuoi ospiti hanno molto gradito il buffet.
the your hosts have very enjoyed the buffet
*Your hosts seems to have really enjoyed the buffet.*

b. *Generalmente, le signore gradiscono[55].
Generally, ladies enjoy

55 Note that there are contexts in which the verb *gradire* (to enjoy) does not subcategorize for a direct object. Consider for instance (i) with respect to (51b) above:

(i) Gradisce?

I claim that the grammaticality of (i) depends on the context/situation (at a party a waiter might use (i) to kindly suggest something to eat/drink).

*Ladies enjoy*

Data so far seem to support B&R's unaccusative analysis of OBj-Exp. Still, the picture is not so clear-cut. If we take into consideration other psych-verbs, the overall situation changes. Let us consider two more *preoccupare* (to worry) verbs, i.e., *colpire* (to touch) and *sorprendere* (to amaze):

52. a. La caparbietà di Mario ha colpito profondamente i suoi genitori.
the stubbornness of Mario has touched deeply the his parents
*Mario's obstinacy has really impressed his parents.*
b.*La bravura della pattinatrice russa colpisce.
cleverness of the skater-FEM russian touches
*The level of perfection of the russian skater is really impressive*.

53. Sorprende che i ragazzi di oggi siano così maleducati.
amaze that the boys of today were so rude
*It is unbelievable how rude today teenagers are.*

As shown in (52b), *colpire* (to touch) cannot be used *intransitively*, whereas *sorprendere* (to amaze) can. A possible escape hatch for the unaccusative hypothesis of B&R is nevertheless possible -- i.e., the different nature of verbs like *colpire* (to touch) and those like *soprendere* (to amaze).
*Colpire* (to touch) is not a psych-verb but the traditional transitive verb *colpire* (to hit) used metaphorically:

54. Il giocatore ha colpito fortissimo la palla, tanto da mandarla oltre la barriera.
the player has kicked very strong the ball, much to send it over the barrier
*The player kicked the ball so strong that it ended over the hedge.*

In addition to *colpire* (to hit), other transitive verbs are part of the *preoccupare* (to worry) class: *elettrizzare* (to electrify), *opprimere* (to oppress), *rapire* (to kidnap) and so on. Should the mentioned verbs be impossible with a non-*arb* null object

then B&R's unaccusative analyses can be rescued. Consider the case of *rapire* (to kidnap) in (55):

55. a. Due persone vestite di nero hanno rapito il conte ieri sera.
two people dressed of black have kidnapped the earl last night
*The earl has been kidnapped by two people dressed in black last night.*
b. * I malviventi solitamente rapiscono.
the criminals usually kidnap
*Criminals usually kidnap people*.
c. I film della Disney hanno rapito migliaia di bambini.
the movie of the Disney have enrapture thousands of children
*All children have been enraptured by Disney's movie.*
d. *I monologhi di Gianni rapiscono .
the monologues by Gianni enrapture
*John's monologues enraptures.*

*Rapire* (to kidnap), as *colpire* (to touch) above, cannot be used intransitively. Transitive verbs used metaphorically aside, B&R's unaccasuative analysis seems to perfectly predict Obj-Exp verbs' null-object possibility. As a consequence, *preoccupare* (to worry) verbs must be considered mono-argumental with derived subject as those in (48-49). I will show that this is not the case. Consider the case of *imbarazzare* (to embarrass):

56. a. La situazione di Luigi imbarazzerebbe chiunque.
the situation of Luigi would embarrass everyone
*Luigi's situation would embarrass everyone.*
b. *La situazione di Luigi imbarazza.
the situation of Lugi embarrass
*Luigi situation is embarrassing.*

As shown in (56b), *imbarazzare* (to embarrass) do not select an arbitrary object *pro*, as *rapire* (to enrapture) and *colpire* (to touch) above. Differently from them, *imbarazzare* (to embarrass) is not the metaphorical counterpart of a traditional transitive verb. Given the *imbarazzare*'s (to embarrass) psych-verb status and the

B&R unaccusative analysis, (56b) is not predicted. Other Obj-Exp verbs behaveing as *imbarazzare* (to embarrass) are *agghiacciare* (to chill), *allarmare* (to alarm), *convincere* (to convince), *esasperare* (to exasperate), *nauseare* (to nauseate) and so on. Consider (57):

57. La possibilità del wi-fi nella metro allarma *(tutti i londinesi).
the possibility of the wi-fi in the metro alarm (all the Londoners)
*Wi-fi connection poses some problems for all the Londoners.*

The data in (56)-(57) pose a problem for the unaccusative hypothesis of B&R. Given their unaccusativity, they should have a mono-argumental counterpart as *piacere* (to please) and *annoiare* (to annoy), recall the data in (48) and (50) respectively.
Therefore, a reconsideration of the unaccusative analysis proposed by B&R is needed. Paraphrasing Pesetsky (1995), I shall assume that only a proper subset of the Obj-Exp predicates can be analysed as unaccusatives and that this difference between verbs like *imbarazzare* (to embarrass) and verbs like *annoiare* (to annoy) is simply a matter of different subcategorization restrictions. In other words, it might be the case that, for some reasons, the former verbs have a syntactic structure similar to that of transitive verbs, whereas the latter ones have an unaccusative structure instead[56]. Furthermore, compare (48) (here in (58)) and (59).

58. Questo è uno di quei film che annoiano.
This is one of those films that bore
*This is one of those boring movies.*

59. *La tua facile ironia deprime.
The your easy irony depresses
*Your predictable irony is really depressing.*

56 In Section III, I will claim that this cannot be the case. On the contrary, I will argue that psych-verbs' behaviour can be accounted for with a structure similar to one proposed by Larson (1988) for the double object verbs.

Given that the verbs in (58) and (59) are semantically related, the observable difference must be of syntactic nature, which contraddicts the unique unaccusative structure analyses given for all *preoccupare* (to worry) verbs[57].
Concluding, based on data above, I propose that the *preoccupare* (to worry) class should be subdived in two further classes, i.e., the one of *preoccupare* (to worry) and the one of *addolorare* (to sadden) [58].
In sec. 4.5, I will show that there seems to be a correlation between the latter class and the possibility of having the present participial form.

### 4.4.3. INTERIM CONCLUSION

In this section, psych-verbs have been analysed in terms of their argumental structure and compared with transitive and unaccusative verbs' argumental selection. The possibility for some Italian transitive verbs to be used intransitively has been linked to the possibilty of selecting an arbitrary (*arb*) null direct object, which is restricted to particular cases. As for *preoccupare* (to worry) verbs, I have shown that not all them select a pseudo null-object[59]. Taking this into account, I showed that two semantically related psych-verbs such as *annoiare* (to annoy) and *deprimere* (to depress) pattern in different ways with respect to the possibility of having an object *pro*. Based on this, I then proposed that they do not share the same syntactic structure. To sum up, a further piece of evidence concerning the non-homogeneity of the *preoccupare* (to worry) psych- verbs class has been given. My hypothesis is that they are verbs with different syntactic structures.

## 4.5 PRESENT PARTICIPLE

In this section, I will focus on the possibility of modifying nominals with the participial form of psych-verbs. In Italian such forms can be used as nominal

57 Although *annoiare* (to bore) and *deprimere* (to depress) are not fully synonymous, they are semantically related.

58 I decided to dub one of them *preoccupare* (to worry) to avoid having too many subclassifications.

59 I refer to it as a *pseudo* null-objects given the uncertainty about whether the mono-argumental counterpart in (58) is due to a non-phonetically realized object or to the fact that *annoiare* (to annoy) is a true unaccusative.

modifiers; with few exceptions exist, e.g., of *amante* and *amata* (lover) and *insegnante* (teacher). The basic properties and the distribution of participles, focusing on the present participle, follow. Before going any further, let us note that in Italian, in addition to adverbs, inflectional morphology express tense, mood, aspect. Moreover recall that infinitive verbs can be used in nominal context (cf. (16) in sec. 4.2).

### 4.5.1. INTRODUCTION

In Italian, verbal forms are either definite or indefinite with respect to mood. Definite forms are indicative, subjunctive, conditional, and imperative while infinitive, participle, and gerundive are all indefinite forms. Indefinite verbal forms are also named *nominal forms* in that they often can be used as either nominals or adjectives; consider the examples in (60)-(62):

60. a. *L'amante* di Gianni viene dalla Calabria.
the lover of John comes from Calabria
*John's lover comes from Calabria.*
b. Gianni sta scrivendo alla sua cara *amata*.
John is writing to the his beloved lover
*John is writing to his beloved lover.*

61. Un buon rapporto di coppia si basa sia sul *dare* che sull'*avere*.
One good relationship of couple bases both on the give and the have
*A good relationship between lovers concerns both gives and receives.*

62. Il *reverendo* benedice tutti i fedeli.
the priest blesses all the fold
*The priest blesses all his church*

Note that, in the definite moods, the temporal, number, and gender aspects are expressed by means of inflectional morphology, whereas indefinite verbal moods show some restrictions with respect to the these aspects. In particular, participles express both tense (present vs. past participle) and number (singular vs. plural),

whereas the notion of gender is restricted to the past participle. Consider now the following examples:

63. a. L'insegnante/gli insegnanti di matematica parla/no troppo.
the teacher/s of mathematics talk/s too much
*Mathematics teacher/s talk/s too much.*
b. Il/I/La/Le candidato/i/a/e per il comune è/sono già stati selezionati.
the candidate/s for the town hall is/are already been selected
*The candidates for the Major's election have already chosen by the respective parties*

Note that the participle forms in (63) are used as nominals. Verbal participle forms are in fact very rarely used[60]. Let us analyse the distribution of present and past participles, both with verbal and nominal value.
Past participles are acceptable if and only if the main verb is telic, i.e., denoting the end-point of the action. Let us consider (64)-(65):

64. a. Partito da Roma puntuale, il treno è arrivato a Pisa con 30 minuti di ritardo.
left from Rome on time, the train is arrived at Pisa with 30 minutes of delay
*Although it has left Rome on time, the train has arrived at the station of Pisa with 30 minutes delay*
b. Arrivato a casa presto, Gianni si mise a leggere il giornale.
arrived at home early, John himself put to read the newspaper
*Being back home earlier than usual, John decided to read the newspaper.*

65. a. *Lavorato tutto il giorno, Gianni si sentiva stanco.
worked all the day, John himself feels tired
*After a all-day workying, John was really tired.*
b. *Camminato nel parco, Gianni tornò a casa.
walked in the park, John went back at home

60 Only the past participle forms are used in the verbal system, as part of the compounded form such as *passato prossimo* (present perfect).

*After having walked in the park, John came back home.*

c. *Piovuto tutto il giorno, non potemmo uscire.
rained all the day, not could go out.
*We couldn't go out today because of the rain.*

Both *arrivare* (to arrive) and *partire* (to leave) in (64) refer to the end of the corresponding action or event whereas *lavorare* (to work) *camminare* (to walk), and *piovere* (to rain) in (65) do not; the latter ones in fact are considered inherently atelic verb. Finally, not all verbs have a participial form with a nominal/adjectival value.

Present participles are even more restricted. In Italian, they are seldom used with verbal value, in bureaucratic and in very formal documents[61]. Instead, present participles are often used as adjectives or as nominals, as in (60). Moreover, we have to distinguish present participles that can be used both as verbal and as nominals from those that are used only as a nominal, such as *dirigente* (manager). In this respect, recall that although generally the link between a verb and its derived nominal (as *murare* 'wall in' and *muro* 'wall') is usually quite evident, there are circumstances in which this is not. Concerning this latter cases the connection is visible only etymologically (as between *console* 'consul' and *consultare* 'consult'). While the former participial forms can govern an object, the latter cannot, unless a preposition is inserted, cf. (66a)-(67b):

66. a. Il comandante la missione
the commander of the mission
*The commander in charge of the mission*
b. l'amante *(di) Luigi
the lover (of) Luigi
*Luigi's lover*

With respect to verbal past participles, present participles used with verbal values are even more restricted. In fact only verbs describing permanent characteristics have the present participle form; consequently, present participles of verb

61 The present participle may be used to write with a very affected or noble style, i.e., *il presidente la commissione* instead of *il presidente della commissione* (the president of the commission).

describing temporally specified events are ungrammatical. Consider the following examples:

67. a. parole designanti oggetti
words relating objects
*objects relating words*
b. *soldati uccidenti i nemici
*soldiers killing the enemies*
*enemies killing soldiers*

This restriction can be easily accounted for. In fact, although in Italian both present and past participle forms are possible, only the latter concern a temporally defined action (i.e., denoting the end point of events, cf. (63a)-(64)) whereas present participles do not. Present participles are in fact free of any temporal references.
Finally, adjectival present participles have the following characteristics: they can precede the nominal they modify, cf. (68a); they can be modified by an adjective, cf. (68b); they can be used in copulative sentences, as in (68c); they cannot be used negatively, as in (68d):

68. a. una ragazza sorridente/?una sorridente ragazza
a girl smiling/ a smiling girl
*a smily girl*
b. una ragazza poco sorridente.
a girl little smiling
*a non-smily girl*
c. La proposta sembrava unificante.
the proposal seemed unifiying
*The proposal seemed to be unifying*
d. *i giovani non amanti mai del sacrificio
the younger not lover never of the sacrifice
*Young people that are woking hard non-loving*

Moreover, both verbal and nominal present participles are semantically equivalent to either a restrictive or a non-restrictive relative clause, consider (69a)-(69b):

69. a. I soli argomenti riferentisi al nostro caso/i soli argomenti che si riferiscono al nostro caso.
the sole arguments referring to our case/ the sole arguments that refers to the our case
*The sole arguments concerning our case/ the sole arguments that refer to our case*
b. Questi argomenti, riferentisi al nostro caso,.../Questi argomenti, i quali si riferiscono al nostro caso
These argumets, referring to our case/ these argumets, which refer to our case
*These arguments referring to our case/These arguments, which refers to our case*

In the next section, I will consider then psych-verbs with respect to the possibility of having a present participial form or not.

## 4.5.2. PRESENT PARTICIPLE AND PSYCH-VERBS

Earlier, I have shown that not all psych-verbs nominalise (sec. 4.2). Consider in fact (70)-(71):

70. a. La questione dell'acqua alta preoccupa costantemente i cittadini veneziani.
the fact that water high worries constantly the citizen Venetian
*The risk of high-water in Venice constantly concerns Venetian people.*
b. La costante preoccupazione dei veneziani per l'acqua alta si percepisce ogni giorno.
the constant worry of the Venetian for the water high *refl* detect every day
*Venetian people's concern about the high-water risk is always palpable.*

71. a. La sua recente scomparsa ha addolorato tutti noi.
His recent passing has sadden all of us
His recent departure saddened all of us.

b. *L'addoloramento/addolorazione dei suoi amici.
the sadness of his/her friends
*His*/*Her friends' grief*

There, it has been concluded that that the mismatch in (70)-(71) is due to a different syntactic structure. If this hypothesis is on the right track, we should expect other mismatches to show up. In this section, I will analyse psych-verbs with respect to the possibility to derive a present participle and show that there seems to be a link between non-nominalising psych-verbs and the possibility of having the present participial form. First, I will test psych-verbs to see whether or not they can be used as nouns and/or adjectives. In this respect, recall that Italian present participles are mainly used as nouns or adjectives. Should we find some discrepancies within one of the psych-verbs class then we will check they have semantic origins, as in (64)-(65), or syntactic ones.

4.5.2.1. DATA

Briefly, not all psych-verbs have a present participle and this seems to depend on the aspectual nature of the verb. In this respect, recall that within transitive verbs there are those that have the present participle form but also those that do not; the same is true for both ergative and unaccusative ones -- as in (64)-(65). However, I propose that the lack of presente participles here depends on factors other than the verbal aspect.
Let us consider first data from the *preoccupare* (to worry) class with respect to this diagnostic in tab.1, which is simply a small sample of this class.

| **PREOCCUPARE *class*** | **Participial Present** |
|---|---|
| addolorare (to sadden) | |
| addolcire (to sweeten) | |
| affascinare (to fascinate) | affascinante (charming) |
| affliggere (to grieve) | affliggente |
| allarmare (to alarm) | allarmante (alarming) |
| amareggiare (to embitter) | |
| Ammaliziare | |
| angosciare (to distress) | angosciante (distressing) |

| | |
|---|---|
| annoiare (to annoy) | |
| assillare (to torment) | assillante (tormenting) |
| commuovere (to touch) | commovente (touching) |
| consapevolizzare | |
| costernare (to dismay) | |
| deprimere (to depress) | deprimente (depressing) |
| disarmare (to disarm) | disarmante (disarming) |
| disilludere (disillusion) | |
| disperare (to despair) | |
| emozionare (to touch) | emozionante (touching) |
| entusiasmare (to arouse enthusiasm) | entusiasmante (exciting) |
| imbarazzare (to embarass) | imbarazzante (embarassing) |
| incoraggiare (to encourage) | incoraggiante (encouraging) |
| indignare (to make sb indignant) | |
| inquietare (to disturb) | inquietante (worrying) |
| interessare (to interest) | |
| nauseare (to nauseate) | nauseante (nauseating) |
| ossessionare (to obsess) | ossessionante (obsessive) |
| rallegrare (to cheer up) | |
| ributtare (to disgust sb.) | ributtante (disgusting) |
| ripugnare (to repel) | ripugnante |
| sbigottire (to dismay) | |
| scaltrire (to sharpen sb.s' wits) | |
| spaurire (to frighten) | |
| stimolare (to stimulate) | stimolante (stimulating) |
| strabiliare (to stun) | strabiliante (stunning) |
| tediare (to bore) | tediante (boring) |
| terrificare (to terrify) | terrificante (terrifying) |

Tab.1 shows, where present, the past particple form of psych-v.

Tab 1 shows that not all *preoccupare* (to worry) verbs have the present participle form. Let us analyse whether psych-verbs present participial forms have verbal and/or only nomimal/adjectival value. As for the verbal value, recall that only transitive verbs can derive a present participle with verbal value, as shown in (67).

In fact, as we can see in (72), psych-verbs present participles cannot govern an object[62]:

72. a. *l'incoraggiante i bambini maestro
*the encouraging-children master*
b. *l'affascinante le ragazze ragazzo
*the fascinating-girls boy*

Let us find out whether the present participles of *preoccupare* (to worry) verbs have a nominal or an adjectival value. Let us check if such participles are capable to govern objects indirectly, as *amante* (lover) does in (66b):

73. a. *il ributtante del signore
the disgusting of the sir
*the thing disgusting the man*
b. *l'ossessionante della bambina
the obsessive of the girl
*the little girl obsession.*

Based on (62) and (63), I claim that the present participle forms of psych-verbs have an adjectival nature. Consider, in fact, data in (74) where psych-verbs present participles distribution have been tested as in (68) -- i.e., the distribution with respect to nouns, adjectival modification, copulative sentences, negation:

74. a. una ragazza commovente/una commovente ragazza.
one girl touching/one touching girl
*the affecting girl*
b. una ragazza poco entusiasmante
one girl few exciting
*a not so exciting girl*
c. La proposta sembrava stimolante.
the proposal seemed interesting

62 (72a) and (72b) are ungrammatical also because neither *incoraggiante* (encouraging) nor *affascinante* (fascinating) can govern an object as *comandante* (chief) in *il comandante la missione*.

*The proposal seemed to be interesting*

d. *i giovani non sprezzanti mai del sacrificio
the youngers not despising never of the sacrifice
*the sacrifice none-despising youngers*

Note that also the other two psych-verbs classes have present participles with adjectival value[63].

With respect to the tab.1, let us assume that the mismatches within the *preoccupare* (to worry) class probably depend on differences concerning the aspectual value of the event described, as with transitive verbs such as *uccidere* (to kill) and *designare* (to relate) above, cf. (67). In order to analysis this hypothesis, let us take into consideration both *preoccupare* (to worry) and *annoiare* (to annoy), which is a *preoccupare* (to worry) verb too. *Annoiare* (to annoy) is a durative verb that has no present participle and its present participial form, i.e.., *annoiante*, is ungrammatical whereas *preoccupante* (worrying) is grammatical:

75. a. la preoccupante situazione mediorientale
the worrying situation middle-east
*the middle-east worrying issue*

b. *l'annoiante relazione di Luigi
the boring report of Luigi
*Lewis boring report*

Nevertheless, both psych-verbs have a durative semantics, cf. (75a)-(75b):

76. a. Luigi con i suoi discorsi ci ha annoiato per tutta la sera.
Luis with the his speeches us have bored for all the night
*Luis has bored us with his speeches all night long.*

b. La vicenda di Filippo ha preoccupato a lungo.
the affair of Philip has worried for long
*What happened to Philip has worried us for a very long time.*

63 *Amare* (to love) is the only exception to this generalization, recall (66b).

Recall the restriction concerning verbal present participle shown in (67), i.e., permanent vs. punctual verbs. Furthermore, the inherent aktionsart of both psych-verbs in (76) is similar to that of *designare* (to relate) in (67a), i.e., they all describe some kind of durative actions. On such bases, I claim that the contrast in (75) is not semantically driven. Based on Ramchand (2008), I propose instead that (75) depends on the different syntactic representation of the event decomposition of *preoccupare* (to worry) and *annoiare* (to annoy). Some key points concerning this last topic follow.

Ramchand (2008) makes the strong claim that all predictable and systematic semantic elements are compositionally built up by the syntax, i.e., the morphosyntax and the semantics of the event structure are directly correlated. In particular the event-structure syntax should include a causing subevent, a process-denoting subevent, and a subevent corresponding to result state (Ramchand 2008: 39). Note that Ramchand's system is *actually a splitting up of what we normally think of as a V* (Ramchand 2008:39). This topic will be further discussed in sec. 12.1 and 12.3 below.

Finally, let us note that there seems to be a correlation between these data and those concerning nominalization. Consider now the table 2[64]:

| PREOCCUPARE *class* | | |
|---|---|---|
| affascinare ( fascinate) | | affascinante fascinating) |
| amareggiare ( embitter) | amareggiamento (the act of embitter) | |
| convincere (convince) | convincimento (conviction) | convincente (convincing) |
| confondere (confuse) | confusione (confusion) | |
| deludere (disappoint) | | deludente (disappointing) |
| deconcentrare ( break sb's concentration) | deconcentrazione (*opp of* concentration) | |
| imbarazzare (embarass) | | imbarazzante(embarassing) |
| indignare (fill sb with indignation) | indignazione (indignation) | |
| scioccare (shock) | | scioccante (shocking) |
| turbare (disturb) | turbamento (perturbation) | |

64 Although it is just a small sample, tab.2 represents exactly the overall situation found within the *preoccupare* (to worry) class.

| | | |
|---|---|---|
| umiliare(humiliate) | umiliazione (humiliation) | umiliante (humiliating) |

Tab.2 A small sample of *preoccupare* (to worry) verbs; for each verb there are, from left to right: the infinitival, the nominalization, and the *-nte* form (these last two only if permitted).

In tab.2, I show that, in addition of not having a 1:1 correlation between psych-verbs and nominalization, the lack of correlation is found also between psych-verbs and present participles. Note further that for reasons yet to discover, present participle seems to be possible whenever psych-verbs nominalizations are not. Furthermore, *preoccupare* (to worry) verbs that do not have the present participle form, as in (Tab.2), can be used intransitively; on the contrary, those that do have the present participles cannot. Consider the following examples:

77. a. Questo continuo ticchettio deconcentra tantissimo/*è deconcentrante.
this continuous ticking breaks concentration a lot/is concentration breaking
*This unstopping noise is really annoying.*
b. La questione mediorientale allarma *( tutti).
the issue (of) Middle-Eastern allarms (everybody)
*The Iraqi arm issue worries everybody*

The sentence in (77b) can nevertheless be rescued; in fact, those psych-verbs that cannot be used intransitively fit well in a copular sentence with their corresponding present participle form. Consider the copular counterpart of (77b):

78. La questione mediorientale è allarmante.
the issue (of) Middle-Eastern is frightening
*The Middle-Eastern is extremely serious.*

To sum up, it seems that while a verb that has the present participle cannot be used intransitively, those without a present participle can. Consider the examples in (79):

79. a. La teoria di Guido sui Rom *agghiaccia/è agghiacciante.
the theory of Guy upon Gypsies chills/is dreadful
*Guy's theory concerning Gypsies is shocking.*
b. I risultati ottenuti sinora dalla squadra *deludono/sono deludenti.

the results obtained so far from the team disappoints/are disappointing
*Team's results so far are unsatisfying.*

c. Le storie a lieto fine addolciscono/*sono addolcenti.
The stories at good end mellow/are mellowing
*Happy ending story generally mellow everybody.*

d. Questo è uno di quei film che annoiano/*annoianti.
this is one of those movied that bores/boring
*This is one of those boring movies.*

This is another fact that needs to be accounted for; lying outside the scope of B&R's analysis, restrictions behind present participles and nominalisation process must be reconsidered.
I propose that the impossibility to nominalise or to have a present participle should be accounted for in syntactic terms

4.5.2.2. INTERIM CONCLUSION

In this section, I have analysed psych-verbs with respect the present participle test. I showed that present participles are mainly used with either a nominal or an adjectival value, especially with psych-verbs, thence the possibility to analyse psych-verbs from a rather different point of view. Unsurprisingly, I found that not all the psych-verbs, especially within the *preoccupare* (to worry) class, have the present participle, and, where possible, those forms have an adjectival value. Although present participle derivation has been generally analysed as restricted to verb with a durative meaning, I proposed instead that it is syntactically restricted; following Ramchand (2008), I advanced that predictable and systematic semantic elements are compositionally built up by the syntax. I further hypothesized a correlation between nominalizations and present participle data. Indeed, there is a relation between the possibility of nominalising and the existence of a present participle form. I also showed that these two syntactical derivations are in a complementary distribution.

# 4.6 **PASSIVE**

## 4.6.1. INTRODUCTION

The passive structure is a long-studied topic in linguistics. Consider (80).

80. a. Italy beat Belgium in the semi-finals.
    b. Belgium was beat***en*** in the semi-finals (by Italy).

In the passive constructions, the Agent cannot be assigned directly by the verb but through an adjunct prepositional phrase headed by *by* (80b). Nevertheless, the thematic-grid does not undergo any change. Among others, Jaeggli (1986) and Roberts (1987) claim that the Agent theta-role is not absent but morphologically absorbed by passive morphology. Since it has already been assigned then the external theta-role cannot be assigned to any another argument. Whenever needed, the external theta-role has to be re-introduced by a prepositional adjunct.
Given the fact that passive morphology absorbs the Accusative structural Case, the internal argument has to move out to a position where it can be assigned Case, i.e., to Spec,IP. This position, where Nominative Case is assigned, is free since the external argument is not in a A-position. The passive basic properties are the following:

i. verbal morphology change (*en* as in (80b));
ii. external role not assigned to an NP;
iii. structural Case absorption by the passive morphology;
iv. given (iii), the internal argument raises to Spec,IP to receive Case;
v. (iv) is possible, because of the empty subject position.

In the next section, I will analyse Italian psych-verbs with respect to passive constructions. I will show that, a part for the *temere* (to fear) verbs, psych-verbs behaviour is once again not homogenous.

## 4.6.2. PASSIVE AND ITALIAN PSYCH-VERBS

Let us start analysing the passive of psych-verbs from the *piacere* (to please) verbs.

81. a. Il gelato piace a tutti.
the ice-cream likes to everybody
*Everybody likes ice-cream.*
b. *Tutti sono stati piaciuti dal gelato.
Everybody are been liked by the ice-cream
*The ice-cream pleased everybody.*

In (81), *piacere* (to please), as all verbs pertaining to the same class, cannot be used in passive constructions, as correctly predicted by the unaccusative analysis proposed by B&R.

Psych-verbs of the *preoccupare* (to worry) class instead behave in a rather different way -- i.e., I will show that some *preoccupare* (to worry) verbs do have a passive form. Note that the issue of whether they can have a verbal passive or not is not new in the literature. There are two schools of thought: one holds that class *preoccupare* (to worry) verbs lack an external argument and therefore cannot form verbal passives (Grimshaw 1990; Landau 2010). The other holds that they resemble normal transitives and therefore they do form verbal passives (Pesetsky 1995; Pylkkänen 1999).

Italian passivization of psych-verbs has been discussed by B&R (see 6.2). Starting from their unaccusative analysis, B&R claimed that *preoccupare* (to worry) verbs cannot passivize and that what seems to be a passive form is not a verbal one but an adjectival passive. They presented four arguments in favour of the adjectival status of psych-verbs passives: (i) differently from verbal passives, but similarly to adjectives, psych passives cannot bear clitic pronouns in reduced relatives; (ii) differently from verbal passives, psych passives are incompatible with the auxiliary *venire* (to come); (iii) some *preoccupare* (to worry) verbs do not have a regular participle; (iv) some psych passives cannot have the *da*-phrase ‘by’ but

admit only special prepositions[65]. Concerning the first two arguments, Pesetsky (1995) claimed that argument (i) rests on a problematic choice of clitics and that argument (ii) does not diagnose adjectivehood but non-eventiveness, a property shared by adjectival passives and some verbal passives too. Concerning (i), Pesetsky argues that "passive by-phrase quite generally cannot cliticize to a passive participle functioning as a reduced relative" (Pesetsky 1995:26), as in (82):

82. a. la sola persona che ne è stata uccisa.
The only person that by it was killed
b.*la sola persona uccisane (Pesetsky 1995: (60))

Furthermore, concerning (ii), Pesetsky notes that *preoccupare* (to worry) verbs *venire* (to come) passives "become more and more acceptable as the predicate becomes more and more eventive" (Pesetsky 1995:27), consider (83):

83. Gianni venne spaventato da questa prospettiva alle cinque
Gianni came frightened by this perpective at five (Pesetsky 1995:(66b))

As for (iii) and (iv), consider following examples:

84. a. *Sono stufato/ stancato/ entusiasmato dalle sue idee.
I am tired/ tired/ exited by his ideas
*I am so tired of your ideas* (B&R (55))
b. Sono stufo/stanco/entusiasta delle sue idee.
I am tired/ tired/ exited of his ideas
*I am so tired of your ideas* (B&R (56))

85. a. Gianni è interessato a/*da Maria.
Gianni is interested to/ by Maria
*Gianni likes Mary* (B&R (i)a[66] )

65 B&R interpret this as a consequence of the Blocking Principle:, i.e., *an irregular form blocks the regular one*. In (81b) the irregular form is unambiguously adjectival; hence the blocked form must be adjectival too.

66 Examples taken from the B&R: 311 fn.13.

b. Gianni è appassionato di/*dalla poesia.
Gianni is fond of/ by poetry
*Gianni is really into poetry* (B&R (i)a[53])

Concerning (iii) and (iv), I assume that even if Italian passives participles are ambiguous between a verbal and an adjectival form, this does not make any difference. There is still room for arguing that the *preoccupare* (to worry) verbs are not unaccusatives. Beside, I will show that some passives of *preoccupare* (to worry) verbs are possible, as in (86):

86. a. La mia amica è stata assillata da numerose telefonate di colleghi
the my friendFEM is been tormented by numerous phone calls of collegues
*My friend has been tormented by a number of her collegues'phone calls*
b. Siamo sempre più costernati dalla sua arroganza.
We are always more dismayed by his/her arrogance
*His/her attitude is so irritating.*

As for the special prepositions (considered the hallmark of adjectival passive), they are excluded in contexts that force the choice of verbal passive, consider the sentences in (87):

87. a. Siamo stati tutti molto impressionati *di/*a/da/?per il gioco della tua squadra.
we have been all of us very impressed of/ at/ by/ due to the play of your team
*They teamwork made a good impression on us.*
b. Il governo americano è (fortemente) preoccupato *di/*a/da/per il forte riarmo iraniano.
the american government is (highly) worried of/ at/ by/due to the impressive rearm Iranian
*The American government is seriously concerned about the Iran arms race.*

c. La concorrente è stata demoralizzata/umiliata *di/*a/da/*per tutti
the contender has been demoralized /humiliated of/at/by/ due to everybody
*The contender has been humiliated by everybody.*

To sum up, evidences brought by B&R to support the adjectival status hypothesis concerning *preoccupare* (to worry) verbs passive do not unequivocally demonstrate the unaccusativity of such psych-verbs. Once again, the contrasts between (84)/(85) and (86)/(87) show that the *preoccupare* (to worry) class is not homogeneous. That these are not isolated cases is confirmed by further data in (88). Consider further examples in (88)-(89).

88. a. Pietro e Paola hanno sempre accontentato i loro figli
Peter and Paula have always pleased the theis children
*Paola and Peter always pleased their kids.*
b. Giorgio e Paolo sono stati accontentati subito (dai loro genitori)
George and Paul are been pleased straightaway (by their parents)
*George and Paul have been pleased straightaway.*

89. a. La performance canora di Pierpaolo ha sconcertato tutta la platea.
the performance singing of Pierpaolo has impressed all the stalls
*Pierpaolo's tonight performance impressed the audience.*
b. Siamo stati tutti sconcertati dalla sua esibizione.
are been all impressed from his/her performance
*His/her performance impressed us all very much.*

While some verbs can be used passively (accontentare 'please' calmare 'calm down' oltraggiare 'outrage' sconvolgere 'upset' etc etc) others (addolorare 'sadden' compiacere 'gratify' incretinire 'make stupid' sconcertare 'impress'etc etc.) cannot. Consider the following examples:

90. a. La testa doleva, come fosse stato stordito da poco.
his head hurt like were been stunned few moment ago
*His head hurt just like he has been just stunned.*

b. *Il difensore è stato inebetito dal gioco di gambe di Ronaldo.
the back player is been made stupid by the game of legs of Ronaldo
*The back has been fooled by Ronaldo's ability*

91. a. Il santone è stato oltraggiato da entrambi i ladroni
The guru is been outraged by both the thieves
*The guru has been outraged by two thieves*
b. Il giocatore è stato rincuorato a lungo dopo la partita da tutto lo staff
the player has been cheered up for a long time after the match by all the staff
*Everyone from the team tried to cheer up the player after the match..*

The fact that some verbs can passivize casts a new light upon the unaccusative analysis proposed by B&R. Recall that following B&R unaccusative hypothesis, these verbs should not passivize at all and what looks like a passive is an adjectival one. I claim instead that the overall picture is more complex, in that, in addition to verbs of the *preoccupare* (to worry) class which do not passivize, there are others that do passivize. Following Pesetsky (1995), I propose that this is due to differences in their syntactic structure, as I will show later in ch.12.
Since not all the *preoccupare* (to worry) verbs can passivize, we can either reject entirely B&R's hypothesis by saying that we are not dealing with unaccusative verbs (hypothesis supported by the auxiliary selection of these verbs), or modify it in order to explain the different behaviour of the verbs of the *preoccupare* (to worry) class.

#### 4.6.2.1. *TEMERE* PASSIVES

Before ending this section, let us focus on one more fact. Although it has been demonstrated that both *temere* (to fear) and *preoccupare* (to worry) verbs do have passive forms, I claim that such verbs passives are somehow different from those of traditional transitive verbs. Paraphrasing Haegeman's (1991) description of the absorption of theta-roles by passive morphology, I claim that something different

than Agents are implied within psych-verbs[67]. Consider the transitive passive in (92):

92. a. Lo zio Michele ha costruito la casa in campagna.
The uncle Michael has built the house in the country
*Uncle Michael built the house this countryside house.*
b. La casa in campagna è stata costruita tempo fa (dallo zio di Michele).
the house in the country is been built time ago by the uncle of Michele
*The countryside house has been built long time ago by uncle Michael.*

The element introduced by *da* (by) in (92b) holds the Agent theta-role; in addition to this it is actually "the one who intentionally initiates the action expressed by the predicate" (Haegeman 1991:41). Let us consider how *temere* (to fear) verbs passivise:

93. a. Tutti i bambini temono il professore.
All the children fear the professor
*The children fear the professor.*
b. Il professore è stato temuto a lungo (da tutti i bambini).
the professor is been feared for long by all the *children*
*The prof. has been feared for quite a long time (by all the children).*

The passive in (93b) can be considered as normal passive as (92b), which is unsurprising, given the transitive status of *temere* (to fear), analogously to the verb *costruire* (to build) in (92). (92b) and (93b) however, cannot be considered as the same kind passives; something distinguishes (93b) from (92b). I propose that the arguments present in (93b) hold different roles with respect to those in (92b). Consider briefly the role of the elements introduced by *da* (by) in both sentences. In (92b), *lo zio Michele* (uncle Michele) holds an Agent theta-role. On the contrary, *tutti i bambini* (all the children) in (93b) do not intentionally initiate any kind of action; they simply experience the emotion expressed by the predicate *temere* (to fear). They hold the Experiencer role. Note further that if an Agent-oriented adverb is used, the sentence will be degraded.

67 I will return to this in ch. 9.

94. *? I bambini temono il professore stupidamente[68].
the children fear the professor stupidly
*The children fear the professor for nothing.*

Consequently, while *la casa* (the house) in (92b) undergoes some kind of process, *il professore* (the professor) does not. Moreover, it seems that the overall scenario in (93b) is just the opposite of (92b), being the professor, and not the children, doing something, either intentionally or not, in (93a). In fact, the item that produces the fear inside the children is the professor and not vice versa. Although the kids fear the professor for some reasons, it is possible that the professor did nothing in order to scary them. As a consequence, he even might not know that they fear him. I will further discuss this issue in ch.9. For the moment, let us just note that the children fearing the professor is simply a reaction to something and not an intentional action, thence the children's lack of control on the predicate. Therefore, *lo zio di Michele* (uncle Michele) and *tutti i bambini* (all the children) hold different thematic roles: Agent and Experiencer[69]. The arguments introduced by the *by*-phrase in (93b) shares the same kind of non-intentionality shown by the arguments introduced by *da* in (87). Nevertheless, it is still possible to have a passive construction. On these bases, I propose that *temere* (to fear) verbs, as *preoccupare* (to worry) have different passive derivations with respect to transitive ones.

To sum up, *preoccupare* (to worry) verbs are much more similar to the *temere* (to fear) verbs than to the *piacere* (to please) ones: *piacere* (to please) verbs cannot passivize, whereas *preoccupare* (to worry) can, as *temere* (to fear) verbs do. Furthermore, *da* (by) does not introduce an Agent, but an Experiencer.

Before ending this section, let us just note that passives forms of *temere* (to fear) verbs are interesting for another reason. Consider again (93b). The argument *il professore* (the professor) is the grammatical subject. Given (iv) above -- pg. 91 -- the subject of passives are internally merged argument. On the contrary, *i bambini* (the children), following (ii), are externally merged argument. Following the

68 Since *bambini* (children) does not hold the Agent role it cannot be modified by *stupidamente* (stupidly), therefore we are not able to identify who is doing something stupidly.

69 Note that also *la casa* (the house) and *il professore* (the professor) hold different thematic roles, i.e., Patient and Target/Subject Matter respectively (with respect to the thematic hierarchy see Pesetsky, 1995).

UTAH and the possibility for *preoccupare* (to worry) verbs to passivize, I propose that both the Experiencer and the Theme theta-roles are assigned in the same way in both *preoccupare* (to worry) and *temere* (to fear) verbs.

#### 4.6.2.2. INTERIM CONCLUSION

In this section, I analysed the passive construction with *preoccupare* (to worry) verbs. The data show that, *preoccupare* (to worry) verbs can passivize, as *temere* (to fear) verbs, whereas *piacere* (to please) verbs cannot. I showed that the data in support of the B&R adjectival status hypothesis of such passives are misleading. It has been further shown that although both *temere* (to fear) and *preoccupare* (to worry) verbs can be passivized, their passive forms seem to be different from those of traditional transitive verbs. The subjects of psych-verb passives differ from the ones of transitive passives in that they do not perform the action denoted in the predicate but undergo it. In particular, the item that is affected by the action described by the verb is the one introduced by the *by*-phrase. The subjects of transitive passives on the contrary undergo an action, and the argument introduced by the *by*-phrase performs it.
Concluding: *preoccupare* (to worry) verbs are closer to *temere* (to fear) verbs, than to the *piacere* (to please) ones. Furthermore, not all *preoccupare* (to worry) verbs can passivize.

## 4.7 *NE*-EXTRACTION

In this section, I analyse psych-verbs with respect to *ne*-extraction, as showed in (95):

95. a. Arriveranno molti ragazzi.
Will arrive many boys
*Many boys are coming.*
b. Ne arriveranno molti.
Of them will arrive many
*Many of them will arrive*

## 4.7.1. INTRODUCTION

Burzio (1986) describes the extraction process in (96) as a cliticization phenomenon, therefore I will refer to it as the Ne-Cliticization (henceforth Ne-Cl):

96. Ne-Cl is possible with respect to all and only direct objects. (Burzio 1986: 23 (6))

As a consequence of (96), Ne-Cl out of preverbal subjects, indirect objects (Burzio 1986) and PPs (Belletti&Rizzi 1981) is impossible. On the contrary, Ne-Cl is possible with passive constructions, one variant of the impersonal *–si*, and the AVB/BV structures[70]. Consider the following examples:

97. a. Saranno invitati molti esperti.
will be invited many experts
*Many experts will be invited.*
b. Ne saranno invitati molti.
Of them will be invited many
*Many of them will be invited.*

98. a. Si leggeranno volentieri alcuni articoli
one will read (pl) willingly a few articles
*A few articles will be read eagerly.*
b. Se ne leggeranno alcuni
one of them will be read (pl.) a few
*A few of them will be read.*

99. a. Due navi nemiche affondarono
*Two enemy ships sank.*
b. Ne affonderanno due.
Of them sank two

70 Burzio identifies the ABV/BV surface structure pairs (where V is a verb and A,B are noun phrases) with all those verbs as *affondare* (to sink) that can select either one or two arguments.

*Two of them sank.* (Burzio 1986: 23-25 ex 8,10,11,13,14)

Since Perlmutter (1978), Ne-Cl has been used to distinguish two different classes of intransitive verbs: unaccusative verbs, whose sole argument undergoes *ne*-cliticization (95b), and unergative verbs, whose sole argument cannot undergo *ne*-cliticization[71]:

100. *Ne hanno parlato molti.
of-them have spoken many
*Many people discussed about this thing.*

Given the strong correlation between Ne-Cl and VP-internal subject in post-verbal position, it has been generally assumed that Ne-Cl is possible only with unaccusatives and that Italian post-verbal subjects do not occupy the same position with all verbs[72; 73].
Moreover, Ne-Cl out of post-verbal subjects in Italian correlates with E auxiliary selection, as opposed to A. Note that with the verbs of motion that select either E or A, *ne*-cliticization is possible only when they select E (101)-(102)[74].

101. *Ne hanno corso nel parco due.
of-them have run in-the park two
*Two of them ran in the park*

71 Cf. sec.1.4.

72 *Ne*-Cl is possible with transitive verbs too in that *ne* (of it) refers to all VP-internal arguments, as the object with verbs like *mangiare* (to eat):

(i)Gianni ha mangiato due mele.
(ii)Gianni $ne_t$ ha mangiate due $_t$.

73 Since Burzio (1981, 1986) and Belletti & Rizzi (1981), it has been assumed that there are at least two structural distinct positions for the post-verbal subject, a VP-adjoined position, as sketched in (ii), and a VP-internal one, as in (i):
(i) [VP V NP] unaccusative verb: VP-internal subject
(ii) [VP [VPV] NP] unergative/transitive verb: VP-adjoined subject

74 In general, intransitive verbs with agentive semantics verbs select A while telic intransitive verbs denoting a state or a change of state or location select E (Sorace, 2000, Arad 2000)

102. Ne sono corsi a casa due
of-them are run to home two
*Two of them ran home.*

Following Burzio (1986), the generalization concerning the possibility for an argument to be *ne*-cliticized is as follows:

103. Ne-Cl is possible with respect to an i-subject *related* to a direct object.

Therefore, Ne-Cl is only possible with VP internal arguments (transitive objects and *in situ* unaccusative subjects). In the upcoming section, I analyse the behaviour of psych-verbs with respect to Ne-Cl.

### 4.7.2. NE-CLITICIZATION AND ITALIAN PSYCH-VERBS

On the basis of the unaccusative analysis proposed by B&R, both the *preoccupare* (to worry) and the *piacere* (to please) verbs should allow the Ne-Cl. B&R do not analyse the *temere* (to fear) verbs, but here I consider them as well.
Let us start by analysing *piacere* (to please) verbs. Ne-Cl is possible, though a little marginal for some speakers. Consider the following examples:

104.a. Sono piaciute solo due torte a Maria.
Are pleased only two cakes to Maria.
*Maria only liked only two types cakes*
b. ?Ne sono piaciute solo due a Maria
of-them pleased only two to Maria
*Maria appreciated only two of them.*
c. A Maria ne sono piaciute solo due.
to Maria of-them pleased only two
*Maria appreciated only two of them* (Cinque, in Pesetsky 1995: 51).

In (104), the post-verbal nominative argument of *piacere* (to please), *torte* (cakes), allows Ne-Cl. Hence the B&R's unaccusative analysis concerning *piacere* (to please) verbs seems to be on the right track.

With respect to the *preoccupare* (to worry) verbs, things are quite different. Based on their alleged unaccusativity, it should be possible to have Ne-Cl with such verbs. Nevertheless, I will show that this is not the case. B&R argue that although *extraction of **ne** from the object of preoccupare produces deviant structures,*(...) *the violation seems weaker than in cases of Wh-extraction* (11) (B&R;3.1)[75]. Consider here (105):

105. a. *La compagnia di cui questo fatto preoccupa il presidente.
the company of which this fact worries the president
*(this is) the company which the president is worried about.*
b. *? Questo fatto ne preoccupa il presidente.
this fact of-it worries the president
*This fact makes the president worried about it.*
c. ??Questo fatto ne preoccupa molti.
this fact of-them worries many
*This fact makes many of them worried about it.* (B&R:330 ex(96))

B&R argue that (105b-c) are only slightly deviant, since subjacency is not violated because only one barrier has been crossed. In fact, if *the clitic is first moved to the verb inside the VP, then only one barrier is crossed, i.e., NP, subjacency is not violated* (B&R:330). On the contrary, wh-extraction, which involves a NP to INFL displacement, leads to ungrammaticality, as in (105a)[76]. Nevertheless, Arad (1998) claims that, whenever an agentive context is forced, extraction is instead possible. Consider (106)-(107):

106. La ragazza di cui Gianni preoccupa il padre.
the girl of which Gianni worries the father
*The girl whose father Gianni worries*

107. La ragazza di cui Gianni spaventa i genitori perché gliela facessero sposare.

75 B&R 3.1 is about the *Island properties* of the object of the *preoccupare* (to worry) verbs.

76 Recall that, following B&R, psych-verbs have two internal arguments with the Spec positions empty.

the girl of which Gianni frightens the parents for him-her makeSUBJ marry
*The girl whose parents Gianni frightens so that they will allow him to marry her.* (Arad, 1998: (17b)-(18))

Morevover, post-verbal *Causer arguments of verbs like* ***preoccupare*** *pattern with post-verbal arguments of transitive verbs in disallowing the ne-cliticization* (Pesetsky 1995; 51), as in (108). As a matter of fact, *preoccupare* (to worry) verbs with post-verbal subjects are ungrammatical too. Let us compare (104a) and (108b)).

108. a. Solo due ragazzi hanno preoccupato Gianni
only two boys have worried Gianni
*Only two boys have worried Gianni*
b. *?Hanno preoccupato Gianni solo due ragazzi.
Have worried Gianni only two boys
*Only two boys have worried Gianni*
c. *$Ne_t$ hanno preoccupato Gianni solo due $_t$.
of-them worried Gianni only two.
*Only two of them worried Gianni.* (Pesetsky 1995: 51)

Note that (105b) is different from (108c) in that the object-NP coexists with the clitic *ne*. After Ne-Cl in fact, only quantifier (Q) should remain in place either in Spec,NP or in Q° (Cardinaletti and Giusti, 1992 (henceforth C&G); Belletti and Rizzi, 1981). Although ungrammatical, in (108c) only the Q element remains *in situ,* whereas in (105b) it does not, given that *ne* and *president* are both present[77]. Consider now (109):

109. a. L'esame di italiano preoccupa molte delle ragazze Erasmus
the exam of Italian worries many of the girls Erasmus
*The Italian language exam worries many Erasmus student girls.*
b. * L'esame di italiano ne preoccupa molte. (ne = ragazze Erasmus)
the exam of Italian fact of-it worries many

77 This is probably the reason for the "?*" judgment given by B&R in (126b).

*The Italian language exam worries many (of the Erasmus student girls).*

c. L'esame di italiano ne preoccupa molte di ragazze Erasmus.
The exam of Italian of-them worries many of the girls Erasmus
*Of the Erasmus student girls group, the Italian language exam worries many of them.*

Contrary to (105b), if in (109) no complement follows *preoccupare* (to worry) (*ragazze* 'girls' therefore absent), the sentence turns out to be ungrammatical, cf. (109b). Still, there is a possible escape hatch, i.e., introducing the N complement by means of the preposition *di* (of) (109c).
(109c) seems to be possible only because of the focalized nature of the N *di ragazze Erasmus* (of the Erasmus girls), but this is not an isolated case. In fact, as claimed by Calabrese and Mailing (2009), *it turns out, however, that the subject of many verbs selecting avere can in fact occur in the VP-internal postverbal position. Lonzi* (1986) *observed that there are verbs in standard Italian which take avere as their perfect auxiliary, but do allow ne-cliticization nonetheless.* As in (16-19), *adapted from Lonzi* (1986:112) (Calabrese and Mailing 2009:17):

110. Ne telefonarono alcuni, (di tifosi), dopo la partita!
Of-them phoned some, (of fans), after the game
*Some (of them) called after the game.*

111. Anche oggi ne parleranno tre, al convegno.
also today of-them will speak three at the meeting
*Today, too, three (of them) will speak at the meeting*

112. Ne giocano sempre solo tre, (di bambini), in questo parco.
Of them play always only three, (of children) in this park
*Only three of them always play in this park.*

113. Ne funzionano solo due, (di orologi).
Of-them function only two, (of watches)
*Only two (of them) work*

Note though that the sentences (110)-(113) require a special interpretation in order to be acceptable. Bentley (2006) discusses this interpretation, suggesting that these ones are *sentence-focus presentational constructions which introduce into discourse quantified sets of entities, and predicate their behavior. Some of the events in question are bounded in a spatial sense* […], *or in a temporal sense* […] (Bentley 2006: 275) (cited in Calabrese and Mailing (2009)).
I assume then that *preoccupare* (to worry) verbs pattern with unergatives rather then with unaccusatives in disallowing Ne-Cl -- compare (100) with (108) -- and in allowing Ne-Cl when the N complement is introduced by a preposition -- compare and (109c) and (110). However, the situation is not that clear. Some *preoccupare* (to worry) verbs seem to allow this kind of cliticization. Consider (114) and (115):

114. a. L'avvocato difensore è riuscito a convincere molte persone (della giuria).
the lawyer defense is succeded to convince many person (of the jury)
*The lawyer succeded in convinvincing most of the public jury.*
b. L'avvocato ne ha convinti molti
the lawyer of them has conviced many
*The lawyer convinced most of them.*

115. a. La vicenda delle sorelline ha scosso molto l'opinione pubblica.
the fact of the little sisters has shoked a lot the opinion public
*What happened to the little sister shocked all the public opinion*
b. Quell'incidente ha distrutto molte vite e ne ha scosse delle altre.
that incident has destroyed many lives and of them has shocked others
*That accident has not only ruined many lives but shocked many others too.*

Given that both *convincere* (to convince) and *scuotere* (to shake) allow ne-cliticization, they pattern with verbs that have subjects in a post verbal position [78]. Once again, data confirm that the *preoccupare* (to worry) class is not uniform: with respect to Ne-Cl some verbs pattern with unaccusative ones in allowing it

78 *Impaurire* (to frighten), *disgustare* (to disgust), *timolare* (to stimulate), *impietosire* (to pity) etc. behave in the same way.

(*convincere* 'convince' and *scuotere* 'shake' among others), whereas other ones pattern with unergative and disallow it (*preoccupare* 'worry' among others). Before ending the section, let us consider *temere* (to fear) verbs.
On the basis of the transitive analysis given by B&R and (1), they should allow Ne-Cl:

116. Ne-Cl is possible with respect to all and only direct objects.
(Burzio 1986:23 (6))

As excepted, in (117)-(118) both *temere* (to fear) and *disprezzare* (to despise) select a direct object and allow Ne-Cl:

117. a. Gianni teme (la potenza) del fuoco.
Gianni fears the strength of the fire
*Gianni fears the fire's strength*
b. Gianni ne teme la potenza.
Gianni of-it fears the strength
*Of the fire, Gianni fears its strength.*

118. a. Filippo disprezza fortissimamente l'arroganza del fratello di Anna.
Philipe despises strongly the arrogance of the brother of Anna
*Filippo despises firmly Anna's brother's arrogance*
b. Filippo ne disprezza l'arroganza.
Philip of despises the arrogance
*Filippo despises his/her arrogance.*

Data in (117)-(118) confirm B&R analysis that t*emere* (to fear) verbs pattern with transitives, such as *mangiare* (to eat) and *leggere* (to read). As with *preoccupare* (to worry) and *piacere* (to please) verbs, *temere* (to fear) direct object NPs have to be modified either by an adjective or by another nominal in order to be cliticized. In fact, as assumed by C&G for transitive verbs, *a way of approaching the problem of ne being any level of the N-projection is to regard all material left in place by ne-cliticization as a modifier to the NP* (C&G:4). If we try to *ne*-cliticize an element that does not modify the NP complement the sentence is ungrammatical. Compare (119) and (120):

119. a. un argomento che ho discusso ieri.
an argument that have1SING discussed
*an argument that I discussed yesterday*
b. ne è rimasto uno che ho discusso ieri.
of it is remained one that have discussed yesterday.
*NE remained one that I discussed yesterday.*

120. a. C'è una possibilità che Maria venga
there is one possibility that Mary came
*There is possibility that Mary wold show up at the end.*
b. *Ce n'è una che Maria venga.
There is one that Mary comes
*There is just one possibility that Mary should show up at the end*
(C&G: (21)-(22))

#### 4.7.2.1. INTERIM CONCLUSION

In this section, psych-verbs have been analysed with respect to Ne-Cl (*ne*-cliticization). Given that *ne* refers only to direct objects (Burzio 1986), Ne-Cl is limited to unaccusative constructions. Differently from unergatives in fact, they select an internal direct object, which can be realized *in situ*. On the contrary, unergative verbs disallow Ne-Cl because of the adjoined nature of their post-verbal subject (Burzio 1981). Furthermore, I showed that both *temere* (to fear) and *piacere* (to please) verbs allow Ne-Cl, although for different syntactical reasons. *Preoccupare* (to worry) verbs behaviour is instead rather complex. In particular, some *preoccupare* (to worry) verbs allow Ne-Cl whereas other ones do not. In other words, a group of verbs pattern with unaccusative verbs with *in situ* post-verbal subjects whereas another pattern with unergatives and transitive verbs that allow post-verbal subject [79]. The data from *preoccupare* (to worry) confirm once again that this class is not uniform.

79 See fn. 78 above.

# CHAPTER 5
# PRELIMINARY CONCLUSION I

## 5.1 NOMINALIZATIONS

Not all *preoccupare* (to worry) verbs nominalize. It was shown that this discrepancy correlates, at least in part, with the compound nature of some verbs. There is a almost a one-to-one relation with the compound nature of the verb and its non-nominalizing possibility. In particular, it was shown that the complex nature of such verbs is visible in all those verbs starting with *in-* or *a-*[80]. Moreover, non-nominalizing verbs are very likely to exhibit the *in-* prefix, which corresponds to the locative preposition *in* (in). Given the presence of locative prepositions in psych-verbs, I proposed that the former play a key-role in the syntax of these verbs, in that their presence can be analyzed as the reflex of a different syntactic structure than those proposed so far in the literature (see B&R and Pesetsky, among others).

## 5.2 AUXILIARY SELECTION

If the unaccusative analysis proposed by B&R is on the right track, both the *preoccupare* (to worry) and the *piacere* (to please) verbs should select E as their auxiliary. It has been shown that this is only partially the case, i.e., while *piacere* (to please) verbs always select E, *preoccupare* (to worry) verbs do not. Therefore, the latter should not be analysed as unaccusatives but rather as unergatives or transitives [81]. However, the picture is more complex, in that *preoccupare* (to worry) verbs cannot have a passive construction. Therefore, it is not clear whether they are pure transitive or unergatives verbs.

80 Recall that the derived nature of some psych-verbs is not always immediate.

81 *Preoccupare* (to worry) verbs, contrary to unergatives, select at least two arguments. Compare *telefonare* (to phone) with *impaurire* (to frighten).

## 5.3 ARGUMENT STRUCTURE

It has been shown that Italian transitive verbs can be used intransitively, probably due to the presence of a null direct objects, though not all transitive verbs can be used intransitively. By analysing *preoccupare* (to worry) verbs, I showed that some of them can have a pseudo null-object, whereas other cannot. I consider this phenomenon to be purely syntactical. In particular, I showed that verbs with a similar semantics do not behave in the same way with respect to the possibility of being used intransitively, which explains the syntactic nature of the phenomenon. Therefore, I hypothesize that there are two sub-classes of *preoccupare* (to worry) verbs, projecting different syntactic structures or derivation.

## 5.4 PRESENT PARTICIPLE

In this section, I extended my analysis of psych-verbs to the formation of the present participle to determine whether these verbs can be used as nominal elements or as modifier of a nominal head. Data showed that not all psych-verbs have the present participle, especially within the *preoccupare* (to worry) class. All the present participle forms encountered have an adjectival value.
Finally, I proposed that this phenomenon and the possibility for the *preoccupare* (to worry) verbs to nominalise are inversely related. Data show that these two derivations are in fact in a complementary distribution.

## 5.5 PASSIVE

In this section it was shown that psych-verb passive derivation undermines B&R analysis concerning the unaccusative nature of both *preoccupare* (to worry) and *piacere* (to please). In particular, it was shown that while *piacere* (to please) verbs cannot passivize, *preoccupare* (to worry) verbs can, as *temere* (to fear) ones. In addition to this, I noted that *temere* (to fear) verbs passives seem to be different from traditional transitive ones, in that the roles hold by the arguments of psych-verb passives are different from transitive passives. The subject of psych-verbs passive, unlike transitives, refers to elements that do not undergo any action. On the contrary, the subject of the passive of psych-verbs is the argument triggering the emotional state. Moreover, the arguments introduced by the *by*-phrase

experience the emotion expressed by the predicate and, therefore, have no agentive role. Note that the subjects of the passive form of normal transitive verbs, on the contrary, undergo the action expressed by the predicate and the by-phrase has an agentive role within the predicate.
On the basis of the above evidence, the following conclusions can be drawn. Firstly, *preoccupare* (to worry) verbs are more similar to the *temere* (to fear) verbs, than to the *piacere* (to please) ones. Secondly, verbs within this class seem to behave differently with respect to the passive construction, i.e., not all of them can passivize.

## 5.6 *NE*-EXTRACTION

In spite of their different syntactic structure, all *temere* (to fear) and *piacere* (to please) verbs allow *ne*-cliticization, whereas only a sub-group of *preoccupare* (to worry) verbs do. In particular, data showed that only internal arguments of *preoccupare* (to worry) verbs can be *ne*-cliticized. Therefore, the group allowing *ne*-cliticization patterns with unaccusative verbs with an *in situ* subject, whereas those which do not allow it pattern with unergatives and transitives with a post-verbal subject [82].

## 5.7 TOWARDS A NEW ANALYSIS

So far, it has been shown that psych-verbs are not transitives, and that they cannot be considered unaccusatives either. Moreover, we have seen that the *preoccupare* (to worry) class, in particular, is not homogenous (cf. tab.1 below). Therefore, I propose that the traditional analysis of psych-verbs is to be reconsidered, in that their syntax seems to be more complex than originally proposed by B&R. In the following, a cross-lingustic perspective will be adopted.

Following Landau (2010), I argue that psych-verbs exhibit a special behaviour in many respects. Firstly, it is a well-known fact that their syntax differs from that of

82 Concerning post verbal subjects of transitive verbs, recall that Burzio (1986) distinguishes them from post-verbal subjects of unaccusative the latter verbs. In particular, while the latter can actually be considered as realized *in situ* the latter are considered somehow as adjoined to the structure (cf. fn.77 above).

other verb classes cross-linguistically. Secondly, there seems to be a cross-linguistic correlation between Subj-Exp and Obj-Exp verbs and the inherent causativity of the sentence. Third, in many languages, the syntax of psych-verbs is half way between transitive and intransitive verbs (cf. aux selection and passives with Italian psych-verbs). Furthermore, psych-verbs cross-linguistically express a locative relation in which the Experiencer can "either be the stuff which is in some mental state, or the container, which is filled by the mental state" (Arad 1998:228) (see ch. 8 for a detailed discussion). The remainder chapters will be devoted to the discussion of each of these points.

My initial claim is that there is a direct correlation between the morpho-syntax and the semantics of the event structure of psych-verbs. In addition to this, I propose that verbs such as *impaurire* (to frighten), *piacere* (to please/like), *amare* (to love) merely express a psychological state induced by a third element. Therefore, their specific syntax can be captured by introducing a dedicated functional projection, that we shall call PsychP.
In particular, following Ramchand (2008), I propose that the verbal projection of psych-verbs can be split into three projections: BeP, PsychP, and LP. In the following sections, both empirical and theoretical support will be provided in favour of this proposal, on the basis of the data summarised in the table below.

| Verbs | Aux selection | Nom. | Intransitive use | Present Participle | Passive | *Ne*-Extr. |
|---|---|---|---|---|---|---|
| *Preoccupare* | AVERE | x/√ | x/√ | x/√ | x/√ | x/√ |
| *Piacere* | ESSERE | √ | √ | x/√ | x | √ |
| *Temere* | AVERE | x/√ | x | x/√ | √ | √ |
| Transitive | AVERE | - | - | - | √ | √ |
| Unaccusatives | ESSERE | - | - | - | x | √ |
| Unergatives | AVERE | - | - | - | x | x |

Tab.1

Tab.1 shows that *preoccupare* (to worry) and *piacere* (to please) verbs do not behave in the same way with respect to several tests. Furthermore, *preoccupare* (to worry) verbs, although selecting A, do not behave like *temere* (to fear) verbs either.

My final claim will be that all psych-verbs share the same syntactic structure and the superficial differences can be accounted for by means of different syntactic derivations.

# SECTION III
# RETHINKING (ITALIAN) OBJ-EXP PSYCH-VERBS

In this section, I will lay the foundations for the analysis of Obj-Exp verbs that will be provided in Section IV. In doing so, I start by focusing on the *preoccupare* (to worry) verbs, because of their peculiar semantic and syntactic behaviour. As shown in the previous section, *preoccupare* (to worry) verbs do not pattern uniformly with respect to various diagnostics and their distribution cannot easily be accounted for by the existing analyses (see ch.4).

## 0 INTRODUCING A NEW PERSECTIVE

In order to give a complete and exhaustive analysis of psych-verbs, I consider other psychological–constructions, in addition to those with *preoccupare* (to worry), *amare* (to love), and *piacere* (to please). Psychological events can be described either by means of a simple verbal form, i.e., *love* or *enrage*, or by means of a complex structure consisting of a light verb and a noun expressing an emotion, i.e., *mettere paura* (lit. put fear). For the sake of the present discussion, I shall refer to the latter constructions as *psychological periphrasis* and I shall equate them to psych-verbs (see Bouchard 1992). Furthermore, I assume that simple and complex psych-constructions are syntactically related, and that they differ only with respect to the morphological spell-out of their lexical items. In other words, I claim that in principle every "simple" psych-verb -- i.e., *preoccupare* (to worry) -- has a periphrastic counterpart as *mettere*/*dare* (to put/give) X *a*/*in* (to/in) Y, where X is the emotion and Y the Experiencer. For instance, *preoccupare* (to worry) can easily be decomposed as "X *mette*/*dà preoccupazione a*/*in* Y" ( X puts/gives anxiety into Y). In order to distinguish between these two types of psych-verbs, I refer to the former as to *synthetic psychological verbs* and to the latter as *analytic psychological verbs*. On the contrary, note that typically verbs do not show the same periphrasis possibilities

as psych-verbs. Although verbs as *mangiare* (to eat) or *arrivare* (to arrive) can be incorporated in causative constructions such as *fare* (make) plus infinitive -- i.e., *fare arrivare*/*mangiare* (to make sb. arrive/eat) -- they do not have periphrastic counterpart --i.e., *mettere arrivo/mangiare a (put arrival/cooking to). Arguments will be provided in favour of the hypothesis that *all synthetic psych-verbs derive from analytic psych-constructions*. Furthermore, I propose that locative prepositions play a very important role within the derivation of psychological verbs (see Landau 2010 and Arad 1998/2000 for a similar proposal). In particular, I will show that psych-verbs describe a locative relation between Experiencers and mental states. Taking this into considerations, I will propose that such relation is clearly visible in analytic psych-verbs and that this is maintained in synthetic psych-verbs too (see ch. 12)

Unlike previous syntactically-based analysis (see Section II), I will follow Ramchand (2008) in proposing that the semantics of psych-verbs plays a role in their syntactic derivation. In particular, I will propose an analysis of psych-verbs which ties together both the syntax and the semantics of such verbs. Both analytic and synthetic constructions express a locative relation between the emotion and the Experiencer, which explains why analytic and synthetic psychological construction should be linked together. Moreover, it will be shown that psych-verbs apparent violation of the UTAH strongly depends on their derived nature.

Let us start our analysis from the *preoccupare* (to worry) class.

So far, different analyses have been proposed in the literature for this particular subclass. B&R analyse *preoccupare* (to worry) verbs as unaccusatives, on a par with *piacere* (to please) verbs (see also Landau 2010 for a similar proposal). Pesetsky (1995) suggests that they should be interpreted as causative transitive verbs with a syntactic structure similar to the one of *temere* (to fear) class (see also Iwata 1995 and Arad 1998). In this work, I propose that the structure of *preoccupare* (to worry) verbs is similar to the one of transitives[83]. Being transitive verbs, they project a light *v* above the V-layer (Larson 1988). Nevertheless, psych-verbs differ from traditional transitives, in that they have a more complex VP. In this respect, the transitive syntactic structure I propose differs from the

83 By the end of the work, I will show that all psych-verbs share the same initial syntactic structure, which is similar to that of transitive verbs. Takung this into account, I will further show that the differences concerning their final word order is a matter of syntactic derivtation.

transitive structures proposed so far in the literature (see Pesetsky 1995, Arad 2000, Landau 2010 among others).

Let us now consider some arguments in favour of this analysis. As in Pesetsky (1995), I consider *preoccupare* (to worry) verbs closer to *temere* (to fear) than to *piacere* (to please) verbs, for different reasons, e.g., they share the same auxiliary *avere* (to have). The only property which seems to distinguish *temere* (to fear) from *preoccupare* (to worry) verbs is the grammatical role held by their Experiencers, i.e., subject and object respectively, whence the traditional subdivision in Subj-Exp and Obj-Exp verbs. Pesetsky (1995) analyses this contrast as due to the inherent causative semantics of the *preoccupare* (to worry) verbs (see ch.7). He also suggests that both *temere* (to fear) and *preoccupare* (to worry) verbs share the same syntactic structure, which in turn distinguishes them from *piacere* (to please) verbs, the latter verbs having an unaccusative structure. However, this does not explain why *preoccupare* (to worry) and *piacere* (to please) verbs have both an inherent causative semantics, whereas *temere* (to fear) verbs do not. Contrary to Pesetsky (1995), I propose that common inherent causativity is built up by the syntax.. A proposal that could account for both the apparent similarity of the syntactic structure of *preoccupar*e (to worry) and *temere* (to fear) verbs and the inherent causative semantics of *preoccupare* (to worry) and *piacere* (to please) verbs is therefore needed. I will show that although *temere* (to fear), *preoccupare* (to worry), and *piacere* (to please) syntactic structures seem to differ, this is simply the outcome of a different syntactic derivation.

In order to deal with this hypothesis, I propose that *preoccupare* (to worry) and *temere* (to fear) verbs share the same syntactic structure but for the presence of a functional projection, shared with *piacere* (to please), that we shall call Psychological Projection (PsychP). This can explain the causative semantics entailed by the *preoccupare* (to worry) and *piacere* (to please) verbs, absent in the *temere* (to fear) verbs. I will further show that the syntactic structure of *piacere* (to please) verbs minimally differs from *preoccupare* (to worry) and *temere* (to fear) ones (see sec.13.2.2).

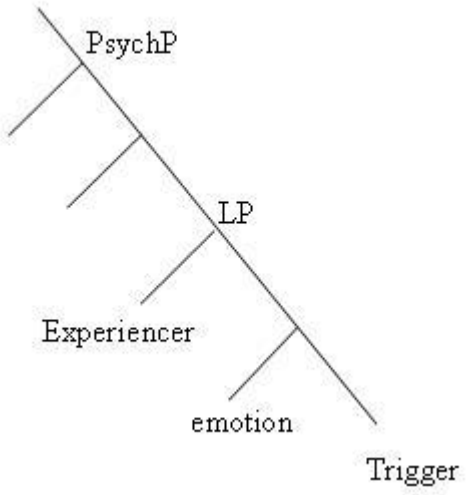
All Obj-Exp verbs (both *preoccupare* -- to worry -- and *piacere* -- to please') have a causative semantics, as shown by the analytic psych-constructions, such as *fare paura*/*piacere a* (lit. make fear/pleasure 'cause fear/pleasure to') (see ch. 7 for a detailed discussion). Note that psych-constructions tie together three

nominal elements that do not entail any causativity per se, i.e., mental state, Experiencer and trigger of emotion. I assume that such elements develop their psych-construction role only when merged in a psych-verbal syntactic structure. For instance, *paura* (fear) refers mainly to an emotion, but not to the process behind it or to the element responsible for such emotion. Furthermore, psych-constructions show that initially unrelated elements, e.g., Mario, maths, and fear, are clearly psychologically related, as shown by (1):

1. a. La paura è una brutta cosa.
   Fear is such a bad thing
   b. La matematica fa paura a Mario
   Maths scares Mario.

I propose that *Mario*, *paura* (fear), and *matematica* (maths) are merged and that the resulting combination is governed by a functional phrase, the latter being responsible for the inherent causative semantics of such constructions:

2.




Given the lack of causativity in *temere* (to fear) verbs, I claim that PsychP is present only in the syntactic structure of *preoccupare* (to worry) and *piacere* (to please) verbs.
On the basis of (2), the following conclusions can be drawn. Firstly, psych-verbs are not merge as such. Secondly, contrary to B&R, Experiencers merge in a

higher position than the Trigger (cf. Theme in B&R). Finally, the semantics of psych-constructions is built up in the syntax.

In what follows, a sketch of the Distributed Morphology framework will be presented. In particular, it will be shown that an analysis based on such framework can account for the data introduced in ch.4 in a straightforward way

# CHAPTER 6
# DISTRIBUTED MORPHOLOGY (DM)

## 6.1 THE FRAMEWORK

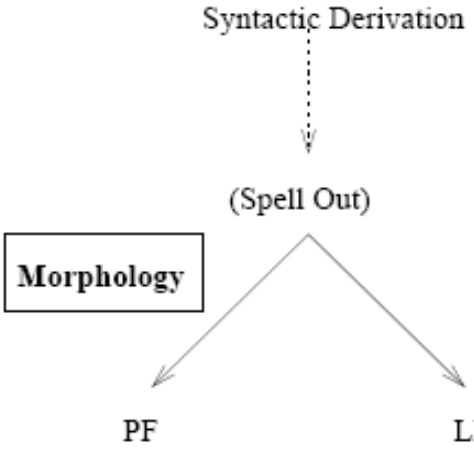
The DM framework was originally introduced by Halle and Marantz (1993), with the aim of eliminating the lexical module. The DM theory proposes a possible architecture of grammar in which a single generative system is responsible both for word structure and phrase structure. In other words all complex linguistic elements, whether words or phrases, are considered as the output of the same generative system, i.e., the syntax.

Within this framework, all the visible morphemes are realization of terminal nodes of a hierarchical morpho-syntactic structure[84]. The basic idea is that, given the absence of lexical modules, every word is formed by syntactic operations (merge and move). In addition to this, the morphological level of representation collapses into the syntactic one to a large extent.

The syntax consists of a set of rules that generate syntactic structures, which undergo further operations at PF and LF interfaces. Hence, at some point in the syntactic derivation the tree structure splits into two sub-derivations, one responsible for creating a semantically interpretable object (at LF) and the other responsible of a well-formed phonological representation (at PF). Consider (3):

84 I shall note that in addition to the visible morphemes, the syntactic of psych-verbs contain also some phonetically null morphemes.

3.




In order to have a well-formed phonological representation at PF, a number of operations, e.g., fuse two terminal nodes into one, split one terminal into two, and reorder terminal nodes or insert extra ones, are predicted[85]. Three core properties distinguish DM from other morphological theories (among others the Lexicalist Hypothesis (Zwicky & Pullum (1992)), i.e., late insertion, underspecification, and syntactic hierarchical structure all the way down.

### 6.1.1 LATE INSERTION

Late insertion refers to the hypothesis that the phonological expression of syntactic terminals is provided only after the syntactic derivation has been completed by the insertions of phonological expressions - *vocabulary items* - inserted at Spell-Out (cf. (3)). In other words, the syntax operates on abstract morpho-syntactic features, like PLURAL, CAUSE and ROOT. These features are taken from a list of atomic semantico-syntactic features (Embick 1997). Once the hierarchical structure is built up, lexical insertion takes place, whereby the abstract features get replaced by *vocabulary items*.

85 These adjustments are postulated within the DM to account for the many and varied empirical situations in which observed morphology structure is not isomorphic to syntactic structure.

### 6.1.2 UNDERSPECIFICATION OF VOCABULARY

Vocabulary items need not be fully specified for the syntactic positions where they can be inserted. Instead, they could be inserted if they carry a subset of the features present in the node. In this way, a vocabulary item may be compatible with several different terminal nodes.

### 6.1.3 SYNTACTIC HIERARCHICAL STRUCTURE ALL THE WAY DOWN

Both syntactic and morphological elements enter into the same types of constituent structures.

Within the DM framework, two kinds of terminal nodes, or morphemes, can enter the syntactic tree, i.e., feature bundles and root morphemes[86]. Feature bundle morphemes are those elements whose content (as defined by syntactic and semantic features made available by Universal Grammar) suffices to determine a unique phonological expression, i.e *-ed* ( = past), *-s* (= plural) and *-er* (=comparative). Root morphemes instead carry the non-grammatical, encyclopaedic semantic content of a given message. Feature bundles and roots node have a different distribution, i.e., while the former can only be inserted into the functional nodes, the latter can be inserted only in lexical nodes. Both terminal nodes, are subject to competition - though in different ways - which is line with Kiparsky's (1973) Elsewhere Principle.

Since root terminal nodes are non-categorized, they are forced to merge with some functional terminal nodes, called category-creating terminal nodes (Marantz (2001)), which can turn them into either a noun, or a verb or an adjective[87].

86 In earlier work, these two elements have been called f-morphemes (functional) and l-morpheme (lexical) respectively (Harley and Noyer 2000).

87 Roots are acategorial that need to be merged in the syntax with a category-creating feature bundle, N°, A° or V° (Marantz 2001).

4. CATEGORIZATION ASSUMPTION: *roots* cannot appear without being *categorized*; *roots* are categorized by combining with category-defining functional heads. (Marantz (1995))

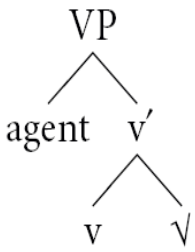
Category-creating terminal nodes may be null (as in 'cat', composed of $[[\sqrt{CAT}]_{\sqrt{}}$ $N°]_{NP}$) or overt (as in 'visible', composed of $[[\sqrt{VIS}]_{\sqrt{}}$ $A°]_{AP}$). Furthermore, they can transmit a particular 'flavour' to the root, as in the case of the verb-creating V°, which can have various meanings, ranging from CAUSE, to BE, BECOME, and DO.

For instance, within the DM framework, the nominal *destruction* and the verb *destroy* derive from the same abstract root √DESTROY which, depending on the functional layers that dominate it, will be spelled-out either as a verb (when its nearest licenser is V), or as a noun (when its nearest licenser is a Determiner) as in (4). Roots that appear in multiple syntactic environments are taken to belong to certain semantic classes of the type discussed in the work of Levin and Rappaport (1995) and Levin (1993).

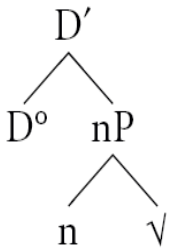
5.

a. √=√DESTROY

b.




c.




Marantz (2007) proposes that the category-creating heads are phase heads in the sense of Chomsky (2001). Phonological features of both root and functional nodes are not present in the syntactic computation. Furthermore, the encyclopaedic content of the roots is absent at this stage, e.g., whether a root node is going to be replaced by *ball* or *car* is of no importance for the syntactic derivation.

In conclusion, within the architecture of the grammar assumed in the DM approach, morphological structure and syntactic structure are the same. In this way, this approach has much in common with other syntactic approaches to

morphology, such as those advanced by Baker (1988), Pesetsky (1995), and Borer (2004). According to this view, which I will assume for the analysis concerning Italian psych-verbs, there are no separated/distinct generative systems in the grammar (as in the Lexicalist framework approach to morphology). This, in addition to simplifying the analysis of the linguistic system, predicts that the semantics of a specific phrase can be derived syntactically.

# CHAPTER 7
# ITALIAN PSYCH-VERBS AS DERIVED VERBS

In the previous sections, I mentioned the possibility that Italian psych-verbs are denominal or deadjectival. In this chapter, I will show that, even though in many cases their denominal/deadjectival nature is not immediately visible, all psych-verbs can be decomposed into a light verb and a nominal element. Moreover, the periphrastic counterparts of psych-verbs such as *impaurire* (to frighten) clearly show that these verbs relate three entities, i.e., an Experiencer, an emotion and the element triggering the emotion.

## 7.1 ANALYTIC VS. SYNTHETIC PSYCH- VERBS

In the early 19th century, Von Schlegel brothers first introduced the *analytic* vs *synthetic* dichotomy as a linguistic tool to classify languages. These terms label the polar extremes of a continuum along which grammatical constructions of roughly equivalent content may be compared. Depending on how a language combines its morphemes to form words, it can be classified either as analytic or synthetic. Several problems with this traditional view arise. In particular, as Schwegler claims, these terms *make sense if they are predicated of constructions and not of languages as a whole* (1990:28 cited in Vincent (1997)). There can be various degrees of analyticity or syntheticity, according to the extent to which elements are fused. For instance, Latin is generally described as a synthetic language in its core verbal and nominal morphology, but it lacks some synthetic features of related languages. In particular, Latin has neither the inflectional system marking dual number nor the pattern of morphological causatives found in the older Indo-European sister language Sanskrit (Vincent 1997: 99). Therefore, we cannot classify a language as entirely analytic nor as entirely synthetic, but rather as analytic or synthetic. Hence, in a mainly analytic language, synthetic constructions are likely to be found and vice-versa. In addition to this, many synthetic/analytic constructions may have an analytic/synthetic counterpart. Therefore, analytic and synthetic are just *the polar extremes of a continuum along*

*which grammatical constructions of equivalent content may be compared* (Vincent 1997:100).

Italian psych-verbs are mainly synthetic. Nevertheless, the vast majority of them has an analytic counterpart. Jackendoff (1990) and Bouchard (1995) suggested that psych-verbs can be decomposed into a light verb and an independent semantic argument - at least conceptually. Bouchard for instance notes:

1. *Psych verbs are but a subcase of a very productive class of Psych constructions. For a vast class of verbs, if one of their argument position is filled by a psy-chose (a psychological object, found only in mental space, like an emotion), then the construction is Psych.* [...]*Psych verbs are always Psych because the psy-chose is incorporated in the verb.*
   (Bouchard 1992: 29)

Before moving on to the next section, note that the main claim that psych-verbs should be decomposed into minimal elements follows from the basic idea expressed by Jackendoff (1990). In his work, the author claims that the mental state is an independent semantic argument. Following Bouchard (1995), I will argue here that it is a syntactic argument too.

### 7.1.1. OBJ-EXP PSYCH-VERBS AS DERIVED VERBS

In many languages, *preoccupare* (to worry) and *piacere* (to please) psych-predicates can be simple verbs, like *to frighten*, but also compound ones, formed by a light verb (*do, give, make* etc.) plus either an NP, an AP or a PP as its complement, as in *to fall in love* [88]. I will refer to the first type as the *synthetic* psych-verbs and to the others as the *analytic* psych-verbs. French and English are languages in which this distinction is self-evident:

2. a. John felt *in* love with Anna.

88 I grouped together the *preoccupare* (to worry)and the *piacere* (to please) psychological classes in that, in the literature, psychological verbs are generally subdivided into two groups: the Subj-Exp verbs and Obj-Exp verbs. The latter includes both the *piacere* and the *preoccupare* class.

b. Paul a mis Marie en colère.
Paul has put Mary in rage

In other languages, instead, this distinction is not so clear-cut[89]. In Italian, the analytic counterpart of *incollerire* (to enrage) (cf. French *metre en colère*) seems to be at least marked, as in (3b). Still, psych-verbs that potentially can have an analytic counterpart exist in Italian too, i.e., *impaurire* (to frighten) (4)[90].

3.a. Gianni ha *incollerito* tutte le sue colleghe con quella barzelletta.
Gianni has made angry all his colleguesFEM with that joke
*Gianni irritated almost all his colleagues with that joke.*
b. *?Gianni ha messo tutte le sue colleghe in collera.
Gianni has put all his colleagues in rage.
*Gianni puts rage all his colleagues in rage.*

4.a. Il professore *impaurisce* sempre i suoi alunni durante la lezione.
the professor frighten always his students during the lesson
*The professor uses to scary all his students while teaching.*
b. Il professore di matematica *mette* sempre *paura* ai suoi alunni.
the professor of maths puts always fear at the his students
*Maths professor always frightens his students.*

Nevertheless, contrary to (3b), I claim that *in collera* (in rage) is not ungrammatical per se. Although a bit marginal (unlike the French corresponding form), *incollerire* (to make sb. angry) has an analytic counterpart too (5).

5. Quell'articolo ha mandato in collera tutti gli allevatori abruzzesi.
That article has sent in rage all the breeder from Abruzzi
*That article enraged all the breeder from Abruzzi.*

89 Since the *piacere* (to please) verbs are really few, I will analyze only the *preoccupare* (to worry) verbs with respect to the analytic/synthetic possibility

90 Arad (1998) gives also some examples from Hebrew; to cite just one of them:

(i) Hu hipil paxad/shiamum al ha kahal
he dropped fright/boredom on the audience

Though (5) might sound marginal to some Italian speakers, it is grammatical. On the other hand, other psych-verbs instead such as *intenerire* (to soften) (6a) have an analytic counterpart (6b) whose grammaticality is uncontroversial. Hence, the judgement given for *mandare in collera* in (5) might be idiosyncratic.

6. a. Le sue canzoni hanno intenerito tutti.
His songs have soften everybody
*His songs have touched everybody.*
b. Quel cucciolo ha fatto tenerezza a tutti.
That pet has made tenderness to everybody
*That pet have touched everybody.*

Therefore, just like French, Italian has both analytic and synthetic psych-verbs, even if some analytic counterparts in Italian might be marginal as in (5). Note that, although *incollerire* (to enrage) and *intenerire* (to soften) have a different preposition in their analytic corresponding forms, i.e., *a* 'to' and *in* 'in', respectively, both of them indicate a motion *to* or *into* something. Note furthert that the mentioned prepositions have almost the same basic meaning[91].
Data in (3)-(6) are interesting for two reasons. First, synthetic psych-verbs and their analytic counterparts share the same psych-meaning, that is *impaurire* (to frighten) and *mettere paura a* (put fear into) describe the same psych-event. They can be considered in fact as overlapping with respect to their meaning. Furthermore, both *incollerire* (to enrage) and *intenerire* (to soften) start with *in-*, which is identical to the locative preposition IN[92]. Note that all psych-verbs starting with *in* (cf. tab.2 in sec. 4.2) can be easily decomposed into *in* plus a mental state, e.g., *impaurire* (to frighten) and *incollerire* (to enrage) can be easily decomposed as *in+paura* and *in+collera*, respectively). Given that analytic and synthetic psych-verbs can be interchangeable and that synthetic psych-verbs seem to incorporate the locative preposition present in the analytic psych-verbs, I suggest the following analysis:

91 In sec.8.1, I will further discuss the nature of the prepositions in psych-verbs and the apparent mismatch between some psych-verbs concerning the selection of the preposition

92 IN is in capital letter as it stands for all the locative prepositions found attached to a nominal or adjective in order to form a psych-verb. Recall the sec 4.2 for a deeper analysis of this topic.

7. Synthetic psych-verbs can all be decomposed into a locative preposition plus a nominal denoting a mental state; furthermore, they all share the same syntactic structure with their analytic counterpart. (*strong version*)

From the two points in (7), we can deduce that either synthetic psych-verbs derive from analytic psych-verbs or vice versa. Recall though that not all psych-verbs start with IN. In fact, there are psych-verbs that are not clearly decomposable as those above – e.g., *calmare* (to calm) -- or that are composed in a totally different way – e.g., *disgustare* (to disgust) (*dis*+*gustare* 'to enjoy'). Consequently, psych-verbs such as *disgustare* (to disgust) seem to contradict the hypothesis in (7). At this point, we can either consider a weaker version of (7) or reject it. In the latter case, we could argue that some psych-verbs such as *impaurire* (to frighten) are clearly denominal and share their syntactic structure with their analytic counterparts, whereas other psych-verbs such as *disgustare* (to disgust) or *calmare* (to calm) are not. As a consequence, latter verbs should not share their syntactic structures with their analytic counterparts – i.e., *fare disgusto* (lit. make disgust) and *mettere calma* (lit.put calm) respectively. I claim that this hypothesis cannot be pursued, as it would be rather counterintuitive to assume that different *preoccupare* (to worry) verbs have different syntactic structure simply because they do not all show clearly their derived nature as *impaurire* (to frighten). There are, nevertheless, two main arguments against this possibility.
First of all, this kind of analysis would not account for the data discussed above (cf. nominalization, *ne*-extraction, passive etc.). Recall that not all the non-nominalizing psych-verbs begin with a preposition, e.g., *agitare* (to agitate). Secondly, by postulating two different syntactic structures for the single class of *preoccupare* verbs, we would burden the parser excessively[93].
On the contrary, I propose that a weaker version of (7) is on the right track:

8. Synthetic psych-verbs have an analytic counterpart with which they all share the same syntactic structure. (*weak version*)

The validity of (8) is witnessed by the fact that all psych-verbs (and not just the ones starting with IN) seem to metaphorically describe the presence of a mental

93 Recall that two syntactic structures for psych-verbs have already been postulated in B&R, which I consider as an ad hoc generalization.

state within the Experiencer. Furthermore, consider examples with another *preoccupare* (to worry) psych-verb that do not start with IN:

9. a. Michela continua ad *esasperare* i suoi genitori con mille richieste.
Michaela continue to exasperate the her parents will thousands claims
*Michaela keeps on exasperating her parents with thousands of claims*
b. C'è sempre *esasperazione* nei suoi occhi e non so come mai.
there is always exasperation in the his eyes and (I) do not know way
*There is always a sad light in his/her eyes, don't know why.*

The data in (9) show that although *esasperare* (to exasperate) does not start with IN and is clearly not decomposable in any other way, it derives from *esasperazione* (exasperation). The fact that *esasperare* (to exasperate) has a derived nature is also shown by (10):

10. a. Ha portato all'esasperazione tutta la famiglia.
Has brough to-the exasperation all the family
*He exasperated the entire family.*
b. Ha esasperato tutta la famiglia.
Has exasperated all the family
*He exasperated the entire family.*

Therefore, *preoccupare* (to worry) verbs have all an analytic counterpart, regardless of their possibility to be decomposed. Furthermore, note that in both (9b) and (10a), the locative prepositions *a* and *in*, respectively, seem to play a key role in the psych-constructions.
A further piece of evidence in support of (8) comes from a semantic analysis of the psych-events described by such verbs. Normally, people do not experience a specific mental condition for more than a certain amount of time and no one gets scared, or becomes happy, or disgusted without reasons[94;95]. This means that some

94 The duration of the psychological state in fact depends on many variables -- i.e., the kind of emotion, the person who is experiencing it and so on -- making a temporal evaluation impossible.

95 A persistent feeling of *hate* or *fear*, although theoretically possible, is in fact unsustainable for a number of reasons (for instance, even if spiders scare John, that does not mean that John is always scared/afraid, but only whenever a spider is close to him or in the surroundings).

events make people experience emotions which they would not feel otherwise, i.e., something that is happening in the real world (which is external with respect to the Experiencer) modifies one's mood (which is the Experiencer's internal world). Recall that psych-verbs do not describe a visible action but an emotive reaction to something that has just happened in the real world. Bouchard (1992) for instance notes:

11. In order to affect the Experiencer, the psy-chose (psych-state) is therefore somehow put in contact with an entity capable of hosting the emotion or feeling that the psy-chose refers to. (Bouchard 1992:32).

Following Bouchard, in order to have a psych-construction Experiencers and psych-state have to be put in contact. On this view, one can consider Experiencers as empty boxes that can be filled up with emotions. Given the locative relation expressed by such predicates, I propose that the presence of locative prepositions within analytic psych-constructions, or locative prefixes attached to psych-verbs such as *impaurire* (to frighten) or *addolorare* (to sadden), is a reflex of the derived nature of psych-verbs. Moreover, I will show that the event-structure of psych-verbs reflects the hypothesis in (11).

Bearing in mind (11), let us consider again the sentence in (9a). Let us note that the predicate in (9a) concerns a specific moment in the life of both *Michela* and her parents. Imagine for example that Michela's parents are usually peaceful people, though desperate because of Michela's behaviour. In particular, she keeps on harassing them with her continuous requests, which can be either ignored or satisfied by her parents. In this specific context, I propose that (9a) represents the final point of previous actions, as in (12):

12. Michela's parents are not generally desperate> Michela does not stop from bothering them with continuous requests> They end up filled up with exasperation.

Given (11) and (12), the sentence in (9a) can be paraphrased as in (13):

---

Although this topic is a matter of other scientific fields, I think that it is plausible to assume that an everlasting feeling of revenge or hate would certainly lead any person to insanity and/or madness.

13. Michela mette continuamente esasperazione nei suoi genitori/ riempie i suoi genitori di esasperazione con le sue lamentele.
    Michaela puts continuously exasperation inside her parents/M. fills her parents of exasperation with her requests
    *Michela's continuous requests/claims exasperate her parents badly.*

The same paraphrase can be adopted also for (9b):

14. C'è disperazione in lui perché qualcuno/qualcosa ce l'ha messa/qualcuno ha l'ha riempito di disperazione.
    someone or something has put exasperation in him/filled him of desperation
    *Someone or something has filled his eyes with exasperation*.

The paraphrases in (13) and (14) show that psych-verbs describe that Experiencers and mental states are in a locative relation and that this is caused by a third element. Given that (13) and (9a) are strongly related, I propose that the synthetic psych-verbs *esasperare* (to exasperate) derives from *mettere esasperazione in* ( lit. put exasperation inside). Consider now another psych-verb similar to *esasperare* (to exasperate):

15. a. La improvvisa tempesta di ieri ci preoccupò tutti.
       The storm sudden of yesterday us worried everybody
       *Yesterday sudden storm worried everybody*
    b. ??La tempesta mise preoccupazione a tutti.
       the storm puts worry in everybody
       *Yesterday storm make everybody worried.*
    c. Luigi ha preoccupato tutti con quella brutta caduta.
       Lewis has worried everybody with that bad fall
       *Lewis has worried everybody by falling so badly.*
    d. Luigi ha sempre dato grandi preoccupazioni ai suoi genitori.
       Lewis has always given great worries at the his parents
       *Lewis has been worrying his parents all along.*

Given that psych-verbs can be paraphrased in a similar way and given the key role played by locative prepositions, I propose that all *preoccupare* (to worry) psych-verbs are basically analytic verbs and that their final synthetic forms is the result of a syntactic derivation. Furthermore, I claim that this is true even when this is not as evident as with verbs like *impaurire* (to frighten), and *incollerire* (to get sb. angry).

Note that, in addition to the locative relation described so far (cf. Experiencers hosting emotions (11)), there are analytic psychological constructions that denote a rather different locative relation. In particular, it is possible to have situations in which it is the emotion that hosts Experiencers and not vice-versa[96]. Let us consider the case of *allarmare* (to alarm):

16.a. Quelle sirene in lontananza <u>*allarmarono*</u> fortemente tutti i cittadini.
those sirens in distance alarmed heavily all the citizens
*The distant alarming sirens have alarmed all the citizenry.*

b. La sirena dei vigili del fuoco <u>*mise in allarme*</u> tutta la famiglia.
the siren of the fireman put in alarm all the family
*The fireman siren alarmed the entire family*.

Although it is less obvious than those psych-verbs such as *impaurire* (to frighten), *allarmare* (to alarm) too has an analytic counterpart, i.e., *mettere in allarme* (lit. put sb. into alarm). Note that the possible locative relation that *allarmare* (to alarm) denotes is different than the one expressed by the analytic counterpart of *impaurire* (to frighten), i.e., *mettere paura a* (lit. put fear into).

To sum up, data so far suggest that all psych-verbs have both an analytic and a synthetic form which are semantically related. Now the question is whether it is possible to hypothesize a unique syntactic structure for both of them. In order to answer this question, I will take into consideration another important linguistic

96 I will discuss this topic more in detail in the next section. For the moment, let us just briefly schematize what I mean by saying a "locative displacement". Following an idea proposed in Arad (1998; 2000), I claim that psych-verbs describe a metaphoric displacement. In particular, psych-verbs may describe the displacement of the Exp into the mental state or vice-versa. Clearly, this kind of action is not visible and this is why most of the times the analytic counterpart is not so self-evident.

construction which is very productive in English, i.e., the so called "zero derivations", as in *to water* from the noun *water*[97].

#### 7.1.1.1. ZERO DERIVATIONS

Hale and Keyser (2002) (henceforth H&K) analyse this linguistic phenomenon in terms of incorporation[98]. After noting that in English there is a considerable amount of zero derivations, H&K claim that these verbs share an important syntactic property with analytical verbal expression like *make trouble*, i.e., they do not enter into the transitivity alternation, unlike other verbs such as *turn*:

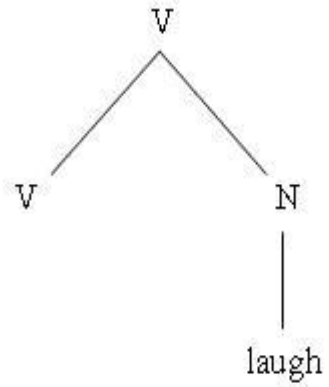
17. a. i. The leaves turned red.
    ii. The cold turned the leaves red.
    b. i. The cowboys made trouble.
    ii. *The beer made the cowboys trouble.
    c. i The children laughed.
    ii. *The clown laughed the children.

They account for both this property and the denominal character of these verbs by assigning them a monadic structure as in (18):

97 A similar case is found in Italian with the verb *cestinare* (to discard), which derives from *cestino* (bin) just like *to water* from *water.*

98 Although H&K adopt the term conflation, they stress that these two terms do not entail the same syntactic process: *conflation* may be a specific kind of incorporation according to which the phonological matrix of a complement replaces the empty matrix of the governing head (H&K:11). Note that the two notions (conflation in H&K and incorporation in Baker (1988)) may ultimately prove to be the same thing (H&K:12).

18.



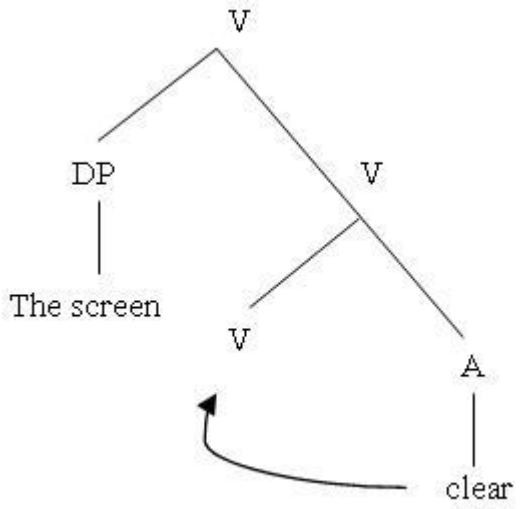

H&K further assume that the same hypothesis accounts for the large number of deadjectival verbs such as *to clear*[99], as in (19):

19. a. The screen cleared.
    b. I cleared the screen.

They assume that the verb is derived by conflation, as in (20):

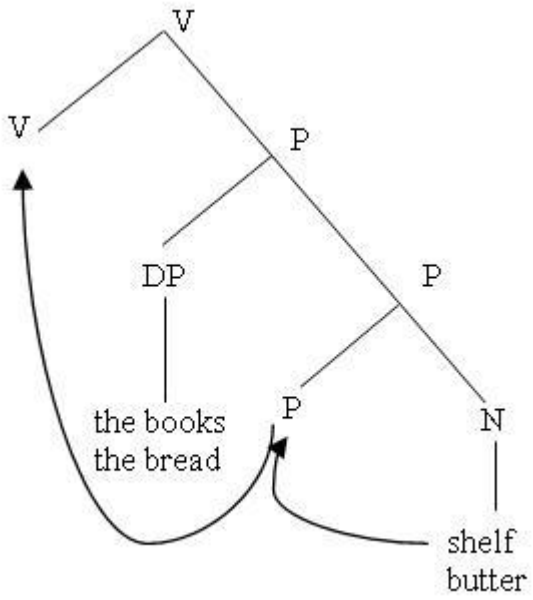
99 Adjectives in H&K framework have two properties: they require a specifier but not a complement which force adjectives to appear as a complement of another head.

20.




H&K claim that conflation is also involved in the derivation of English "location" and "locatum" verbs, such as to *shelf* and to *butter*, respectively (see Clark and Clark 1979 as quoted in H&K). Such verbs are considered the synthetic counterparts of the verb *put sth. on/to sth.* Consider the syntactic represention in (21):

21.



(21) shows that the inner head, which belongs to the category P, has the following syntactic properties: it takes a complement and projects further by taking a specifier. Moreover, it also has the morphological property of being an empty head that needs to conflate with its complement. The upper V is also empty and thus necessarily conflates with its complement, P, which is itself the product of a previous conflation:

22. a. I shelved the books.
    b. I buttered the bread.

Finally, H&K argue that this phenomenon is not a case of incorporation *à la* Baker (1988). According to them, the concept of incorporation, as postulated in Baker (1988), would incorrectly predict incorporation from the position of the internal specifier, allowing derivations such as (23):

23. *They salted the box.
    (cf. They boxed the salt.)

H&K accounts for the ungrammaticality of (23) assuming that the zero-derivation is a strictly local process, i.e., a process between two elements that c-command each other, that is a head and the head of its complement, e.g., N. The relations expressed in (18)-(20)-(21) are local in the required sense. H&K finally consider the conflation process as concomitant of Merge. Hence, Conflation and Merge processes share the same lexical array. In particular, they propose that conflation is an operation on labels, as in (24):

24. *Conflation* consists in the process of copying the p-signature of the complement into the p-signature of the head, where the latter is "defective"100. (H&K:63)

H&K's main claim is that there are no multiple lexical entries for a single word but a shared lexical entry. In other words, *water*N and *water*V derive all from a

100 In H&K terms, there are two cases in which a p-signature is defective. The first is the case where the p-signature is entirely empty (...).The second is the case where the head is an affix. Here we assume that the p-signature is partially defective (H&K:63).

unique lexical entry, *water*N. In this sense, (24) is in line with the "late insertion hypothesis" proposed by Halle and Marantz (1993). Now, bearing H&K's approach to denominals in mind, we can go back to the original question about Obj-Exp verbs, i.e., whether it is possible to invoke a unique syntactic structure for both analytic and synthetic psych-verbs.

### 7.1.1.2. A UNIQUE STRUCTURE

I propose that H&K's hypothesis can be adopted also for Italian psych-verbs. Recall that the analytic psych-construction counterparts are constituted by either a light verb or a causative verb, plus either a noun or an adjective, as in (25):

25. a. preoccupare (to worry)>mettere/dare ***preoccupazione*** a (lit. put/give anxiety in/to)
    b. impaurire (to scare)> causare ***paura*** a/in (lit. cause fear to)

The only difference between English and Italian in this respect is that while in English almost all denominal verbs zero-derive from nominals (waterV/N, jumpV/N, saddleV/N, etc.), in Italian this is almost never the case, cf. *preoccupazione* (worry) vs. *preoccupare* (to worry), *esasperazione* (exasperation) vs. *esasperare* (to exasperate), *commozione* (emotion) vs *commuovere* (to touch), etc. (but the exceptional case of *cestin-are* 'reject', derived from a noun *cestino* 'bin')[101]. Nevertheless, note that in Italian loan words often follow the English derivational pattern, as shown by the examples in (26):

26. tag/taggare; chat/chattare; spam/spammare; zoom/zommare

The data in (26) seem to reveal an importa phenomenon, i.e., that denominal derivation is attested in Italian too, confirming H&K's conflation account. This in turn suggests that the same process also applies to Italian. Given that *–ere*, *-are* and *–ire* are do not convey any meaning, I consider them as purely functional elements needed to turn an element into a verb, as it is the case in (26). As a

101 Note that sometimes there are some deadjectival verbs that are not 100% as the adjective they derive from in English too;consider in fact the case of *to redden*, which derives from redA.

consequence, I claim that *tag* and *taggare* undergo the same derivation as *water*N and *water*V.

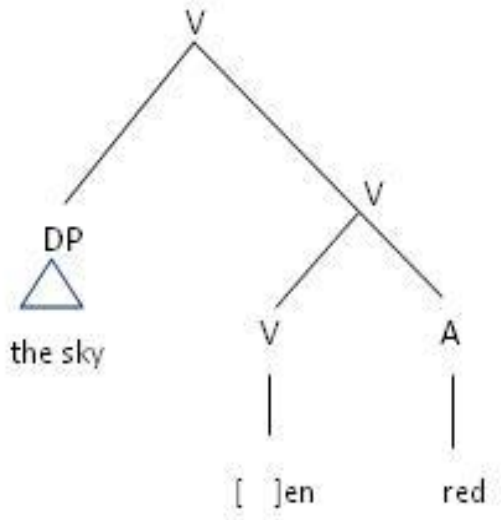
Within this approach, the different morphological spell-out between nominal and the derived Italian psych-verb can be easily accounted for. Note that this superficial discrepancy is present in also in other languages, including English. In this language, adjectives such as *red* and *thick* incorporate the affix *–en* in order to the derive the corresponding verbs.Consider the following example:

27. a. That liquid turns the broth thick.
    b. The broth thickened.
    c. The sky is red.
    d. The sky reddened.

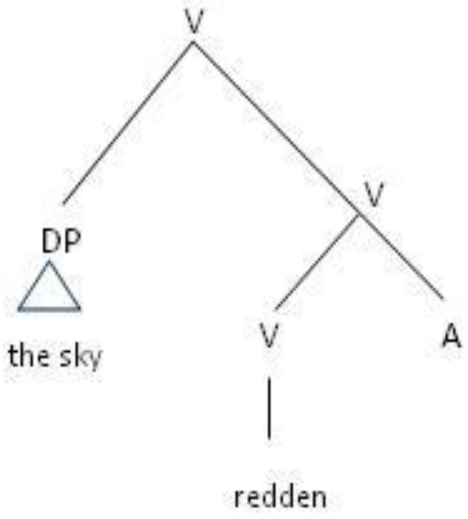
H&K propose that the syntactic representation of (27c)-(27d) is as follow:

28.a the sky redden

b



c

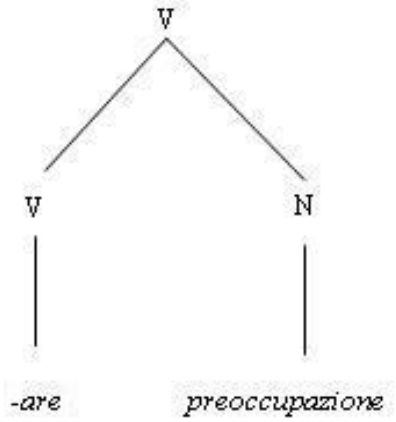



Given (27) and (28), I propose that the morphological differences between the nominal and the derived verbal forms (cf. (26)) follow. In particular, on the basis of the analysis proposed for English deadjectival verbs in (28), I consider the morphemes *–are*, *-ere*, and *-ire* as mere functional elements needed to verbalize a nominal element, such as *-en* in *redden*. Therefore, all Italian psych-verbs are denominal and have the same derivation as English denominal verbs.

Going back to the the above question, I propose that synthetic psych-verbs--cf.(16a) -- and the analytic --cf. (16b) – psych-constructions of *preoccupare* (to worry) verbs share the syntactic structure as *laugh*N and *laugh*V in English --cf.(18).They only differ with respect to the morphological spell-out of their lexical items. In particular, we can have either a synthetic or an analytic object-Experiencer verb depending on whether the p-signature of either a noun (as *paura*) or an adjective (as *preoccupato*) conflates into the head that governs it. In (29), I provide a syntactic representation of *preoccupare* (to worry) based on H&K's framework[102]:

102 In sec. IV, I will show that psych-verbs is instead have a finer grained syntactic representation.

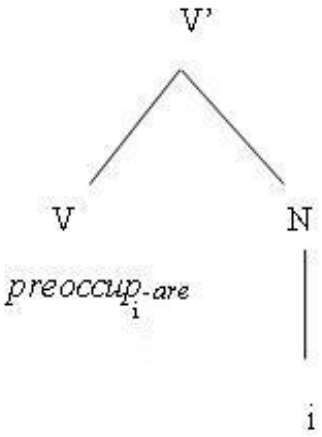
29.




(29) is the initial syntactic structure of the synthetic psych-verb *preoccupare* (to worry). As it will be shown later, I further consider such psych-verb as derived by means of the incorporation of *preoccupazione* (worry) into *dare* (to give) in conjunction with Merge. Recall that the morpheme *-are* in (29) is a mere functional element. If no conflation occurs, an analytical psych-verb will eventually result, such as *dare preoccupazione* (lit. give worries) in (15d). I propose that the syntactic representation in (29) suits other analytical psych-verbs as well, such as *mettere paura a* (lit. put fear in) or *mettere in allarme* (lit. put in alarm). To sum up, it has been claimed that whenever they are present in the numeration of the sentence, light verbs enter the syntactic representation in *v*°. On the contrary, if they are not present, conflation occurs and synthetic psych-verbs – such as *preoccupare* (to worry), *esasperare* (to exasperate) or *allarmare* (to alarm)-- are derived, as in (30)[103]:

103 The difference between *preoccupar-* (to worry) and *preoccupazione* (worry) are to be explained in terms of the "late insertion hypothesis" by Halle&Marantz (1993).

30.




Furthermore, if conflation between N° and V° takes place, there is no need for a light verb. Therefore, lexical elements merge exactly in the same way, both in synthetic and analytic psych-constructions. Recall that the nominal p-signature conflates before Merge in both (29) and (30). I therefore propose that psych-verbs are derived from nominal as follow:

31.a. psychN>psychV as in *paura* (fear)>*impaurire* (to frighten)
b. psychAdj>psychV as in *commosso* (emotion)>*commuovere* (to touch)

If (31) is on the right track, it should be possible to derive psych-verbs from any emotions/psych-states, whereas this should not hold true for the opposite. Still, the point could be made that the other way around is more adequate, i.e., that nominals denoting mental states derive from psych-verbs and not the viceversa, as illustrated in (32):

32.a. psychV>psychN as in *impaurire*> *paura*
b. psychV >psychAdj as in *commuovere*>*commosso*

If (32) is the correct path of derivation, we should be able to derive psych-state nominals from any psych-verbs, whereas the opposite should not be possible. I will now show that the first option is on the right track.

Although it is always possible to derive psych-state nominals from any psych-verb (cf. *geloso* 'jealous' and *ingelosire* 'to make sb jealous'), the opposite does not hold, as not all psych-states nominals have a related derived psych-verb. Consider the case of *ansia* (anxiety) in (33):

33.a. Mi hai messo un'ansia addosso che non ti dico.
to me has put an anxiety on that not to you tell
*You caused me a great anxiety.*

b. *Ci hai ansiati tutti stasera con questa storia.
us anxiety to everybody tonight with this story
*You caused a great anxiety to us to night with that story.*

Given (33), I propose that the correct derivation is (31). This in turn confirm the initial intuition that syntehtic psych-verbs should be considered as derived verbs[104]. Nevertheless, recall that not all Italian synthetic psych-verbs can be easily decomposed into light verbs and nominals and that all psych-verbs have both a synthetic and an analytic form. Taking this latter property into consideration, I propose that this follows from a lack within the *Vocabulary* array. More precisely, I claim that it could be the case that the lexical array -- i.e., the selection of lexical items out of which the sentence is going to be built -- of some psych-verbs does not include a light verb, or that it is phonologically null. This explains the necessity to turn nominals denoting mental states into verbs. Albeit in a different context, Baker (2003) notes that "all languages have adjectives of a sort in underlying representation. Languages might differ in their class of vocabulary items; in extreme cases, conflation of A into Pred might become obligatory because there are no vocabulary items that can realize A and Pred individually"(Baker 2003:88)[105].
To sum up, I have shown that Italian, as other languages, has both analytic and synthetic psych-constructions and that these share the same semantics, that they

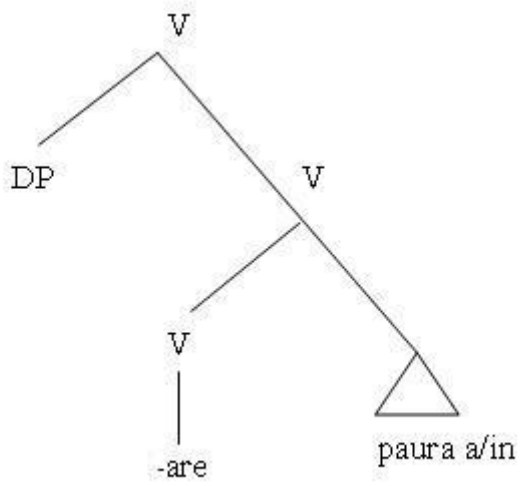
104 I consider the assumption that psych-verbs are made up of light verbs and psych-state to be not specific to Italian. Other authors consider in fact analytic verbs as very productive. Bouchard (1995) for instance analyse them as a separate subclass (cf. 7.3).

105Following Baker, Mowak seems to be such a language (see Baker 2003 for examples from this language).

derive from psych-nominals. Finally, I have shown that all psych-constructions have an analytic syntactic structure[106]. So far, the analysis has been concerned only with psych-verbs such as *preoccupare* (to worry) and *esasperare* (to exasperate). In what follows, I shall consider the case of all those psych-verbs that can be easily decomposed into a locative prefix and a verb such as *impaurire* (to frighten), *impensierire* (to make sb. worry).

I propose that such psych-verbs too first merge as nominals, as in (31). As for the latter category of psych-verbs, *paura* (fear) first merges in the syntactic structure. In particular, *paura* merges as the complement of a V, just like the derivation in (29). Depending on the syntactic derivation, the result will be either an analytic or a synthetic psych-verb. In (34), a first approximation of this derivation is given:

34.

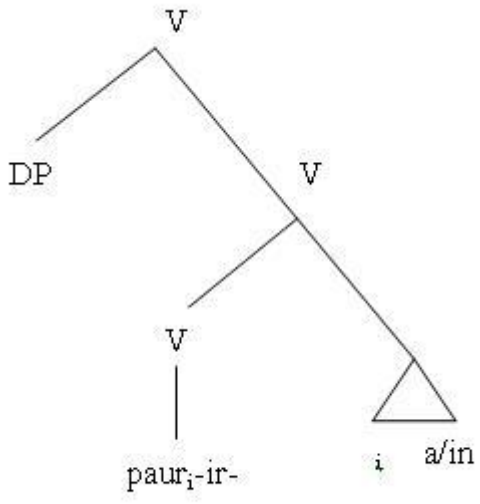



If the lexical array contains a light verb, such as *fare* (to make), then the nominal element cannot incorporate into V, because the presence of the light verb blocks N from incorporating into V- cf. *laugh*N , *laugh*V in (18) above. Hence, light verbs such as *fare* (to make) and *dare* (to give) are related to the final analytic psych-construction, cf. *fare paura a* (lit. make fear to) and *dare fastidio a* (lit. give annoyance to). Recall that the same hypothesis holds for *preoccupare* (to worry).

106 In ch.12, deeper considerations concerning the fact that psych-verbs are all derived from analytic constructions will be given.

On the contrary, if the lexical array includes no light verbs, conflation of the psych-nominal (*paura*) into V becomes obligatory[107]. Consequently, the resulting syntactic structure is as follow:

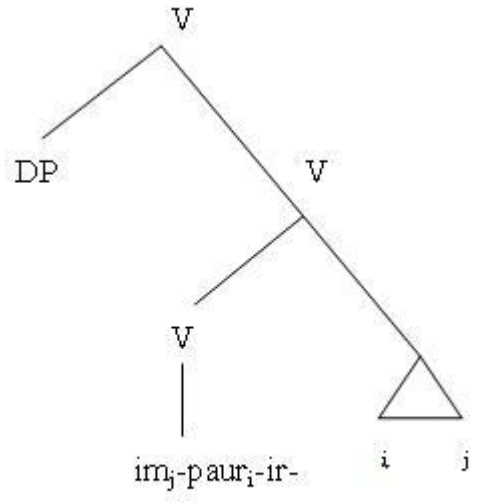
35.




The psych-verb *impaurire* (to frighten) is the result of a further incorporation, as in (36). After the conflation of *paura* (fear) into V, it further incorporates the preposition IN, present in the analytic form *mettere paura in* (lit. put fear into). The possible conflated representation of *impaurire* (to frighten) follows:

107 Recall that following H&K, conflation means that the fusion of the phonological matrix of the nominal/adjectival element into the empty matrix of the verb.

36.




Note that the same phenomenon assumed for *impaurire* (to frighten) in (36) is exemplified in languages such as English. After having derived *redden* and *thicken* from *red* and *thick*, respectively, a further derivation is possible. Consider the following examples:

37. a. I am trying to decide if I need to *enthicken* my wallet with this card.
    b. I would *embolden* and *enredden* the line of your poster.

Moreover, the idea that the preposition incorporates into V has already been suggested in the literature. In other languages this is quite a natural process, also in contexts other than causative, cf. Pesetsky (1995: 196) "it has been first developed by Walinska de Hackbeil (1986) for the causative *en-* in *enlarge*, *embitter*, and *endear*".
Furthermore, following Walinska de Hackbeil (1986) and Pesetsky (1995), I will consider incorporated prepositions as a cue of some deeper causal semantics within psych-constructions. We shall return to this point in ch.9. In (38), I show the syntactic derivations obtained when the light verb is present in the lexical array, and when it is not:

38. a. Gianni mette paura IN Paolo.
       Gianni puts fear in Paul
       *Gianni gives Paul the creeps.*

b. Gianni IM[108]-paur-isce Paolo.
Gianni in-fear-3rd SING PRESENT Paul
*Gianni scares Paolo.*

In (38), the locative preposition can be either attached to the mental state *paura* or left *in situ*[109]. Note that, if the lexical array lacks the light verb, the incorporation of the locative preposition is mandatory, as shown by the ungrammaticality of (39)[110]:

39. *Gianni paurisce IN Paolo.
Gianni fear-3rd SING PRESENT Paul
*Gianni frightens Paul.*

Still, there is a crucial difference between the conflation of *paura* (fear) and *preoccupazione* (worry), i.e., the phonological form of the respective derived psych-verbs. While from *paura* (fear) we derive *impaurire* (to frighten), *preoccupazionare* from *preoccupazione* (worry) is ungrammatical. In order to deal with this case, we shall recall H&K's statement in (40):

40. Conflation is in some intimate manner bound up in Merge, that is a part of Merge in some sense. (H&K:61)

Following H&K ((30):61), I consider *preoccupare* (to worry) to be formed by *-ar-* and *preoccupazione* (worry), combined by means of Merge, as shown in (41):

41. a. Select [V]
b. Select [preoccupazione]
c. Merge ([V-ar],[Npreoccupazione])={[Vpreoccupare]}

108 The phoneme N turns into M due to phonetical restrictions.

109 Differently from French (metre en colère), Italian analytic psych-verbs, though grammatical, are somehow marked.

110 Compare (39) with the French counterpart given by Bouchard (1995:275 (35a,c)):
(i)Cela a éveillé en Pierre une rage terrible.
That awoke in Pierre a terrible rage.
(ii)Cela enragé Pierre
That enraged Pierre

Before concluding this section, I will stress one additional issue concerning the inherent derived nature of psych-verbs. As in normal analytic agentive verbs such as *fare male* (make pain), nouns or adjectives have to merge with a light verb in order to obtain a psych-predicate. Nevertheless, the nominal elements in analytic psych-constructions have a more important role within the construction. Consider the following sentences:

42.a Gianni ha fatto male a mio fratello.
Gianni has made pain to my brother
*Gianni hurt my brother.*
b. *Gianni ha messo male a mio fratello.
Gianni has put pain to my brother
*Gianni gave pain my brother.*

In (42), different light verbs lead to differ results, as shown by the fact that (42a) is correct whereas (42b) is ungrammatical. Consider now how that the choice of light verb affects the analytic psych-constructions. Compare (38a) with (43):

43. L'uomo nero ha fatto paura a tutte le generazioni di bambini.
The bogeyman has made fear to every the generations of children
*The bogeyman has been scaring children of all generations.*

(43) shows that a different choice of light verb -- *fare* (to make) vs. *mettere* (to put), does not affect the acceptability of the construction. Moreover, note that the meaning of the events in (38a) and (43) is essentially the same, i.e., that of *impaurire* (to frighten).On the basis of this, I propose that the psych-states are the linchpin of psych-verbs formation[111].

111 In sec 8.1, I introduce the idea that all Obj-Exp verbs entail a causative semantics, which is visible when semantically decomposed, i.e., [xCAUSE[yBE[[in psych-state]]]]. Metaphorically speaking, it seems like someone or something cause a specific emotion to be inside someone, which in turn is like analysing the Eperiencer as the container of a an emotional.

## 7.1.2. INTERIM CONCLUSION

In this section, I analysed Italian psych-verbs with respect to the possibility of having both the synthetic and analytic forms – *impaurire* (to frighten) vs *fare paura* (lit. make fear), and I showed that almost all synthetic psych-verbs have analytic counterparts. Furthermore, I demonstrated that all psych-verbs among the *preoccupare* (to worry) verbs can be decomposed into IN+ either an adjective or a noun. In addition, I noted that all analytic counterparts semantically describe a locative displacement of either the Experiencer inside the psychological state or vice-versa On a similar basis Bouchard (1992), starting from Ruwet (1972), assumes that psych-verbs should be divided into four classes, as shown in (44):

44. a. Class 1: Fear EXPERIENCER V TRIGGER
    b. Class 2: Frighten TRIGGER V EXPERIENCER
    c. Class 3: Strike TRIGGER V EXPERIENCER
    d. Class 4: all other non-incorporating constructions

Following Bouchard (1995), I proposed that, thanks to the surface preposition, class 4 is the most transparent in terms of identification of the spatial relation between the Experiencer and the mental state, and in what direction the relation is established (Bouchard 1992:34). On such a basis, I further proposed that class 4 psych-verbs can be considered as the basic psychological constructions.

On these basis, a three-fold conclusion follows. First of all, psych-verbs are all denominal or deadjectival. Secondly, psych-verbs that apparently do not have an analytic counterpart can still be constructed with a copula, which is to be analyzed as a light verb. Thirdly, synthetic and analytic psych-verbs share the same syntactic structure.

Following H&K's framework, I proposed that emotion conflation is concomitant with Merge, which opens the way to the hypothesis that there are some derivations preceding all the overt syntactic derivations. A similar idea is present also in the *First-phase theory* developed by Ramchand (2008), which concerns all lexical verbs, from unaccusatives to transitives. I will introduce and discuss the First-phase theory in ch.12.

Finally, the possible decomposition of synthetic psych-verbs shows that these include a locative preposition, such as *in*/*a* (to/into). I also showed that such

prepositions reflect the locative relationship between Experiencers and emotions [112; 113].

## 7.2 CONTAINERS *VS* CONTENTS

Actions evolve in a specific place/time, that is they are located in terms of place and time with respect to the speaker. Such property is expressed through the predicates by their functional structures. Generally speaking, verbs describe palpable events that somehow meets the eye. For instance, transitive verbs such as *build* and *give* describe dynamic and visible events, such as "construct by putting parts or materials together" and "freely transfer the possession of" respectively. This is never the case with psych-verbs. First, psych-verbs describe just stative situations. In particular, Experiencers seem to be neither the result (cf. *build*) nor the endpoint (cf. *give*) of any visible "action". Second, psych-events seem to concern mainly Experiencers, therefore invisible to others, or better psych-verbs seem to describe something personal, i.e., Experiencers' emotive reaction to something that has happened in the real and physical world. Let us consider all these points in turn by analysing the sentence in (45):

45. Marco ha causato preoccupazione in tutti noi (con le sue urla).
    Marco has caused worry to everyone (with his yells)
    *Marco worried everybody* (*with his shouts*).

The analytic psych-verb in (45) is not actually describing any of *Marco*'s physical actions but actually the result of his shouting: the emotive reaction of *tutti* (everybody). In particular, while the action of shouting is clearly palpable, the emotive reaction to such an action is not. That psych-verbs describe something happening metaphorically inside Experiencers is confirmed in sentences as the following one:

112 I will come back to this in ch.8.

113The locative nature of this displacement can be either clearly manifested, as within analytic psych-verbs construction (with verbs like *impaurire* = '*mettere paura in'*) or covered, as within copular constructions (with verbs like *preoccupare* = '*c'è*/*messo preoccupazione in*').

46. La febbre di Marco sta preoccupando sempre di più i suoi genitori.
    the fever of Marco is worrying always of more the his parents
    *Marco's fever is worrying more and more his parents*.

In (46), *preoccupare*'s (to worry) subject is *la febbre* (the fever), an inanimate element unable to do anything to make *Marco's parents* worried. Nevertheless, they are worried, which means that *the fever* must have done something somehow. I therefore assume that although *the fever* is an inanimate element in the real-physical world, it holds an active role within Marco's parents mind. Given that any actions must take place somewhere, I claim that psych-verbs basically describe an inner emotive reaction to something happened in the real-physical world. Psych-verbs might describe also Experiencers' feelings about things in the real world. As for this last point, consider (47):

47. Paolo teme il fuoco
    Paul fears the fire.

In (47), *temere* (to fear) describes what *Paolo* feels about *il fuoco* (fire). Even in such cases, the actual event concerns merely Experiencers, therefore imperceptible to others. I will show that such feature concerns also psych-verbs syntax.

Following Bouchard (1992), I assume that the semantics of psych-verbs describes the relation (a contact in Bouchards' terms) that Experiencers and Emotions establish, inducing a change of state in one or the other affected elements just like with normal transitive verbs. What differs between the psych-verbs and transitive verbs such as *build* is where this contact takes place. With psych-verbs, it takes place at the level of the mental space whereas with verbs such as *build* it takes place at the level of the physical space.

Let us verify the psych-verbs' status now. In the previous chapter, I analyse analytic psych-constructions as similar to copular sentences. Consider in fact (45) with respect to (48a) and (48b), a copular and a transitive construction respectively:

48. a. La macchina di Giovanni è rossa.
       the car of Giovanni is red

Giovanna's car is red.

b. La pallotola ha ferito gravemente il soldato.
the bullet has injured badly the soldier
*The bullet injured the soldier*.

In (48a), we have a simple description of Giovanni's car colour; on the other hand, (48b) simply describes an action. Similary to (48a), (45) describe the Experiencer temporary condition, i.e., that someone is worried. The impossibility to passivize such construction, as in (49), confirms it:

49.a. *Tutti sono stati preoccupati da Marco.
*Everybody have been worried by Mark.*
b. Il soldato è stato ferito dalla pallottola.
*The soldier has been injured by the bullet.*

Despite the similarities, psych-verbs cannot be considered as pure copular verbs though. In fact, while in other languages, copular constructions are perfectly possible despite the absence of verbal roots, this is never the case with psych-verbs. Consider (50):

50.a. Miring-mibardakurru-mi[114]
gum-VEG good-VEG
*Gum is good*. (Pensalfini 1997:138 cited in Baker 2003:92)
b. *La febbre di Marco tanta preoccupazione ai suoi genitori.
the fever of Marco so much worry to his parents

While copular constructions concern permanent characteristics of a particular element, as the colour of the car in (48a), analytic psych-verbs do not. In fact, generally psych-verbs concerns a more temporary condition of Experiencers, i.e., an emotive reaction to an external stimulus. Emotions are something ephemeral. Given that psych-verbs concerns Experiencers' inner feelings provoked by an external stimulus and that clearly visibile in analytic psych-constructions, I will now focus my attention more on these constructions.

114 The example concerns the Australian language Jingulu.

Recall the idea introduced earlier that almost all psych-verbs are actually denominals or deadjectivals and that analytic psych-constructions seem to describe a situation in which Experiencers and the psych-statse get in contact with each other. Consider now (51):

51. Mi ha messo una tale collera addosso che non ti dico.
    to me has put a such anger on that not to you tell
    *I got so angry with him, can't tell you how much!*

In (51), it is clear that the Experiencer's *anger* is somehow caused by a third elements. Furthermore, imagine that what is happening inside Experiencers' mind can be translated as in (52)

52. "X puts/cause Y into Z"

where X stands for the Causer and Y and Z stand for emotion and the Experiencer respectively or else vice-versa. Before going any further; I would like to note few things concerning this last point. First, although not all psych-verbs entail a causative semantics (see ch.9), they can all be paraphrased by (52); note that such paraphrase seem to denote a hypothetical displacement of the Experiencer inside some emotion. Consider (52):

53. a. Paola mi ha imbarazzato.
       Paola me has embarrass.
       *Paola embarrassed me.*
    b. Paola mi ha messo in imbarazzo davanti a tutti.
       Paola me has put in embarrassment in front of everybody
       *Paola made me feel embarrassed in front of everybody.*

Second, given the importance of emotion nominals in psych-verbs derivation, I claim that they head the maximal projection including both the stimulus and the Experiencer. Third, the psych-verbs sintax-semantics interface is much more evident than with other predicates. As for this last point, (53b) clearly shows that there is a locative relationship between the Experiencer and psych-states.

Following Landau's (2010) basic intuition, I assume that psych-verbs describe the relation established by Experiencer and state of mind. I claim particular that:

54. Experiencers are locations of mental states, that is, locatives structures.

Given its importance, a deep discuss of Landau's (2010) work on psych-verb will be given in the next chapter; for the moment, let us just introduce that, following Landau, the presence of locative prepositions within psych-verbs constructions is both semantically and syntactically relevant. I will now focus my attention on the possible relations that psych-verbs eventually describe.
As Landau (2010), Arad (1998) claims that psych-verbs denote locative relationships. A crucial aspect in Arad (1998) is that she considers Experiencer as "either the *stuff* contained in the mental state or the container in which the mental states is put"(Arad 1998:206). Consider (55):

55. a. Nina **felt in** love (with Paul).
    b. **There is in** me a great admiration for painters.

In (55a), the mental state, *love*, somehow contains the Experiencer, *Nina*, whereas in (55b) the situation is the other way around. Arad's subdivision is present also in Bouchard (1995)[115]. Unfortunately none of the these authors pushed further this hypothesis in splitting psych-verbs based on *what contains what* ,metaphorically speaking. In the remainder of this work instead, I will show how this distinction is a rather important one instead.
Concerning (55a), note that in English there is no synthetic form for the periphrasis *fall in love* (cf. it with Italian *innamorare* 'fall in love'), moreover this periphrasis explicitly refers to a downward movement. In addition to that, the locative preposition *in* indicates that the Experiencer is metaphorically "inside" *love*. Furthermore, (55a) tells us that *Nina* is right now *in love* but it also implies that in a precedent moment she was not. These cases resemble psych-verbs such as *preoccupare* (to worry), where Experiencers' feelings are caused by a third element. Note further that when *falling* one is actually *moving from a higher place to a lower one*. This metaphorically implies that *Nina* before being in love was

115 Cf. sec. 8.1.

standing outside a hypothetical *love*-box. Therefore, *Nina* is now *in love* as a result of an external force, responsible for pushing her into such an emotion-box. In other words, (55a) indirectly tells us that *Nina* is now in a different place with respect to the past. Nevertheless, in (55a) *Nina* has not gone anywhere, in fact she has not been physically moved from one place to another[116].

As for (55b), although the locative relation expressed here is clearly different from that of (55a), the presence of the locative preposition *in* in (55) does not depend on the specific psych-verbs; in fact, while *fall* necessarily selects *in* (cf. it with *cadere a terra* 'fall into the floor') *admire* does not (cf. with *I admire his bravery*). Taking this into account, I propose that the locative prepositions are part of psych-predicates just like emotions, Experiencers and stimulus.

Given (55b), I propose that Landau's (2010) intuition concerning the metaphorical relation established within psych-verbs needs to be broaden. In particular, I claim that Experiencers are not always the location of mental states, i.e., not all the psych-events can be analysed as *fall in love* in (55a). In this respect, although I do agree with Arad's (1998) psych-verbs analysis, which assumes that psych-verbs describe a metaphorical displacement, I propose that the locative relation between Experiencer and the psych-state in (55b) is different with respect to the one expressed in (55a). Let us see how.

Contrary to what happens in (55a), in (55b) describe a rather different scenario, i.e., the mental state is no longer the container but the content. In particular, although the Experiencer and the mental state are in a locative relation, *admiration* is not the end-point of the Experiencer displacement, as *love* is in (55a). In (55b), the Experiencer is the container in which the mental state resides. The construction *there is* x *in* indeed describes such a locative relation between Experiencer and the psych-state of *admiration*. In fact (55b) can be easily paraphrased as in (56):

56. Admiration for great painter is in me.

One can argue that the different locative relations possible with Obj-Exp verbs might depend on either the different theta-role assigned to the subject --

116 It is also possible to have a copular sentence such as *Nina is in love with Paul*. The presence of *with* suggests that both Nina and Paul are in the same emotional state of love.

Experiencer in (55a) vs. Causer/Theme in (55b) -- or on the syntactic structure itself -- i.e., normal transtive in (55a) and copulative in (55b) [117]. Let us consider this point with respect to another psych-verb, *worry*.

57. Mark worries his mother every day.

Both (55a) and (57) are normal transitive sentences. Nevertheless, in (57) the Experiencer theta-role has been assigned to the superficial object, as in (56). Moreover, contrary to (55a), the Experiencer and the Causer/Theme in (57) -- i.e., *his mother* and *Mark* respectively -- are not in a spatial relationship. In this respect, note that (57) lacks the locative preposition. In order to account for this apparent mismatch between psych-verbs such as *fall in love* and *worry*, let us reconsider (55).

While (55a) is a normal transitive sentence, (55b) is a copular sentence. If both sentences in (55) describe the same type of spatial relationship between the Experiencer and the Causer/Theme, turning (55a) into a copulative sentence and (55b) into a predicative sentence should cause no problem. Let consider the sentences in (58):

58. a. ?There is love in Nina with Paul.
    b. I (strongly) admire great painters.

Note that (58a), the copular counterpart of (55a), is rather marginal, whereas (58b), the transitive counterpart of (55b), is perfectly acceptable. Recall Arad's intuition concerning psych-verbs, i.e., *the Experiencer is either the stuff contained in the mental state or the container in which the mental states is put* (Arad 1998:206). Taking this into account, (58) suggests that *love* and *admire*, as verbs, do express a different locative relations between Experiencers and psych-states. In particular, while in (55a) it seems that the psych-state contains the Experiencer, (55b) and (57) exhibit the opposite pattern, i.e., the Experiencer contains the psych-state. Hence, *admire* in (55b) and *worry* in (57) are to be considered different from verbs such as *fall in love*. Based on Bouchard's (1995) and Arad's

117 The subject of (55b) occupies a post-verbal position; still we can modify the sentence as to let the subject to occupy a preverbal position:

i. ?A feeling of admirations for the great painters is in me.

(1998) intuitions, I propose that psych-verbs describe one of the above locative relations between Experiencers and psych-states. Moreover, I claim that such different locative relations are syntactically driven (cf. (55) vs. (58)). Before going any further, let us sum up the key points so far:

59. All psych-predicates describe a locative relation between an Experiencer and an emotion/state of mind driven by a third argument.

Moreover:

60. a. Experiencers can be either the content or destinations of mental states/effects.
    b. Someone/something has to provoke the displacement of either the experience or the state of mind.
    c. The locative relations expressed by means of such predicates are syntactically driven.

(60a) differs from Arad's proposal (cf. (61)), because it regards both Subj-Exp and Obj-Exp:

61. Experiencers can be either the stuff contained in the mental state or the container in which the mental states resides.

Let us focus more on *preoccupare* (to worry) verbs. As I argued in ch. 8, they cannot be considered as unaccusatives but, at the same time, they cannot be considered as transitives either. Given (60a) and the location/locatum dichotomy introduced in H&K, I assume that psych-verbs can be either ***Container*** or as ***Content*** psych-verbs as described in (62)[118]:

62. a. Content psych-verbs class

    *Content psych-verbs describe a situation in which Experiencers metaphorically contains an emotion/state of mind.*

118 Recall that the locative relation between Experiencers and psych-states shows up overtly only in analytic psych-constructions and that locative prepositions are visible, as affixes, also in synthetic psych- verbs -- i.e., *in* in *in-orridire* (to horrify).

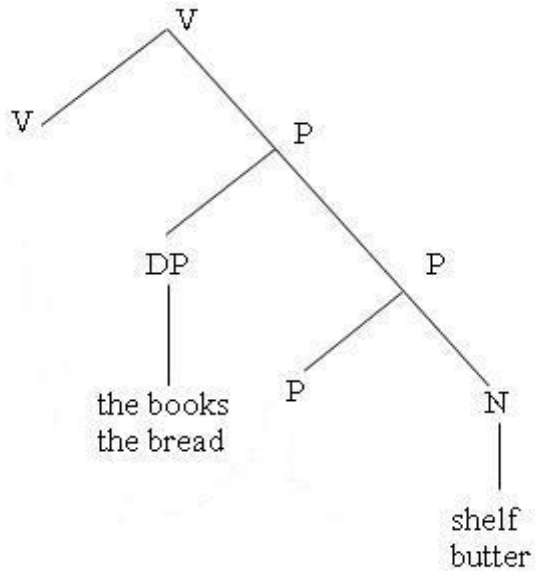
b. Container psych-verbs class
*Container psych-verbs describe a situation in which emotions metaphorically contain Experiencers.*

To the extent that (60) is grammatically and not just metaphorically real, I propose that the different locative relation established by Experiencers and psych-states is the result of a different syntactic derivation. In this respect, recall the earlier (see sec. 7.1) claim that traditional psych-verbs -- i.e., *impaurire*, *preoccupare* etc. -- are the synthetic counterpart of analytic psych-constructions made of a light verb and a nominal – *fare paura a* and *dare preoccupazione a* respectively -- the former verbs derive from the latter ones through morphological derivation.
H&K argue that some verbs are mainly denominal; for instance, they consider *shelf* and *to shelf* as deriving from the same lexical entry, *shelf*N. Furthermore, following H&K, the structure of those verbs is identical to the structure of their analytic counterparts, the only difference being the presence of a light verb in the latter type of verbs. For H&K, the nominal element can be either the location where to move something, or the object which has to be moved somewhere. H&K in fact distinguish between *location* and *locatum* verbs[119; 120]. Consider (63) and (64):

119. Examples of location verbs are: to bag, to bank, to bottle, to cage, to corral, to garage, to jail, to pocket, to pot, to shelve, to shoulder.

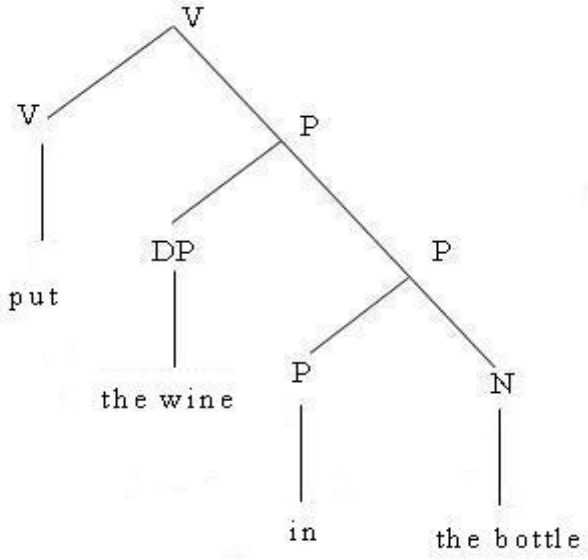
120. Examples of locatum verbs are: to bandage, to bell, to bread, to butter clothe, to hook, to house, to ink, oil, to paper, to seed, to water, to word.

63.




(to) shelf the book/(to) saddle the horse

64.




(to) put the wine in the bottle

In English this syntactic derivation is very productive, whereas in Italian it is not -- cf.(65)[121]:

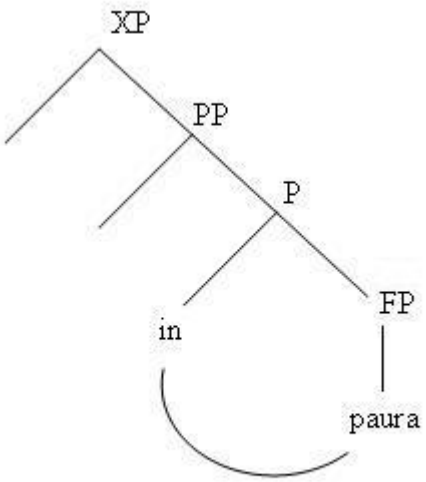
121 In Italian too we have some examples of verbs obtained by means of incorporation -- i.e., *cestinare* from *cestino* (bin) and *messaggiare* from *messaggio* (message) -- though it is not as productive as in English.

65.a. *Luigi ha scaffalato tutti i libri che erano sul tuo tavolo.
Lewis has shelfed all the books that were on your table
*Lewis has shelfed all the books left on your desk.*

b. Luigi ha messo sullo scaffale tutti i libri che erano sul tuo tavolo.
Lewis has put on the shelf all the books that were on your table
*Lewis has shelfed back all the books that were on your table.*

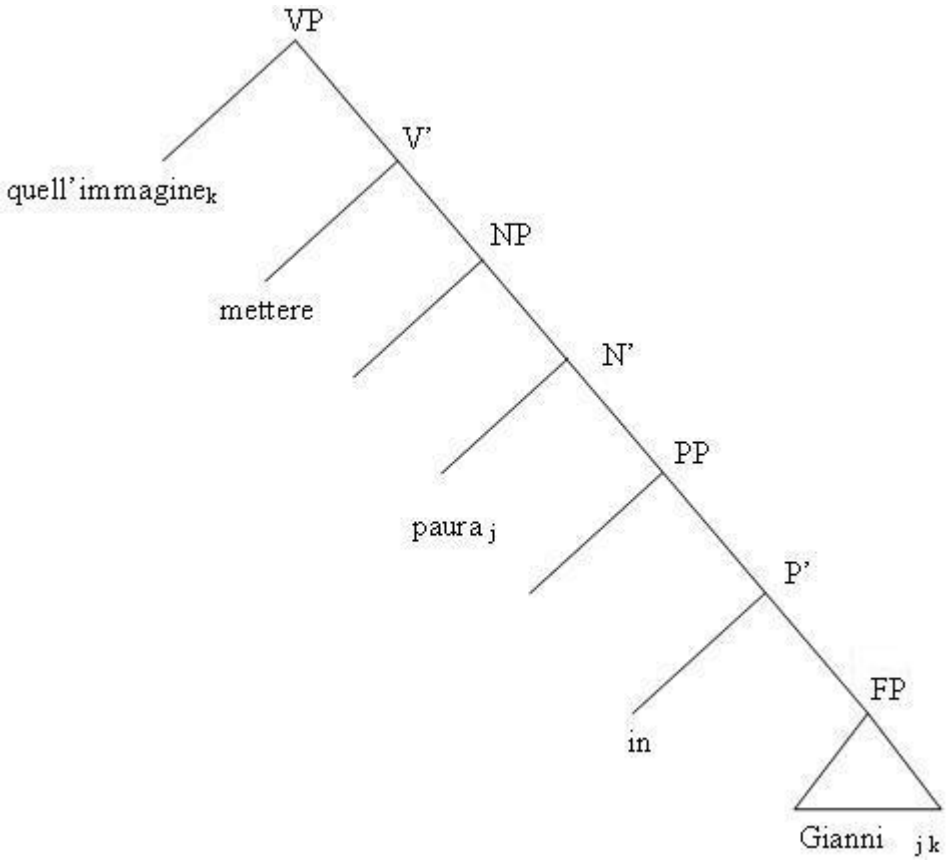
(65a) shows the impossibility in Italian to have denominal verbs similar to those in (63). The only possible construction is (65b), i.e., a periphrastic form made up of the light verb *mettere* (to put) and the location noun *scaffale* (shelf). Note the resemblance between (65b) and (64), the analytic counterpart of (63). In what follows, I will show how H&K's framework perfectly suits psych-verbs as well.
Let us analyse a Container psych-verb -- e.g.,*impaurire* (to frighten), which can be decomposed as *in* plus *paura* (fear). Let us assume for the moment that the three basic elements of psych-verbs merge together in a Functional Phrase (FP); let us further assume that FP is the complement of a locative preposition, *in* as in (66):

66. a …[$_{XP}$[$_{PP}$in[$_{FP}$ Gianni paura quella immagine]]]
b.



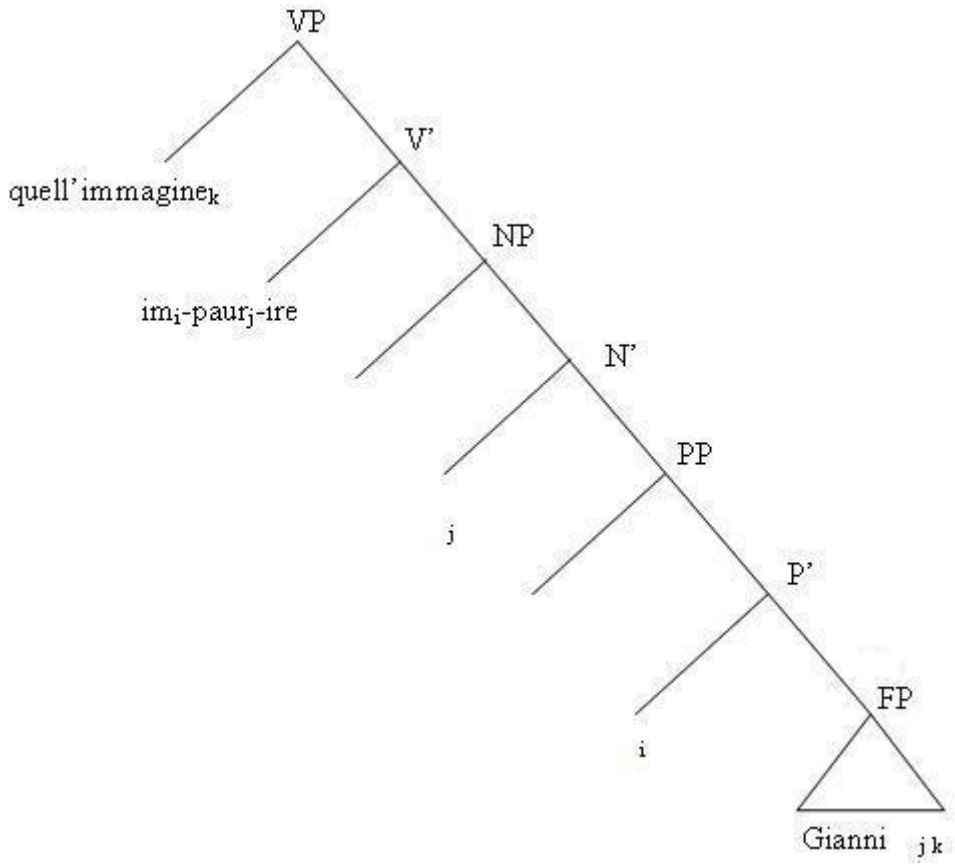
Although it is just a first approximation, I assume that (66b) can account for both the synthetic psych-verbs *impaurire* (to frighten) and its analytic counterpart[122]. Let us consider (67):

67.a




122 In ch. 8, the structure in (66b) will be further revised. Moreover, it will be shown that a modified version of (66b) can account for all psych-verbs behaviour.

b.




In (67) I give a first approximation of analytic (cf. (67a)) and synthetic (cf. (67b)) verbs are derived. Assuming that the numeration of psych-verbs might contain a light verb -- e.g.,*mettere* (to put) -- I propose that such light verb is merged in V° and selects an NP to which the psych-nominal has to raise to; the Stimulus then raises to Spec,VP. If no light verbs are present in the numeration, then the psych-nomimal has to further conflate to V°; the locative preposition incorporates as proposed above for *enrage*, *embitter* and so on. I propose that the same derivation holds also for the other *preoccupare* (to worry) verbs.

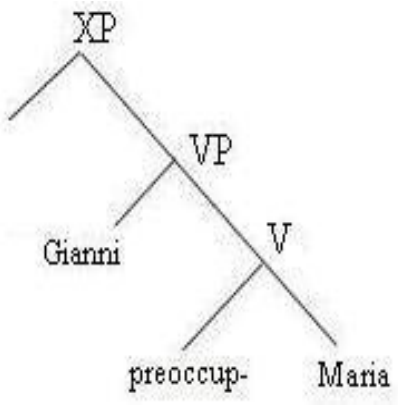
The basic intuition behind (66a) is that psych-verbs do not enter in the derivation as they appear but instead as a combination of three basic elements: *state of mind* (whether a noun or an adjective), the Experiencer and the Causer/Stimulus. Taking this into account, I further assume that both Content and Container psych-verbs share the same initial syntactic structure. On the contrary, what differentiate them is the following derivation, which I claim depends entirely on the numeration of the corresponding psych-verbs (see ch.12).

Let us analyse a Content psych-verb, i.e., *preoccupare*. Consider the following sentences:

68. a. Tutti i bambini *temono* il buio.
    all children fear the darkness
    *Gloominess generally frighten all children.*
    b. Il gelato *piace* a tutti.
    the ice-cream likes to everybody
    *Everybody likes ice-cream.*
    c. Marco sta *preoccupando* tutti con le sue teorie.
    Mark is worring everybody with his theories
    *Mark's ideas are getting people more and more worried.*

The verbs in (68) cannot be decomposed as *impaurire* (to frighten) (recall the analytic decomposition of *preoccupare* 'to worry' verbs in 7.1). Based on this, I suggest that they do not share the same syntactic structure either. As a consequence, the derivation proposed for Container psych-verbs in (67) cannot be entirely adopted for Content psych-verbs. Based on the different analytic decompostion in sec.7.1, I propose that the syntactic structure of Content psych-verbs is as follows:

69.




Both (66b) and (69) seem to be the plausible syntactic structures of psych-verbs such as *impaurire* (to frighten) and *preoccupare* (to worry) respectively: Nevertheless, arguing two different syntactic structures just for *preoccupare* (to

worry) verbs would complicate the picture. Instead, I will show that a revision of (66a) is sufficient to account for both Content and Container psych-verbs.
Given the locative relation expressed by psych-verbs, I argue that (71a) is equivalent to (71b-c):

70. La macchina è in casa.
the car is in home
*The car has been parked in the garage.*

71.a. Marco è preoccupato (per l'esame di domani).
Mark is worried (for the exam of tomorrow)
*Mark is anxious about the coming exam.*
b. La preoccupazione (per l'esame di domani) è in Marco.
the anxiety (for the exam of tomorrow) is inside Mark
*At the moment, anxiety is really palpable in Mark.*
c. C'è tanta preoccupazione in Marco.
There is a lot of anxiety in Mark
*Mark is really concerned at the moment.*

Although in (71a) does not express any kind of locative relation such as "*X is in Y*", it is still possible to paraphrase it as in (71b and (71c). Based on the fact that (71a) and (71b-c) denote the same event, I propose that the absence of the locative preposition *in* in (71a) can be explained in terms of syntactic incorporation, as with *impaurire* (to frighten) in (67), the only difference being that the locative preposition incorporated into *preoccupare* (to worry) is silent. Furthermore, I assume that (71a) share the same initial syntactic structure of both (71b-c) and (70)[123].

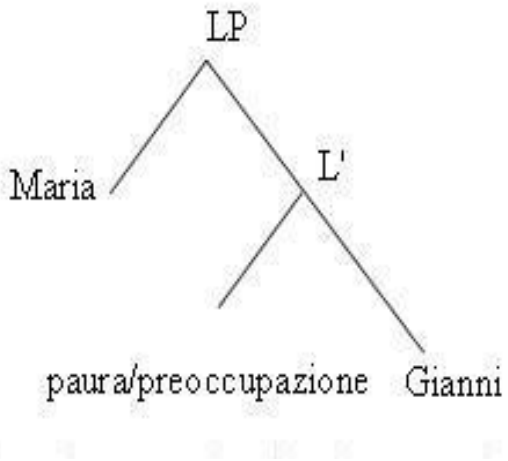
I propose that both Container and Content psych-verbs share the same syntactic representation and that Experiencer and the Causer/Stimulus and the nominal denoting mental states merge together in a category-neutral Lexical projection

123 Following Landau (2010), I claim that all psych-verbs initial syntactic structures include a locative preposition that can be either phonetically overt or null; furthermore, all locative prepositions incorporate into verbs, though not in analytic psych-construction for reasons that will become clearer in ch.8.

(LP), instead of the FP in (67), as in Alexiadou (2001)[124]. Furthermore, I analyse the nominals denoting mental states as uncategorised, which is the reason why it needs to move out of LP (as in Baker 2003). Taking this into account, let us reconsider Obj-Exp verbs syntactic structure.

Once all the lexical elements have been selected (Numeration), the parser merge them in LP as follows: first it merges together the nominal denoting emotion and its trigger, deriving L' and then it merges L' with the Experiencer, deriving LP. I consider the Experiencer and not the trigger as the external argument given its higher position in the thematic hierarchy, as proposed in Pesetsky (1995). Consider the following example in (72):

72. a. …[$_{LP}$ Maria [$_{L'}$ paura/preoccupazione Gianni]
    b.




Note that in (72b), no locative preposition is present. Nevertheless, I will show that locative prepositions hold an important role within psych-verbs derivation. Consider the following quote by Landaut:

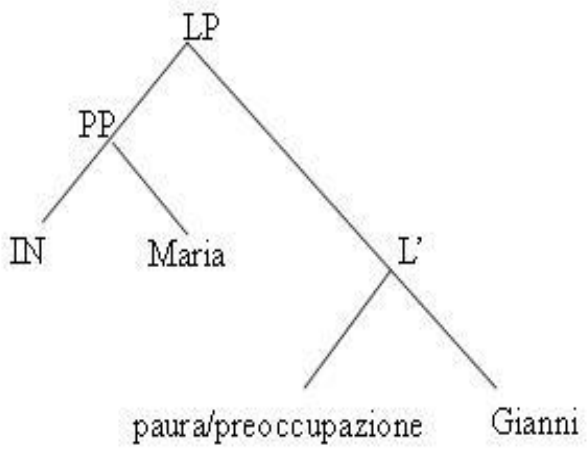
73. *Since non-subject locatives are normally introduced by a preposition, so must object experiencers. The non-trivial case that falls under* (this assumption) *is experiencers in class II, which are bare nominals. If* (on the right track then)*, this is but an appearance; strictly speaking, there are no bare object experiencers, only oblique ones. Hence, what looks like a bare*

124 See sec. 12.1.3 for a more detailed analyses of LP.

> *object experiencer must be the object of a null preposition* (Landau 2010:9)

Based on (73), I consider the locative preposition always present within psych-verbs syntactic structure and Numeration. Differently from (66a), I claim that it occupies the Spec,LP position. Consider (74):

74. a. …[$_{LP}$[$_{PP}$ Maria][$_{L'}$ paura/preoccupazione Gianni]
    b.



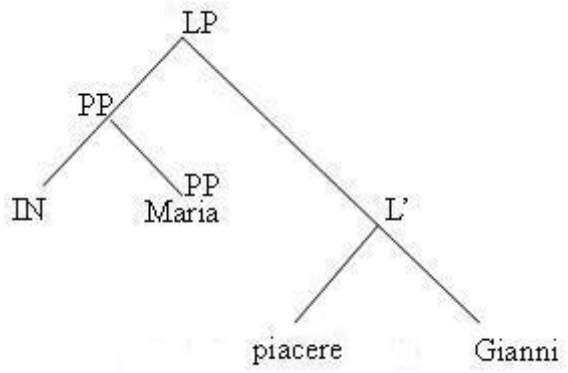

Note that in (74) the preposition is not external to FP/LP but internal and that the Experiencer in PP occupies a higher position with respect to what hypothesized by B&R. According to Landau (2010), I claim that locative prepositions are merged in the syntactic structure in order to introduce the Experiencers[125]. In ch.8, I will show that (74b) is effectively Obj-Exp verbs initial structure and that the different data show in 4 can be accounted for in terms of syntactic derivation. Let us briefly consider *piacere* (to please) psych-verbs.

Given that Experiencers occupy the object position both in *preoccupare* (to worry) and *piacere* (to please) verbs, I propose that they share the same initial structure, even if *piacere* (to please) and *preoccupare* (to worry) final strings are

125 Although this topic will be discussed more in depth in ch.8, let us just introduce the locative preposition selecting the Experiencers might differ among psych-verbs. Following Longobardi (1997), I will show that this depends entirely on the category of Experiencers, i.e., if it is either a DP or an NP.

quite different. Note that Experiencers in *piacere* (to please) are always introduced by the preposition *a* (to), whereas in *preoccupare* ones are not. Assuming that Experiencers of Obj-Exp verbs are all introduced by a locative preposition, I propose that while Experiencers of *preoccupare* verbs are NP (or DP -- see ch.8) those of *piacere* (to please) verbs are governed by a dative-like preposition (therefore are PP). In 13.1.2, I will show that Experiencer of *piacere* (to please) psych-verbs have a more complex structure with respect to those of *preoccupare* (to worry) and that this influences the final linear word-order and auxiliary selection. For the moment, let us just focus on the locative preposition introducing the Experiencer. Consider now (75):

75.




In (75), the preposition is different from the one we find with *piacere* (to please). The final preposition is *a*, whereas in (75) we see *in*. Taking this last point into consideration, recall that not all *preoccupare* analytic psych-verbs select *in* either. I propose that Experiencers are introduced by a generic prepositional element, say P-LOC, that can be either *in* or *a* depending on its complement. I will return to this in ch.8 when I introduce Longobardi's (1997) work on such prepositions. The capital locative preposition IN is in fact a by-product of such a generalization. This topic will be resumed in Ch 8.

Before concluding this section, let us note the correlation between the distinction Content/Container and the data concerning nominalization 4.2. Non-nominalizing psych-verbs, such as *incollerire* (lit. make sb. angry), entail a metaphorical displacement -- as in (5), here in (76) -- of the Exp from one place to another:

76. Quell'articolo ha mandato in collera tutti gli allevatori abruzzesi.

That article has sent in rage all the breeder from Abruzzi
*That article enraged all the breeder from Abruzzi.*

On the other hand, nominalizing psych-verbs such as *esasperare* (to exasperate) entail the opposite metaphorical displacement, as in (77)[126]:

77.a. Michela *esaspera* i suoi genitori sempre.
Michaela exasperates the her parents always
*Michaela always exasperates her parents.*
b. C'è sempre *esasperazione* nei suoi occhi e non so come mai.
there is always exasperation in the his eyes and (I) do not know way
*There is always a sad light in his/her eyes, don't know why.*

The *triggers* in non-nominalising psych-verbs such as *impaurire* (to frighten) and *incollerire* (to enrage) hold a stronger causative role than the triggers in nominalising psych-verbs such as *preoccupare* (to worry) or *esasperare* (to exasperate). I will return to this last point in ch.9 and 12.

## 7.3 INTERIM CONCLUSION

In this section, following Arad (1998) and Bouchard (1995), I showed that Italian Obj-Exp verbs express a locative relation between Experiencers and mental states. I showed that Experiencers can either be the container (Iwata 1995) or the content (Bouchard 1995). Starting from H&K location/locatum dichotomy, I then divided Obj-Exp into Content and Container psych-verbs, depending on the kind of relation they express. Note that this semantic subdivision is cross-lingustically supported. Landau (2010) and Arad (1998) in fact gives also French examples like the following one:

78. Il ne pouvait plus contenir sa rage.
*He could no longer contain his rage.* (Landau 2010: (17b))

126 I claim that nominalizing psych-verbs too semantically entails a metaphorical displacement.

I further showed that locative prepositions are key elements for all psych-verbs constructions, given that they are responsible for the locative relation between Experiencer and the psych-states. I showed then that, although *impaurire* (to frighten), *allarmare* (to alarm), and *tranquillizare* (to calm down) do not begin with the same locative prefix, (*tranquillizzare* has no prefix at all), their analytic counterparts imply a locative displacement.In this respect, I showed that the relation analytic psych-verbs denote can be of Content or Container – Experiencer containing the mental states or vice-versa.
Even if not all psych-verbs can be decomposed as *impaurire* (to frighten), I showed that all of them have an analytic counterpart as is the case of *allarmare* (to alarm). Note that other psych-verbs similar to *allarmare* (to alarm) do not incorporate any locative prefix but still entail a metaphorical displacement. Consider *tranquillizzare* (to reassure/calm down):

79. Incontrare il Dirigente Scolastico ha *messo in tranquillità* le insegnanti.
    meeting the Head Teacher has put in serenity the teachersFEM
    *Meeting the Head Teacher reassured all the teachers.*

On the basis of sec. 7.1, I showed that the basic psych-verbs structure includes the psych-state, the trigger and an Experiencer, which is itself introduced by an unspecific locative preposition, P-LOC. I finally noted that the Container vs. Content psych-verbs distinction correlates with the nominalization data in 4.2. In the next section, I will discuss the nature of the Experiencer.

# CHAPTER 8
# THE LOCATIVE NATURE OF THE EXPERIENCER

Two possible spatial relations could underlie psych-verb constructions. Bouchard (1992) defines two types of possible relations, PATH and PLACE. The former entails that Experiencers and mental states are at the same point along a PATH. This point could be either the initial point, or the final one. The second relation entails that both elements are at the same Place (Bouchard 1992:33). In the following sections, I will analyse the role of the Experiencer in the psych-constructions.

## 8.1 A LOCATIVE DISPLACEMENT

Recall that psych-events link together three arguments, the Experiencer, a mental state, and the argument causing the feeling of Experiencer, i.e., *Trigger of emotion* (henceforth Trigger)[127]. Synthetic psych-verbs such as *frighten* are bi-argumental verbs and select only the Experiencer and the Trigger. Nevertheless mental state cannot be omitted, given its importance. I claim in fact that it is part of predicate though -- thence the denominal status of such verbs. Let us consider the example in (1):

1. John frightens the children.

Given the above assumption, I propose that *frighten* too is a derived verb, too, just like *impaurire* (to frighten) in Italian (see sec. 7.1). To further support it, let us note that there are situations in which all of the three psych-elements (Experiencer, mental state, and Trigger) can be lexically realized:

127 I consider the TRIGGER of the emotion as the element triggering the emotion inside an Experiencer. I shall use TRIGGER instead of THEME because it entails more the idea of an element that induces an emotion to the Experiencer no matter how intentionally.

2. Un regalo così riempirebbe di gioia chiunque.
   one present like that would fill of joy anybody
   *Such a present would make anyone happy.*

Note that in (2), *chiunque* (anybody) is the *container* that has been filled. The idea that cognitive relations can be conceptualized as extended spatial relations has been aknowledged in various contexts; it actually goes back to Jackendoff's (1990) idea that the correspondence rules relating Conceptual Structures (CS) to Syntactic Structures (SS) are directly related. Adopting Jackendoff (1990), any psych-sentence can be represented by means of the functions BE and INCH, and AT . Consider (3b), paraphrased in (3c)[128]:

3. a. X frightens y.
   b. [$CS^{+}$ ([X]$^{a}$, [INCH [BE ([FEAR ([α])], [**AT**[Y]])]])]
   c. X causes fear of X to come to be **in** Y.

Note that in (3b), the Experiencer Y is the object of AT, a locative preposition. Hence, in Jackendoff's analysis as well, Experiencers are locations of mental states. Note also that in (3b) and (3c), both prepositions are inherently locative, because both *in* and *at* locate the mental states within the Experiencer. In this respect, recall that according to Bouchard (1995), Experiencers must be able to host the mental states (Bouchard 1995: 272). In the present chapter, I will show that all elements of a psych-verbs (Experincers, mental states, and Triggers) are syntactically active.
According to Landau (2010) argues that not all of them are syntactically active, but only locative prepositions:

4. *…the locative preposition is syntactically active even when the experiencer appears to be a bare nominal* (...) *the mental state is syntactically active only when visible, namely, in periphrastic constructions…*

   (Landau 2010:10)

128 Following Jackendoff (1990), the meaning of each sentence relies on the univerals semantic categories that the relative construction is made up of. The inverntory of such categories include EVENT, STATE, THING,PATH, PLACE, PROPERTY,and TIME. All these universal semantic categories can combine with each other by means of functions such as IN, AT, BE, INCH and so on.

Note further that, according to (4), Experiencers are always in the complement of the locative preposition. Given the direct link between analytic psych-constructions and the psych-CS hypothesized by Jackendoff plus the hypothesis that analytic psych-constructions are the basic structures, I propose that the syntactic structure of psych-verbs reflects directly their CS -- i.e., psych-verbs' CS= psych-verbs's SS, in Jackendoff 1990 terms. Given (4) and the CS=SS link, two consequences follow: locative prepositions play a special role within psych-constructions; Experiencers are necessarily related to prepositions. Based on this, the importance of locative prepositions, as in (4), follows[129]. Note that the role played by prepositions in psych-verbs is a cross-linguistical generalization[130]. Consider in fact the French *en* (in) in sentences (5):

5. Cela a éveillé en Pierre une rage terrible.
   *That awoke in Pierre a terrible rage.* (Landau 2010, (14a))

Following Landau (2010), I propose that the syntax of Experiencers is far more complex than it appears in traditional psych-verbs such as to *enrage* or to *frighten* in (1). In this respect, Landau proposes that it is plausible to *decompose psychological verbs into an action light verb plus a mental state* (Landau 2010:10). In fact, psych-verbs such *enrage* can be decomposed into a light verb (made) and a mental state (angry)[131]. Consider now the case of to *frighten*:

6. a. That article in the Guardian frightens Paul.
   b. That article in the Guardian *made* Paul very *scared*.
   c. That article *caused* fear *into* Paul.

In (6a), the Trigger (the Guardian) makes the Experiencer (Paul) feel some emotion (fright). Consider that, the *article* itself did not do anything in particular

129 This relation is clearly visible with all analytical psychological construcions, such as *Gianni ha mandato tutti in bestia* ' John ticked everybody off'

130 Landau (2010) gives an exhaustive review of cross-linguistic data supporting both the locative nature of Experiencers and the key-role of locative prepositions introducing them (see sec. 8.3).

131 Note that *enrage* derives from the French *enrager* (en+ragier).

to frighten *Paul*. Nevertheless, the Trigger looks like a normal causer; compare for instance (6b) with (7):

7. Ann made Paul a cake tonight.

In (7) the event described by the predicate is actually visible, contrary to (6b). Nevertheless, psych-verbs entail a causative semantics, similar to that in (8):

8. Overusing appliances such as straightening irons may damage your hair and cause it to break

In (8) again, the *hair* break event is the result of a physical event, i.e., *overusing appliances*. On the contrary, the emotion in (6c) is the result of no physically visible event but it has still been caused by something.
I assume that the *frighten* event in (6) mainly concerns the Experiencer. Based on the similarity between (6) and (7)-(8), I suggest that all predicates entail causativity. Nevertheless, it is more appropriate to consider the triggering element in (6) not as a real causer, but as an *initial* stimulus -- i.e., the *fright* emotion has been provoked by some inherent properties of the *article* itself (the content, the style etc.). Furthermore, I consider the stimulating feature as acting "inside" the Experiencer. That would account for the apparent contradictions introduced by (6). I claim that the presence of the locative prepositions reflects the semantics of psych-verbs in general that see Experiencers as the container of emotion or vice-versa.

## 8.2 EXPERIENCER AS THE LOCATION OF PSYCHOLOGICAL EVENTS

In this section, I will discuss the central idea that psych-verbs concern events happening inside the mind of Experiencers, i.e., an individual/private emotive response to something external. For this purpose, it is necessary to drift temporary from the current subject and focus on a rather unrelated subject: the meteorological *it*, an expletive appearing in weather expressions, similar to the one appearing in small clauses.

Consider the following examples:

9. a. *It* is raining.
   b. Mary likes [*it* in Cambridge] (Pesetsky 1995, (303a/c))

It has been argued that the expletive *it* is an argument (Chomsky 1981). I am going to show that (9a) and (9b) are not exactly alike.
Pesetsky (1995) argues that psych-verbs take at least three arguments: Experiencer, T/SM argument, and a third argument which is always external, morphologically realized as a reflexive clitic in some languages[132]. Pesetsky further considers the latter element as always controlled by the Experiencer. In order to support these two claims, he analyses the meteorological *it* (ambient *it* in Pesetsky, 1995).This element is always external, both in full and small clauses.
Following Chomsky (1981), Pesetsky suggests that the meteorological *it* does not merely function as an argument, but actually has a semantic value, which refers to the forces in the world that are the proximate causes of weather[133]. Pesetsky argues that the obligatory external argument selected by psych-predicates is akin to meteorological *it*, apart from the fact that the latter is never controlled by anything. He also notes that, in many cases, emotions can be seen as *psycological weather*. Quoting Pesetsky, *we are well acquainted with stormy feelings, sunny disposition, and dark thoughts* (Pesetsky 1995:111). Compare the following examples with (9a):

10. a. It is snowing in my heart.
    b. His mind is cloudy.
    c. Ho la mente annebbiata da mille pensieri.

---

132 Pesetsky suggests that psych-verbs roots surface in certain languages as obligatorily reflexive predicates, as *s'étonner* (refl-*amaze*):

(i) *Marie étonne (du) bruit.
Mary is amazed at the noise.
(ii) Marie s'étonne (du) bruit qu'on fait sur cette histoire.
Marie refl-amazes at the fuss htat one makes about this story.
(iii) Mario spesso s'arrabbia inutilmente.
Mario gets often angry for no reasons.

133 Meteorological *it*, for example, shows up overtly in German subordinate clauses and licenses control relations in English, unlike *expletive* it.

Have the mind clouded by thousands of thoughts
*My head is clouded by thousands thoughts*.

Pesetsky argues that emotions resemble weather in a number of respects: both are global, affecting one's perceptions and actions both are transitory and unpredictable in their onset, intensity, and duration. The only difference between psychological and meteorological weather is that *the natural force that produces an emotion is internal to the individual who experiences this emotion [...] and the entire phenomenon is quintessentially private: only the individual who contains the natural force that causes an emotion can experience that occurrence of that emotion* (Pesetsky 1995:111). Hence, Subj-Exp versb can be considered as similar to weather verbs such as *rain* or *snow*. Although Pesetsky's hypothesis seems to be on the right track concerning the inner source of the emotion, there is still something that needs to be refined concerning the control over emotions by Experiencers. Let us consider *love* in (11):

11. John loves Mary.

Despite Pesetsky's hypothesis that Experiencers might have everything under his control, I claim that this is not true. In fact, it is rather the opposite, i.e., emotions generally overwhelm Experiencers. We are all well aware of situations in which it is simply impossible *to stop loving someone* as in (12):

12. …I can't stop loving you… it's useless to say so I'll just live my life in dreams of yesterday… ("I can't stop loving you" Ray Charles )

The subject in (12) has clearly no control over the emotion, so does John in (11) Back again to (11), one can easily imagine a situation in which *John* does something that would have never done as in (13).

13. John decided to go to the disco with Mary though he hates dancing.

Therefore, emotions are to be analysed as uncontrollable by Experiencers[134]. Pesetky further proposes that Subj-Exp verbs as well have a causal argument, i.e., internal source of emotion, which in some languages -- i.e., Russian and French -- is expressed by means of an ambient reflexive[135;136]. Although so far I have mainly considered English Subj-Exp verbs such as *love*, I consider the the same reasoning as applicable to Italian Obj-Exp predicates as well.

Recall that the subjects of Subj-Exp and the Obj-Exp verbs hold different roles within the respective sentence and that there is a different cause and effect relationship between the event and the emotion felt by Experiencers. Let us compare the sentences in (14a) and (14b):

14.a. Artemide odia Linda.
Artemis hates Linda
*Artemis hates Linda.*
b. Artemide sta assillando tutti da molto tempo.
Artemis stays plaguing everybody from much time
*Artemis has been plaguing everybody for a very long time.*

On one hand Artemis does not have any control over the emotion -- cf. in (14a). In (14b) the situation is exactly the opposite: everybody feels plagued because of Artemis' behaviour. Hence, concerning Subj-Exp predicates, *quite simply, the ambient reflexive expresses the immediate internal source of emotion, whereas the subject of the morphological causative expresses [...] the elements that may stand at <u>any</u> point in the causal chain that leads to the emotion* (Pesetsky 1995:112).

Pesetsky here is indirectly suggesting that the subject of Obj-Exp verbs hold a θ-role similar to the one held by the internal force of nature with Subj-Exp predicates. He dubs the θ-role associated with the subject of Obj-Exp predicates *Ambient Causer* (*A-Causer*). The different kinds of cause and effect relationships

134 The proximate cause of Experiencer feelings is a force of nature that, differently from meteorological verbs, resides within the Experiencer.

135 See sec.9.4.4 on French pair *s'étonner*/*étonner* in sec. 9.4.4.

136 Although this topic will be discussed later in 9, let us just stress for the moment that, following Pesetsky (1995), I assume the causative morpheme enters the structure as a zero-morpheme and that the verb incorporates it on its way to I' (see sec. 9.2).

in (14) reflect the different kind of emotion that psych-verbs such as *odiare* (to hate) and *assillare* (to plague) entail: *active* vs *evaluative emotions*. (Pesetsky 1995:112). The difference between *active* and *evaluative emotions* relies upon the source of emotion. On the one hand, if the internal source of the emotion coincides with the Experiencer, then we are dealing with an evaluative emotion, such as those associated with *like*, *hate,* and *unaccusative appeal*. On the other hand, if the internal source of the emotion does not coincide with Experiencer, then the emotion is an active one, such as the *anger*, *surprise* and *annoyance.*
Taking this into account, I consider emotions as being the result of an inner force of nature, just like the weather, i.e., despite the appearances psych-verbs describe some kind of events, or better its effects, taking place inside the Experiencers. Consider the sentences in (15):

15.a. All'improvviso e apparentemente senza motivo, Claudia *si* intristì/rabbuiò.
At sudden and apparently without reasonClaude became sad/darkened.
*Suddenly, without any real motivation, Claudia became sad/darkened.*
b. Improvvisamente il cielo si rabbuiò e un forte vento iniziò a soffiare.
Suddenly the sky refl-darken and a strong wind started to blow.
*Suddenly the sky darkened and a strong wind started to blow.*

(15) shows that the link between meteorological verbs and psych-verbs is appropriate. Furthermore, *intristire* (to sadden) and *rabbuiare* (to darken) both describe two similar background events. Still, *Claudia* in (15a) becomes sad apparently for no reasons, nothing actually did anything to cause such emotive reaction. On the contrary, in (15b), though not visible, the darkened sky must have been caused by some natural forces. The natural force of the emotion in (15a) is internal to the individual. Therefore the only difference between (15a) and (15b) is the event location: the real world in (15b) and the Experiencer in (15a).

## 8.3 THE OBLIQUE NATURE OF EXPERIENCERS

Landau (2010), as Arad (1998), proposes that Experiencers are part of a displacement process, i.e., as either the *stuff* contained in the mental state or the container in which the mental state resides. This section mainly concerns Landau's hypothesis that *experiencers are mental locations, i.e., locative* (Landau 2010:9).

Concerning the above Landau's (2010), it has been noted that it is quite common and productive in languages such as Hebrew (cf. (16)), French and in Navajo (cf. (17)). In such languages, we find periphrastic constructions comprising an auxiliary, *be* or *have*, a mental state and an Experiencer, which can semantically be described as the location of the mental state[137]:

16. Yes be-Gil eyva gdola klapey soxney bituax.
    there-is in-Gil rancor great towards agents-of insurance
    *Gil has a great rancor toward insurance agents.*

17. Shil hóóyéé.
    with-me become fear
    *I am terrified.*

Furthermore, in Irish and Scottish Gaelic almost all Experiencers in Subj-Exp verbs are introduced by a locative preposition. Landau further notices that in such languages nominative Experiencers hardly exist; the Experiencers introduced by a locative preposition are far more common. Consider the case of the Subj-Exp verb *please* in (18):

18. Is toil leam filmichean.
    COP.Pres pleasure with-me films
    I like films/films are pleasing to me (Landau 2010:20 (Ramchand p.c.))

Landau then argues that Experiencers are associated with locations of (mental) states, as a reflex of the general linking principle in (19):

137 Although in sec.7.1 I considered psychological constructions composed by a light verb and a mental state as analytic psych-verbs, I will adopt here Landau's classification.

19. The canonical grammatical realization of location is subject or oblique.

Note that the also English exhibits a correlation between locations and Experiencers in Subj-Exp verbs as well. Speas -- cited in Landau (2010) -- note that Experiencers in English Subj-Exp verbs indicate a path, whereas the subjects of other predicates do not. Consider the behaviour of the subject in *get angry* and *laugh*:

20. a. I got angry but it went away.
    b.??I laughed but it went away. (Speas 1990: (3) in Landau 2010:21)

Landau then gives further examples from some distant languages such as Russian, Greek, Spanish in order to support the initial idea that Subj-Exp verbs select oblique subjects, as in (16)-(18). Landau (2010, sec. 2.2.2) explores the possibility that Obj-Experiencers are non-standard, or in other words that they differ syntactically from non-Experiencer objects. Landau indeed argues that *there is overwhelming crosslinguistic evidence that the accusative case on experiencer DPs in class II* (i.e., *preoccupare* 'to worry' one) *is "non-standard"; in fact, in every language that has been seriously studied, some contrasts emerge between experiencer and non-experiencer objects, that can be traced to the nature of the accusative case they bear*"(Landau 2010:39). Following Landau (2010), I therefore assume that

21. all object Experiencers are oblique (or dative), as in Landau (2010, 11a).

If (21) is correct, then accusative Experiencers pattern with (dative) indirect objects. In the next section, I shall illustrate cross-linguistic data.

## 8.3.1. CROSS-LINGUISTICALLY OBJ-EXP PREDICATES EXPERIENCERS

This section concerns data from various languages. They support the core idea of this work, i.e., that Experiencers are syntactically complex elements, introduced by PP.

8.3.1.1. SPANISH

In Spanish and relative dialects, *piacere* (to please) and *preoccupare* (to worry) verbs are morphologically alike (Franco 1990). In fact, Obj-Experiencers in some dialects are always marked as dative, although it is sometimes possible that *homophonous forms of experiencer verbs allow an alternation accusative-dative in the case marking of experiencer arguments* (Franco 1990:46). Let us focus on the dative appearing with psych-verbs similar to the Italian *preoccupare* (to worry). Consider (22):

22. Ese tipo de comentarios le$_i$ enojan a Juan$_i$.
    that type of comments cl.DAT anger to Juan
    *That type of comments anger Juan*

The Spanish psych-verb *enojar* (to anger) in (22) belongs to the *preoccupare* (to worry) class; still, contrary to Italian, it is possible to make clear Experiencer oblique nature by clitic doubling it

IRISH

In this language, Obj-Exp verbs are often expressed by means of small clauses -- as suggested to the author by J.McCloskey, p.c[138]. Consider (23):

23. Chuir sin eagla orm
    put that fear on-me
    That frightened me

Interestingly, the oblique nature of Experiencers is also clear with Irish psych-verbs. Consider Irish *distress* in (24):

24. Ghoill a bhás orm.
    distressed his death on-me
    His death distressed me

138 Emotion/psych-state plus an Experiencer introduced by a PP which is the complement of the verb *put*.

8.3.1.2. RUSSIAN

In Russian, direct objects appear with genitive case under clausemate negation, the so-called Genitive of Negation (GN) -- see Pesetsky (1982). GN clearly distinguishes structural objects from inherent ones: only the former undergo GN. Consider (25)-(26):

25.a. Ja našel tzvety/*tzvetov.
I found flowers.ACC/*GEN
'I found (the) flowers'
b. Ja ne našel tzvety/tzvetov.
I not found flowers.ACC/GEN
'I didn't find (the) flowers'

26.a. On upravljal fabrikoj/*fabriki.
he managed factory.INST/*GEN
'He managed a/the factory'
b. On ne upravljal fabrikoj/*fabriki.
he not managed factory.INST/*GEN
'He didn't manage a/the factory' (Pereltsvaig 1997, ex. 2, 1)

Russian *preoccupare* (to worry) verbs Experiencers resist GN:

27. * Ètot šum ne pobespokoil ni odnoj devočki.
that noise.NOM not bothered not one girl.GEN
That noise did not bother a single girl.

The ungrammaticality of (27) shows that the Experiencers fail to undergo GN, which indicates that Russian *preoccupare* (to worry) verbs assign Inherent Case. Landau claims that this proves the oblique nature of Experiencer in that:

28.Universally, inherent case is assigned by P.

On the bases of (19) and (28), Landau concludes that Experiencers of Russian *worry* verbs support the hypothesis in (21).

8.3.1.3. GREEK

In Greek, two diagnostics support (21): clitic doubling and relativization (Anagnostopoulou 1999). Clitic doubling is usually optional, as in (29a). Anagnostopoulou shows that with Obj-Exp predicates instead clitic doubling is obligatory. Compare *meet* and *bother* in (29):

29.a. O Jannis (tin) ghnorise tin Maria se ena party.
The John (cl.ACC) met the Mary in a party
John met (her) Mary at a party
b. Ta epipla ?*(ton) enohlun ton Petro.
the furniture ?*(cl.ACC) bothers the Peter
The furniture bothers Peter (Anagnostopoulou 1999:( 24/33))

Landau argues that cases like (29b) have the same properties of clitic doubling in Macedonian Greek. Following Dimitriadis (1999), Landau reports that in this dialect *the goal argument of ditransitives may be expressed either as a periphrastic PP or as an accusative object; in the latter case, it must be doubled by a clitic* (Landau 2010:53).
Concerning the second environment, Landau recalls that relativized direct objects in Greek cannot be resumed by a clitic pronoun. Furthermore, "shifted" dative arguments in DO constructions cannot be relativized, unless a resumptive pronoun is present:

30.a. Simbatho ton anthropo pu (*ton) sinantise o Petros.
like-1sg. the man that (*cl.ACC) met.3sg the Peter.NOM
I like the man that Peter met (*him).
b. Simbatho ton anthropo pu o Petros *(tu) edhose to vivlio
like-1sg. the man that the Peter.NOM *(cl.DAT) gave the book.
I like the man1 that Peter gave *(him1) the book.
Anagnostopoulou (1999 :(28/30))

Landau then compares (30) with the accusative Experiencers of verbs such as *puzzle*:

31. O anthropos pu *(ton) provlimatizun ta nea bike mesa.
    the man that *(cl.ACC) puzzles the news came in
    The man that the news puzzles came in. (Anagnostopoulou 1999: (31c))

Given that *relativization involves empty operator movement, which leaves a gap behind and that resumptive pronouns surface in contexts where a gap is disallowed as in P-stranding, in Greek, the fact that resumptive clitics are obligatory with both normal dative arguments and accusative experiencers supports the treatment of the latter as PPs* (Landau 2010: 56).

#### 8.3.1.4. ENGLISH

As assumed by Landau, prepositions cannot occur inside compounds. In particular, arguments that are not introduced by a preposition can form compound nouns, whereas arguments requiring overt prepositions -- cf.(33c) -- or null ones --cf. (33a) and (33b)--are excluded from compounds:

32. a. gift-giving to children / *child-giving of gifts
    b. *child-reading, *spy-telling
    c. *charity-depending, *stranger-confiding (Landau 2010:62)

Baker points out that that the explanation of (33) should be extended to object-Experiencer:

33. a. a god-fearing man, a fun-loving teenager
    b. *a man-frightening god, *a parent-appalling exploit

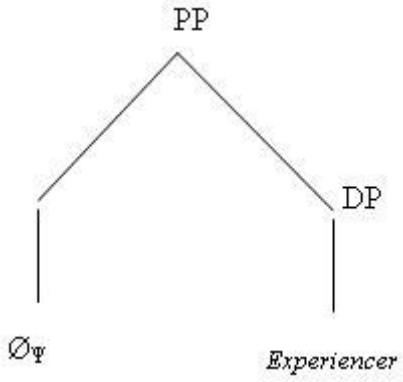
#### 8.3.1.5. INTERIM CONCLUSION

In this section, I have shown that Obj-Experiencers do not pattern with normal accusative objects and that this is due to the presence of a preposition. In fact, data shows that, even when not visible, the preposition is still there, though silent -- $Ø_{\Psi}$ in Landau's terms. Cross-linguistic data show that the difference between the Obj-Experiencers and normal direct objects is strictly syntactic.

## 8.4 ON THE LOCATIVE PREPOSITIONS IN/A

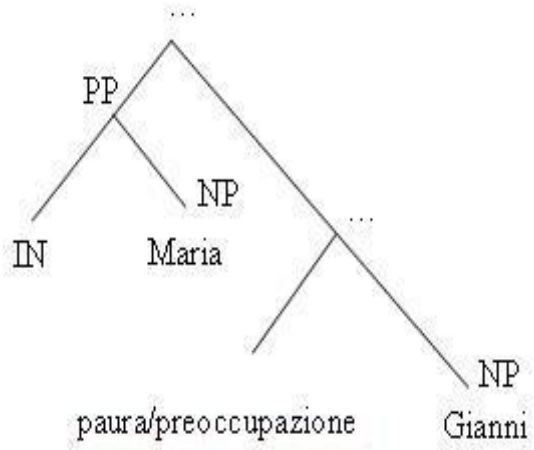
On the bases of the discussion above, a few questions follow: what is the nature of the locative preposition? What is its role within the syntactic structure of psych-vebs?
Given that the importance of Experiencers in both Conten and Container psych-verbs, I propose that locative preposition select them as its complement:

32.




Moreover, according to Landau (2010), the syntax psych-verbs is therefore the following:

33.



Recall that Landau (2010) considers Class II psych-verbs, i.e., *preoccupare* (to worry) class, as *transitive verbs projecting a light v, an external argument, a causer and an Experiencer introduced by a null preposition* ($Ø_{\Psi}$) (Landau 2010:7).

## 8.4.1. ON THE NATURE OF THE LOCATIVE PREPOSITION

Although at CS the locative relation between Experiencers and psych-states requires the locative operator AT, in Italian that preposition can be phonetically realized in two possible ways at PF -- i.e., *in* and *a*. Consider again (3), here in (34), and the Italian equivalent (35).

34. a. X frightens y.
    b. [$CS^{+}$ ([X]$^{a}$, [INCH [BE ([FEAR ([α])], [**AT**[Y]])]])]
    c. X causes fear of X to come to be **in** Y.

35. a. X allarma y.
    b. [$CS^{+}$ ([X]$^{a}$, [INCH [BE ([ALLARME ([α])], [**AT**[Y]])]])]
    c. X mette allarme per X **in** Y.

Note that in (34c)-(35c), the preposition differ from the corresponding locative operator present at CS. The phenomenon showed in (35) is far from being an isolated case[139]. Note further that all psychological CSes have the same semantic functional element AT -- in this respect, recall Jackendoff conceptual analysis of psych-verbs in (3). Compare (36) and (35) for instance:

36. a. [$CS^{+}$ ([X]$^{a}$, [INCH [BE ([PREOCCUPAZIONE ([α])], [**AT**[Y]])]])]
    b. X causa X preoccupazione di X essere **in** Y.
       X causes X worries of X to be in Y

Let us analyse how the AT is read off in different psych-constructions:

139 Furthermore, note that the prepositional selection may vary within the same verb -- for instance correre (to run) can select either a (at) or per (through) -- and that semantically similar verbs select different prepositions, as andare a (to go to) and passare per (to pass by).

37.a. [$CS^{+}$ ([X]$^{a}$, [INCH [BE ([PAURA ([α])], [**AT**[Y]])]])]
b. X mette paura di X **a** Y
X puts fear of X into Y

In (37a), the semantic relation between Experiencer and psych-states has been established through AT as in (36a). Nevertheless, the actual preposition in (37b), however, is different from the one in (36b). Let us consider some analytic psych-constructions:

38.a. Giovanni ha messo in allarme tutti noi
John has put in alarm all of us
b. C'è preoccupazione in tutti per la situazione in Siria.
There is anxiety in all of us for the situation in Siria
c. Paolo ha messo paura a tutti noi.
Paul has put fear to all of us

Note that the preposition overtly replacing the operator AT can be either *a* or *in*. Moreover, note that the preposition *a* in (38c) can be replaced by *in*. In particular, even though the final result is marginal, the sentence is still acceptable:

39. Contro di noi circola tanto materiale che mira a mettere paura nella gente.
against of us circulates much material that aims at put fear into people

Based on the data above, I propose that psych-verbs select only one abstract preposition, as the locative operator AT in all psych-verbs CSes (cf. (47) below). Given that, why are locative prepositions in SS not always the same then? I will show that the selection of the locative preposition depends on the nature of the Experiencers. In the coming section, I will also show that locative prepositions are syntactically active and govern the Experiencer. In particular, according to Landau, I assume that

40. object Experiencer are always oblique, only this is not visible in all languages. (Landau 2010:37).

I claim then that there is a one-to-one ratio between the universal locative operator AT and the relative locative preposition present in the analytic psych-constructions. I will show in the next section that the actual locative prepositions present in such constructions do not depend on light verbs.

## 8.4.2. ON N-RAISING AND NAMES of PLACES

Recall that Italian psych-verbs are all derived verbs, and that they seem to incorporate different locative prefixes (*impaurire* >in+paura vs *addolorare*>a+dolore). A similar variation is found in other contexts as well. As shown in Longobardi (1987, 1997), in some specific contexts the locative prepositions *in* and *a* are in a complementary distribution:

41.a. Gianni è a casa.
Gianni is at home
b. Gianni è in casa.
Gianni is in home/house (Longobardi 1997: (8))

Although such locative prepositions are similar, they do not semantically overlap, in that they imply subtly different interpretations of the sentences in (42) (Longobardi, 1997:524). On the other hand, there are contexts in which these two locative prepositions are not in complementary distribution, and only one of them is acceptable. In (42), the verb selects either *a* or *in*,:

42.a. Vivo/Vado *a/in Francia.
live/go to/in France
b. Vivo/Vado a/*in Roma.
live/go to/in Rome
c. Vivo/Vado a/*in Maiorca.
live/go to/in Majorca (Longobardi 1987:215)

Longobardi (1987) introduces Rizzi's (1988) hypothesis concerning this contrast. Following Rizzi, *richiedono* a *i luoghi concepibili come puntiformi nella rappresentazione mentale che ci facciamo delle entita' geografiche* (Rizzi

1988)[140]. Longobardi claims that this contrast shows up in other semantic contexts too, for instance with holiday names such as *Natale* (Christmas) *autunno* (Fall) and so on:

43.a. a/*in Natale/Pasqua/Ferragosto/Capodanno
in Christmas/Easter/mid-August/New Year's day
b. *a/in autunno/inverno/estate
in Autumn/Winter/Summer
c. a/in gennaio/febbraio etc
in January/February (Longobardi 1987:216/217)

Contra Rizzi (1988) and Renzi (1988), Longobardi shows that this selection does not depend on the actual dimension of the geographical entity[141]:

44.a. Sono stato in/*a Corsica (8'680 $m^2$).
*I have been in Corsica.*
b. Sono stato *in/a Cipro (9'250 $m^2$).
*I have been in Cipro.*

The sentences in (44) show that selection the of the locative preposition do not depend on the actual size of the geographical noun governed by the preposition. . Longobardi (1997) claims that *a way of capturing the special properties of [the locative preposition in and a] is claiming that [in] c-selects (in Pesetsky 1982 terms) its compliment ambiguously: it would select as a complement a full DP or a simple NP. A seems, instead, to regularly c-selects only DP as its complements* (Longobardi 1997:526). Returning to proper place names, as in (45), Longobardi notes that they are exactly those raising to D, when in argument position:

45. Roma/Parigi/Capri è sempre un posto affascinante.
Rome/Paris/Capri is always a fascinating place. (Longobardi 1997: (16))

140 'The locative preposition *a* selects geographical names conceptualized in the cultural tradition as point'

141 In this respect, Longobardi claims that the locative preposition *a* selects zero- or one-dimensional entities, whereas *in* selects bi- or tri-dimensional entities

Longobardi (1997) shows that a few classes of singular nouns can indeed move leftward from N to D, excluding then the presence of any determiner. This in turn means that many nominal phrases are actually DPs rather than NPs -- see Szabolcsi (1981), Brame (1982) Abney (1987) -- as in *il mio Gianni* (the my Gianni) vs *Gianni mio* (my Gianni). The most salient of these classes is represented by a subset of proper names, although it also extends to a subset of kinship names and to the word *casa* (home). Consequently, the choice of the preposition governing *casa* in (41) is not arbitrary: the complement of *a* in (41a) is embedded in a DP; on the contrary, the complement of *in* in (41b) is a simple NP.
Although all sorts of common nouns can be embedded without an article in phrases headed by the preposition *in*, this is not possible with the preposition *a*.

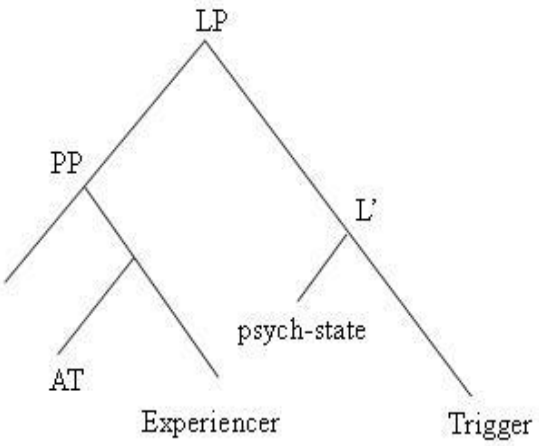
46. Gianni è in/*a giardino/treno/ufficio.
    Gianni is in/at garden/train/office

Given this, I claim that the apparent mismatch in (36)-(37) is not arbitrary either. FollowingLongobardi's hypothesis that *in* and *a* select different kind complements, I extend it to the apparent mismatch found in (37-38). Before doing that, a further step is needed.

#### 8.4.2.1. DIFFERENT EXPERIENCERS = DIFFERENT LOCATIVE PREPOSITIONS

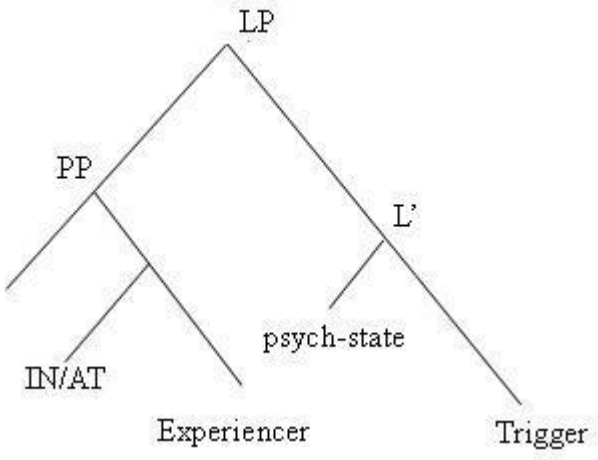
Consider the following structure:

47.




Recall the discussion earlier in this section concerning the nature of locative element selecting the Experiencer, i.e., that although at CS is always AT it can be realised in two ways. Taking this into account, I propose that the locative operator AT reflects is an abstract preposition at SS (cf. (47)). In (48) instead, a first approximation of the psych-verbs structure including the two possible realization of the locative operator AT -- i.e., *in* or *a* -- follows:

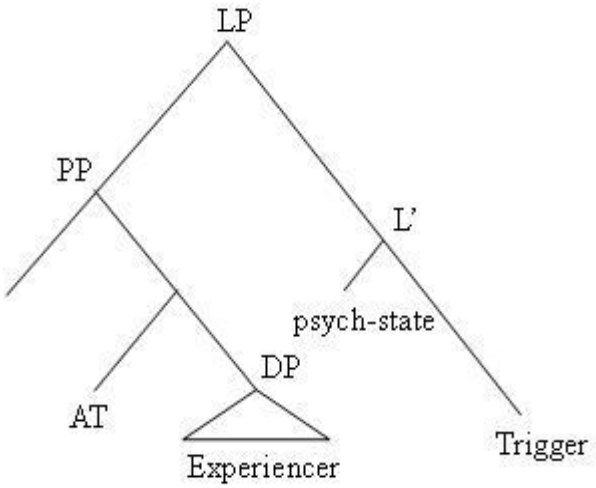
48.



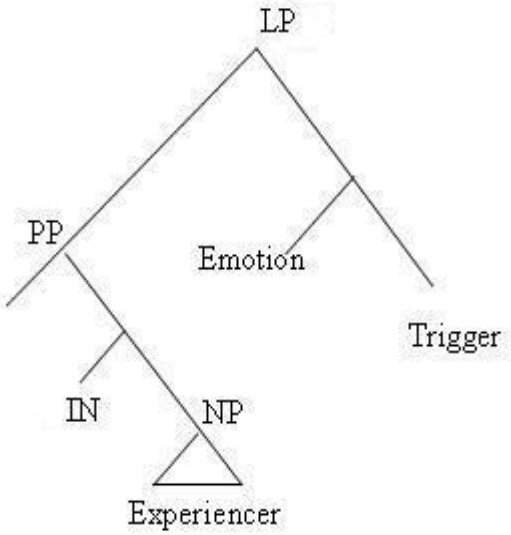

In what follows, an account of (48) will be given. Following Longobardi (1997) above, I propose that two possible Experiencers can enter the psych-verb syntactic

structure -- i.e., either a simple NP Experiencer or a DP Experiencer. I will show that we will have different syntactic derivation depending on the categorial status of the Experiencer. Based on the above assumptions, I propose that (48) must be broaden. In particular, the Experiencer in (48) should be either an NP or a DP. Let us provide the revised structures:

49. a.



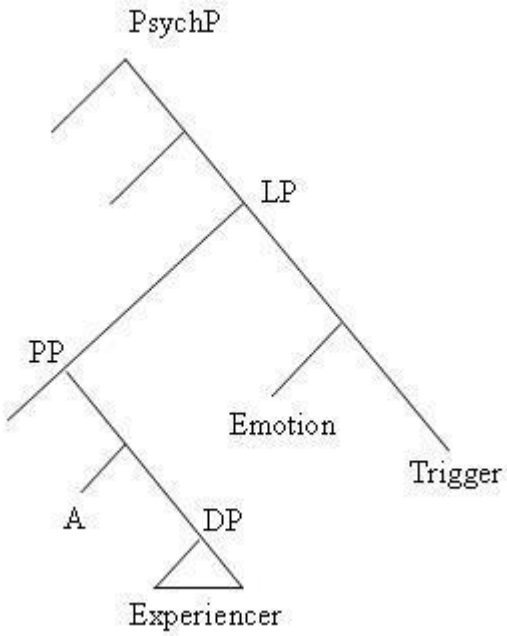

b.




Following Longobardi (1997), I propose that the preposition reflects the structure in which Experiencer is embedded: an NP as in (49a) or a DP as in (49b).

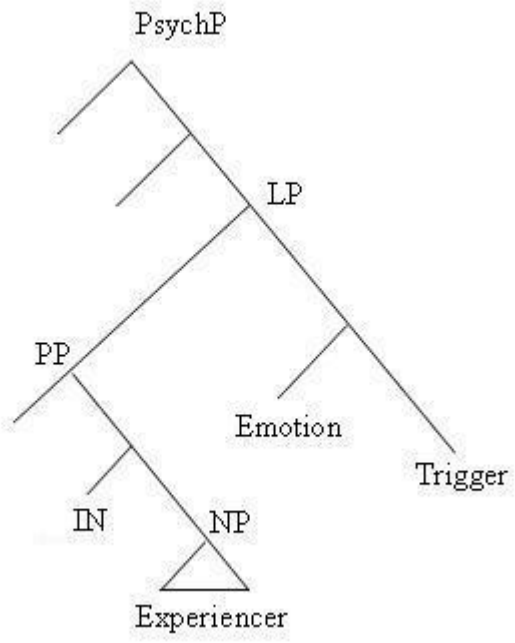
To sum up: psych-verbs -- especially analytic *preoccupare* (to worry) verbs -- express a locative relation between Experiencers and a mental state; the semantics of Obj-Exp verbs reflects their syntactic structure; the only difference between *temere* (to fear) and *preoccupare* (to worry) verbs is the grammatical role hold by their Experiencers. As for this last point, recall that in precedence I proposed that Subj-Exp and Obj-Exp share the same syntactic structure, but for the presence/absence of a functional projection, dubbed PsychP (Psychological Phrase)[142]. In 13, I will show in fact that Subj-Exp vs Obj-Exp distinction is syntactically driven. In (50), a more detailed syntactic representation including PsychP is given:

50. a.




142 The nature of PsychP will be discussed more in details in 12.1

b.




I will discuss the nature of PsychP more in details in sec. 10.2. For the moment, let us just note that in the present work such a projection will account for two phenomena: the different word order between Subj-Exp and Obj-Exp verbs and the locative relation between Experiencers and Emotions expressed by such verbs.

### 8.4.3. ON THE NULL PREPOSITION

Let us focus on the apparent mismatch between the preposition incorporated in synthetic psych-verbs and the locative preposition present in their analytical counterparts.

Recall the different locative preposition selected by light verbs and the hypothesis that all non-subject locatives are normally introduced by a locative preposition (Landau 2010:9). Taking these into accounts, I propose that the locative operator AT at CS introduced earlier reflected by a null preposition as SS. I claim that depending on the syntactic derivation and the categorial status of the Experiencer, the null preposition will be spelt out in different ways. This shall account for the mismatches between the prepositions selected by light verbs and the affixed ones. The absence of the locative preposition with psych-verbs such as *preoccupare* (to

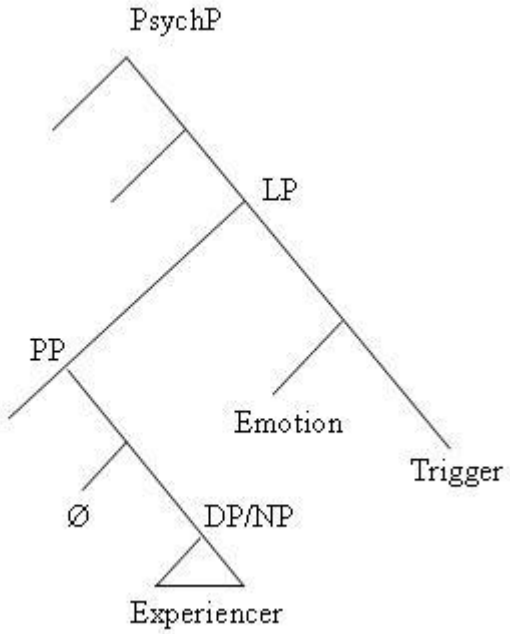
worry) follows as well. Following Landau, I therefore propose that the locative preposition selected by psych-verbs -- i.e., present in the corresponding Numeration -- is neither *a* nor *in* but the null preposition Ø ($Ø_{\Psi}$ in Landau 2010). Depending on the conflation process, which is concomitant to Merge, it can be realized as *a*, *in* or covertly. An empirical argument in favour of this idea comes from the selection of prepositions with traditional transitive verbs such as *andare* (to go) *mangiare* (to eat). In particular, both *a* (to) and *da* (to) can follow *andare* (to go). Consider the following examples in (51) and (52):

51. a. Sebastiano stasera va al cinema.
    *Tonight, Sebastiano goes to the cinema*
    b. Sebastiano stasera va da Rita.
    *Tonight, Sebastiano is going to visit Rita.*

52. a. Giulia mangia sempre a casa da solo.
    *Julia always eats at home alone.*
    b. Giulia mangia sempre dalla mamma
    *Julia always eats at his mother's.*

In both (51a-b), the inherent meaning of the motion verb *andare* (to go) does not change, suggesting that the preposition mismatch does not depend on it. Thence, the specific selection is due to the following complement, similarly to Longobardi (1997:528).
Taking this into account, a further of revision of (50) is needed:

53.




The syntactic representation in (53) differs from the previous ones only with respect to P. Again, the nature of its complement influence its spell-out. Recall that the null preposition has the same value as the locative operator AT at CS. Once all the basic psych-elements have merged in LP, i.e., in Comp,PsychP, they need to move out of it.

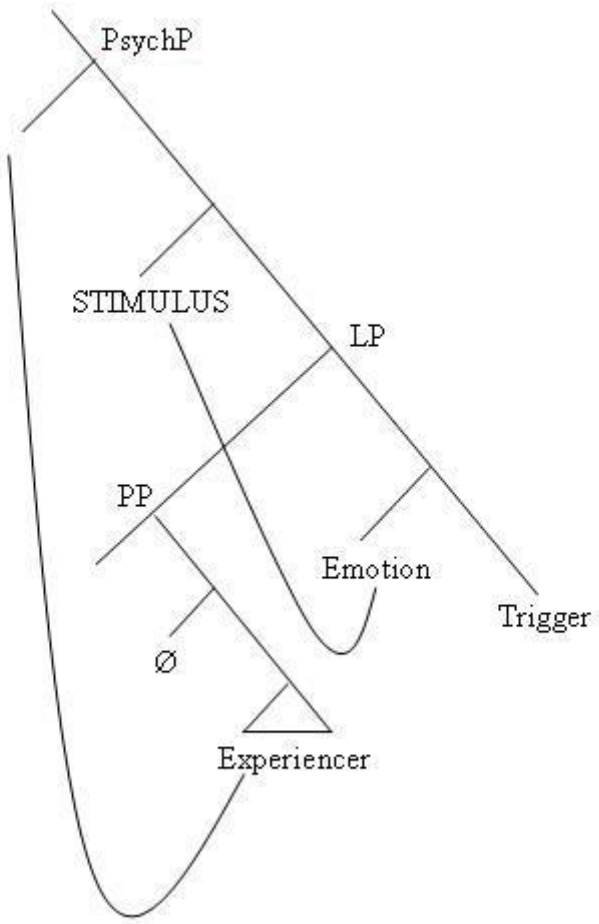
## 8.5 INTERIM CONCLUSION

In this section, starting from the cross-linguistic observations by Landau (2010), I have shown that all Obj-Experiencers are merged as complements of a P. Moreover, contrary to B&R, Experiencers have been analyzed as being in the Specifier of LP. A possible account for the mismatch in prepositional selection of some light verbs and psych-verbs has been given. In particular, following Longobardi (1997), I proposed that this contrast is due to the difference in the categorial status of the complement. Let us show how the different categorial status of Experiencers influence the syntactic derivation of psych-verbs.

To sum up, so far I proposed that Obj-Exp verbs derive from analytic psych-constructions, which describe the relation between the Experiencers and the emotion, triggered by a third element. Moreover, in this section, I have pointed out that Obj-Exp verbs differ from Subj-Exp ones only for the presence of a particular functional projection, which I called PsychP. In my framework, Psych° triggers movement of both Experiencers and Emotions/psych-states, due to the presence of the STIMULUS zero-morpheme, which is contained in all Obj-Exp verbs (see ch.9)

STIMULUS in Psych° has both a semantic and a functional role; in fact, the causal meaning of all psych-verbs and the relation between Experiencers and mental states is a consequence of the presence of such functional projection. Recall that, following (Pesetsky 1995), I proposed that psych-verbs contain a causative zero-morpheme, dubbed STIMULUS (see sec. 9.2), and that this zero-morpheme triggers the movement of the elements merged in the functional projetion LP, as in (54):

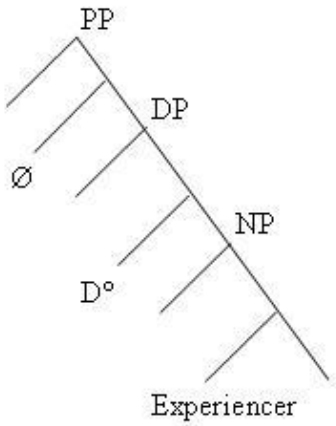
54.



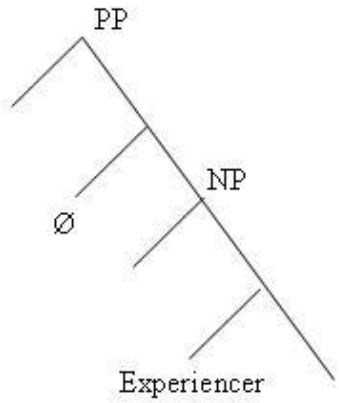

I propose that the presence of STIMULUS triggers the movement of the phrase expressing the mental state and of the Experiencer to Psych° and Spec,PscyhP respectively. Recall that Experiencers can either be a simple NP or be embedded inside a DP. In (55), the different PP syntactic structure containing the Experiencer is provided.

55.

a.

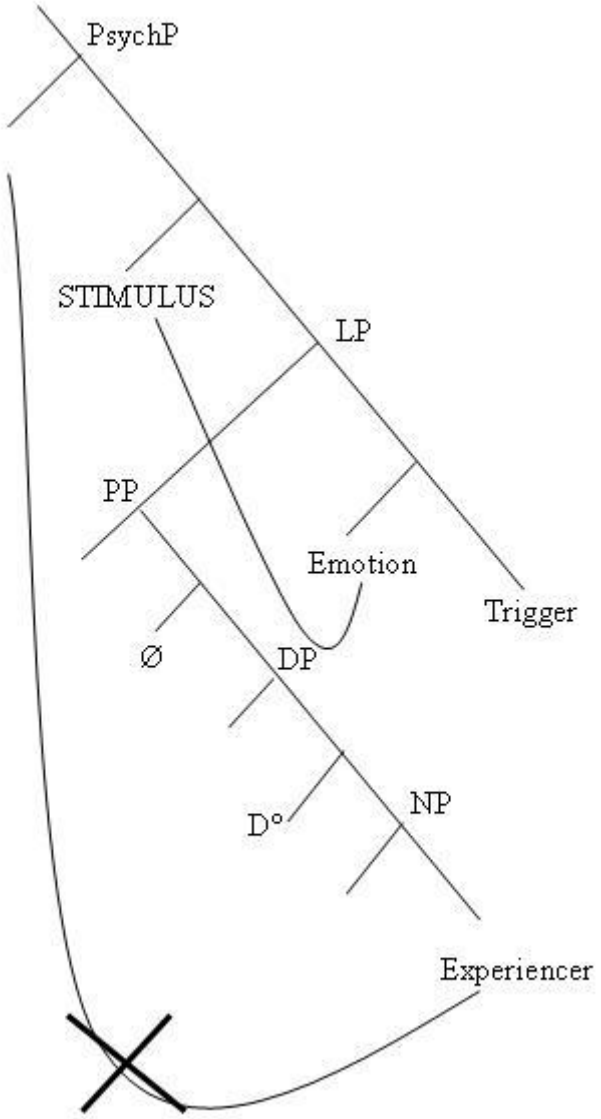



b.




Given the presence of STIMULUS in all *preoccupare* verbs, I claim that Experiencers have to move out both in (55a) and (55b). Nevertheless, the presence of D° in (55a) blocks the raising of the Experiencer to Spec PsychP. Recall that in Longobardi (1997) the different PP structure also has consequences on the final PF status of the locative preposition: *a* or *in* with a full DP, as in (55a); *in* with a bare NP, as in (55b). Hence, the presence of D° forces the Experiencer to be stuck in its original position. Therefore,, the relations that STIMULUS can trigger are two. In some cases the movement of Experiencers would violate the Head Movement Constraint (HMC), as shown in (56):

56.




In (56), the movement of the Experiencer is blocked by D°. On the other hand, when Experiencers merge with locative prepositions as simple NP complements, then nothing prevents them from moving to Spec PsychP, as in (54).
Taking these into accounts, a first account for the Container vs. Content (see sec.7.2) can be given. In this respect, recall the different semantics entailed by the analytic counterparts of verbs such as *preoccupare* (to worry) and *allarmare* (to alarm):

57.a.C'è preoccupazione in/*a paese dopo ciò che è successo ieri.

All the people in the village are anxious due to what happened yesterday

b. La sirena ha messo tutti in/*a allarme.
The siren alarmed everybody.

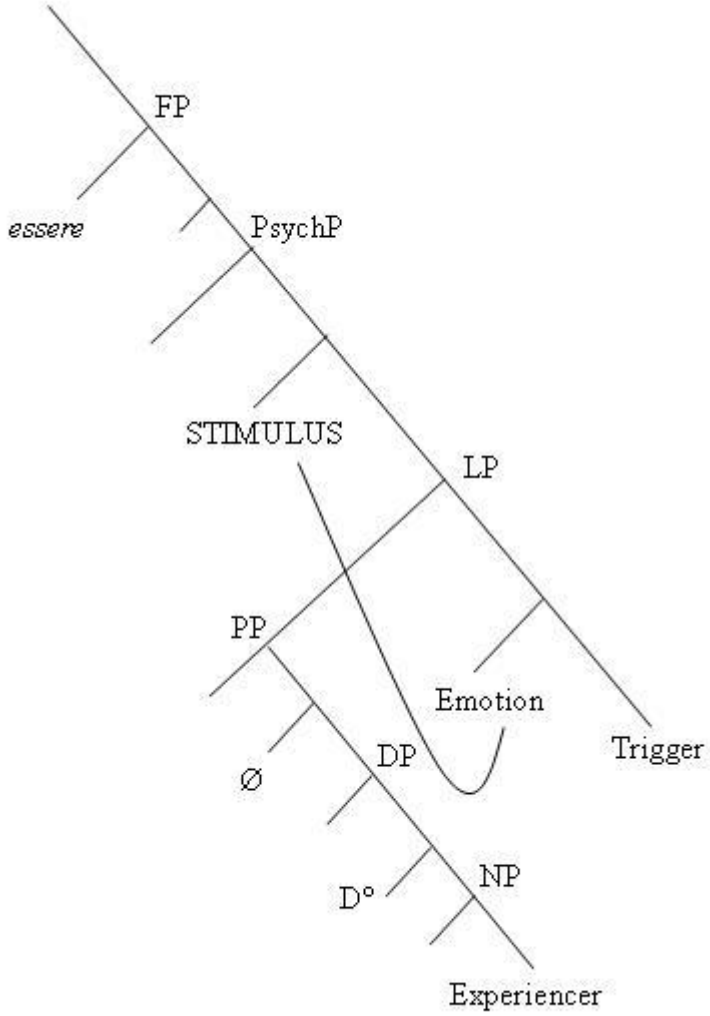
I argue that the different semantics of such verbs relies upon the different categorial status of the Experiencers. In fact, it is possible to force *preoccupare* (to worry) and *allarmare* (to alarm) to appear in an analytic form too, though the result is slightly marginal. Consider (58):

58.a. ?Luca dà sempre tanta preoccupazione ai/*nei suoi genitori.
Luke always makes his parent anxious

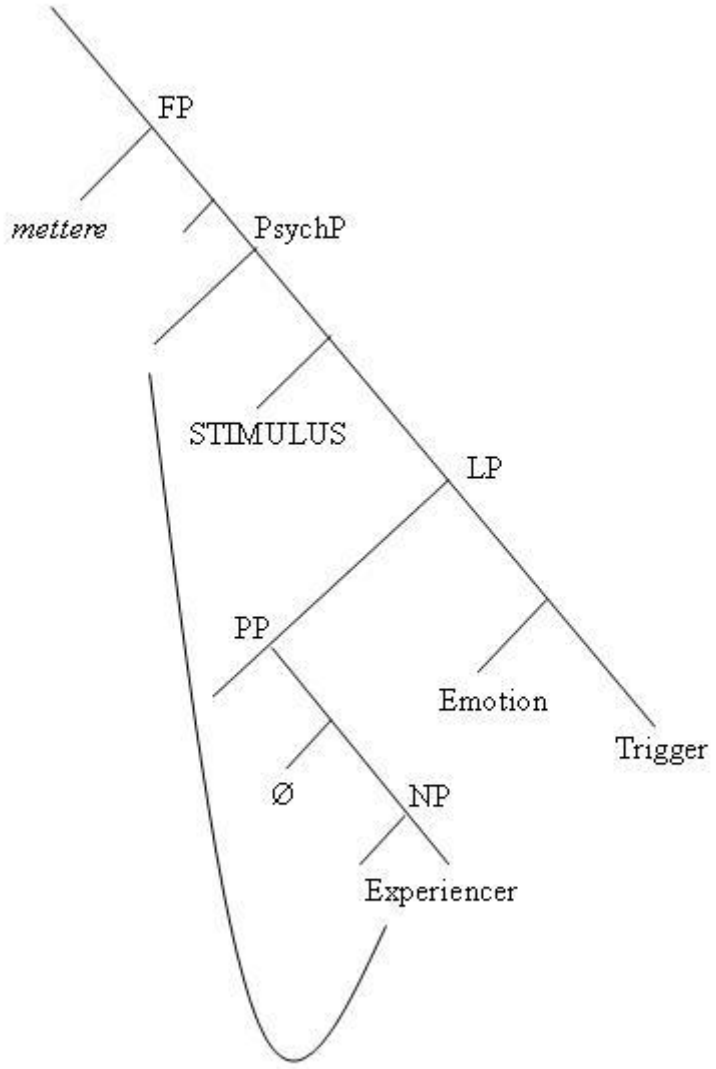
b. C'è allarme ?in/*a tutti noi dopo quello che è successo.
Everybody is alarmed after what's happened

Note that the contrast between the locative *a* and *in* in (57) and (58) might have the same origin too. Let us suppose now that both *mettere* and *essere* occupy a position higher than PsychP, which I temporarily call FP. I claim that the structures of the above analytic counterparts of *preoccupare* and *allarmare* -- i.e., (57a) and (57b) respectively -- depend on the categorial status of the Experiencer. Consider the following syntactic representations:

59. a. C'è preoccupazione in paese dopo ciò che è successo ieri.



b. La sirena ha messo tutti in allarme.




Note that (59a) shows that the CONTENT nature of *preoccupare* (to worry) is syntactically driven. In fact, the Experiencer (*paese* 'village') cannot move out of PP because of its categorial status, i.e., it governed by D°.

# CHAPTER 9
# THE CAUSAL NATURE OF THE TRIGGER

So far, mainly psych-verbs and Experiencers have been analysed. In this section I will provide a deeper analysis of the element triggering the emotion. In the literature, psych-verbs are commonly analysed as inherently causative verbs, and nouns of emotions are causative. Above I also showed that the CS of psych-verbs include a predicate CAUSE, whereas emotion-nominals do not.I propose that this causative element is higher in the syntactic representation than in Pesetsky (1995). Recall that above I introduced the STIMULUS zero-morpheme.
Here, following Pesetsky (1995) and Kenny (1963), I will show that although psych-verbs always have a causative component, the Trigger of the emotion is not always the same role within the predicates.

## 9.1 ON CAUSATIVITY

The term *causative* refers to the idea that actions are either intentional -- as in (1a) -- or forced by a third element -- as in (1b):

1. a. Marco mangia la mela.
   *Marco eats the apple*.
   b. Giulia fa mangiare la mela a Marco.
   Giulia makes eat the apple to Marco
   *Giula made Marco eat the apple.*

Cross-linguistically, there are various ways to express causation. In Italian, as in English (2a-b), causativization is not a morphologically visible process:

2. a. They walk.
   b. Shila walked them.
   c. Michael went to school early this morning.
   d. John made Michael go to school earlier this morning.

As the data in (1-2) illustrate, causative constructions involve an additional argument that is interpreted as a causer of the event described by the predicate. The causer holds the subject role. Reinhart (2002) proposes that the lexical operation of causativization is decomposed into two parts. The following formulation is from Horvath & Siloni (to appear) (H&S):

3. **Causativizationin the lexicon**:
   Add an agent ([+c+m]) role:
   V< α > →CAUS< [+c+], α > ((H&S):(39))

In some languages, such as Chichewa contrary to both English and Italian, (Guasti 1997), this process is morphologically visible. For instance,(4b) it is the causative verb, i.e., a root, combined with a bound morpheme that expresses causativity (see Comrie 1985):

4. a. Mtsuko u-na-gw-a.
      Waterpot AGRSubj-PAST-fall-ASP
      *The waterpot fell*
   b. Mtsikana a-na-u-gw-ets-a mtsuko.
      girl AGRSubj-PAST-AGRObj-fall-CAUS-ASP waterpot
      *The girl made the waterpot fall.* (Baker 1988:10-11)

Note that in Chichewa the affix-nature of the morpheme CAUS does not force the language to introduce a second predicate, hence no light verbs are needed to derive a causative. In general, causatives of the types found in Italian and in English are called *analytic causatives*, whereas those of Chichewa are called *synthetic* ones.
In Hungarian, similarly to Finnish and Japanese, there is a fully productive causative derivation. Horvath and Siloni (to appear) show that the causative alternation is formed by means of a uniform suffix –tVt, whereV stands for either *a* or *e*:

5. Az edzö ugrál-tat-ja Mari-t.
   the coach-NOM jump-CAUSE-PRES.DEF.DO Mari ACC
   *The coach makes Mary jump.*

The authors also claim that the causative alternation is clearly distinguishable from the transitive/unaccusative alternation because causative verbs uniformly assign an Agent theta role (6a), whereas transitive verbs assign a Cause theta role, as in (6b):

6. a. Az edzö/*az öröm ugrál-tat-ja Mari-t
the coach/the joy-NOM jump-CAUSE-PRES.DEF.DO Mari ACC
*The coach/The joy makes Mary jump.*
b. Mari/A meleg levegö meg-olv-aszt-ott-a a jeg-et.
Mary/The warm air-NOM PERF-melt-TRANS-PAST-DEF.DO the ice-ACC
*Mary/The warm air melted the ice.*

Note that the English equivalent of the Hungarian causative morpheme –(*t*)*ate*/–(*t*)*et*, *make*, is not just a functional element but rather a lexical verb that can be used alone as in *Mary makes cake everyday*. The causative morpheme in (6) instead is selected by the verb[143]. Note also that in Hungarian not every predicate undergo causativization as in (5). Hungarian causative morphemes are then purely functional elements[144].
As argued in 8.2, Italian psych-verbs too entail some kind of a cause and effect relationship. Consider (7):

7. a. Mario preoccupa sempre tanto i suoi genitori.
Mario worries always a lot his parents
*Mario's parents are always concerned about Mario.*
b. La *preoccupazione* dei genitori di Mario **per** i suoi voti è grandissima.
The anxiety of the parents of Mario for the his grades is very big.
*Mario's parents are seriously concerned about Mario's school marks.*

I argue that Italian psych-verbs also include a causative element within their syntactic structure. The fact the it morphologically shows up only in certain languages depends on languages-internal constraints. Yet, I will show that in

143 In Japanese the causative morpheme –*(*s)*ase* is generally translated as 'make' too.

144 See fn. 8 in H&S.

certain cases the causative nature of the psych-verbs shows up in Italian and English as well. I will further check the analysis introduced by Grimshaw (1990) and Pesetsky (1995) concerning the thematic role of the subject in Obj-Exp verbs[145].

## 9.2 ON THE CAUSATIVE NATURE OF PSYCH-VERBS

Grimshaw (1990) and Pesetsky (1995) propose that psych-verbs causativity has something to do with the problematic argument realization of Experiencers in Obj-Exp verbs. The core of both analyses is that the different superficial word-order is thematically driven, only Obj-Exp verbs entail causativity. Consider (8):

8. a. He fears you so much.
   b. He is frightening him so much.

In (8a), the subject is not causing anything to himself, nor to the object of the psych-verb. On the contrary, in (8b) the subject is causing some feeling to its object. Both authors claim that the different syntactic derivation of Obj-Exp and Subj-Exp verbs is related to causativity. In fact, according to them, the causative semantics of Obj-Exp verbs implies a complex internal structure. I share this view -- see also Chomsky (1970), Rappaport (1983), and Iwata (1991, 1995) – as I will show in the next sections.
Concerning Obj-Exp inherent causativity, note that, causal adjuncts can occur with psych-verbs and are restricted to causative verbs. Consider the following examples:

9. a. The book surprised John by its content.
   b. John killed Bill by his foolish actions (Grimshaw 1990:23)

In the next sections, in addition to Italian, I will consider also Finnish, Japanese, and Hungarian.

145 Recall that, following Pesetsky (1995) and Grimshaw (1990), Obj-Exp verbs select a Causer rather than a Theme as their external argument.

## 9.2.1. CAUSATIVITY IN PSYCH-VERBS

If psych-constructions are causative, then a Causer theta-role should be assigned to the subject of all Obj-Exp verbs. Furthermore, given that normally in causative constructions Causers appear as an additional argument, psych-verbs Causer should co-occur with the subject, which should appear in the next highest available position[146].

Although they do have a causative semantics, psych-verbs cannot be considered truly causative verbs. Contrary to Pesetsky (1995), the subject of Obj-Exp verbs has not always been analysed as a Causer. According to B&R, Obj-Exp assign a Theme theta-role to their subjects, whereas, according to Bouchard (1995), a Trigger theta-role is assigned. For reasons that will become clearer as we proceed with the analysis, I will adopt Bouchard's definition. For the moment let us note that it does not seems appropriate to consider *il gelato* (the ice-cream) in (10) as a Causer:

10. Il gelato piace a Mario
    Ice-cream pleases Mario

As for the second point, psych-constructions do not contain an embedded sentence, therefore the only available subject is the one selected by the relative psych-verb.

Let us go back to psych-verbs syntax. The fact that Triggers can be either the subject or the object of the psych-verb, poses a serious problem for the Universal Theta Assignment Hypothesis (UTAH) (Baker 1988). Recall that UTAH predicts a strict correlation between theta-roles and their position in the syntactic structure. The argument realization of psych-verbs is therefore puzzling for the UTAH, as for any theory that maintains a fixed mapping between thematic roles and argument positions in the syntactic structure.

It has often been noted that the same syntactic position can be filled by elements realizing different thematic roles and that Experiencers can be realized either as

146 The syntactic position hierarchy is as follows:

Subject>direct object>indirect object>other oblique constituent (Comrie 1976:263).

the grammatical subject or as the grammatical object[147;148]. Why is this so? Recall that Grimshaw (1990) and Pesetsky (1995) have argued that the problematic argument realization of Obj-Exp verbs is due to their inherent causative semantics. On the other hand, Subj-Exp verbs do not entail any kind of causative semantics, nor do they assign any Causer-like theta-role (see sec. 4.6 above), just like non-causative verbs. Furthermore, they assume that the argument realization is hierarchically driven both in Obj-Exp and in Subj-Exp verbs. According to them, the subject grammatical role assigned to the highest theta role will be mapped onto the highest syntactic position in its clause[149]. Yet, their analyses does not account for Italian, unless a revised version is adopted. According to B&R both Obj-Exp subclasses should entail the same kind of causative semantics, but this is not correct. As I showed in (10), *piacere* (to please) verbs clearly do not assign a Causer theta-role to their subjects. Furthermore, while *preoccupare* (to worry) verbs have analytic causative counterparts, this is not the case for *piacere* (to please) verbs, unless a more radical agentive context is forced. Consider the following examples:

11. a. Gianni preoccupa molto i suoi genitori.
    Gianni worries very much his parents.
    b. Gianni ha fatto preoccupare tutti con la sua e-mail.
    Everyone got worried after Gianni's e-mail.

12. a. La verdura cotta piace molto ai bambini piccoli.
    All the kids like steamed vegetables.
    b. ?*La signora Maria ha fatto piacere la verdura a tutti i suoi figli.
    Mrs Mary made all her children like vegetables.

147 Concerning their external argument positions, change of state predicates can license volitional agents, instruments, or causers.

148 Note that the Theme in psychological predicates always entails the notion of an *effector* (Van Valin and Wilkinson 1996), *abstract causer*/*initiator* in Ramchand (2003), regardless of its final argumental position.

149 Causer>Experiencer>Target/Subject Matter (Pesetsky 1995).

Considering (10)-(11)-(12), I think that the causative analysis proposed by Pesetsky (1995) for Obj-Exp verbs should either be revised or proposed only for *preoccupare* (to worry) verbs. In the next sections, I will show that while it is generically true that all Obj-Exp verbs have a deep causative semantics, they involve a different degree of causativity. Moreover, the different degree of causativity reflects a different structural complexity. Note in fact that Obj-Exp verbs are aspectually stative, as suggested in Grimshaw (1990) and Pesetsky (1995). Generally, causative events entail two subevents: a process and a change of state[150]. This in turn means that all causative verbs, Obj-Exp verbs included, should have a more complex internal structure with respect to normal stative verbs.

Given that *temere* (to fear) verbs can beconsidered stative and that they are not inherently causative (see sec. 4.2), I propose that Obj-Exp verbs have a more complex syntactic structure with respect to Subj-Exp ones. I further consider such differences as patterning with the different causative semantics showed by Subj-Exp and Obj-Exp verbs. Moreover, I claim that it is the CAUSE morpheme that makes Subj-Exp and Obj-Exp differ sharply[151]. In other words, I propose that all psych-verbs have the same syntactic structure, and that they only differ for the presence vs. absence of a causative morpheme. According to Pesetsky (1995), the presence of such a morpheme prevents Experiencers from moving to SpecIP. If this is the case, then all psych-predicates select an Experiencer as their external argument. Second, object position of Experiencers is related to the presence of the causative morpheme. Third, Subj-Exp and Obj-Exp are morpho-syntactically different. Fourth, contrary to Pesetsky (1995), the causative morpheme is part of the syntactic structure of Obj-Exp verbs, as can be seen with analytic constructions -- recall the CSes in ch.8.

Finally, note that psych-verb causativity is different from the causativity of prototypical transitive verbs like *break* and *hurt*. Psych-verb causative constructions are closer to the final/resultant state -- i.e., the emotion felt by the Experiencer -- than to the causative process itself. Following Bouchard (1995), I

150 Pylkannen claims that while Obj-Exp verbs are morphologically causative, they exhibit all the aspectual properties of stative verbs, just like their non causative Experiencer-subject counterparts (Pylkannen 2000:417).

151 Although causative morphemes are not immediately visible in many languages (cf.(1)-(2)), I will show that the causative morpheme do enter Obj-Exp verbs syntactic structure, thence the Subj-Exp vs Obj-Exp distinction.

will consider the subjects of psych-verbs as the *Trigger* of the emotion rather than real Causers. Note that the Trigger can be either an animate or an inanimate element. The impossibility for psych-verbs to be modified by manner adverbials supports this view. As noted in Iwata (1995) -- on the basis of Lee 1971-- when this seems to be contradicted, it is because the specific adverbial has been reinterpreted. Consider the following examples:

13. a. The cavern frightened Mary horribly.
    b. The cavern gave Mary a horrible fright. (Iwata, 1995: (23-24))

(13b) shows that *horribly* does not indicate the manner of the action performed by the *cavern* but the degree of Mary's fright. I will show later on that the different degree of intentionality is morpho-syntactically driven.

To sum up, based on the data and analysis given so far, I proposed that the CAUSE morpheme introduced by Pesetsky (1995) collapses different kinds of causative theta-roles. I claim in fact that it should be subdivided into at least two subcategories. Recall Pesetky (1995)'s revisions of B&R's notion of Theme:

14. The label Theme as applied to the non-Experincer incorrectly lumps together a number of distint θ-roles. Once these θ-roles are distinguished, the problem for the U(T)AH disappears" (Pesetsky 1995: 21).

Starting from (14), I claim that psych-verbs such as *impaurire* (to frighten) or *rincretinire* (to make sb. dumb) obligatorily include three arguments: an emotion, an Experiencer, and a Subject of Emotion that can be either a Causer or a Stimulus of the Emotion. Moreover, both CAUSER and STIMULUS are assigned by the psych-verbs after having incorporated the relative causative zero-morpheme. Recall that in the previous section, I proposed that the presence of the functional projection PsychP is due to a STIMULUS zero-morpheme. Given the semantic difference between a CAUSE and a STIMULUS, I propose that the corresponding causative zero-morphemes occupy different positions within the syntactic structure. As a consequence, it follows that both zero-morphemes should be present in the structure given the *Thematic Diversity* principle in Pesetksy (1995). This in turn means that psych-verbs can incorporate both of them during

the syntactic derivation. I will show that an element that has incorporated the CAUSE morpheme has previously incorporated the STIMULUS one, but the opposite is not possible: a psych-state causer is also the stimulus of such emotion, whereas the contrary is not necessarily true. Notice in fact, that nothing prevents the Stimulus from being identical to the Causer. As a matter of fact, this is what happens most of the time. I will return to this topic by the end of this section when I explore the consequences of such an hypothesis.
I will also show that, depending on the morphological causative morpheme involved, not all *preoccupare* (to worry) verbs behave in the same way. I will also briefly discuss some analyses concerning cross-linguistic data from languages such as Hungarian (H&S), Finnish (Pylkannen 2000), and Japanese verbs (Isse 2006, Katada 1994, and Matsumura (1996)) and the Theme in Italian psych-verbs.

## 9.3 **CROSS-LINGUISTICALLY *CAUSE***

In this section, cross-linguistic data supporting the causative nature of psych-verbs will be given. I will take into consideration some languages in which the causativity process is not covert as it is in Italian and in English, i.e., Finnish, Hungarian, and Japanese.

### 9.3.1. ON FINNISH PSYCH-VERBS

Although in Finnish, Obj-Exp verbs are morphologically causative, they exhibit all the aspectual properties of stative verbs, just like their non-causative Subj-Exp counterparts. The causative infix is realized as *-tta* and is known to be compatible with both unaccusative and agentive roots (Pylkkänen 1999 and others). This affix is extremely productive, attaching to most transitive (and many intransitive) verbs:

15. a. Mikko kuiva-a pyykki-nsä.
Mikko dry-3S laundry(A)-Px3
*Mikko dries his laundry*
b. Mikko kuiva-tta-a pyykki-nsä (naapuri-lla-an)

Mikko dry-CAUS-3S laundry(A)-Px3 (neighbour-ADESS-Px3)
*Mikko has (his neighbour) dry his laundry* (Nelson, ?:(10))

Before going any further, it might be useful to introduce briefly the causativization process in Finnish. When ordinary transitive verbs undergo the causative process, the underlying Agent, the Causee in causative constructions, becomes an optional oblique expression in adessive case, used to indicate an instrument; an overt Causer is instead introduced. Patients or Themes remain unaffected. By means of the same causative process, it is also possible to derive psych-verbs from non-psych transitives and unergatives. As opposed to the transitive causativization process, Agents in derived psych-verbs become Experiencers in partitive case, whereas the Causer argument is implicit.

16. a. Minä laula-n.
I(N) sing-1S
*I sing.*
b. Minu-a laula-tta-a.
I-P sing-CAUS-3S
*I feel like singing.* (Nelson, ?:(12))

In Finnish, causative psych-verbs can derive from non-causative psych-predicates, again by mean of the addition of the affix *–tta*; in non-causative contexts the Experiencer is the subject, whereas in causative ones it is realized as an object. Consider the following examples:

17. a. Mikko inhoa-a hyttysi-ä
MikkoNOM findDisgusting-3GS mosquitos-PAR
*Mikko finds mosquitos disgusting.*
b. Hyttiset inho-tt-vat Mikko-a
mosquitos findDisgusting-cause-3PL Mikko PAR
*Mosquitos disgust Mikko.*

Both forms are stative, hence the only available case is partitive, which in Finnish encodes atelicity. Why are experiencers realized as subjects in one case and as objects in the other? Pylkkänen (2000) claims that the causative morphology on

the Obj-Exp forms offers an obvious clue, which again is in line with much of the literature on this topic -- see Grimshaw 1990, Pesetsky 1995. Since Obj-Exp predicates are realized with overt causative morphology (as we will see in Japanese), it has been proposed that the causative meanings of the Obj-Exp determines the switch in grammatical relations.

Recall the above subdivision of causative events in two parts: process and change of state. States are traditionally considered semantic primitives, which *do not have any internal structure, but events do* (Van Voorst (1992): 81). Pylkannen shows that both the causative and the non-causative Finnish psych-verbs are stative.

Accusative case marking on the direct object in Finnish makes the event telic, whereas the partitive case marking the direct object makes it atelic. Verbs whose event structure necessarily involves a culmination are incompatible with partitive objects, whereas inherently atelic predicates, such as states (as *rakastaaa* 'love'), are incompatible with accusative objects. If causative and non-causative psych-verbs were strictly stative, we do not expect them to occur with accusative objects, which is precisely the case in (18):

18. *Kaisa inho-tti Mati-n
    Kaisa findDisgusting-CAUS. PAST Matti-ACC
    *Kaisa disgusted Matti.*

Pylkkänen (2000) gives further data concerning partitive case assignment by the causative psych-verbs. Analysing the possible sources for partitive case -- the verbal root, the causative affix, and the combination of these two -- she claims that the complex predicate as a whole is atelic. Moreover, in Finnish, all verb classes, except states can occur with progressive morphology. As expected, both causative and non-causative psych-verbs are ungrammatical with the progressive:

19. *Kaisa on inho-tta-ma-ssa Mati-a.
    Kaisa NOM is findDisgusting-CAUS-INF-INESS Matti-PAR
    *Kaisa is disgusting Matti.*

Pylkkänen concludes that Finnish has a class of psych-verbs that are uncontroversially stative, both in their causative and non-causative uses. What is the semantic import of the causative morphology if it does not affect the aspectual

properties of the verb? Pylkkänen argues that it should be possible to answer to this question by slightly revising the concept of stativity itself. The author proposes that even though both types of predicates are interpreted as stative, they differ in the kind of stativity exhibited: causative psych-verbs are interpreted as stage-level predicates while non-causative psych-verbs are interpreted as individual-level ones[152]. Pylkkänen refers to this as the 'bistativity of the Causative' (Pylkkänen 1997:430).

The author used several tests to demonstrate that in Finnish non-causative psych-verbs have i-level predicates properties, whereas causative psych-verbs have s-level ones. For the purpose of the present discussion, I will consider only the test concerning the temporal and locative adverbials[153].

#### 9.3.1.1. STAGE VS INDIVIDUAL LEVEL STATIVITY

Pylkkänen found that Finnish non-causative psych-predicates are odd with certain temporal and locative adverbials, whereas causative psychological verbs are compatible with them. Consider the following examples:

20. ??Jussi inho-si Mikko-a ruokapöydä-ssä.
    JussiNOM findDisgusting-3SG.PAST Mikko-PAR dinner-table-INESS
    *Jussi finds Mikko disgusting at dinner table.*

21. Mikko inho-tti Jussi-a ruokapöydä-ssä.
    MikkoNOM findDisgusting-CAUS.PAST.3SG JussiPAR dinner-table-INESS
    *Mikko disgusts Jussi at dinner table.*

Various scholars discussed the same contrast -- see among others, Chierchia (1995). S-level predicates combine freely with these kinds of adverbials -- cf. (22c) and (22d) -- whereas I-level predicates do not -- cf. (22a) and (22b):

152 S*tage-level* states (s-level) describe a temporary states. I*ndividual level* states describe a more permanent situations.

153 The reader is referred to Pylkkänen (2000:425) for the complete list of the tests.

22. a. ??John knows French in his car.
    b. ??Coffee is black in the kitchen.
    c. John smoked in his car.
    d. Coffee is available in the kitchen.

The author concluded that the causative affixation of psych-verbs makes them stage-level verbs. Nevertheless, this is not the only difference introduced by causative affix. Pylkkänen in fact argues that causative affixes introduce a causing eventuality too, interpreted as the perception of the Theme by the Experiencer of mental state.
Her data further show that causative and non-causative psych-predicates behave differently when modified by adverbials such as *melkein* (almost). Such adverbials introduce an ambiguity when modifying causative psych-verbs, but not when modifying non-causative ones. Following Pylkkänen, this ambiguity is due to the presence of a component within causative psych-verbs, though absent in non-causative ones. She claims that the causative suffixes express an eventuality. Moreover, she claims that the participant in the subject position of stative psychological causatives is the Target of the caused mental state, while the participant in the subject position of non-stative psychological causatives is a participant of the causing event and is not thematically related to the complement predicate (Pylkkänen 2007:441).

### 9.3.2. ON JAPANESE PSYCH-VERBS

Japanese has a productive causativization process too, which consists of marking the causative counterpart of a normal sentence with the causative morpheme -(*s*)*ase*, as in the following examples:

23. a. Yosi-wa it-ta.
        Yoshi-TOP go-PAST
        *Yoshi went.*
    b. Hanako-wa Yosi-o ik-ase-ta.
        Hanako-TOP Yoshi-ACC go-CAUSE-PAST
        *Hanako made Yoshi go.*

Despite the morphophonological similarities between all causative constructions, V+*sase* constructions are not all alike. Harley (2006) identifies two main classes of V-(*s*)*ase* sequences in Japanese: the *lexical* and the "*syntactic*" causatives, only the latter being productive. Briefly, *lexical* causatives are monoclausal with respect to all relevant syntactic tests, whereas *syntactic* causatives exhibit a number of biclausal properties.

Unlike English and Italian, in Japanese all causative constructions are morphophonologically marked, causative psych-one too. Therefore, the difference between Obj-Exp and Subj-Exp verbs is morphologically encoded . Isse (2008), following Grimshaw (1990) proposes that Japanese Obj-Exp verbs are formed by means of the causative morpheme -(*s*)*ase*:

24. a. Taro-ga sono kekka-ni yorokon-da
Taro-NOM that result-DAT be pleased-PAST
*Taro was pleased at that result.*
b. Sono kekka-ga Taro-o yorokob-ase-ta
that result-NOM Taro-ACC be pleased-CAUSE-PAST
*That result pleased Taro*[154].

Futhermore, contrary to the Italian *piacere* (to please): in all derived causative verbs the cause argument is the external subject.

The Experiencer and the Theme can occupy different positions within the sentence in Japanese too:

25. a. Gakusei-wa sono nyuusu-ni odorok-ta.
students-TOP that news-DAT get surprised-PAST
*The students got surprised by that news.*
b. Sono nyuusu-wa gakusei-o odorok-ase-ta.
that news-TOP students-ACC get surprised-CAUSE-PAST
*The news surprised the students.*

154 Note that the bimorphemic causative psych-verb *yorokob-ase* should not be considered as the English, or Italian counterpart (to please and piacere respectively). The causative morpheme -(s)ase in fact is equivalent to the light verbs make and fare (to/to make). The proper translation of (24b) is therefore 'that result made Taro pleased' rather than 'that result pleased Taro'.

Nevertheless, following Matsumura (1996), Japanese psych-verbs are different from English ones in that no non-derived causative psych-verb selects a Theme as its subject. In Japanese, the subject of non-derived psych-verbs is always the Experiencer (Matsumura 1996). The syntax of the bimorphemic causative psych-verb *odorok-ase* in fact cannot be straightforwardly compared with the Italian *sorprendere* (to surprise). Following Matsumura, psych-verbs have to be divided into two subclasses depending on Case assignment. The first class consists of verbs that obligatorily take an *o*-marked object, which refers to the target of emotion, whereas the second consists of verbs that optionally take a *ni*-marked object, which refers to the stimulus of emotion. Consider (26):

26. a. Kokumin-wa kareno si-*o* osim-ta
People-TOP his death-ACC be sorry-PAST
*The people were sorry for his death.*
b. Kareno si-wa kokumin-*ni* /kara osim-are-ta
His death-TOP people by/from be sorry-PASSIVE-PAST
*His death was regretted by the people.*

*O*-psych-verbs such as *osim* (be sorry) select two arguments – an Experiencer for the subject position and the Target of Emotion for *o*-marked object -- whereas *NI*-psych-verbs such as *nakigoe* (to frighten) optionally select a *ni*-marked object, referring to the Stimulus of Emotion. Although *O*-psych-verbs are not canonical transitives, they seem to correspond to Italian Subj-Exp verbs such as *amare* (to love). Matsumura notes in fact that they can be easily passivized (24b). He argues further that *ni*-marked object instead cannot undergo passivization and exhibit both unaccusative and unergative behaviour.
The causative morpheme -(*s*)*ase* attaches only to the latter type, which seems to recall the 'bistativity of the Causative' hypothesis by Pylkkänen[155]. In Japanese causative constructions, the Causee can be marked by means of the accusative *o* or the dative *ni*. Contrary to what happens with transitive verbs, the subject of *o*-

155 Following Matsumura (1996), generally, the particle *o* is an accusative Case marker, whereas the particle *ni* is a dative Case marker. O-psychological verbs take two arguments: the Experiencer for subject and the Target of Emotion for *o*-marked object, whereas *ni*-psychological verbs optionally take a *ni*-marked object which refers to the Stimulus of emotion.

psych-verbs cannot be marked by the dative *ni*; the subject of *ni*-psych-verbs, instead, is marked with the accusative *o*. Consider both (27) and (28) [156]:

27. a. Ruth-wa John-*o* kiraw-ta.
Ruth-TOP John-ACC hate-PAST
*Ruth hated John.*
b. *John-no taido-ga Ruth-ni John-o kiraw-ase-ta.
Jonh-GEN behaviours-NOM Ruth-DAT John-ACC hate CAUSE-PAST
*John's behaviour made Ruth hate him.*

28. a. Kodomo-ga obie-ta
Children-NOM get frightened-PAST
*The children got frightened.*
b. Koomori-no nakigoe-ga kodomo-o/*ni obie-sase-ta.
Bat-GEN cry-NOM children-ACC/*DAT get frightened-CAUSE-PAST
*Cries of bats frightened the children.*

Furthermore, following Matsumura (1996), the inversion of thematic roles, possible only in those context with *NI*-psychological verbs, is directly related to the affixed causative morpheme:

29. Kodomo-gaEXP Koomori-no nakigoe-ni/*oCAUSE obie-ta.
Children-NOM bat-GEN cry-NI get frigthened-PAST
The children got frightened by cries of bats.

Compare (28b) and (29) with English:

30. a. The childrenEXP liked the dollar shopsTHEME.
b. The dollar shopsTHEME pleased the childrenEXP.

156 The deep subject of transitive verbs can appear only with the dative *ni* given that a surface structure constraint in Japanese prohibits two occurrences of *o in a sentence.*

It has been observed both by Isse (2008) and Matsumura (1996) that Japanese psych-verbs are mostly as Subj-Exp, in contrast with Italian and English. Given Katada's (1994) and Pesetsky's (1995) analysis, Isse (2008) claims that Obj-Exp verbs in Japanese are very rare in contrast to both Italian and English. The lack in Obj-Exp verbs in Japanese is then made up by means of Subj-Exp verbs modified by the causative morpheme *-s*(*ase*). Note that *-s*(*ase*) constructions can take both a Target of Emotion and a Subject Matter of Emotion (see sec. 9.4):

31. a. sono sinbunkiji-ga watasi-o iratuk-(s)ase-ta
the newspaper articleNOM me-ACC annoyCAUSE-PAST
The newspaper article annoyed me.
b. sono sinbunkiji-ga watasi-o seihu-ni iratuk-(s)ase-ta
the articleNOM me-ACC governmentDAT annoyCAUSE-PAST
The newspaper article made me annoyed at the government.

### 9.3.3. ON HUNGARIAN PSYCH-VERBS

Hungarian also has a fully productive morphological causative-anticausative alternation. This alternation, introduced by Levin and Rappaport-Hovav (1995) concerning the causativization operation, is not the only possible way to express causativization in Hungarian. In fact, it contrasts with the causative-inchoative alternation, cf. (32). According to Horvath and Siloni (to appear) (H&S), these two alternations differ from each other in uniformity, final interpretation of the sentence and in universality, only the latter being universal (H&S: 26).
The morphological encoding of causative-inchoative is not uniform; as we can see in (32) the morphological markings cannot be predicted:

32.

| | Causative | Inchoative |
|---|---|---|
| a. | old 'dissolve' | old-ód(-ik) 'dissolve' |
| b. | olv-aszt 'melt' | olv-ad 'melt' |
| c. | fejl-eszt 'develop' | fejl-öd(-ik) 'develop' |

(H&S: (10))

On the other hand, the morphological encoding of the causative-anticausative alternation is uniform. Consider the following examples and table:

33. a. a labda legurult
    the ball down-rolled.
    *The ball down-rolled.*
    b. legur-ít-otta a labdát
    down-rolled the ball
    *He rolled the ball down*

34. a. a ház felépult
    the house built.
    *The house (became) built.*
    b. ép-ít-ette a házat
    built-3.s. the house
    *He built the house.*

35.

| pre-verb | stem | causative | tense |
|---|---|---|---|
| le- | gur | -ít | -ot |
| (fel-) | ép | -ít | -et |

In (33)-(34), data show that this alternation concerns a set of 'change of state' verbs. Note that the transitive forms above have a causative reading, just like in Japanese, cf. (21). Note that a large group of transitive verbs with a causative meaning are derived by means of the *–ít* suffix from adjectives: *buta* 'stupid'>*butít* 'make stupid, stupefy'. Hungarian causative verbs might have another affix too, i.e., - (*t*)*at*/-(*t*)*et*:

36. Az edzö ugrál-tat-ja Mari-t
    the coachNOM jumpCAUS-PRES-DEF-DO MaryACC
    The coach makes Mary jump.

To sum up, Hungarian causative verbs have a special form with the morphemes *ít* and (*t*)*Vt* expressing causativity. These morphological elements can be compared to those (causative) light verbs introducing the causative interpretation proposed

for Italian causative verbs. Still they differ in that the causative morphemes in Hungarian, similarly to Japanese, are phonologically overt and bound to the verb. Furthermore, Italian and English causative elements are always phonologically null but in periphrastic constructions, realized by the light verb[157]. Concerning the final interpretation, causative constructions part of the causative-inchoative alternation in (30) can be paraphrased as "X executes the action on Y", whereas causative constructions part of the causative-anticausative alternation as in (31)-(32) can be paraphrased as "X causes Y to do the action". Let us turn our attention to Hungarian psych-verbs.

As will be argued below, an analysis of Hungarian psych-verbs should consider not only the causative suffix, as in Japanese, but also the preverbal particles. On the basis of Kiss (2008), I will consider only those resultative particles that mark telic sentences, describing an inherently delimited change of state, i.e., *be-*, *fel-*, and *meg-*. Note that such particles express that the change of state has been completed:

37. a. A hús puhára főtt.
the meat tender-to cooked
*The meet cooked tender*.
b. A hús meg- főtt.
the meat PRT cooked
*The meat cooked.* (Kiss 2008: (1c),(2c))

Following Kiss (2008), the particle *meg-* in (37b) has the same function as the adjective in (37a) -- in this case that the meat has attained the required state. Psych-verbs involve similar verbal particles too and distinguish between Subj-Exp and Obj-Exp. Psych-verbs, such as *meg-szeret* (come to love) and *meg-ért* (come to understand), are part of the former, whereas *meg-ijeszt* (to frighten) or *meg-zavar* (to disturb) are member of the latter group:

38. a. Ágnes meg-szerette Józsefet.
Agnes PRT loved Joseph-ACC

157 According to Hetzron (1976), the similarity between the causative formative –t (consider the basic form among all of them) and the Hungarian root /te/ (to make/to do) is quite conspicuous and the assumption that causative verbs come from a periphrastic expression containing the verb *make* (make+verb>causative verb) is by no means hard to imagine.

Agnes came to love Joseph. (Kiss 2008: (21))

b. Mari meg-ijeszttette János-t.
Mary frighten-CAUS-PAST.DEF.DO John ACC.
Mary frightened John.

Interestingly, following H&S, Subj-Exp verbs can be further grouped into two subclasses: those that can causativize and those that cannot. This split matches another partition discussed in H&S, i.e., the one between derived vs underived Subj-Exp verbs. According to H&S, derived psych-verbs are decausativized Obj-Exp verbs (*felvid-ít* 'surprise'> *felvid-ul* 'get surprised'), whereas the underived ones are verbs such as *love* and *like*. The non-alternating/underived Subj-Exp verbs can undergo causativization:

39. a. János meg-kedvel-te/meg-utál-ta a barátai-m-at.
János.NOM PERF-like-PAST.DEF.DO/PERF-hate-PAST.DEF.DO the friends-POSS1SG-ACC
*János became fond of/hated my friends.*

b. Mari meg-kedvel-tet-te/meg-utál-tat-ta János-sal a barátai-m-at.
Mari.NOMPERF-like-CAUS-PAST.DEF.DO-hate-CAUS-PAST.DEF.DO János-INSTR the friends- POSS1SG-ACC
*Mari made János become fond of/hate my friends.* ((H&S): (54))

Derived Subj-Exp psych-verbs instead causativize as illustrated in (40):

40. a. A vendégek meg-lep-őd-tek.
the guests.NOM PERF-surprise-INTR-PAST.3PL
The guests got surprised.

b.*Mari{meg-lep-őd-(t)et-te a vendégek-et/meglep-őd-(t)et-ett a vendégek-kel}.
Mari.NOM surprise-INTR-CAUS-PAST.DEF.DO the guests-ACC/ surprise-INTR-CAUS-PAST the guests-INSTR
*Mari made the guests get surprised* (intended meaning).
((H&S): (56a-57a))

Data in (39)-(40) show that only underived Subj-Exp verbs can be causativized, whereas derived Subj-Exp cannot. Decausativization is to be considered a morphosyntactic rather than lexical process. As such, I propose that derived Subj-Exp verbs are the outcome of the decausativization process, thus the impossibility for them to undergo causativization.

As for underived Subj-Exp verbs, I propose that they merge as they are. As a consequence, they can undergo the causativization process exactly because they did not undergo any causativization/decausativizion process.

Before concluding this section on Hungarian psych-verbs, there is an interesting semantic fact worth noting. Hungarian also has another class of causative verbs, called of "improper causation" (MMNy:19 cited in Dezső1988: 318) which, starting from active verbs denoting a states or change of states as input, express that "the subject of that verb brings somebody or something into this state":

41. megnyug-szik 'calm down' (intr.)>megnyug-tat 'calm somebody down'

The deep semantics of "improper causative" verbs such as the one in (41) resembles the locative analysis given above for Italian Obj-Exp verbs, given that they underlyingly entail "metaphorical displacements of Experiencers into Emotions/Psych-states".

### 9.3.4. INTERIM CONCLUSION

To sum up, I have shown that cross-linguistically Obj-Exp verbs entail some kind of causativity, visible in languages such as Finnish and Japanese.Subj-Exp verbs instead do not; the syntactic difference between Subj-Exp and Obj-Exp verbs have a morpho-semantical origin. Given that Japanese apparently has no Obj-Exp psych-predicates. I proposed that Experiencers should be considered the unmarked subjects. The Experiencers in object position are there due to the presence of a causative morpheme. Furthermore, I propose that the selection of Triggers as subjects follow consequently. I then proposed that the causative morpheme can be either overtly or covertly realized (Pesetsky 1995). Hence, the Subj-Exp/Obj-Exp classification is morphologically driven. It follows then that Subj-Exp and Obj-Exp verbs initially share the same syntactic structure. Despite

that in the literature such psych-verbs have always been considered as having different syntactic structure, I will show that this hypothesis is correct. The hypothesis of Experiencers as the unmarked subject is cross-linguistically supported – see among others Tenny (2006) who gives a syntactic and semantic analysis of Japanese phenomena related to predicates of direct Experiencer. Following Tenny (2006) and Speas and Tenny (2003) (S&T), I propose that Experiencers are the unmarked subjects of psych-verbs. Moreover, following Pesetsky (1995), I propose that psych-verbs are stative verbs with a non-causative nature.

#### 9.3.4.1. SPEECH ACT PROJECTION HYPOTHESIS

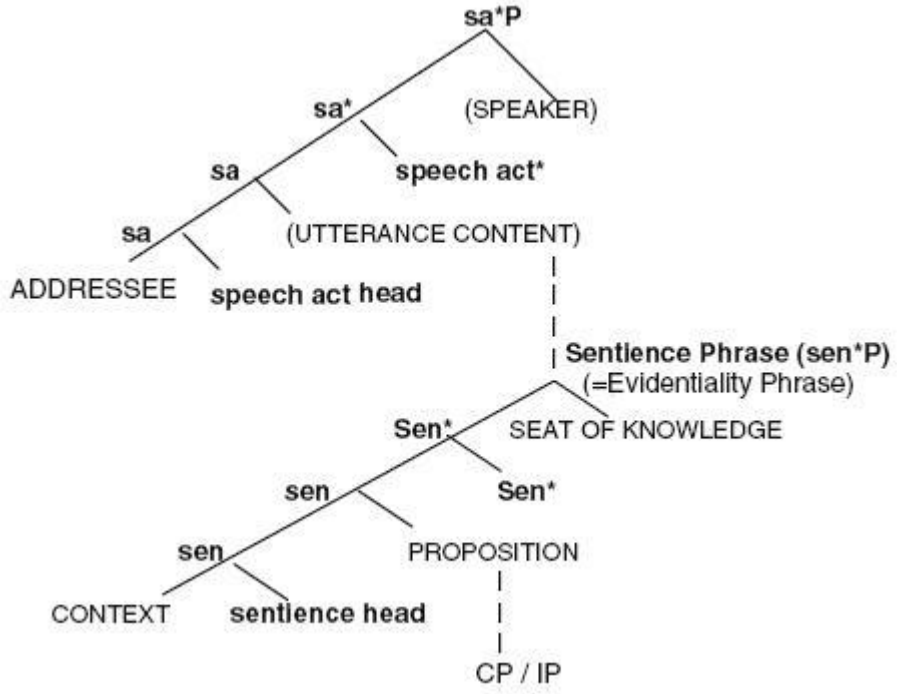
Tenny (2006) proposes that the syntactic structure of all Japanese verbs includes in the left/right periphery a functional projection, named Sen(tience)P, which is part of the S(peech) a(ct) Projection, akin to ForceP. Recall that ForceP encodes illocutionary force (Rizzi (1997), Cinque (1999)). SenP and SaP are part of the skeleton of a *Grammar of Sentience*, which, following (S&T), including various points of view that are grammaticaly encoded within a sentence (see also Giorgi 2010).

Within the upper projection, SaP, both speaker and addressee are related in the same way that thematic roles are related in the VP: the speaker, i.e., the highest argument of the SaP, is the Agent of the speech act; the information conveyed would be the Theme of the speech act (syntactically represented by SenP); the addressee is the Goal of the speech act. In turn, SenP relates three arguments: the Proposition (CP/IP), the Context, the Seat of Knowledge. In the default case, a speech act role controls the reference of the evidential role that it c-commands, so that they are coreferent, as in (24).

S&T predict that referential items -- NPs, pronouns, variables, and operator -- may be specified by means of a morphosyntactic feature referring to sentient entities . Such a feature [+sentient] is associated with the specifier position of SenP. Furthermore, they propose that referential items marked with these features undergo movement to their associated projections. Following S&T, Tenny (2006) claims that "the extraordinary properties of Experiencers follow from the experiencer thematic role being assigned the feature [+sentient] by its predicate

[...] Intuively, lexical items bearing or assigning [+sentient] or any other of the sentience-related features, participate in the syntax of sentience which encompasses the highest levels of phrase structure projection, and this is what gives them their distinguished properties" (Tenny 2006: 266-267).

42.




## 9.4 CAUSE VS THEME

Pesetsky (1995) provides a syntactic account of the causative nature of psych-predicates. Pesetsky proposes that "object argument of psych-verbs of the SubjExp class has always one of two entirely distinct roles, which I will rename here *Target of Emotion* (T) and *Subject Matter of Emotion* (SM)" (Pesetsky 1995:55). According to Pesetsky the θ-roles associated with the subject of Obj-Exp verbs and those associated with the object of Subj-Exp verbs are different. Obj-Exp verbs assign a *Causer* θ-role, whereas Subj-Exp psyc-verbs assign either a *Target of Emotion* (T) or a *Subject Matter of Emotion* (SM) to their objects (*Objects of Emotions*). Furthermore, given their similarity, T and SM cannot cooccur in the same sentence. Below, I will show how this is not correct. Recall that both the "*Object of Emotions*" and the *Causer* are considered as Themes by

B&R. However, this cannot be the correct way to analyse the phenomena in question. Either *objects of emotions* are not themes, or the Utah must be reconsidered[158]. I will show that the subject of Obj-Exp verbs can also have one of two distinct roles.

### 9.4.1. CAUSER VS TARGET/SUBJECT MATTER

In this section, I am going to analyse the semantic nature of the theta-roles causer, target/subject matter. Consider the pair *anger*/*angry*:

43. a. Bill was very angry at the article in the Times
    b. The article in the Times angered/enraged Bill (Pesetsky 1995:56)

Although the same elements are involved, (43a) and (43b) sharply differ; their truth conditions in fact are apparently different. While in (43a) Bill must consider the article poor or bad in some respect, in (43b) Bill might be mad at the article but, nonetheless, he can still be angry at it even if he finds it splendid. It might be the case then that Bill is angry at something that he just read in the article -- i.e., the article *does cause* Bill to be angry, but he is not necessarily angry at the article itself. On the basis of pairs like these, Pesetsky distinguishes then between T roles (43a) and Causer roles (43b).
A Causer argument is causally connected to the emotion born by the Experiencer. The Target argument, however, is evaluated by the Experiencer as part of the "emotional episode" (Nissembaum,1985). As for the distinction between SM roles and Causer, Pesetsky introduces the pair in (44):

44. a. John worried about the television set.
    b. The television set worried John.

In Pesetsky words, in (44a), "whenever John was experiencing the worry described, he was thinking in some way about the television set (...) maybe because it was perched too precariously and might fall.(...) *the television set* is the

158 Recall that the problem for the UTAH concerns the assumption that the θ-role assigned to the object DP in the Subj-Exp class is the same as the one assigned to the subject DPin the object –Exp class.

SM. In (44b), *the television set* bears the Causer role.(...). For example, John could be a detective. Seeing the television set in a suspect's living room sets off a chain of worries (...). He is definitely not worried about the set itself. It merely provokes worries about other matters" (Pesetsky 1995:57). In other words, in (44b), there is simply a causal relationship between the *television set* and some state of worry, whereas in (44a) there is not. Pesetsky then argues that the (43) and (44) are not true doublets, which for the moment would save the UTAH. On this basis, Pesetsky further assumes that the assignment for Experiencer predicates is made taking into consideration the thematic hierarchy:

45. Causer>Experiencer>Target/Subject Matter

Recall that (45) represents only a portion of a larger hierarchy, on which various θ-roles are arranged. Bearing this in mind, the UTAH is likely to be rescued quite easily. In fact, a verb like *anger* links the element holding the Causer role with a higher position, whereas the one holding the Experiencer role is linked to a lower position. A Subj-Exp psych-verb, such as *love,* then links the Experiencer with the higher position and T/SM with the lower position. To sum up:

46. a. [$_{VP}$ [$_{V'}$ V Experiencer] Causer]
    b.i. [$_{VP}$ [$_{V'}$ V Target ] Experiencer]
    b.ii. [$_{VP}$ [$_{V'}$ V Subject Matter] Experiencer]

The distinction shown in (46) suits perfectly the pair of predicates shown both in (43) and in (44).The syntactic structure in (46a) represents all the causative psychological verbs such as *anger*/*worry* whereas (46b) the one of psychological predicates such as *be angry at*/*love*.

## 9.4.2. T/SM RESTRICTION

If the semantic classification of Theme in *Objects of Emotions* and the *Causer* is correct, lexical arguments holding either one of these thematic roles should cooccur within the same predicate. Consider then (47), obtained by adding an element holding the T theta-role to the former (43b), which had only a Causer:

47. a. *The article in the Times angered Bill at the government.
    b. *The Chinese dinner satisfied Bill with his trip to Beijing

Why are (47a) and (47b) absolutely impossible? Note that the ungrammaticality of (47) has nothing to do with the meaning of the sentence itself, which is clear. That (47a) nor (47a) are semantically coherent is proved by the perfectly possible periphrastic counterparts in (48):

48. a. The article in the Times made Bill angry at the government.
    b. The Chinese dinner made Bill satisfied with his trip to Beijijng.

Furthermore, Pesetsky claims that other Obj-Exp expressions not exhibiting the constraint in (47) exist, i.e., particle constructions. Consider the following example:

49. a. *The check calmed Bill about the accident.
    b. The check calmed Bill down about the accident.

50. a. *The news cheered Sue about her plight.
    b. The news cheered Sue up about the plight.

In (50), we find a Causer as distinct from both SM and T. Why don't we find simplex predicates simultaneously realizing the Causer argument and the T or SM argument? Given (47), one might claim that the Causer is not distinct from T and SM. In fact considering such theta-roles as thematically indistinct, then (47) can easily be accounted for, by assuming the impossibility of having two Themes in a single clause:

51. Thematic Diversity
    If α and β are distinct arguments of a predicate P, the thematic role assigned to α must be distinct from the thematic role assigned to β. (Pesetksy 1995:62).

Thematic Diversity might explain (47), even if the members of the pairs (Causer/Target) or (Causer/Subject Matter) are semantically distinct. According

to Pesetsky in fact, syntax ignores certain semantic distinctions, such as the one between verbs of *quiet speech* and verbs of *noisy speech*[159]. Pesetsky took the view that imposes to syntax a coarse grain on information from other systems, such as semantics, noticing certain distinctions and blurring others. If this counterproposal were correct, Pesetsky notes, then we should treat both Causer and T, and Causer and SM as nondistinct, then we would expect T and SM likewise to be nondistinct. In other words, Causer, T, and SM would all be nondistinct, which in turn means that T and SM should be nondistinct with respect to each other too. Thematic Diversity prevents then the cooccurence of T and SM arguments just as it prevents the cooccurence of Causer with either one of these roles. Nevertheless, such a prediction is not correct. In fact, where T and SM are both compatible with the given predicate, they do cooccur:

52. a. Sue is angry with Bill at the party.
    b. John is irritated at Mary about the mistake.

The compatibility of T and SM in (52) demonstrates then that: B&R's Subj-Exp Theme should be split into two different theta-role (T/SM) that can also cooccur in the same sentence. On these bases I propose that Causer theta-role might be split up in two independent θ-roles too and these two θ-roles might cooccur.

### 9.4.3. ZERO MORPHEMES

Pesetsky argues that the T/SM constraint is just a simple effect of the HMC (Travis (1984), Baker (1988)). His core analysis concerns the idea that Obj-Exp verbs like *annoy* are morphologically complex. He proposes that "such predicates consist of a phonologically zero causative morpheme and a bound root that is actually a Subj-Exp predicate" (Pesetsky 1995:64). According to this approach, *annoy* should be considered a bimorphemic word, containing a Subj-Exp root (meaning "be annoyed") and a causative morpheme, which Pesetsky dubs CAUS.

159 It seems that the distinction between "verbs of loud speech" and "verbs of quite speech" -- e.g., *holler* and *shout* vs. *whisper* and *murmur* -- is syntactically irrelevant, but the distinction between "verbs of manner of speaking" and "verbs of content of speaking" -- holler and whisper vs. say and propose -- is not irrelevant.Verbs of the latter class in English do not resist adjunction extraction and allow complementizer deletion. (Pesetsky 1995:14)

Note that Pesetsky's non-unaccusative bimorphemic analysis of Obj-Exp verbs is not new at all (see among others Chomsky (1965-1972, Kuroda 1965, Akatsuka 1976). In order to support his bipartite analysis, Pesetsky briefly introduces Lakoff's (1970) multipartite analysis for semantically causative predicates saying that "Lakoff postulates a phonologically zero causative morpheme attached to a non-causative root (, which) in some cases does not occur as an independent verb" (Pesetsky 1995:70). On such basis, Pesetsky argues that any causative psych-verbs should be seen "[...] as the pronunciation of a Subj-Exp predicate that does not occur except when combined with a phonologically null causative morpheme"(Pesetsky 1995:70). Pesetsky adopts then the symbol √, where necessary, to mark roots that are homophonus, but not coextensive with words:

53. a. *John √annoyed with Mary.
    b. The book [[√annoy]Ø $_{CAUS}$]-ed John (*with Mary).

Pesetsky then argues that all psych-verbs contain Subj-Exp roots -- "be *x*" or perhaps "get *x*", where *x* can be any feelings. Causative psych-verbs differ from non-causative psych-verbs in that a phonologically zero causative morpheme is affixed to the Subj-Exp root. In order to support this idea, Pesetsky compares the status of the alleged bound morpheme such as √annoy or √amuse to Latin roots like √ceive and √fer (which do not occur on their own but with a number of prefixes, such as *re-*, *in-*, and *per* for √ceive and *pre-*, for √fer).
It should then be possible for Subj-Exp roots to appear un-bounded too, i.e., with the null causative affix *CAUS* but also with overt, non causative affixes. In fact, Pesetsky shows that all the nominalizations related to causative Obj-Exp predicates lack causative force [160]. Following Allen (1978:chap.4), Pesetsky introduces the idea that CAUS occupies the lowest place in a level-ordered morphology. Let us consider nouns such as *agitation*, *annoyance*, *amusement*, and *surprise*. Pesetsky analyses them as having nothing to do with the causative verbs *agitate*, *annoy*, *amuse*, and *surprise* .*Annoyance* for instance does not mean "the process of making annoyed" but "the state of being annoyed". Consider the following examples:

160 I wil show instead that there are some nominalizations that do have causative force (see ch. 12).

54. a. Bill's continual agitation about the exam was silly.
    b. Annoyance at one's teacher should be suppressed.

Pesetsky argues that the nominalizations in (54) are true nominalizations of predicates meaning "be annoyed", "be agitated". Let us hypothesize that such nouns are morphologically derived from causative items *agitate* and *annoy*. How can derivations of non-causative nominal from causative morphemes even be possible? Pesetsky argues that nominalizations deriving from √agitate and √annoy are not surprising given that psych roots are to be consisedered non-causative.

Furthermore, Pesetsky gives some data concerning the possibility of having a zero-morpheme affix attached to SubjExp predicates. He claims that we do not find structures that we would analyse as in (55b), alongside structures of the form in (55a):

55. a. [[√SubjExp-predicate $_{V}$]nominalizer]
    b. *[[[√SubjExp-predicate $_{V}$]$_{Ø\ CAUS}$ ]nominalizer]

56. *The exam's continual agitation of Bill was silly.

The ungrammaticality of (56) follows from the fact that the hypothesized zero-morpheme is followed by another derivational suffix. Myers (1984) makes an even stronger claim:

57. Myers's generalization:
    zero-derived words do not permit the affixation of further derivational morpheme.

In order to support (57), Myers takes into consideration the fact that wherever a phonological string like *support* is assigned to two syntactic categories -- V and N -- only one of them -- V-- allows the affixation of derivational morphemes (*supportive* but not *supportial* or *supportious*). Although for Pesetsky Myers's generalization is flawed by many reasons, Pesetsky still considers (55) worth pursuing it further, in that (53b) can be easily accounted for on this base. Moreover, (55) is not limited to the non-unaccusative ObjExp verbs analysed by

Pesestky so far. In fact, Pesetsky takes into consideration also other causative verbs, such as *grow*, which have homophonous inchoative counterparts. Consider Chomsky's (1972) examples:

58. a. Tomatoes grow.
    b Bill grows tomatoes.
    c. the growth of tomatoes.
    d. *Bill's growth of tomatoes.

The examples in (58) are important for Pesetsky in that they strongly support his claim that non-Experiencer causative verbs, homophonous with their inchoative counterparts, are analysed by the language learner as bimorphemic, containing a null causative morpheme: √grow+CAUS. Nominalizations that have no homophonous inchoative counterpart do not show the restrictions just examined:

59. a *tomatoes cultivate.
    b. Bill cultivates tomatoes.
    c. the cultivation of tomatoes.
    d. Bill's cultivation of tomatoes.

Myers' (1984) "zero derivation" does not include zero-morphemes affixation, contrary to Pesetsky's zero causative hypothesis. On the contrary, according to Myers (1984), a true "zero derivation" would result from the affixation of inflectional material corresponding to a certain category of a root belonging to another category. Contra Myers's (1984), Pesetsky assumes that zero affixes do exist. Moreover, he argues that Myers' generalization is, for many reasons, incorrect – e.g., the presence of the *–er* and *–able*, which attach to all verbs, including zero-derived ones, but do not behave like inflectional morphemes. Petetsky considers the case of *document*$_V$: if it is just the result of attaching a verbal inflection to a noun, then both *–er* and *–able* must be postinflectional, which is not the case (**documented-able*).
Nevertheless, if Pesetsky's zero affixes do exist, then a new genuine problem arises: why are zero morphemes followed by most derivational suffixes deviant (*supportial/supportive)? The same zero morphemes, followed by inflection *–er* and *–able* are, as a matter of fact, not deviant at all. In order to make Myers'

generalization compatible with the zero affix hypothesis, Pesetsky follows Fabb (1988), who tries to account for the contraddiction of Myers' generalization as a property of those morphemes that cannot be attached to zero-derived forms.

## 9.4.4. FABB'S OBSERVATIONS

Fabb observes that in English there are many restrictions that constrain combinations of (nonzero) suffixes, summarized as follows:

60. a. many suffixes never attach to an already suffixed word
    b. some suffixes attach outside only one other particular suffix
    c. some suffixes attach outside some but not all of the suffixes that we would expect
    d. some suffixes attach to allthe suffixes that we would expect, given the categorial-selectional (subcategorization) restrictions

As we can see in (60), Fabb's approach makes a weaker predictions than Myers's. Futhermore, Fabb lists only two deverbal suffixes in group D (60d): *-able* and *–er*, which are the only two noun-forming suffixes that can attach to verbal forms and that, according to Pesetsky can be affixed to CAUS. Fabb's generalization accounts for the *–able* and *–er* exceptions to Myers's generalization. Both Myers and Fabb predict that some verbs are derived by means of incorporation and, most importantly, they both hypothesize the presence in Obj-Exp verbs of a zero-morpheme.

### 9.4.4.1. ON THE PRESENCE OF THE CAUSE-MORPHEME

The phonologically null CAUS morpheme can be detected only indirectly, for instance by means of the disappearance of an obligatory morpheme. Pesetsky illustrates data from many languages such as English, French, Russian, and Italian.
French psych-verbs show, similar to English psych-verbs the T/SM and nominalizations constraint. Following Ruwet (1972), Pesetsky notes that in French many verbs, such as the causative ObjExp verb *étonner* (to amaze) have

reflexive SubjExp verbs counterparts. In English this never happens. Furthermore, the semantics of the reflexive SubjExp is non-causative. Ruwet (1972) pointed out also that the subject in ObjExp verb and the object in SubjExp constructions show different selectional restrictions[161]. Furthermore, given that *reflexive tantum*, i.e., verbs used only reflexively -- are found in many languages, such as French and Russian, Pesetsky hypothesizes that the simple and the reflexive version are related and that the derivational direction of pairs such as *s'étonner*/*étonner* proceeds from reflexive to non-reflexive. The disappearance of the reflexive in *s'étonner*/*étonner* is per se an important linguistic phenomenon that needs to be explained too. Still, as Pesetsky argues, it is not a fact unique to psych-verbs. In fact, it looks like the phenomenon occurring with causativization. Following Burzio (1981) and Zubizarreta (1985), Pesetsky notes that in certain contexts some otherwise obligatory reflexive morphemes disappear, i.e., under periphrastic causatives. Consider the following examples:

61. a. Le nubi *(si) dissipano.
the clouds *refl* dissipate
*The clouds dissipate.*
b. Il vento dissipa le nuvole
the wind dissipates the clouds
c. Il vento ha fatto dissipare/*dissiparsi le nuvole.
the wind made dissipate/*dissipate-*refl* the clouds
(Pesetsky 1995: (273))

Given (61b), Pesesky assumes that whenever non-causative verbs are embedded under causative *fare* 'make', the reflexive morpheme is suppressed. Hence the reflexive drop under morphological derivation hypothesis is well-grounded. Nevertheless, the zero-morphemes issue is still there: the non clear status of many SubjExp roots has been replaced with an equally not too clear hypothesis, i.e., that SubjExp roots bear the feature [+reflexive], which in certain contexts is dropped.

161 a. Paul/Cette table/Le bruit qu'on fait sur cette histoire/Que Jules soit sorti étonne Maire.
Paul/This table/The fuss made about this story/That Jules left amazes Marie.
b. Marie s'étonne *de Paul./*de cette table./du bruit qu'on fait sur cette histoire./ (de ce) que Jules soit sorti.
Marie *refl*-amazes of Paul./this table./the fuss made about this story./that Jules left.

In order to deal with the reflexive drop, Pesetsky introduces the following arguments: first, the assumption that languages such as Italian and French always have external reflexive clitics, as suggested by Marantz (1984); second, that external arguments can be eliminated in various way -- adjectivization, nominalization, which are per se indexes of external arguments. Pesetsky then proposes the following generalization:

62. Suppression of external argument
    Only affixation of a semantically contentful morpheme to a verb with an external argument α allows α to be unexpressed ("suppressed") in syntactic structure. (Pesetsky, 1995: (335))

Still, why must the reflexive clitic disappear under causativization in languages such as French and Italian? According to Pesetsky, the reflexive clitic drops because of the requirement that the clitic argument must be controlled by the internal argument, the Experiencer in this case, which means that the clitic has to be c-commanded by the internal argument. Compare (63) with (64):

63. Marie$_i$ [$_{VP}$ se$_i$ voit $t_i$]

64. a. Le bruit étonne-CAUS Marie.
    b. *Le bruit s'étonne-CAUS Marie. (Pesetsky, 1995: (279)/(336))

Given (64), the morphologically complexity of psych-verbs is demostrated.
To sum up, Pesetsky suggests that psych-verbs are made up of a bound root and a causative morpheme; the bound root is a form that for semantic reasons involves a controlled external argument. Such an argument can only be realized as a reflexive clitic for syntactic reasons. Application of the CAUS morpheme removes the external argument. Hence, following his analysis, we should assume that reflexive SubjExp psychological verbs have at least three arguments: the Experiencer, the T/SM argument and an external argument controlled by the Experiencer.

# 9.5 WHERE DOES *CAUS* ATTACH TO?

In this section, I will briefly introduce Pesestky hypothesis concerning the position of the CAUS morpheme. A brief digression on double-object verbs (DO verbs) is necessary.

## 9.5.1. DOUBLE OBJECT ALTERNATION AND PSYCH-CAUSE

### 9.5.1.1. ON *G* AS AN OBBLIGATORY AFFIX

Pesetky considers the familiar alternation possible with DO verbs as evidence for the presence of a null element. Let us consider the two possible alternative structures:

65. a. Bill gave a book to Sue.
    b. Bill gave Sue a book. (Pesetsky 1995: (337))

Suppose that assignment of objective Case to two DPs in (65b) by a single occurrence of V is impossible. Such an assumption would instantly lead us to posit some unpronounced element in double object structures, which is responsible for Case on one of the two objects, called G. Pesetsky then argues that, given the adjacency requirement for objective Case, the first object should be selected and Case-marked by V, and the second object by a null element. This hypothesis predicts the passive derivation:

66. a. $Bill_i$ was sent $t_i$ a book.
    b. *A $book_j$ was sent Bill $_j$.

Therefore, Case-assignment by the unpronounced element in (65b) is totally alike the one in (65a). In other words, we should analyse *G* as a preposition assigning Case to the Theme in DO structures, just as *to* assigns Case to the Goal. Suppose now that given its null nature it must move from its base position to the governing

verb[162]. Then, this sort of affixation is a consequence of the lexical properties of *G*. Pesetsky proposes that *G* is marked [+affix]. According to Baker (1988), this has the consequence that *G* must be adjoined to some non-affixal category at S-Structure. On the contrary, the overt preposition *to* is marked [+affix]. To further support the distinction between *G* and *to*, Pesetsky quotes Kayne (1984). Kayne shows that while nominalizations related to the forms with *to* are possible, nominalizations directly related to DO constructions are not. As Oehrle (1976) noted there are also some forms with *to* that do not nominalize either.

### 9.5.1.2. ON THE CAUSE AFFIXATION

Starting from an analysis of the possible alternations in DO structures (*give him a book* vs *give a book to him*), Pesetsky proposes that the impossibility for DO to nominalize involves a zero preposition, *G*. Following Oehrle (1976), Pesetsky then proposes that the forms with *to*, resisting the nominalization process, show a similar constraint. Pesetsky observes that these causatives uses involve affixation of the zero morpheme CAUS to an otherwise agentive verb. In other words, he considers the agentive use as the primary one. As a consequence of this affixation, the predicates will assign a Causer theta-role. Suppose now that CAUS, like G, if first merged as a syntactically independent head. Pesetsky introduces the following hypothesis:

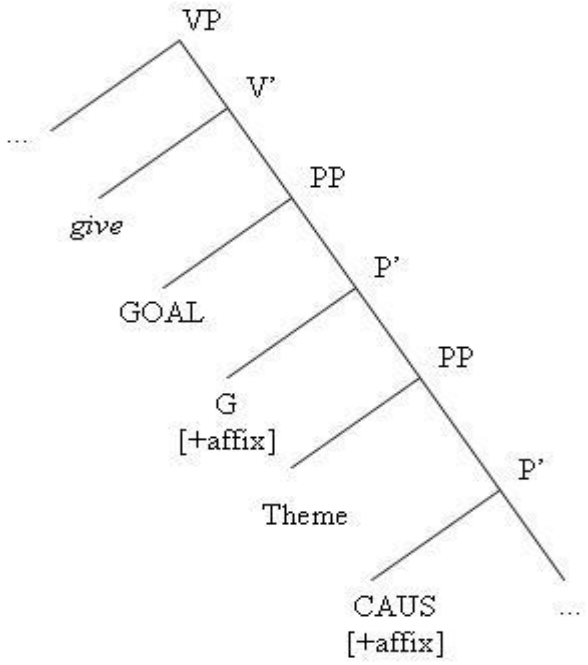
67. a. CAUS is a clause-internal like prepositions;
    b. CAUS is [+affix] and like *G* moved to the main verb;
    c. CAUS is not part of the θ-selectional domain of the main verb.

Given (67), it follows that CAUS does not introduce a selected argument, and must incorporate into the verb by PF. Moreover, it must enter the syntactict structure in the lowest section. Furthermore, with respect to (67a), Pesetsky assumes that CAUS has the status of a *wh*- adjunct such as *because* or *why*, which supports the hypothesis concerning the low position of CAUS. As (68) shows,

162 According to Pesetsky this as a consequence of a general principle introduced by Abney (1987:152), which states that zero morphemes are affixes.

movement of CAUS to V requires an adjunction to each head that intervenes between.

68.



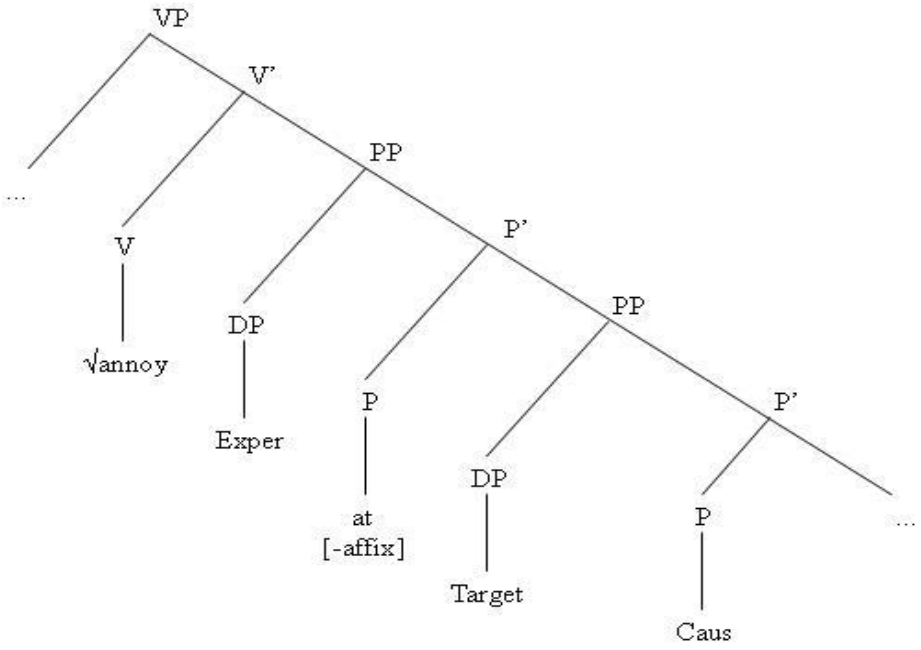

On the contrary, movement of CAUS to V in DO constructions with *to* is rather problematic. Recall that Pesetsky considers the latter marked as [-affix]. Hence, the new category [CAUS+*to*] cannot raise further to V, given the final non-affixal nature of the compound element. The morpheme CAUS has no other possible way to move to *give* and the final structure is not licensed. I propose that some psych-verbs have an adjunct CAUS morpheme, which blocks their nominalization process, supporting both Oehrle's observation and Myers' generalization in (55).

### 9.5.1.3. ON THE SYNTACTIC REPRESENTATION OF THE CAUSE-MORPHEME

Pesetsky proposes an account for the T/SM constraint introduced earlier. Let us analyse the syntactic structure of *annoy*. Imagine that here CAUS starts as in (69) and that as *give*, the root √*annoy* has to raise to V. A non-affixal overt preposition

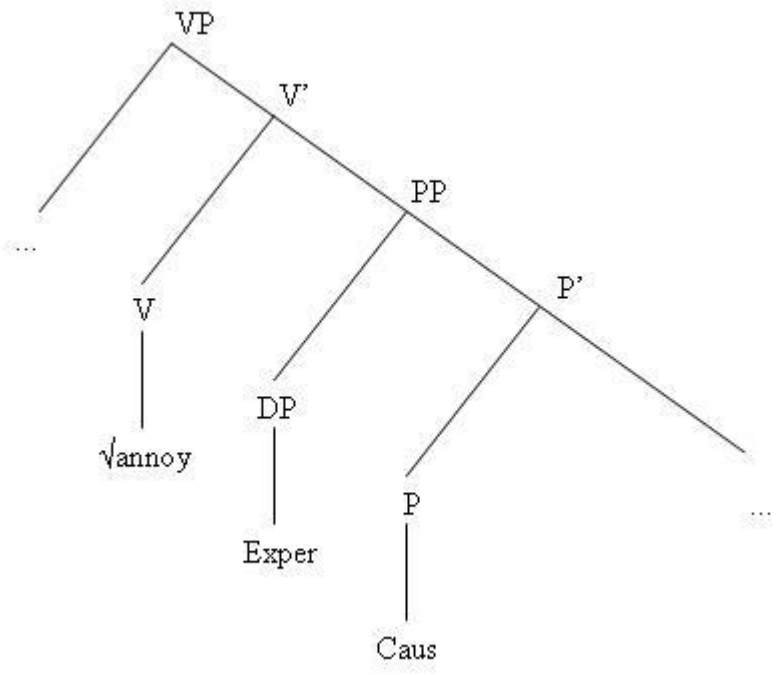
blocks such movement. Given that all T/SM arguments introducing prepositions are non-affixal, CAUS cannot raise to √*annoy* for the same reasons mentioned above concerning the DO constructions with *to*.

69.




Psych-constructions with no T/SM arguments are represented in (70): no argument prevents CAUS from raising to √*annoy*.

70.




To sum up, given the structures proposed in (67-68), Pesetsky showed that the T/SM restriction immediately follows from the command relations among X°s in the very same structures. More precisely, Pesetksy assumes that CAUS is a preposition that has to move to the main verb. Hence, the T/SM effect is a case of HMC. I propose that the same framework can be adopted also for Italian psych-verbs. Nevertheless, although I agree with Pesetsky that these predicates involve a zero causative morpheme, I will analyse the causal element from a different point of view. I will argue in fact that the causal nature of psych-verbs can be either intentional or unintentional and that this semantic distinction can be accounted for in syntactic terms. I will further show that the syntactic nature of CAUSE is different than the one in Pesetsky (1995). In fact, I propose that causatives zero-morphemes are not adjunct but functional elements that Emotions/psych-states have to incorporate on their way to *v*P, as in Baker (2004).

# 9.6 **TRIGGERS IN ITALIAN PSYCH-VERBS**

## 9.6.1. INTENTIONAL VS UNINTENTIONAL *ACTIONS*

Given that Sub-Exp psych-verbs are commonly analysed as transitives, whereas Obj-Exp verbs as unergatives or unaccusatives, the appropriate theta-role assignment to the external arguments should follow. Obj-Exp verbs assign a Theme theta-role and take a non-ACC object, so that they cannot passivize[163]. Recall that, in order to passivize, a verb must participate in assigning an external theta role.
In the *Lectures on Government and Binding* (LGB) (1981), Chomsky shows that if an agent-oriented adverb can appear in a structure, then an external theta role is assigned. Consider the distribution of *intentionally* in (71):

71. John intentionally ate the apple you were saving. (LGB:103)

Agent-oriented adverbs may appear also in different positions, with respect to the one in (69). As Jackendoff (1972) points out in fact, adverbs such as *cleverly* and *clumsily* may appear in three positions, expressing a different meaning in each position:

72. a. John cleverly dropped his cup of coffee
    b. Cleverly, John dropped his cup of coffee
    c. John dropped his cup of coffee cleverly.

Many explanations concerning the alleged multiple placements for such adverbs have been provided -- among others Geuder 2000. According to Jackendoff (1972) and other scholars (Piñón 2009), such adverbs have been considered either Subject-oriented or Agent-oriented. Nevertheless, I think that such a classification is misleading. In fact, although *cleverly* and *intentionally* are both Subject-oriented, in Jackendoff terms, they do not entirely overlap; they probably occupy

163 Although psych-verbs of the *temere* (to fear) class apparently passivize, their passives seem to be slightly different from the one of normal active verbs (see sec. 4.6). I c laim that this is due to the fact that *temere* (to fear) verbs, do not assign Agent theta-role but an Experiencer one.

a different position within the adverbial hierarchy. Given that Subj-Exp verbs are commonly believed to assign an Agent theta-role to their subjects -- contrary to Obj-Exp verbs -- we expect such verbs to be compatible with intentional adverbs such as *cleverly* and *intentionally*. Nevertheless, this is not the case. Consider in fact *temere* (to fear) (73):

73. a. *I gatti intenzionalmente temono l'acqua.
the cats intentionally fear the water
*Cats intentionally fear the water.*
b. I gatti stupidamente temono l'acqua.
*Cats stupidly fear the water.*

In (73), we can see that while *temere* (to fear) cannot be modified by *intenzionalmente* (intentionally), it can be modified by *stupidamente* (stupidly). Such data contradict also the classification in Geuder (2000) and Bonami, Godard, and Kampers-Manhe (2004), i.e.,, agentive vs. agent-oriented manner (AOM) adverbs. According to these authors, agentive adverbs can only appear preverbally, whereas AOM adverbs can also appear postverbally as in (74):

74. a. He cleverly acted stupidly.
b.*? He stupidly acted cleverly.

Let us reconsider (75) in the light of the latter hypothesis:

75. a. *I gatti temono intenzionalmente l'acqua.
the cats intentionally fear the water
*Cats fear the water intentionally.*
b. I gatti temono stupidamente l'acqua.
*Cats fear the waterin a stupid way.*

While (75b) confirms the AOM status of *stupidamente* (stupidly), this is not the case for adverbs like *intenzionalmente* (intentionally). Note that in (73a) *intenzionalmente* (intentionally) actually precedes the verb. The ungrammaticality of both (73a) and (75a) shows that *temere* (to fear) verbs are per se not compatible with Agent-oriented adverbs.

If that is actually the case, why are they compatible with adverbs such as *stupidamente* (stupidly)? Recall that Cinque's (1999) hierarchical classification of adverbs concerns their semantics, their overall function within the structure, and their position with respect to verbs. Following such a classification, I propose that adverbs such as *cleverly* express speakers/writer's judgement about someone else's action (similarly to Evaulative adverbs); adverbs such as *intentionally* describe someone else's willingness to perform that action -- similarly to Volitional adverbs[164]. The adverb *stupidamente* (stupidly) in (73b)-(75b) expresses the speaker's/writer's evaluation of the *actor's* performance -- similarly to *cleverly*; thence, the impossibility to consider it as an agent-oriented adverbs. On the contrary, *intenzionalmente* (intentionally) concerns the *actor*'s attitude towards the event. Therefore, *temere* (to fear) verbs are incompatible with adverbs expressing volition and/or intention as showed in (73a)-(75a). On such bases, I assume that *temere* (to fear) verbs do not assign an Agent theta-roles to their subject. Let us consider now *preoccupare* (to worry) verbs:

76. a. ?*Luigi ha preoccupato intenzionalmente i suoi amici.
    Lewis has worried intentionally the his friends
    *Lewis worried his friend intentionally.*
    b. ?*Luigi ha intenzionalmente preoccupato i suoi amici.
    *Lewis worried his friend on intentionally.*
    c. Luigi ha intelligentemente preoccupato i suoi amici.
    *Lewis worried his friend in a clever way.*
    d. Luigi ha preoccupato intelligentemente i suoi amici.
    *Lewis worried his friend a clever way.*

The sentences in (76a)-(76b) -- where *preoccupare* (to worry) is modified by *intenzionalmente* (intentionally) – are strongly marginal. On the contrary, (76c)-(76d) -- where *preoccupare* (to worry) is modified by *stupidamente* (stupidly) -- are instead acceptable. I propose then that *preoccupare* (to worry) verbs pattern with *temere* (to fear) ones. This means that no psych-verbs subjects can be considered as an Agent. Nevertheless, emotions such as *timore* (fear), *paura* (fright), and *preoccupazione* (worry) are caused by someone/something.

164 Following Cinque's (1999) classification, evalutive adverbs occupy a higher position with respect to the latter adverbs.

Following Pesetsky (1995), I propose in fact that *preoccupare* (to worry) verbs select a causer element, rather than an agent one. Note now that in certain cases these adverbs are more acceptable. Consider the following examples:

77. Gianni ha volontariamente impaurito tutti.
*Gianni has voluntarily scaried everybody.*

Recall that *impaurire* (to frighten) belongs to the *preoccupare* (to worry) class. The data in (76)-(77) suggest that, although no Obj-Exp verbs subjects holds an Agent theta-role, psych-events can be intentional. Nevertheless, not all Obj-Exp verbs are compatible with such adverbs:

78. *Lo spettacolo di Pietro è intenzionalmente piaciuto a suo padre.
*Peter's show has intentionally pleased father*..

## 9.6.2. INTENTIONAL CAUSE VS UNINTENTIONAL STIMULUS

In ch. 4, I have shown that many verbs of the *preoccupare* (to worry) class can be analysed as constituted by a preposition - IN - plus either a noun or an adjective. I have also shown that, although not all of them are easily decomposable in this way, this analysis can be maintained for all of them. Let us analyse now the causative nature of such verbs.Consider (79):

79. a. Gianni impaurisce Paolo.
Gianni scares Paolo
*Gianni scares Paul*
b. Paolo ha paura.
Paolo has fear.
*Paul is scared.*

In (79a), Gianni does something in order to scary Paolo.
As for the feelings, they do not last forever and, normally, people do not frighten themselves, at least not on purpose. Therefore, there must be something or

someone that provokes this feeling in other people. In fact, (79b) can be paraphrased as in (80):

80. Gianni è in uno stato di paura (a causa di Paolo) assoluto.
    Gianni is in one state of fear (due to Paul) absolute
    *Gianni is really scared of Paul.*

The sentence in (80) is a description of Gianni's temporary emotional situation. According Arad's (1998, 2000) semantic analysis of psych-verbs, *Gianni* can be considered as an element that has been pushed inside a psych-state, *paura* (fear), and that this is so due to *Paolo*. As for (79a), it has the possible counterpart in (81):

81. Gianni causa paura a/in Paolo.
    Gianni causes fear in paul
    *Gianni causes Paul to be scared.*

Note that (81) is the transitive counterpart of (80). Recall that in sec. 7.2 I have analysed psych-verbs as describing a locative displacement of the Experiencer inside a hypothetical feeling box or vice-versa. While there are psych-verbs patterning with *impaurire* (frighten) -- e.g., as *inferocire* (to infuriate)-- there are others that entail a different kind of causativity. Let us consider the case of *preoccupare* (to worry):

82. a. Marco preoccupa Antonio.
       Mark worries Anthony
       *Mark worries Anthony*
    b. ??Marco mette preoccupazione in Antonio.
       Mark puts anxiety in Antony
       *Mark gives Anthony worries.*

Note that while (81b) is grammatical, (82b) is marginal, though not completely ungrammatical. I assume that this difference has to do with the different kind of causativity entailed by the two psych-verbs, as introduced in the precedent section. Given the analysis proposed for Finnish, Japanese, and Hungarian, I

hence claim that Italian Obj-Exp verbs too have a causative morpheme, though not phonetically realized.

Independently of their morphological decomposition, all the *preoccupare* verbs entail some kind of causative semantics. Nevertheless, given that not all Obj-Exp verbs entail the same kind of causativity, I distinguish psych-verbs describing intentional actions from those describing unintentional ones. In this respect, note that the causative lexical verbs in (81) and in (82b) differ. I claim that while *causare* (to cause) in *causare paura* (lit. cause fear), refers to actions intended to a specific aim, *mettere* (to put) in *mettere preoccupazione* (put anxiety) does not. *Mettere preoccupazione*, in fact, refers more to a situation in which someone worries somebody else not on purpose. The different degree of intentionality shows up clearly if we add an adverb such as *involontariamente* (unintentionally):

83.a. Gianni (?? involontariamente/volontariamente) ha impaurito tutti.
Gianni unintentionally/intentionally has frightened everybody
*Gianni has unintentionally frightened everbody.*

b. Gianni ha preoccupato tutti (involontariamente/??volontariamente).
Gianni has worried everybody unintentionally
*Gianni has unintentionally worried everybody.*

While in (83a) *involontontariamente* (unintentionally) makes the sentence slightly marginal, with in (83b) it is perfectly possible. Note further that *volontariamente* (intentionally) has exactly the opposite effect. The higher degree of causativity of *impaurire* (to frighten) verbs with respect to *preoccupare* (to worry) verbs is even more evident if we apply the double causative construction (DCC) test, as shown in (84):

84. a. Gianni ha fatto far cadere il vaso dal tavolo.
Gianni has done make fall the vase from the table
*Gianni caused the vase to fall from the table.*

b. * Gianni ha fatto far comprare una macchina al nonno di Luca[165].
Gianni has done make buy one car to the grandfather of Luke
*Gianni force Luke's grandafather to buy a new car.*

165 Note that *cadere* (to fall) is a unaccusative verb but *comprare* (to buy) is a normal transitive.

In (84a), we have *cadere* (to fall), which combining with the *fare* (to make), forms a causative sentence (Guasti 1997). The complex verb *far*(*e*) *cadere* (lit. make fall) can be part of a bigger causative construction, as the complement of another causative verb, *fare* (to make). In (84b), though this further derivation is ungrammatical. I will show now that this is not an isolated case.

Sentences in which psych-verbs are complements of a single causative are possible with both kinds of *preoccupare* (to worry) verbs (intentional vs. unintentional) -- cf. (85a) and (87a). On the other hand, complex psych-verbs, as complements of a light causative verb such as *fare* (to make) are possible-- though in some cases marginal and context-dependent -- only with psych-verbs such as *preoccupare* (to worry) -- cf. (85b) and (86b). DCC with verbs of the *impaurire* (to frighten) type are not – cf. (87b) and (88b):

85. a. Gianni ha fatto disorientare tutti con le sue teorie.
Gianni has done confuse everybody with the his theories
*Gianni's theories confused everybody so much.*
b. Ho fatto far disorientare tutti a Gianni.
(I) have done make confuse everybody to Gianni
*I made Gianni confuse everybody.*

86. a. Giovanna ha fatto sedurre Mario grazie al suo fare disinibito.
Giovanna has make seduced Mario thanks to the her do uninhibited
*Giovanna has seduced Mario with her uninhibited behaviour.*
b. Paolo ha fatto far sedurre tutti a Lucia semplicemente per gioco.
Paul has done make seat everybody to Lucy simply for play
*Paul induced Lucy to seat everybody down just for fun.*

87. a. Michele ha fatto spazientire tutti con le sue continue lamentele.
Michael has done test patience everybody with his continuous complaints
*Michael has tested everybody's patience with his unstopping claims.*
b. * Michele ha fatto far spazientire tutti con le sue continue lamentele.
Michael has done make test patience everybody with his continuous claims

*Michael made someone test everybody's patience with his unstopping claims*

88. a. Quel signore ci ha fatto proprio impermalire.
That man us has make really took offence
*We got really annoyed over that man.*
b. * I loro figli hanno fatto far impermalire tutti i loro ospiti per tutta la sera.
the their children have done make took offence all the their guests for all the night
*Their children made all their guest take offence all night long to someone.*

Hence, *impaurire* (to frighten) and *preoccupare* (to worry) verbs behave differently with respect to this test too. Something must block the DCCs with verbs like *impaurire* (to frigthen). For now, let us note that *impaurire* (to frighten) verbs pattern with the transitive verbs -- cf. (79a) -- whereas *preoccupare* (to worry) verbs pattern with unaccusatives one -- cf. (82). But what blocks *impaurire* (to frighten) but not *preoccupare* (to worry) with the DCC?
The analysis proposed by Pylkkanen (1997) helps us in finding what differentiates *impaurire* (to frighten) from *preoccupare* (to worry). Recall that Pylkkanen argued that subdiving Finnish psych-verbs in stative and non-stative ones turned out to be unsatisfactory. In fact, some distinctions within the stative subclass are not predicted: Finnish has a class of stative psych-verbs that have both a causative and a non-causative use. Therefore, she proposed to subdivide further the stative verb class in *individual* vs. *stage-level* psych-predicates[166]. Adverbials such as *melkein* (almost) introduce an ambiguity with *stage-level* psych-verbs but not with *individual-level* ones[167]. Furthermore, they behave differently with respect to temporal and locative adverbials[168].

166 Recall the *individual-level* vs *stage-level* classification proposed for Finnish stative psych-verbs (Pylkkanen 1997:425) in sec. 9.3.

167 Recall that only causative psych-verbs are interpreted as *stage-level* states, whereas non-causative psych-verbs are interpreted as *individual-level* states.

168 Recall the following example introduced and discussed in sec. 9.3:

I propose that although both *preoccupare* (to worry) and *impaurire* (to frigthen) entail some kind of causativity, their causativity is of a different sort. I propose that syntax imposes a coarse grain on information from other systems, such as semantics, noticing certain distinction whereas blurring others, as proposed by Pesetsky (1995). Given the impossibility for some psych-verbs to have a DCC construction, I propose that we should distinguish intentional from unintentional *preoccupare* (to worry) verbs: the former including all psych-verbs concerning an intentionally-caused emotion, such as *paura* (fear); the latter including all those that concern an unintentionally-caused emotion, such as *preoccupazione* (worry). I will show that this further subdivision is useful in explaining the different behaviour within the *preoccupare* (to worry) class. We will have in fact different syntactic derivations.

Recall now that, cross-linguistically, verbs with a causative semantics are overtly compounded by a lexical verb and a causative morpheme -- cf. the Hungarian causative morpheme. Data suggest that this is true for psych-verbs with a deep causative semantics. Non-causative psych-verbs instead have no affixed causative morpheme. Following Pesetksy (1995), I propose that psych-verbs have a causative semantics, morphophonologically overt in some languages, and covert in others. Based on the syntactic relevant distinction between intentional/unintentional psych-verbs, I further propose that two different causative morphemes are at stake within psychological constructions: CAUSE and STIMULUS. I claim in fact that psych-verbs either concern intentional action or not, depending on which morpheme is incorporated.

### 9.6.3. CAUSER VS STIMULUS

Contrary to Pesetsky, I claim that psych-constructions entail two causative morphemes, STIMULUS and CAUSE, though only one is specific to psych-verbs -- i.e STIMULUS. In other words, I propose that CAUSE morpheme is present in

---

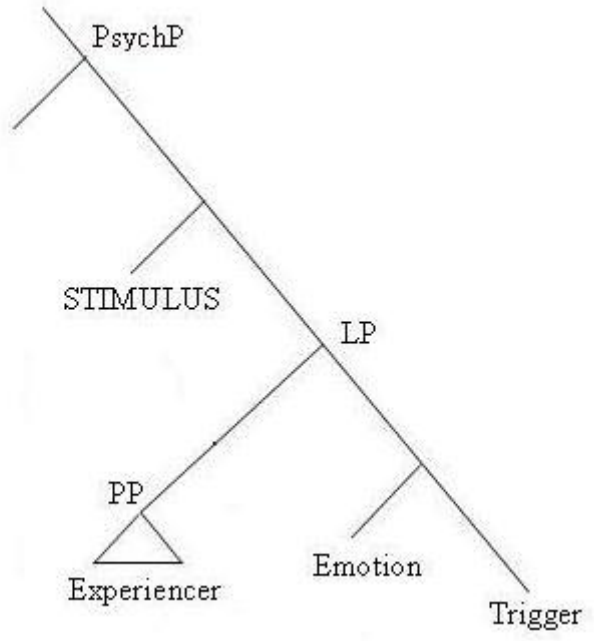
(i)??Jussi inho-si Mikko-a ruokapöydä-ssä.
JussiNOM findDisgusting-3SG.PAST Mikko-PAR dinner-table-INESS
Jussi finds Mikko disgusting at dinner table.

(ii) Mikko inho-tti Jussi-a ruokapöydä-ssä.
MikkoNOM findDisgusting-CAUS.PAST.3SG JussiPAR dinner-table- INESS
Mikko disgusts Jussi at dinner table.

all subtypes of causative constrictions whereas STIMULUS is restricted just to psych-verbs.

All Obj-Exp verbs -- independently of the inherent intentionality involved -- entail causativity and this differentiates them from both Subj-Exp verbs and normal transitive ones, consider the following structure:

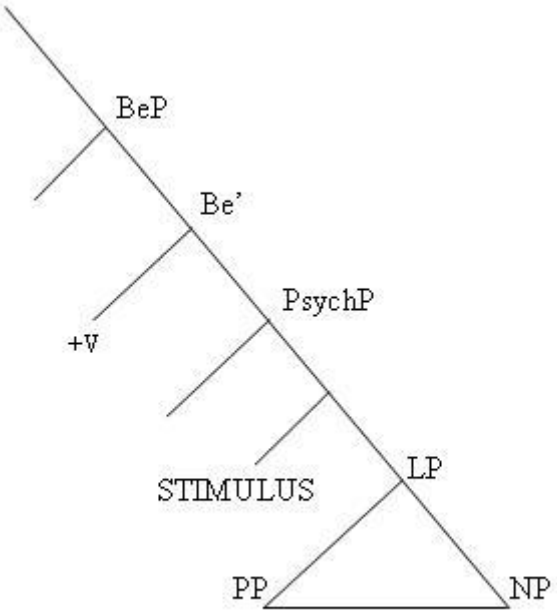
89.




As in (87), I claim that STIMULUS is incorporated into the psych-state in the syntactic derivation. CAUSE is instead incorporated only by some psych-verbs. According to such a hypothesis, the inner causativity of psych-verbs is therefore explained by the presence of the STIMULUS zero morpheme. Given this analysis, I propose that STIMULUS is different from CAUSE from the following points of view: it is internal to VP and it is psych-verbs restricted. On the other hand, similarly to CAUS in Pesetsky (1995), I propose that both STIMULUS and CAUSE are marked [+affix], which means that they can be further moved after their incorporation. What about the position of the CAUSE morpheme in terms of syntactic structure? Let us just introduce two topics that will be discussed later: the functional elemente BE (see sec. 8.1) and the cooccurrence of CAUSE, BE, and STIMULUS within the same syntactic structure.

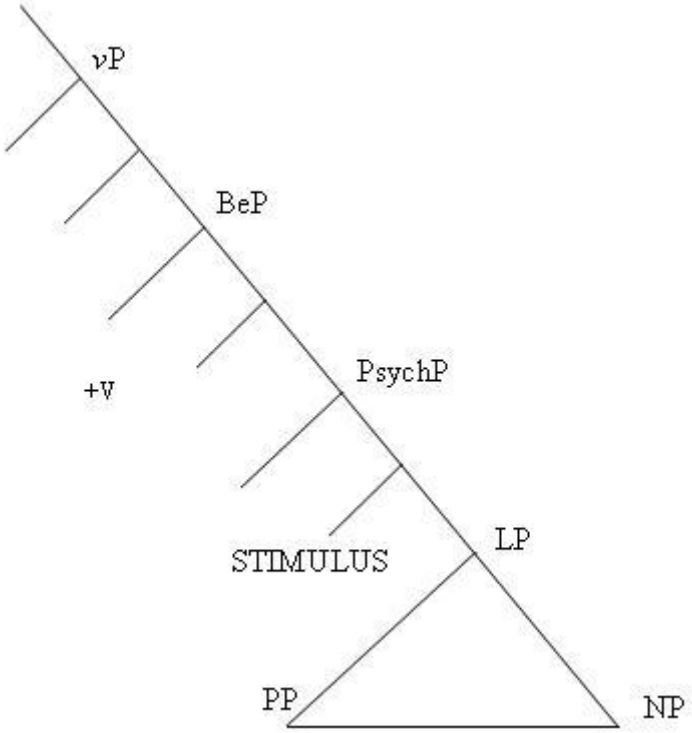
Concerning the first point, recall that I have shown that psych-verbs are derived verbs, i.e., the result of successive head movements. Furthermore, I consider BE to be a functional null element necessary to derive a verb from a noun or an adjective, as in Baker (2003). I consider then PsychP as a complement of the functional phrase, BeP, which contains the verbalizing head +v:

90.




As for the second, I assume that a *v*P will then merge with (91):

91.



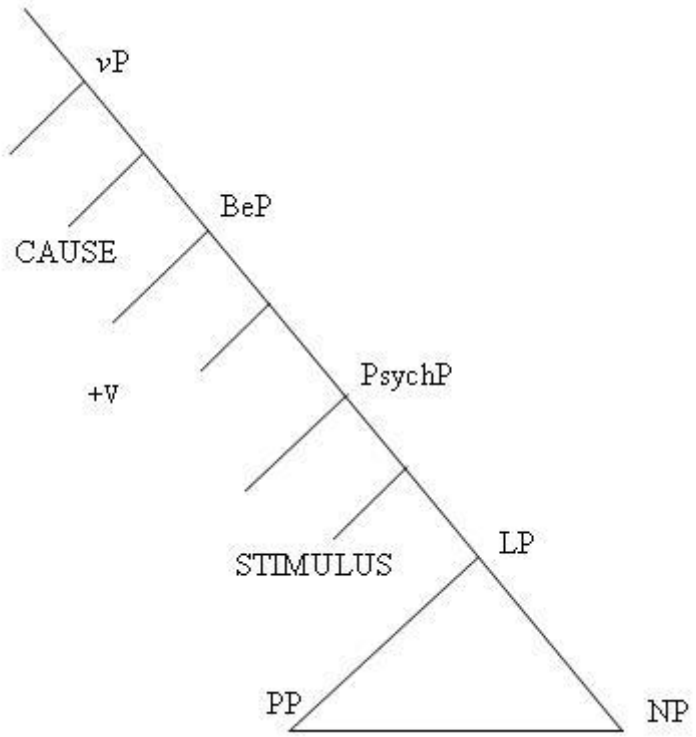

From (91), note that the VP of psych-verbs is more complex than so far assumed in the literature. Indeed, I propose that the VP of psych-verbs has to be split in several projections and that BeP is the highest functional one. Given that I consider only STIMULUS as psych-verbs specific, I further propose that CAUSE occupies a position external to BeP --that is outside the unsplit VP -- as is commonly proposed in the literature.

Furthermore, , I propose that the different degree of intentionality entailed by Obj-Exp psych-verbs depends on the presence/absence of CAUSE, within the psych-verb structure. Let us consider an example of a psych-verb that lacks a causative semantics:

92. a. Quei bambini amano/temono i loro genitori
*Those children love/fear their parents.*
b. *Quei bambini hanno fatto amare i loro genitori.
those children have made love the their parents.
*Those parents made their children love them.*

In (92), *temere* (to fear) verbs do not entail any kind of causativity as showed in (73). Given the general causative semantics, I claim that volitional semantics of psych-verbs is due to the presence of the causative zero-morpheme CAUSE, which occupies a higher position than STIMULUS:

93.




I hence propose that, depending on the final causative morpheme incorporation, psych-verbs assign either a CAUSER theta-role or a STIMULUS theta-role. The CAUSER theta-role is assigned to the subject only when the psych-verbs incorporates both causative zero-morphemes, i.e., both STIMULUS and CAUSE. The CAUSER theta-role is assigned to elements that intentionally do something that causes a psychological mental-state, just like a proper AGENT[169]. On the other hand, the STIMULUS theta-role is assigned to the subject only if just the STIMULUS has been incorporated into the psych-verb, as in (91). The

169 In this respect, Arad claims that the only difference between an AGENT and a CAUSER theta-roles "is in the way they are related to the lexical VP: an agent is generated at a *v* head which is selected by the V, while a causer is generated at a *v* head which is transitivization of a change of state predicate" (Arad 1998, 213).

STIMULUS theta-role is assigned to those elements that do not intentionally cause a psychological state of mind, even if there is still a causative relation. Citing Arad (1998) in fact, *perception of the stimulus (the subject) by the experiencer (the object) triggers a mental state in the experiencer* (Arad 1998: 210). The fact that in Italian none of these two morphemes are phonetically realized is simply a matter of parametric variation.

## 9.7 **INTERIM CONCLUSION**

To sum up, in this chapter I analysed the nature of the Trigger of emotion. Starting from the hypothesis that all Obj-Exp entail some kind of causativity, I proposed that causative morphemes are part of the structure psych-verbs, although not always overtly realized. Given their causative semantics, I proposed that the subject of Obj-Exp verbs do not hold the Theme theta-role but, on the contrary, a Causer theta-role. I then introduced -- starting from Japanese data -- the idea that the final internal position of Experiencers is the result of a constraint on the syntactic derivation of psych-verbs. Let us briefly introduce the rationale for it.

I propose that Experiencers merge in a position higher than the Trigger of Emotion -- cf.(58)-(59) in ch.8.5. Quoting H&S in fact I assume that, *following Reinhart (2002), a role mapped exclusively internally or externally is specified in the lexicon as inherently internal or inherently external respectively. In contrast, a role that can be mapped either externally or internally is not lexically specified for mapping. Rather, the role is mapped externally when possible, namely, in absence of a role inherently external (e.g., Agent or Cause), and internally in its presence* (H&S:29). On these bases, I propose that the final object position of the Experiencers is morphologically driven, or better to say that the presence of an element holding a causative theta-role prevents the Experiencer from occupying an external position.

Following H&S then, I propose that the incorporation of a CAUSE morpheme by a psych-verb blocks de facto the possibility for Experiencers to occupy an external position within the final string. Data from Finnish, Japanese, and Hungarian support this hypothesis[170]. Moreover, given their basic causative

170 Lexical semantics studies have led to the conclusion that many transitive verbs decompose semantically into some kind of CAUSE operator plus another predicate that characterizes the event or state that is caused (See Dowty 1979, and Parson 1990).

semantics, I further claimed that these Obj-Exp verbs do not assign a Theme theta-role to their external arguments. Furthermore, cross-linguistic data seem to suggest that Obj-Exp verbs do contain causative morphemes, whence the hypothesis that *preoccupare* (to worry) verbs do too. In addition to the Experiencer theta-role, these psych-verbs must select a causative external argument.

I further discussed the fact that the concept of Causer seems to be too generic. I showed that the subject of Obj-Exp verbs holds different "causer" roles. Data show that psych-states can be caused by means of either intentional or unintentional actions. Psych-verbs describing intentional actions are compatible with adverbs such as *volontariamente* (voluntarily), whereas those describing unintenional actions are not. Thence, I proposed that the Cause theta-role must be split into two parts: CAUSE and STIMULUS and claimed that psych-verbs assign either the Stimulus or the Causer theta-role to their external argument. Such a distinction affects the syntactic structure of the psych-verbs. Moreover, the difference in intentionality depends on which morpheme a specific psych-verb attaches to: STIMULUS or STIMULUS+CAUSE.

# CHAPTER 10
# PSYCH(-NOMINALS) IN THE DERIVATION OF PSYCH-VERBS

## 10.1 ADJECTIVES, NOUNS AND PSYCH-VERBS

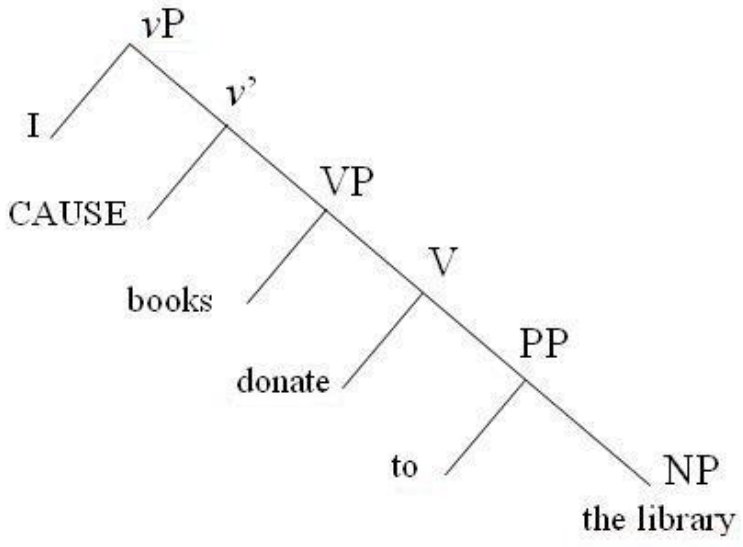
So far, I argued in favor of the hypothesis that Italian *preoccupare* (to worry) verbs have a causative semantics and that this due to a zero --i.e., phonetically null -- causative morpheme. In this section I will argue that a version of (1) can be adopted to represent the semantic decomposition of Obj-Exp verbs:

1. [x CAUSE[y [[ to z]]]]

### 10.1.1. THE DECOMPOSITION OF PSYCH-VERBS

Following Jakendoff (1983), CAUSE is an *operator* selecting a Causer as its first argument. The Theme is the second argument of CAUSE. The peculiarity of psych-verbs follows from their special semantics. Baker (2003) proposes that transitive verbs have a syntactic structure resembling the one proposed by Larson (1988) for DO verbs. According to Baker (2003), transitives verbs can be semantically analysed as CAUSE (v°) plus an unaccusative verb (V°), e.g., a result-expressing predicate:

2.




Baker argues that *just as many transitive verbs can be semantically decomposed as CAUSE plus what is in effect an unaccusative verb, so unaccusative verbs can be decomposed into a BE operator plus what is in effect as adjective* (Baker, 2003:80). According to the author, this is a possible solution given that it is nothing *more than a modern version of a very old idea that goes back to Aristotle, according to which all verbs 'signify affirmation' and are derived from the copular verb BE plus an adjective-like participle* (Robins 1989:138, in Baker 2003: 81).

Moreover, according to Baker (2003), BE is an operator that similarly to CAUSE takes two arguments, i.e., the Theme and a property-denoting argument. The latter argument may be either simple, or with an internal structure. Baker therefore analyses transitive verbs as *donate* as having a possible counterpart, as the one in (3b):

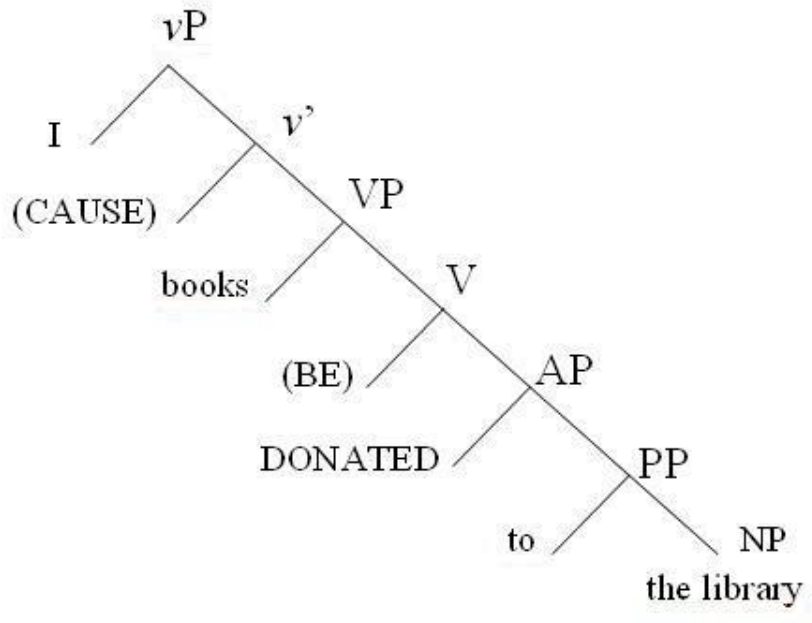
3. a. I donate the books to the library.
   b. I caused the book to BE donated to the library.

The lexical decomposition of ordinary transitives would be as in (4):

4. [x CAUSE[y BE [ADJECTIVE to z]]]

Following (4), the syntactic representation of (3a) -- paraphrased as in (3b) -- is as follows:

5.




Given their inherent causative semantics, psych-verbs too contain a *v* head and result-expressing predicate. Moreover, following Baker (2003), I claim that the semantic decomposition proposed in (1) must be revised[171]. Although psych-verbs have traditionally been analysed as either intransitive verbs (B&R) or as transitive-like verbs (Pesetsky 1995), I propose that - by virtue of their denominal nature - they share features with both verbal categories. As for the final structure, I claim that psych-verbs exhibit a syntactic structure similar to the one of transitive verbs. In particular, I conclude that psych-verbs too can be analysed as in (4).

Nevertheless, the causative semantics of Italian psych-verbs is rather different from the one of normal transitive verbs. Indeed, although normal transitives such as *donate* and psych-verbs such as *impaurire* (to frighten) share a similar

171 The lexical verb is then the result of conflating CAUSE+BE+ADJECTIVE into a single X° by successive head movement (Baker (2003), 221).

causative semantics, the former describe a change of state -- i.e., *I caused the book to be donated to the library* -- whereas the latter describe a metaphorical displacement of either the Experiencer or the mental state, which in turn can be either a noun or an adjective -- i.e., *Marco put/cause a fear in/into Giovanni*. Therefore, I propose that the semantic structure underlying psych-verbs is rather different from the one of a transitive one , as shown in (6):

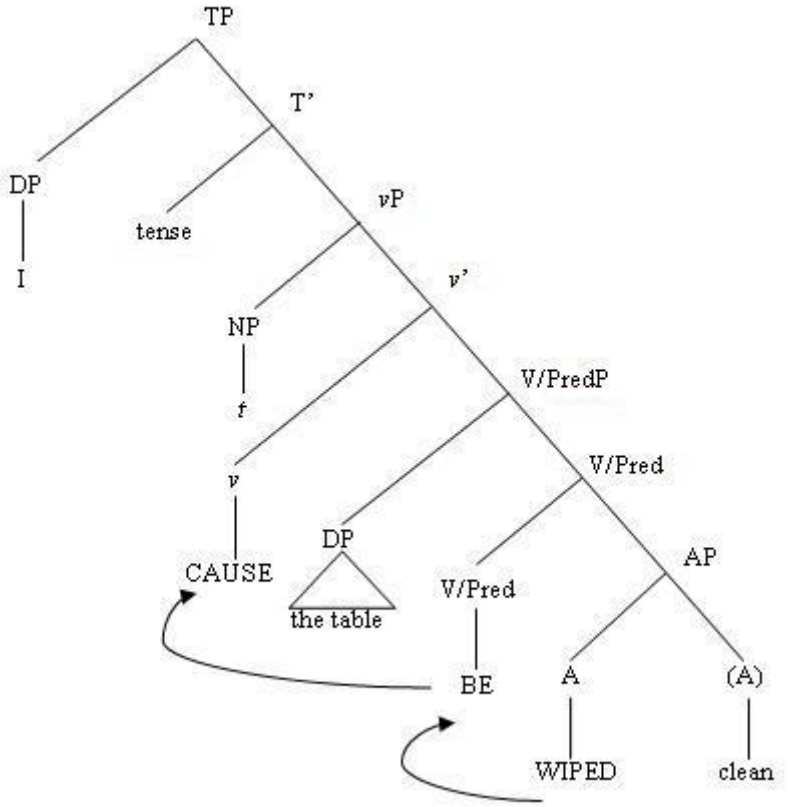
6. [x CAUSE[y BE [*in* z]]]

Still, neither CAUSE nor BE, contrary to what happens with resultative verbs (Baker, 2003), is overly present in the final string. Let us therefore introduce Baker's (2003) analysis of English resultative constructions, which is important for two reasons. First of all, it can be adopted for the analysis of traditional transitive verbs. Secondly, it also holds for constructions without the second adjective, given that this latter simply modifies the nominal but not the structure[172]. According to such an analysis, the adjectival component of the verb moves out to combine with BE and CAUSE. Consider (7b), the syntactic representation of (7a):

7. a. I wiped the table clean.

172 Adjectives, differently from nouns and verbs, can combine with eventive verbs in order to better characterize the final state of the Theme. Although this is highly productive in English, the resultative construction is not that common in other languages. French and Italian, for instance, do not generally permit resultative adjectives.

b.




Note that Baker, indirectly, shows that also simple lexical verbs might be morphologically complex. For instance *wipe* can be lexically decomposed as CAUSE TO BE WIPED (Baker 2003: 221), which means that, in order to become a lexical verb, the pseudo-adjective *wiped* has to move up and conflate first with the operator BE and then with operator CAUSE, as in (7b). Furthermore, Baker claims that verbs and adjectives with a similar semantics, such as *wipe* and *wiped*, correspond to a unique lexeme, *wiped,* from which they both derive. A similar proposal is also advocated by H&K and Alexiadou (2001), though from rather different points of view. As mentioned above, Baker assumes that the basic lexeme is an adjective[173], on the basis of Chierchia's (1985) semantic theory which argues that *a propositional function (a verb) can always be seen as the*

173 Recall that Baker too adopts for his analysis the old idea that *all verbs signify affirmation and are derived from the copular* ***be*** *plus an adjective-like particle* (Robins 1989: 138 in Baker 2003:81).

*result of applying the "up" operator to a property qua individual (i.e., an adjective)* (Baker 2003:80). Following Baker, I propose that all verbs, at least those with a causative semantics, start as either nouns or adjectives. Although Baker's (2003) and H&K's analysis of denominal/deadjectival verbs are quite similar, they do not entirely overlap. In particular, Baker's (2003) and H&K's analyses differ with respect to the *incorporation* timing, i.e., while H&K analyse it as cooccurring with Merge, Baker (2003) assumes that it follows Merge, i.e., it is part of the syntactic derivation[174]. In the present discussion, H&K's hypothesis will be adopted.

There are two interesting points to stress. First of all, both works assume that it is possible to analyse verbs as deriving from either a noun or an adjective. Secondly, Baker (2003), extending H&K's analysis to transitives as well, indirectly claims that transitive verbs contain an underlying adjective phrase. Baker assumes that this is the case even with those verbs that apparently are not denominal or deadjectival, such as *water* or *reddens*. Moreover, he proposes that the representation of unaccusative/unergative verbs such as *arrives* and *work* is exactly the same as the one for transitive verbs given in (7), the only difference being that, instead of CAUSE, the latter contains a v that does not theta-mark its external argument (Baker 2003:85).

Baker (2003) further claims that an element merged as an adjective could turn into a verb in the syntactic derivation -- i.e., wiped *adj*> wiped *v*. Supposing *the insertion point open, so that the insertion of vocabulary item can take place at any point in the derivation as long as the language has an item that can realize the particular collection of syntactic formatives in question, derivations go as follow. First, an adjective merges* (with other arguments) *to create AP. At this point, an adjective root can be inserted, if the language has one. Then AP* (furhter) *merges with Pred, and the combination is merged with a Theme* (if sanctioned by the lexical meaning of the AP). *At this point Pred can be spelled out as an appropriate vocabulary item or* (if no lexemes were inserted for the adjective or Pred), *Head movement could apply, adjoining A to Pred. The A+Pred combination can then be spelled out as a root verb, if the has a suitable root available* (Baker 2003: 86). On the basis of this analysis, Baker finally makes the

174 They are written in *italics* in that I am not using it as in Baker (1988) but just as the generic syntactic operation of incorporation of element into another.

strong claim that "all languages have adjectives of a sort in underlying representation" (Baker 2003: 88).
Baker's hypothesis on verbal derivation is simple and far reaching at the same time. The assumption that all verbs are derived has the great advantage of maximizing the similarities between transitive, unaccusative, and unergative verbs. In the light of this last assumption, I propose that this holds for Italian psych-verbs as well. In this analysis, I will blend elements of both H&K and Baker (2003).
Before going any further, I would like to stress that the following point:

8. (Psychological) verbs should be analyzed as the result of a conflating (three) different heads into a single X° by (successive) head movements.

To conclude, following both H&K and Baker (2003), I propose that Italian psych-verbs are to be considered morphologically complex, i.e., denominal. Note that the semantic representation of psych-verbs given in (6) is still an open issue.

### 10.1.2. PSYCH-VERBS FULL LEXICAL DECOMPOSITION

In 7.1, following Bouchard (1992), I proposed that *non-incorporating* psych-constructions are psych-verbs too and I showed that psych-verbs can be analysed as derived verbs. Moreover, I proposed that psych-verbs enter the structure as psych-states -- i.e., as nouns or adjectives *paura* (fear) or *geloso* (jealous) -- and merge with a trigger of the emotion (forming L'). L' then merges with Experiencers. According to the present hypothesis then, synthetic psych-verbs are the result of further head-movements, much as transitive/resultative verbs are in Baker (2003). Note further that non-incorporating psych-verbs support Baker's suggestion that CAUSE projects as a head *v* distinct from V. In other words, light verbs such as *causare* (to cause) or *mettere* (to put/give) present in non-incorporating psych-verbs occupy the position of CAUSE in (7b), *v*. Thence, Baker's assumption suits also the analytic nature of all psych-verbs given so far.
I propose that each element of the analytic psych-verbs occupies a specific place in the syntactic decomposition proposed in Baker (2003). Moreover, synthetic psych-verbs such as *preoccupare* (to worry) differ from their non-incorporated

counterparts, *dare preoccupazione a* (to give worries to), merely in terms of syntactic derivation, the former entailing a higher number of successive head movements.

My hypothesis is that all psych-verbs have an analytic structure and that they all derive from such a structure. For the analysis of Italian psychological verbs, I adopt the core of both H&K's and Baker's (2003) theories, i.e., that normal verbs might be analyzed as the result of a conflation of (three) different heads into a single X°, by successive head movements.
Differently from Baker (2003), I propose that the semantic decomposition of psych-verbs includes *EMOTIONS* and the locative preposition *IN*, instead of an ADJECTIVE and the preposition *TO* (*a* in Italian). Psych-states/Emotions can either incorporate into the light verb -- deriving a synthetic psych-verb as *impaurire* (to frighten) -- or not -- deriving an analytic psych-verb as *mettere paura* (put/give fear). Given the idea that psych-verbs initially merge as bare nouns/adjectives, I further claim that there is an intermediate stage, that is the verbalization phase, as in Baker's (2003) A to V/Pred hypothesis. The fact that some synthetic psych-verbs do not have an analytic counterpart is due to a vocabulary defection (Baker 2003:86).
I propose that psych-verbs have a slightly different semantic decomposition with respect to the one proposed for transitive/resulative verbs by Baker. Psych-verbs differ from transitive verbs in many respects. First of all, given the locative nature of the Experiencer (see ch.8), I analyse them as complements of a locative preposition. Secondly, psych-verbs concern emotions, which can be either nouns or adjectives, and not only adjectives as in Baker (2003). Note that in the lexical representation in (6), no locatives are included. Therefore, I propose to adopt a further revision of Baker (2003):

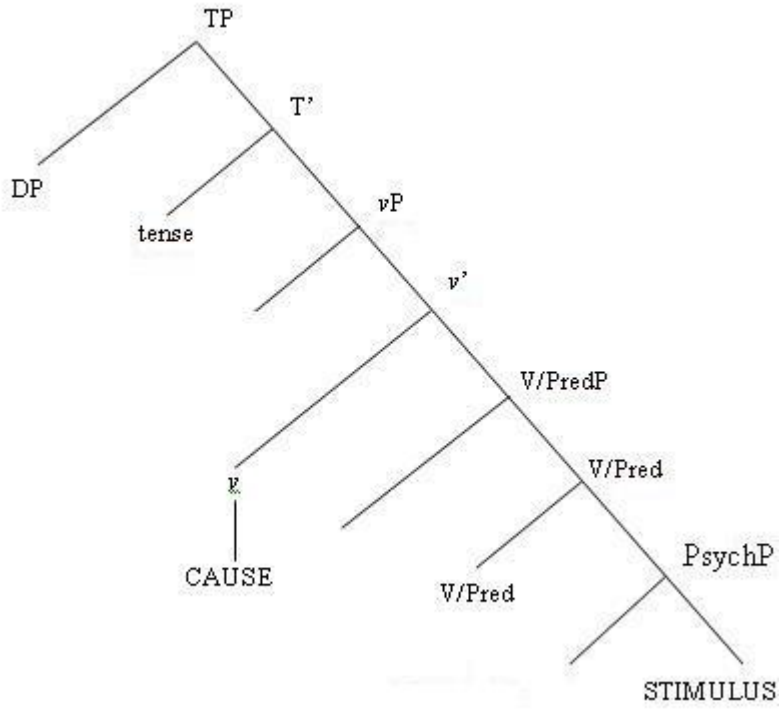
9. [x CAUSE[y BE [*in* EMOTION]]]

Note that "[*in* EMOTION]" holds the same function as "[ADJECTIVE]" in (4), in that it modifies the noun *y*. The semantic decomposition in (9) supports the hypothesis about the derived nature of psych-verbs. Still, recall that above I argued that each psych-verb incorporates either one or two causative zero-morphemes --STIMULUS and CAUSE -- and that, depending on this choice, it

entails either an intentional or an unintentional causative semantics. Nevertheless, the lexical decomposition proposed in (9) entails just one causative operator CAUSE. Recall that Jackendoff (1977) analyses such an operator as semantic universal and that I consider STIMULUS to be psych-verb specific. Therefore, the presence of CAUSE only in (9) follows. In the remainder of this section, I will show how the lexical decomposition adopted in (9), based on Baker (2003), can be of use in our analysis of psych-verbs.

Similarly to CAUSE and BE in Baker (2003:81), I suggest that both CAUSE and STIMULUS project into the syntax. In (10), I give an approximate representation on line with Baker's proposal for transitive verbs (2003:221), the only exception being the complement of PsychP[175]:

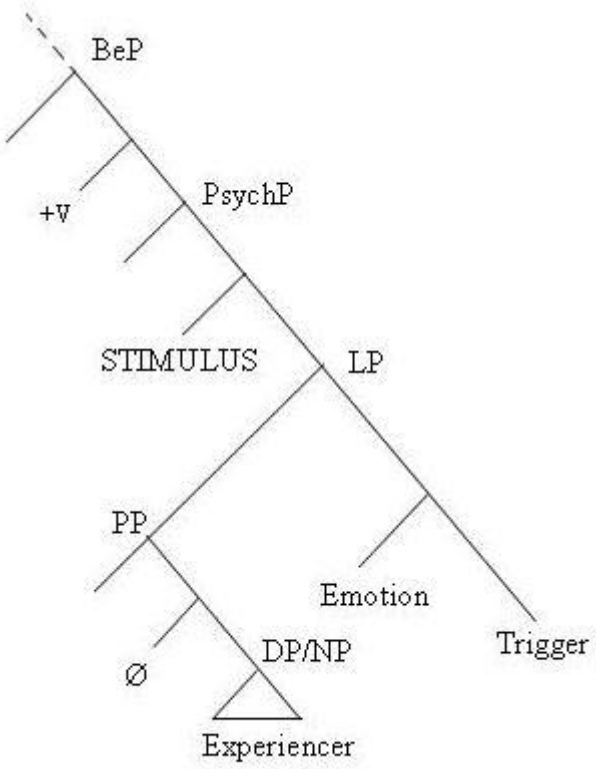
10.




175 Note in (10) that CAUSE and STIMULUS occupy two different positions. In turn, this should meand that that they can potentially co-occur within the same syntactic structure; in particular nothing prevents psych-verbs to assign both a Stimuls and a Causer theta-role -- recall the T/SM restriction in 9.4. Still, nothing would prevent the Stimulus from being identical to the Causer either. As for this last point, I consider the impossibility with Italian psych-verbs to have Stimulus and a Causer assigned to two different arguments merely as an idiosyncratic one.

Recall now that, following (Baker 2003), nominal elements have to conflate into at least two heads to become verbs. In a similar fashion, I propose that a psych-state has to conflate into both V/Pred° and *v*° in order to become a psych-verb. Therefore, (10) needs to be expanded. This is necessary because the verbalizing functional projection -- PredP in Baker -- is a part of psych-VP and not the head of V° (note that this is necessary also for the decomposition proposed in (89) in 9.7). Furthermore, given that psych-verbs can be decomposed as "X causes Y to be in Z", I propose that the verb *be* is actually the head of a relative functional projection, say BeP. Consider (11):

11.




Be° has the same function as Baker's (2003) V/Pred°, i.e., it turns the argument that it incorporates into a verb. (11) supports the lexical decomposition in (9). In the following section, empirical support for the structure in (11) will be provided. I will further show that the different relationship of causality shown above (recall the intentional vs unintentional psych-verbs distinction above) depends on different syntactic structures.

## 10.2 FROM LEXICAL DECOMPOSITION TO PSYCH-VERBS

I will now take into consideration all those psych-verbs that entail causativity, i.e., the *preoccupare* (to worry) psych-verbs. Compare the lexical decomposition of *wipe* and *preoccupare* (to worry) and *impaurire* (to frighten) in (12):

12. a. cause to be wiped>wipe
    b. mettere in confusione> confondere
       put/give in confusion >confuse
    c. causare/mettere *paura* in/a >*impaurire*
       cause/put fear in/to >frighten

Given (12), psych-verbs and transitve verbs must share a similar lexical decomposition. Nevertheless, the lexical decomposition proposed in (9) seems to be unfit for (12a). Only some synthetic psych-verbs such as *impaurire* (to frighten) show a CAUSE element -- *causare paura a* (cause fear to)-- in their analytic counterparts. Note also that analytic psych-constructions in (12b)-(12c) are composed by a light verb and a noun, not an adjective. In order to account for this fact, a proposal has already been made[176]. As for the former point, i.e., the fact that only some synthetic psych-verbs display a CAUSE element, I analyse Baker's CAUSE as a macro-operator including all operators entailing causativity [177] . Consider now the analytic causative counterpart of *Gianni impaurisce Paolo* (Gianni scares Paolo), repeated here in (13):

13. Gianni causa paura in/a Paolo.
    Gianni causes fear in/to Paul
    *Gianni caused Paul to be scared.*

In (13), Baker's (2003) operators CAUSE and BE, which responsible for the transitive sentence derivation, are both present, though BE is phonologically null.

176 See section 7.1

177 See section 9.6

Nevertheless, I consider BE to be semantically present. This is shown by the fact that (13) can be decomposed as in (14), just like *I donate the books to the library* can be (marginally) decomposed as *I caused the book* to BE *donated to the library* (cf. (3)):

14. Gianni causa Paolo essere in paura.
    Gianni causes Paul to be in fear
    *Gianni caused Paul to be scared.*

Note that the English counterpart of (14) is grammatical[178]. Therefore the operator BE must be present in Italian too, though covertly -- i.e., *Gianni impaurisce Paolo* (Gianni scares Paolo). The covert nature of BE follows from a different parametric choice. On the basis of the analysis proposed so far, I shall reformulate the lexical decomposition initially proposed for psych-verbs in order to account for the locative relationship which is established between Experiencers and Emotions. In particular, I will now consider the semantic decomposition of *impaurire* (to frighten) as in (15)[179]:

15. [x CAUSE [y BE [[*in paura*]]]]

I assume that psych-verbs that do not pattern with *impaurire* (to frigthen) (cf. content vs. container psych-verbs in 7.2) might be lexically decomposed in the same way. Consider *confondere* (to confuse) in (16):

16. [x CAUSE [y BE [[*in confusione*]]]]

As *paura* (fear) in (15), *confusione* (confusion) occupies the EMOTION slot. Still, data seem to be at odds with the lexical decomposition proposed in (15)-

178 In this respect, I claim that the semantic decomposition of normal transitive verbs proposed by Baker (2003) casts some light also on Italian psych-verbs, which is very interesting in terms of the Universal Grammar Hypothesis. If the causative decomposition proposed for transitive verbs proves to be useful for Italian psych-verbs then it will be possible to analyse English psych- verbs in the same way.

179 Note that, in spite of the similarity between (15) and (9) – i.e. both of them contain an emotion and X stands for the Causer, Y for the Experiencer-- they differ in terms of the internal structure in which the mental state is contained.

(16), for two reasons. First of all, not all the *preoccupare* (to worry) verbs have an overt locative prefix such as *in* -- c.f. *preoccupare* (to worry) for instance. Secondly, not all psych-verbs metaphorically describe the same situation as *impaurire* (to frighten)[180].

As for the first point, the locative preposition, although not phonetically realized, is still present in the background[181]. This means that the same semantic decomposition proposed for verbs like *impaurire* (to frigthen) can be maintained also for those verbs which do not start with *in*. As showed in 8, the fact that they do not start with the *in* prefix is due to a phonological parametrical restrictions active in Italian. Taking this into consideration, let us briefly reconsider the verb *addolorare* (to sadden). Although it does not start with *in*, it can still be decomposed, as in *a+dolore*, just like *impaurire* (to frighten). Furthermore, *a* has the same locative nature as *in*, hence its prepositional nature. Therefore, I argue that *addolorare* (to sadden) can be lexically decomposed in the same way as *impaurire* (to frigthen)[182]:

17. [x CAUSE [y BE [[ *in dolore*]]]].

As for the second point, I propose that, although (15) cannot be adopted as it is for *preoccupare* (to worry), a revision of it can be adopted. Consider (18):

18. C'è tanta preoccupazione in tutti noi.
    There is a lot of anxiety in all of us

Recall that according to the Content vs. Container hypothesis in 7.2, the locative relation that psych-constructions such as (18) express is that of Experiencers containing Emotions and not the other way around. In the remainder of this

180 See the *Content* vs *Container* distinction of the *preoccupare* (to worry) verbs in sec. 7.2.

181 See 8.4 where I showed that all psych-verbs could be semantically translated as either 'there is Emotion in Y' or as 'Y is in Emotion'. Note that psych-verbs are not always prefixed with the locative preposition *in* but also *a* and *s* (which meand *fuori da* 'out of').

182 In fact, in this very specific case, the prepositions *a* and *in* can be treated exactly in the same way, i.e., as elements putting Experiencers and mentail states in a locative relation. The fact that in some cases this relation is showed by either *a* or *in* is simply due to phonology constraints.

discussion, I will show that such a distinction can be accounted for by taking into consideration the intentional vs unintentional distinction introduced in 9.6. Consider the following examples:

19. a. Luigi ha impaurito tutti.
    Lewis has frightened everybody
    b. Luigi sta mettendo paura a tutti.
    Lewis is putting fear into everybody
    c. Questa situazione sta esasperando tutti.
    This situation exasperates everybody
    d. *Questa situazione sta mettendo esasperazione in tutti.
    This situation is putting exasperation in everybody
    e. C'è esasperazione in tutti noi per quello che è successo.
    There is exasperation in all of us.

The contrast in (19) shows that while the CAUSE operator is present within some psych-constructions -- *impaurire* (to frighten) -- it is absent in others -- *esasperare* (to exasperate). Therefore, the data in (19) cannot be predicted by the semantic decomposition in (15). Hence, (15) cannot be the general semantic decomposition for all psych-verbs, but only for a particular subset-- i.e that of *impaurire* (to frighten):

20. *[x CAUSE[y BE [[ *in* esasperazione]]]]

A modified lexical decomposition could account for unintentional psych-verbs. In order to deal with psych-verbs such as *esasperare* (to exasperate), I propose that the only difference in the semantic decomposition of intentional and unintentional verbs is the presence vs. absence of the CAUSE operator. The semantic decomposition of these verbs is the one in (21):

21. [[EMOTION BE [[*in* y]]]]

Therefore, I propose that (21) accounts for the unintentionality of some psych-constructions and also for copular construction in (18). Given (19), unintentional

psych-costructions have a Content semantics[183]. On this basis, I propose that the lexical decomposition for psych-verbs such as *esasperare* (to exasperate) is the one in (22), which can be read off as "*exasperation* is in Y"[184]:

22. [[esasperazione BE [[*in* y]]]]

Therefore, all Obj-Exp psych-verbs can be semantically decomposed as in Baker (2003), though two different decompositions are proposed here:

23. a. [x CAUSE[y BE [*in* EMOTION]]]
    b. [x[EMOTION BE [[in y]]]]

Both lexical decompositions are in line with the Content vs Container classification given in 7.2.

Let us now focus on *esasperare* (to exasperate). Its nominalization is *esasperazione* (exasperation); it cannot decompose as *impaurire* (to frighten) and *addolorare* (to sadden). Moreover, *esasperare* (to exasperate) has a different causative semantics with respect to *impaurire* (to frighten)[185]. Depending on the intentionality of the event itself, *preoccupare* (to worry) verbs can select either a Causer or a Stimulus as their grammatical subject.

Consider now that EMOTION and Experiencers occupy different positions. In (23a) EMOTION appears after the locative *in*, whereas the Experiencer appears before the operator BE. (23b) exhibits the opposite pattern. Also note that the operator CAUSE is present only in (23a). It will be shown that the different syntax showed in (23) is the foundation of the differences encountered so far in

183 Note that psych-constructions that can be lexically decomposed as in (20) resemble stative verbs.

184 This seems to be in line with what just said, i.e., that the locative preposition has something to do with the non possibility to nominalize of some of *preoccupare* verbs. Verbs such as *esasperare* (to exasperate) and *preoccupare* (to worry) entail a different locative relation between the Exp and the psych-state from those verbs like *impaurire* (to frighten).

185 Recall sec. 9.6 where I proposed that, although all preoccupare (to worry) verbs entail causativity, the action can be either intentional or not

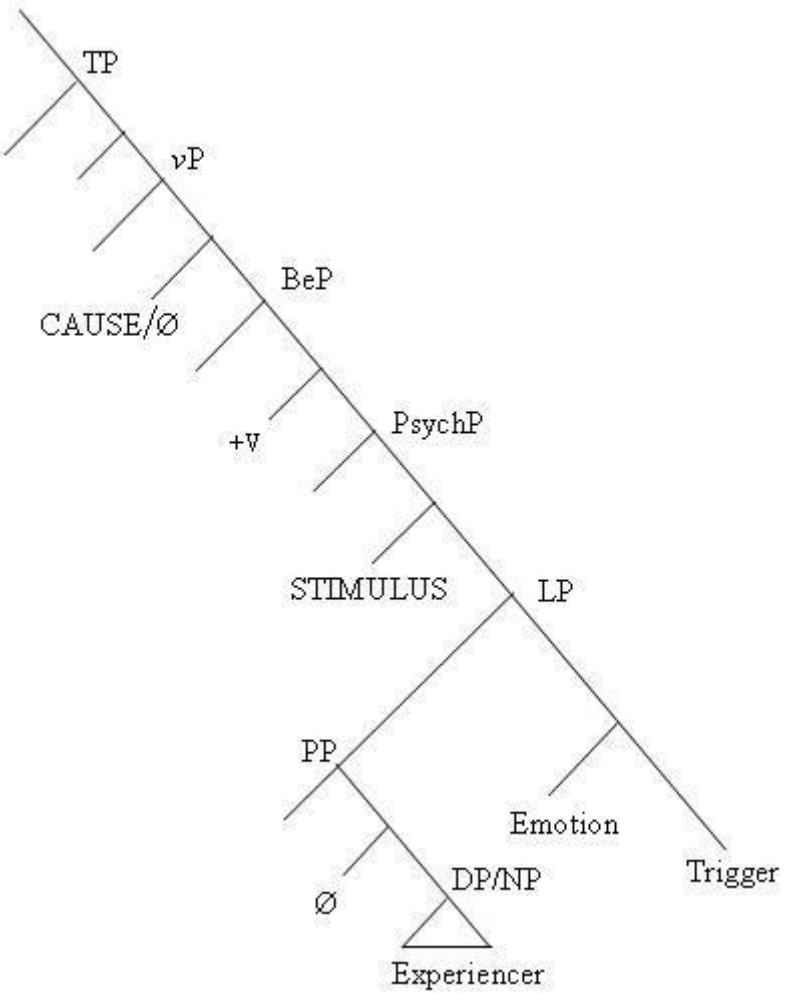
Obj-Exp psych verbs. In turn, these differences are the result of a different syntactic derivation. Assuming that all psych-verbs have a common syntactic structure, the following natural questions arise: what is the basic semantic decomposition of psych-verbs? What causes the different decomposition in (23a-b)? In order to answer these questions, recall that, although Obj-Exp verbs entail different causative semantics, all the basic elements of these verbs first-merge in the same way.

The locative preposition *in* occupies the same position both in (23a) and in (23b), whereas EMOTION and Y (Experiencer) do not. I propose that this depends on the presence vs. abscence of the CAUSE operator. According to Baker's (2003) syntactic derivation, the above difference can be accounted for in terms of successive head-movements. Therefore, Y in Spec,BeP is its first step on its way to Spec,*v*P but the presence of CAUSE attracts X to Spec,*v*P blocking the raise of Y to Spec*v*P. The question now arises whether the presence/absence of the causative zero-morpheme determined the mismatch in (23a-23b). This cannot be the case, as showed by the fact that while not all Obj-Exp include CAUSE, they all include STIMULUS. As anticipated in 8.4, all psych-states incorporate the STIMULUS zero-morpheme before raising to Be°. On the contrary, psych-verbs incorporate CAUSE only if this is part of the lexical array. Therefore, the presence/absence of the CAUSE operator cannot account for the mismatch in (23a-23b). I propose instead that the basic lexical semantics of Obj-Exp verbs is the following:

24. [CAUSE/Ø [BE [[y *in*] EMOTION x]]]

On the basis of this, I claim that CAUSE/Ø in (24) determines the mismatches within Obj-Exp verbs. I will show now how both types of lexical representations given in (23) actually derive from (24). Before doing that, I will stress two additional points. First of all, the basic psych-verbs syntactic representation is unique for both Obj-Exp, as shown in (11), repeated here in (25). Secondly, in 8.4 I proposed that the different locative prepositions are selected depending on the syntactic structure of the Nouns. I will also show that (24) and (25) can be adopted for *piacere* (to please) verbs as well.

25.

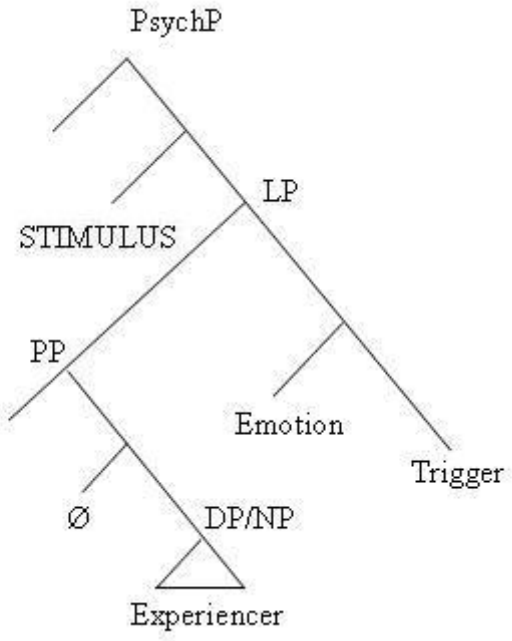



(23a-b) are derived from (24). The internal VP is split into three parts, as in (25), and the basic lexical decomposition of such verbs is (26):

26. [BE [[y *in*] EMOTION x]]

Recall that PsychP is the functional projection specific for all Obj-Exp verbs, given that all of them entail a causative semantics. Also recall that this inherent causative semantics is due to the zero causative morpheme, STIMULUS, as showed in (27):

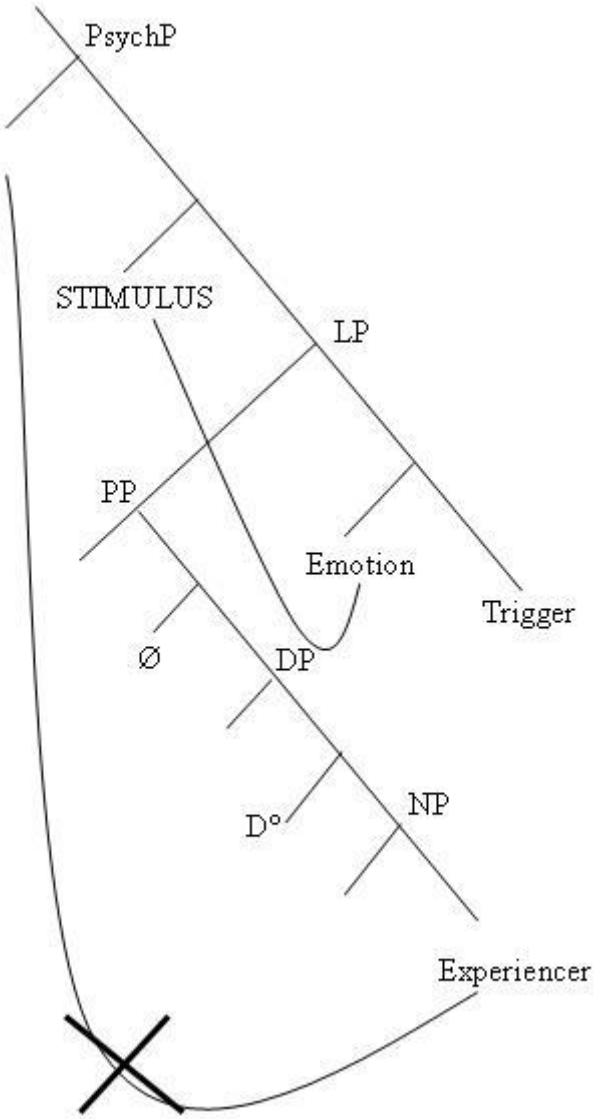
27.




STIMULUS triggers movement of the Experiencer to SpecPsychP. Then, the Emotion/Psych-state raises to Psych° and to Be° -- cf.(26). I will now focus on the syntactic derivations leading to the different lexical decomposition in (23) and to their different causative semantics.

I argue that the causative semantics of psych-verbs depend on the fact that the Experiencers can be realized as a DP or an NP. In 8.5, I showed that if the Experiencer is a DP it cannot raise to Spec,PsychP, due to the HMC, whereas Emotions raise to Psych° on their way to Be°. Consider the following derivation:

28.



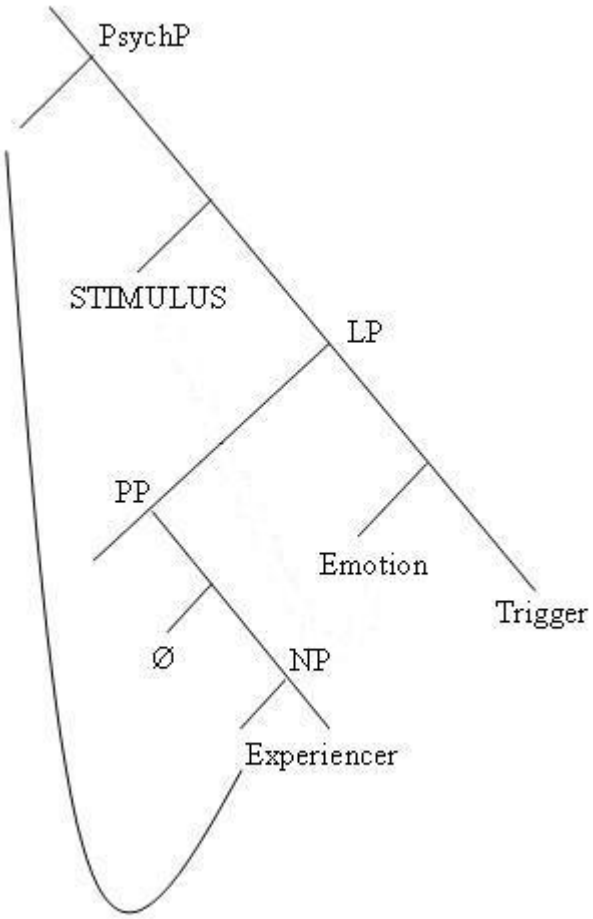

Consider (29):

29. a. $_{PsychP}$[[EMOTION$_{Nt}$ [[ *in*186 Y] $_{t}$ X]]
b. $_{BeP}$[[BE° $_{PsychP}$[[EMOTION$_{Nt}$ [[ *in* Y] $_{t}$ X]]]]
c. $_{BeP}$[[EMOTION+Be$_{(V)t}$ $_{PsychP}$[[$_{t}$ [[ *in* Y] $_{t}$ X]]]]

d. $_{vP}[X_j[EMOTION_{Vt\ BeP}[[_{t\ PsychP}[[_t\ [[\ \textit{in}\ Y]\ _{t\ j}]]]]]]$

On the contrary, if the Experiencer is a simple NP, it can raise to SpecPsychP. Consider (30):

30.

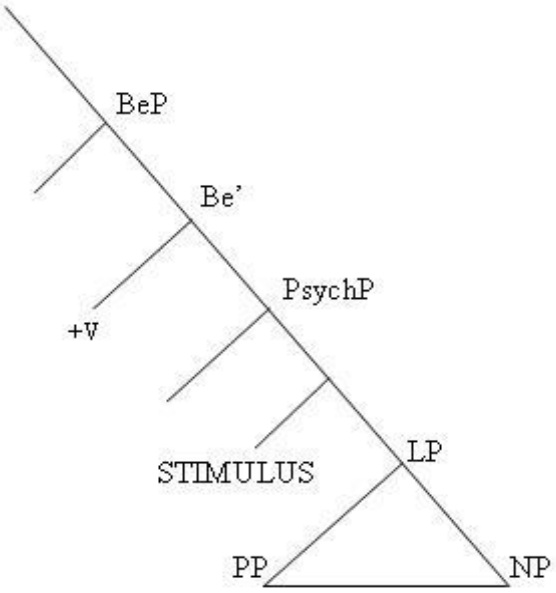



The structure in (30) shows that the NP raises out of LP; Emotions/Psych-states raise after Experiencers. The structure in (30) represents the semantic decomposition proposed in (23a).
As for (23b), I consider the following syntactic derivation to be the source of the contrast with (23a):

31. a. $_{PsychP}$[Y $_{j}$[EMOTION$_{Nt}$ [[ *in* $_{j}$] $_{t}$ X]]
    b. $_{BeP}$[[BE° $_{PsychP}$ [Y$_{j}$ [EMOTION$_{Nt}$ [[ *in* $_{j}$] $_{t}$ X]]]]
    c. $_{BeP}$[[EMOTION+Be$_{(V)t}$ $_{PsychP}$[[$_{t}$ [[ *in* Y] $_{t}$ X]]]]
    d. $_{vP}$[X z[EMOTION$_{Vt}$ $_{BeP}$[[$_{t}$ $_{PsychP}$[Y$_{j}$[$_{t}$ [[ *in* $_{j}$] $_{t}$ $_{z}$]]]]]]]

To sum up, although psych-verbs such as *impaurire* (to frighten) and *preoccupare* (to worry) share the same syntactic structure, they have a different syntactic derivation. Therefore, the basic syntactic structure is as follows:

60.




Finally, the cross-linguistic analysis further supports my hypothesis concerning the presence of the projection BeP. Consider the following sentence:

32. a. John saddened Jim.
    b. John caused Jim to be sad.

The presence of both CAUSE and BE is justified, as in Baker (2003).

## 10.2.1. INTERIM CONCLUSION

Starting from the analysis proposed in Baker (2003) for transitive and resultative constructions, I have argued that the morphological complexity of a synthetic psych-verb is the reflex of its complex syntax. More precisely, I showed that all elements composing their analytic counterparts have a specific position in the structure. I also argued that Baker's (2003) lexical decomposition is on the right track and that it reflects the initial syntactic structure of the verbs. Following Baker (2003), both CAUSE and BE are part of the syntactic structure of psych-verbs, though with a different status. While CAUSE is a zero-morpheme, BE has a functional role – i.e., it turns psych-nominals into verbs, as in *preoccupazione* (worry) and *preoccupare* (to worry). I also showed that all *preoccupare* (to worry) verbs share the same syntactic structure. In particular, I showed that both *preoccupare* (to worry) semantic classifications proposed so far – i.e., Content vs. Container and Intentional vs Unintentional -- are accounted for. Furthermore, given their overall causative semantics, all Obj-Exp psych-verbs include another functional phrase which is responsible for the Subj-Exp/Obj-Exp mismatch. Following Baker's (2003) framework, I assume that final psych-verbs are the result of successive head movements within an analytic syntactic structure. Such verbs are decomposable in: CAUSE+STIMULUS/STIMULUS + BE + MENTAL STATE. Moreover, this decomposition accounts for both analytic and synthetic psych-verbs.

# CHAPTER 11
## PRELIMINARY CONCLUSION II

In this section (IV) of my work, I have analysed psych-verbs from a different perspective than B&R. Contrary to them, I proposed that these predicates describe the emotive reactions of Experiencers to some events -- i.e., they describe something internal to Experiencers. The aim of this section was to account for the fact that psych verbs do not behave as predicted by the UTAH, given that the Experiencer theta-roles can be assigned either the subject or the object. This state of affairs is not predicted by B&R, so an alternative account must be invoked. Following Bouchard (1995), I proposed that psych-verbs can have either a synthetic or an analytic form -- non-incorporated psych-verbs in Bouchard. Moreover, I proposed that synthetic psych-verbs and the corresponding analytic forms share the same syntactic structure and that the different linearization depends on the syntactic derivation. To support this hypothesis, I showed that there is a strong link between synthetic psych-verbs and the corresponding analytic constructions, both from a semantic and a syntactic point of view. In particular, I showed that is always possible to derive analytic psych-constructions from synthetic verbs. I also noted that the contrary is not always admitted -- i.e., it is not always possible to derive synthetic psych-verbs from analytic psych-construction. I therefore argued that analytic psych-constructions are the basic forms from which synthetic psych-verbs can be derived.

On the basis of this, I then proposed that the basic elements of psych-verbs are the nominals denoting the mental states, as *preoccupazione* (worry) and *paura* (fear) for *preoccupare* (to worry) and *impaurire* (to frighten), respectively. Therefore, I claimed that psych-verbs are denominal and that nominals and the corresponding psych-verbs derive from the same root (which is merged as uncategorised). As a consequence, both of them acquire their categorial status through syntactic derivation. Based on the DM framework, I suggested that the phonological expression of syntactic terminals is provided only after the syntactic derivation has been completed by the insertion of phonological expressions - *vocabulary items* - at Spell-Out.

Following H&K, I proposed that psych-verbs derive from psych-nominals through incorporation, in the sense of Baker (2003). Contrary to Baker though, I proposed that incorporation of the noun into V° is concomitant to merge, as in H&K. This explains why synthetic psych-verbs resemble normal verbs and not denominals. Analytic psych-constructions show that Experiencers and psych-states are in a locative relation.

By analysing analytic psych-constructions, I showed that psych-verbs express a locative relation between Experiencers and Emotions. As shown by Arad (1998), one can be either the element contained or the container of the other one. Given the strict relation between analytic and synthetic psych-verbs, I proposed that this is also true for synthetic psych-verbs. Given the locative relation between the Experiencer and the mental state, I proposed that locative prepositions are part of the structure. Following Landau (2010), Experiencers are introduced by such prepositions -- they enter the syntactic structure as the complement of locative prepositions.

In addition to the nominal denoting mental states, I proposed that psych-verbs consist of two more units, i.e., Experiencers and the Trigger of emotion. As for the syntactic structure of psych-verbs, I proposed that the mental state first merges with the Trigger and then the result merges with the Experiencer. According to the present analysis, such a configuration accounts for the different locative relation between Experiencers and mental states (recall the Content vs. Container classification in 7.2). In particular, I suggested that the Content vs. Container classification correlates with the different locative prepositions governing Experiencers in analytic psych-construction -- i.e., *a* or *in*-- which, according to Longobardi (1997), depends on the categorial status of Experiencers -- Experiencers can merge either as DPs or bare NPs. According to my analysis, the different semantics entailed by Content and Container psych-verbs depends on whether Experiencers can raise to SpecPsychP (see sec. 9.4). In particular, I showed that Experiencers can be extracted and raise to Spec,PsychP if merged as a NP, but they cannot if they are merged as a DP and I proposes that this accounts for the above semantic subdivision. In other words, the impossibility for Experiencers to move out of PP (due to HMC) is responsible for the different semantic interpretations exhbited by analytic psych-constructions.

In 9, I showed that both analytic and synthetic Obj-Exp verbs have a causative semantics, whereas Subj-Exp do not. Following Pesetsky (1995) among others, I

proposed that causativity is responsible for the different grammatical role assigned to Experiencers. In particular, I claimed that Obj-Exp verbs contain a zero-causative morpheme preventing Experiencers to raise to Spec,*v*P. Contrary to Pesetsky, however, I proposed that such a morpheme does not merge at the bottom of the structure but is rather the head of a functional projection typical of psych-verb, dubbed PsychP. I argue that the causative zero-morpheme merges in Psych° and is responsible for the locative relation established between Experiencers and mental-states. Such a morpheme is also responsible for the inherent causativity in both analytic and synthetic psych-constructions. The concept of Causer, however, is too generic, as the subject of Obj-Exp verbs might hold different "causer" roles -- i.e., psych-state can be caused either intentionally or unintentionally. Psych-verbs of the first type are compatible with adverbs such as *volontariamente* (voluntarily), whereas psych-verbs of the second type cannot. The difference in intentionality depends on which morpheme a specific psych-verb attaches to, i.e., STIMULUS or STIMULUS+CAUSE. As a consequence, the subjects of Obj-Exp verbs can either cause mental states or simply stimulate them.

In 10, I showed that all elements composing analytic psych-verbs occupy a specific position in the syntactic representation, as in Baker (2003). In particular, I argued that Baker's (2003) lexical decomposition of transitive and resultative constructions reflects the initial syntactic structure of psych-verbs too -- i.e., the lexical decomposition of psych-verbs is [CAUSE/Ø [BE [[y *in*] EMOTION x]]]. Both CAUSE and BE are part of the syntactic structure of psych-verbs too, though with a different status -- i.e., BE as a pure functional element and CAUSE as a lexical one. Finally I proposed that psych-verbs are the result of successive head movements and that verbal heads can incorporate one or two casuative zero-morphemes (CAUSE and STIMULUS). Indeed, they are decomposable in CAUSE+STIMULUS + BE + MENTAL STATE or simply STIMULUS + BE + MENTAL STATE. Such a decomposition accounts for both analytic and synthetic psych-verbs. In conclusion, I proposed that the different syntactic derivation of analytic and synthetic psych-verbs depends on different numerations, i.e., whether or not it contains light verbs.

# SECTION IV
# A UNIQUE PSYCH VP FOR *TEMERE*, *PREOCCUPARE*, AND *PIACERE* PSYCH-VERBS

## CHAPTER 12
## SPLIT VP

### 12.1 THE (FUNCTIONAL) NATURE OF THE PSYCH-VP

As mentioned in 9.6.3, Obj-Exp verbs differ from Subj-Exp ones with respect to the presence of a causative zero-morpheme, STIMULUS. This is in line with much of the literature concerning causativity -- it has been shown that cauative elements (as CAUSE) modify the syntactic structures they are inserted into (see H&S). According to Ramchand (2008) indeed, such causative elements are implicated in the external vs. internal argument selection -- i.e., by adding an external argument into a sentence, they turn the original external argument into an internal argument of the main sentence. Moreover, the added external arguments, dubbed *initiator*, namely *an entity whose properties/behaviour are responsible for the eventuality coming into existence* (Ramchand 2008:24), are selected by an abstract elements (primitive in Maratz, 1984)[187].

According to Ramchand (2008), volitional agents, subjects instruments, active causer, unintentional causer (stimulus) are all real-world instantiations of *initiator*. Moreover, according to the author, causative constructions are split into

187 Ramchand considers the *initiator* as part of a particular set of combinatoral primitives implicit in all linguistic generalizations. Her specific proposal concerns the nature of the event building phase and the relation between it and the lexicon. The author dubs such a phase the "first-phase". The main feature of her "First-phase syntax" is that it decomposes the information, commonly analysed as part of lexical items, into a set of distinct categories with specific modes of combination.

more (*causing*) *subevents*. In particular, Ramchand's (2008) framework analyses the *initiator* element as part of the fine grained event-structure that she proposes for predicates. The event-structure contains three subevental components, i.e., a causing subevent, a process-denoting subevent, and a subevent corresponding to the final state. She represents each of them as having its own projection. In this section, I will discuss Ramchand's (2008) hypothesis that *relevant information actually comes from the interpretation of the syntactic structure that the verbs participate in* (Ramchand 2008:38). Given the common causative nature hold by all Obj-Exp verbs, the presence of a primitive causative element follows.

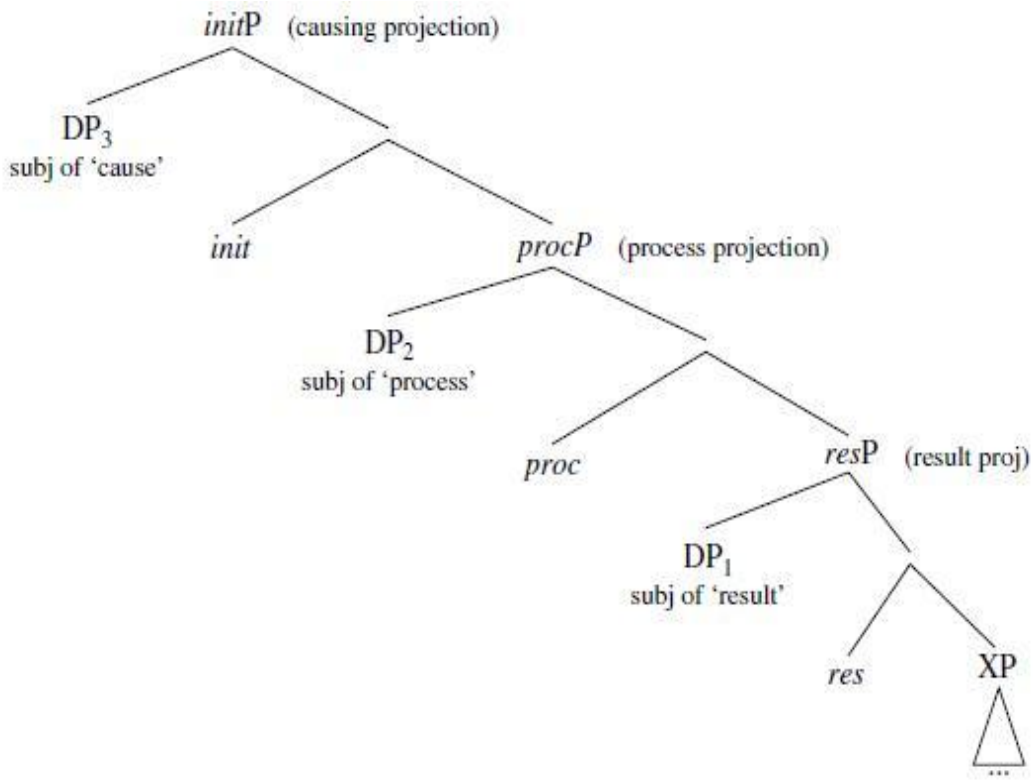
## 12.1.1. THE FIRST-PHASE HYPOTHESIS

Ramchand claims that lexical entries do not contain any formal semantic selectional features. She argues instead that *once the selectional generalizations are properly understood and isolated from the more heterogeneous and unsystematic felicity conditions based on encyclopedic meaning, they will be seen to be amenable to representation in terms of an articulated syntax with a systematic semantic interpretation*. The combinatorial primitive role types are strictly related to the primitive elements of event decomposition. Ramchand argues that the participant roles are: the INITIATOR, which is the direct argument related to the causing subevent, if it exists; the UNDERGOER, which is the direct argument related to the process event; the RESULTEE, which is the direct argument related to the result state, if it exists.

### 12.1.1.1. SEMANTICS COMPOSITIONALLY BUILT UP BY THE SYNTAX

According to Ramchand, all the arguments mentioned above occupy the Spec position of the corresponding functional projection. According to Ramchand's analysis *it is important to realize that this system is actually a splitting up of what we normally think of as V* (Ramchand 2008:39). Therefore the projection of V is the following one:

1.




The three projections in (1) are verbal. According to Ramchand, the tree in (1) represents the maximal possible decomposition. Its core is represented by ProcP, specifying the nature of the change or process. InitP exists when the verb expresses a causational or initiational state that leads to that process. This is why *initiators*, which occupy the highest position in the splitVP, are all instantiations of the abstract concept of causation. Finally, ResP, which gives the result state of the event, only exists when there is a result state explicitly expressed by the lexical predicate. Ramchand argues that if *we think of a core dynamic event as representing the topological equivalent of a path, then the proposal here amounts to the claim that a verb must represent a single coherent path which can be assembled from a dynamic portion* proc *with or without endpoints* res *and the beginning* init (Ramchand 2008:41). Subevents themselves are not of a different ontological type from macro-events but rather macro-events correspond to an event that happens to have subparts. According to Ramchand, *for some linguistic*

*purposes (anchoring to tense, certain types of adverbs and intersentential effects) this event is the only event variable manipulated or 'seen' by the logical relations* (Ramchand 2008:43).

Moreover, the author claims that there is a general combinatorial semantics interpreting the syntactic structure in a regular and predictable way. Indeed, (1) accounts for all those situations in which we perceive some complex event structure behind a predicate. In other words, the semantics of the event structure and event participant is direct and just read off the structure in (1).

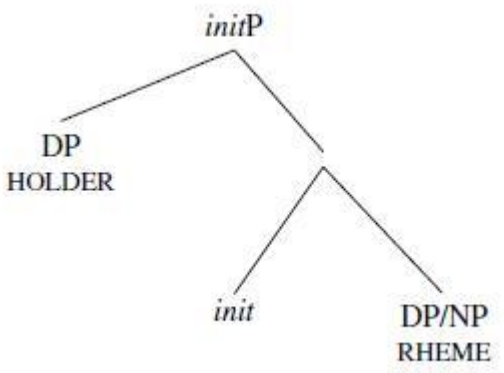
Finally, the author argues that there are two general primitive predicates over events corresponding to the basic subevent types -- States and Processes. Initiational subevents and Result subevent in (1) are states, and their interpretation, as causational and resultative respectively, is due to their position in the hierarchical structure-- cf. (1). The subevent introduced by Proc is instead a process.

The state introduced by the head *init* is interpreted as causally implicating the process. The state introduced by the *res* head is represented as being causally implicated by the process.

#### 12.1.1.2. FIRST-PHASE SYNTAX AND PSYCH-VERBS

According to Ramchand (2008), given their stative nature, psych-verbs consist of an *init* projection, with rhematic material projected as its complement, to further describe the state. The element in SpecInitP is interpreted as the holder of the state. Following this analysis, psych verbs such as *fear* or *love* have the structure in (2):

2.




12.1.1.3. LEXICAL INSERTION

Ramchand, contrary to Marantz (1997) and Borer (2005), proposes that lexical items contain categorial features and that they perform the selectional work of the verb. For instance, a lexical item with the *res* feature can project to form a *Res*P predication, but it also carries semantic content identifying the content of the state in question. Finally, she concludes by saying that lexical items are inserted under a single terminal node, or better that *initial Merge position is somehow privileged* (Ramchand 2008:59).

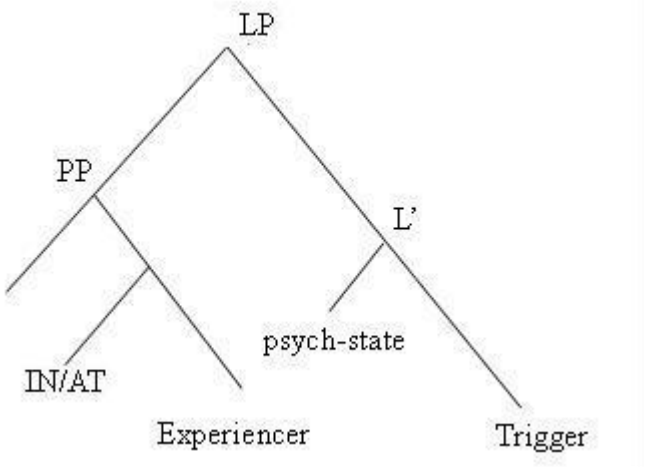
## 12.1.2. REINTERPRETING PSYCH-VERBS VP

Following Ramchand (2008), I propose that the Vp of psych-verbs is split. Recall that, according to Ramchand (2008), the elements componing the structure in (1) have both functional and semantic properties. Althought for different reasons, I propose that the split psychVP proposed so far resembles the one suggested by Ramchand for normal eventive verbs in (1). I assume instead that the structure proposed in (2) concerns just Subj-Exp verbs --e.g., *fear* and *love*-- though not Obj-Exp verbs. Moreover, I take the lack of *proc*P and *res*P in (2) as supporting the analysis proposed above that Subj-Exp and Obj-Exp verbs differ in terms of structural complexity, which I claim to be depending on the presence/absence of a causative zero-morpheme. Ramchand argues indeed that *for every subpredication type and role type in specifier position* (...) *there is an analogue in the*

*psychological domain*(...): *psych INITIATORS are 'intentional'; psych RESULTEES are experientially affected* (Ramchand 2008:54).

Given the initial hypothesis that all psych-verbs share the same initial configuration, I claim that, contrary to Ramchand (2008), Subj-Exp too have the *Res*P -- i.e., the LP in my analysis. Consider the following structure:

3. $[_{LP}\ [_{PP}$ IN/AT Experiencer $[_{L'}[$[Emotion] $[_{DP}$Trigger]]]]




I propose that Subj-Exp verbs project *Res*P and *Init*P – i.e., LP and BeP in my analysis -- whereas Obj-Exp verbs project the *Res*P and *Init*P plus *Proc*P –i.e., PsychP in my analysis. The reason why I consider Subj-Exp verbs VP as composed by ResP and InitP (and not just InitP) and Obj-Exp verbs VP by ResP, InitP, and ProcP is semantic. Subj-Exp verbs express both a final state -- the result of a precedent event, no matter the Experiencer's awareness (see ch.8) -- and the holder of the state. Given the absence of any causative morphemes, the element in Spec,InitP is not interpreted as the causational/initiator, but as the Experiencer. Indeed, no change of state is involved.

On the other hand, Obj-Exp verbs express a change of state. Moreover, the feelings of Experiencers are the result of a process/event that made them feel a given emotion. I propose that the causative zero-morpheme STIMULUS projects further, hence the presence of PsychP -- e.g., *Proc*P – inside the structure of Obj-

Exp verbs. Differently from Subj-Exp verbs, *Init*P has *ProcP* as its complement, which in turn means that it licenses a causal external argument.
To sum up, I consider Ramchand's (2008) tripartition of V as supporting my split psych-VP hypothesis, the only difference being the definition used. In my analysis *InitP*, *ProcP*, and *ResP* are BeP, PsychP, and LP respectively. Furthermore, much in the same way as Ramchand (2008), I consider the Psych-VP to be a complex structure composed of three funcional projections. Recall also that, according to Ramchand (2008), Subj-Exp verbs do not project the process functional projection nor the result one.

### 12.1.3. CS AND PSYCH-VERBS

I will now show that the different syntactic representation assumed above is actually a consequence of a more general process -- i.e., numeration. Recall that, according to Chomsky (1995), the Numeration concerns the selection of a specific number of items that the computational system can access through the *Select* rule. Recall that, according to the analysis proposed so far, psych-verbs are derived from a simpler analytic construction (see sec. 7.1). On the basis of the idea that the causative zero-morpheme is present in the lexicon, I propose the following basic numeration for a Obj-Exp verbs:

4. Obj-Exp basic numeration:
   $N_0$ {STIMULUS$_1$, Emotion$_1$, in $_1$, BE$_1$, Experiencer$_1$, Trigger$_1$}

Contrary to (4), the numeration of Subj-Exp verbs, does not contain the causative zero-morpheme STIMULUS:

5. Subj-Exp basic numeration:
   $N_0$ {Emotion$_1$, BE$_1$, Experiencer$_1$, Trigger$_1$}

Let us now consider the possible derivation from the above numeration. First of all, I will take into account Obj-Exp verbs.
Given $N_0$ in (4), the computational system selects Emotion and Trigger and merges them, as shown in (6):

6. a. $N_1$ {$STIMULUS_1$, $Emotion_0$, $IN_1$, $BE_1$, $Experiencer_1$, $Trigger_0$}
   b. K [Emotion Trigger]

Then CS merges the Experiencer and IN and the result with K in (6b) results in (8):

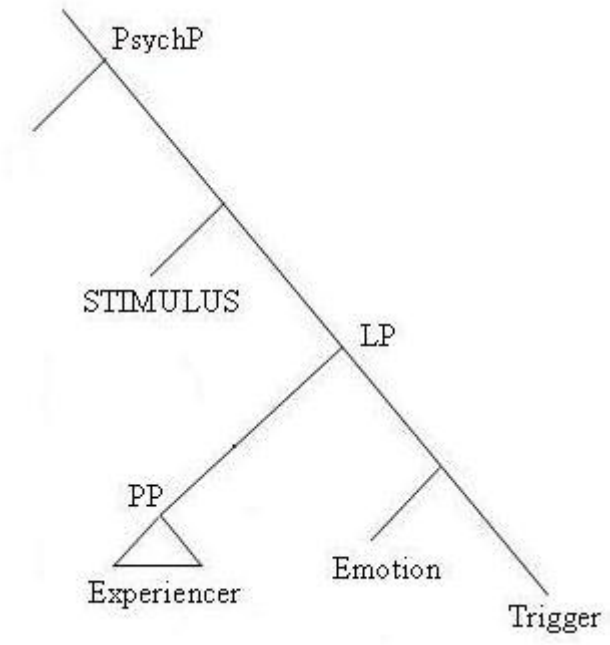
7. a. $N_2$ {$STIMULUS_1$, $Emotion_0$, $IN_0$, $BE_1$, $Experiencer_0$, $Trigger_0$}
   b. K [Emotion Trigger]
   c. L [IN Experiencer]

8. a. $N_2$ { $STIMULUS_1$, $Emotion_0$, $IN_0$, $BE_1$, $Experiencer_0$, $Trigger_0$}
   b. M [IN Experiencer [Emotion Trigger]]

(3) and (8) stand for the *Res*P in Ramchand's (2008) framework. I claim that the derivation of Subj-Exp and Obj-Exp verbs is identical up to this point. The next derivational step is different instead. CS selects STIMULUS and merges it with M in (8):

9. a. $N_3${$STIMULUS_0$, $Emotion_0$, $IN_0$, $BE_1$, $Experiencer_0$, $Trigger_0$}
   b. P [ STIMULUS [IN Experiencer [Emotion Trigger]]]

The introduction of the causative zero-morpheme STIMULUS in (9b) forces the structure to project further. Therefore, the LP merges with PsychP. As a result, Obj-Exp verbs will inherit a causative semantics and, depending on the syntactic derivation, Experiencers and Emotion will establish a Content or Container locative relation:

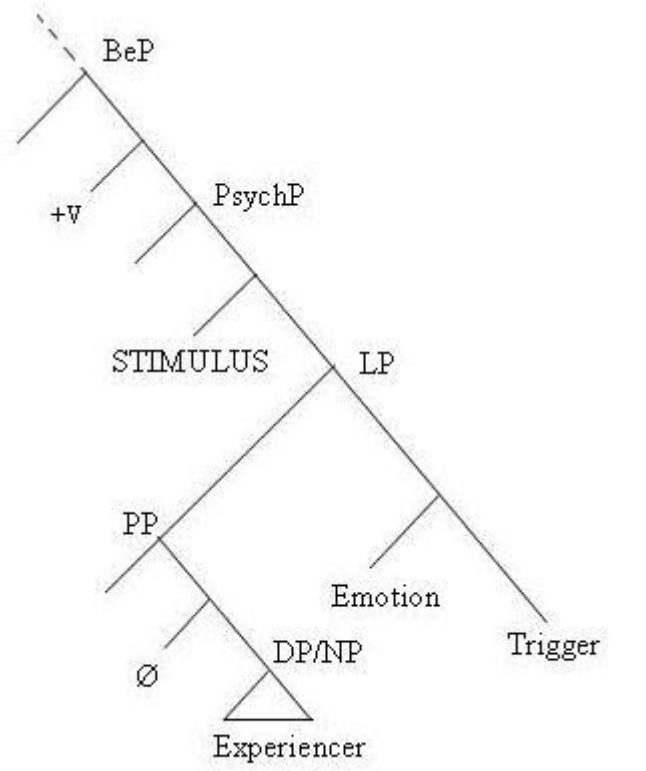



Given $N_3$ in (9), the computational system selects BE and forms the syntactic object Q in (11b):

10. a. $N_4$\{STIMULUS$_0$, Emotion$_0$, IN $_0$, BE$_0$, Experiencer$_0$, Trigger$_0$\}
    b. Q [BE[STIMULUS [IN Experiencer [Emotion Trigger]]]]

PsychP therefore combines with another functional projection, BeP (*Init*P in Ramchand's terms). I propose that BeP selects an external argument. Although $N_4$ in (11a) is exhausted, the derivation does not end here. For the sake of the present discussion, consider the Q in (11b) as the last possible derivation, represented in (12):

11.




As for Subj-Exp verbs, their derivation proceeds in the same way, the only difference being the absence of the causative zero-morpheme. CS selects first the Emotion and the Trigger and merges them (cf.(13)); the subsequent selection of Experiencer (cf. (14b)) results in (14b):

12. a. $N_1$ {Emotion $_0$, BE $_1$, Experiencer $_1$, Trigger $_0$}
    b. K [Emotion Trigger]

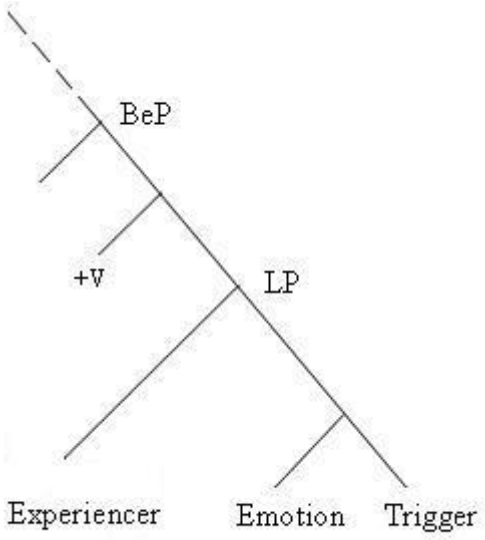
13. a. $N_2$ {Emotion $_0$, BE$_1$, Experiencer $_0$, Trigger $_0$}
    b. M [Experiencer [Emotion Trigger]]

The absence of the causative zero-morpheme STIMULUS has two consequences. First of all, the lack of a causative semantics – consider the case of *love.* Secondly, the impossibility for such predicates to project the PsychP -- *Proc*P in Ramchand's (2008) terms. Hence, given $N_2$ in (14), CS selects BE and forms the syntactic object in P:

14. a. $N_3$ {Emotion $_0$, $BE_0$, Experiencer $_0$, Trigger $_0$}
    b. P [ BE [Experiencer [Emotion Trigger]]]

Consequently, LP merges directly with BeP and, as a result, the relative psych-verbs might barely have a stative reading, as argued by Ramchand (2008). The structure of (15) is represented in (16):

15.




When the numeration is exhausted, the elements will further move. Therefore, the main hypothesis is that the different numeration between Subj-Exp and Obj-Exp will involve a different derivation and, consequently, a different linear word-order and a different thematic and Case assignment.

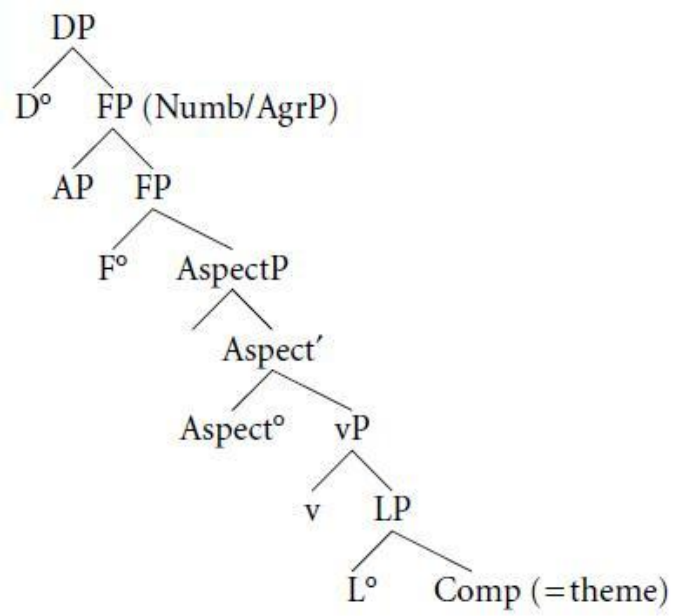
## 12.1.4. ABOUT THE LP

Experiencers, nominals denoting emotions and Triggers result in a projection dubbed Lexical Phrase (LP). Let us consider the nature and the role of such a projection in more detail.

12.1.4.2. LP IN ALEXIADOU (2001)

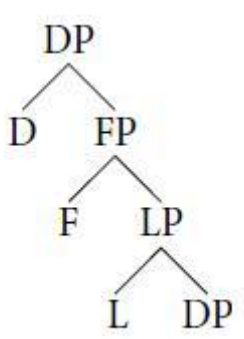
Alexiadou (2001) analyses the internal structure of nominals. In particular, she claims that event and process nominals have a different internal structure. *Process nominals include nominals as well as projections that we standardly associate with verbal clauses* (...) *result nominals on the other hand lack such verbal projection* (Alexiadou 2001:19):

16.




Alexiadou (2001) proposes that the syntactic structure of process nominals resembles the corresponding verbal ones. Contrary to Marantz (1999), she claims that process nominals do not include a category changing position. L° is spelled-out as a verb or as a noun depending on the general environment it is inserted in -- a noun if governed by D as in (17) or a verb if governed by Tense. She also argues that process nominals include both VoiceP (*v*P) and AspectP (AspP), an idea supported by the distribution of adverbs. As a consequence, result nominals are analysed as in (18):

17.




The authour suggests then that the difference between these two nominal classes does not have to do with argument structure -- both nominals can have complements -- but rather with the presence vs. absence of functional layers. Therefore, nominals and verbs have a similar syntactic structure and, most importantly, they share the same lexical entry, which in turn means that verbs enters the structure as un-categorized elements. In particular, words and categories are the result of the combination of abstract roots with functional projections (Alexiadou 2001:20). Moreover, the syntactic categories N, V, and A are morphological categories created by the syntax (Alexiadou 2001:211). To conclude, nominals and verbs share the same primitive root, which merges in a functional projection dubbed LP. Then, depending on the derivation, both nouns and verbs can be derived.

12.1.4.2. LP IN PICALLO (1991)

According to Picallo (1991), nouns and verbs derive from a category neutral stem. Contrary to Marantz (1997), Picallo proposes that nominalization affixes are inflectional elements heading the N projection. This head takes a category neutral lexical projection (LP) as its complement, headed by a stem identical to that of the corresponding verb. The stem L° becomes a noun through syntactic derivation, by head raising. Picallo, however, proposes that result nominals have the structure illustrated below, i.e., with no category neutral base. In other words, category neutral lexical projections enter the D-structure of syntactic nominals and that of clausal structures, both in active and passive clauses. In the active sentences, categorial specification follows from head-adjunction to a functional category VP,

selecting the category-neutral LP. Alexiadou (2001) shows that this functional VP is morphologically overt in Catalan, where it is headed by the characteristic thematic vowel:

18. a. En Guillem menjava les pomes.
Guillem ate the apples.
b. [VP Guillem [V' -a- [LP[L' menja- [les pommes]]]]]
(Alexiadou 2001: 73, fn. 21)

Adjunction of the stem to the word marker allows the verb to assign structural case.

## 12.2 A UNIQUE SYNTACTIC REPRESENTATION OF PSYCH-VERBS

### 12.2.1. PSYCH-VERBS DEFINITIVE ANALYSIS

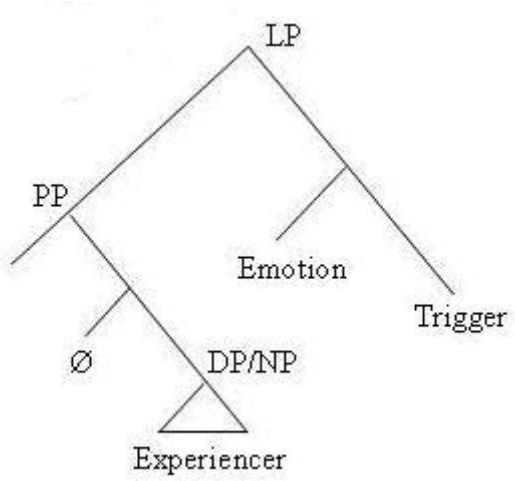
I showed that psych-verbs can be analysed as derived verbs. Following Bouchard (1992), I claimed that psych-predicates should include both synthetic verbs such as *preoccupare* (to worry), and *impaurire* (to frighten) and analytic psych-verbs such *mettere ansia* (put anxiety), *dare gioia* (give joy). Moreover, I claimed that synthetic psych-verbs derive from analytic verbs. Furthermore, contrary to Subj-Exp verbs such as *temere* (to fear), Obj-Exp verbs have a causative semantics and express a location relation established between Experiencers and Emotions.
As for the first point, in particular, I stressed the fact that, although all Obj-Exp verbs entail some kind of causativity, these verbs might describe either an intentional or unintentional cause. As for the second point, the element holding the Experiencer theta-role can be either the 'stuff' which is at some mental state, or the container, which is filled by the mental state.
In order to account for all the above points, I revised the syntactic structure of psych-verbs. Starting from the hypothesis concerning the analytical nature of psych-verbs, I proposed that psych-verbs are constituted by three basic elements, i.e., the Experiencer, the Mental state/Emotion and the Trigger of Emotion. These elements merge together in a projection called LP. Following Alexiadou (2001),

and in part both H&K and Baker (2003), I claimed that the element denoting the emotion does not have a lexical category. Furthermore, synthetic psych-verbs and the psych-nominal/adjective of the corresponding analytic form share the same initial structure. Depending on the syntactic derivation and the functional layers which are projected, it is possible to derive both psych-nouns and psych-verbs.
Moreover, on the basis of Baker (2003), Pesetsky (1995) and partially of Ramchand (2008), I claimed that Obj-Exp and Subj-Exp verbs differ with respect to the presence or absence of a causative zero morpheme and that such a morpheme heads a functional phrase, PsychP. Such a causative morpheme is then responsible for the causative semantics of Obj-Exp verbs and the final syntactic derivation of Obj-Exp verbs. The lack of a causative semantics for Subj-Exp verbs reflects the lack of the causative morpheme.
Consequently, I proposed that Subj-Exp and Obj-Exp share the same initial syntactic structure, but for the PsychP functional projection, which I claim to be responsible for the different grammatical role held by the Experiencer.
Moreover, I proposed that the fact that Experiencers often seem to be "the containers" of the emotion is a reflex of their complex inner structure. Contrary to B&R, I argued that Experiencers do not merge as bare nouns but rather as complement of a locative preposition, as in Landau (2010). Furthermore, starting from Longobardi (1997), I argued that, depending on the status of the Experiencers -- NP vs. DP -- a different locative preposition surfaces. Moreover, the different status results in a different syntactic derivation.

### 12.2.2. PSYCH-VERBS SYNTACTIC STRUCTURE

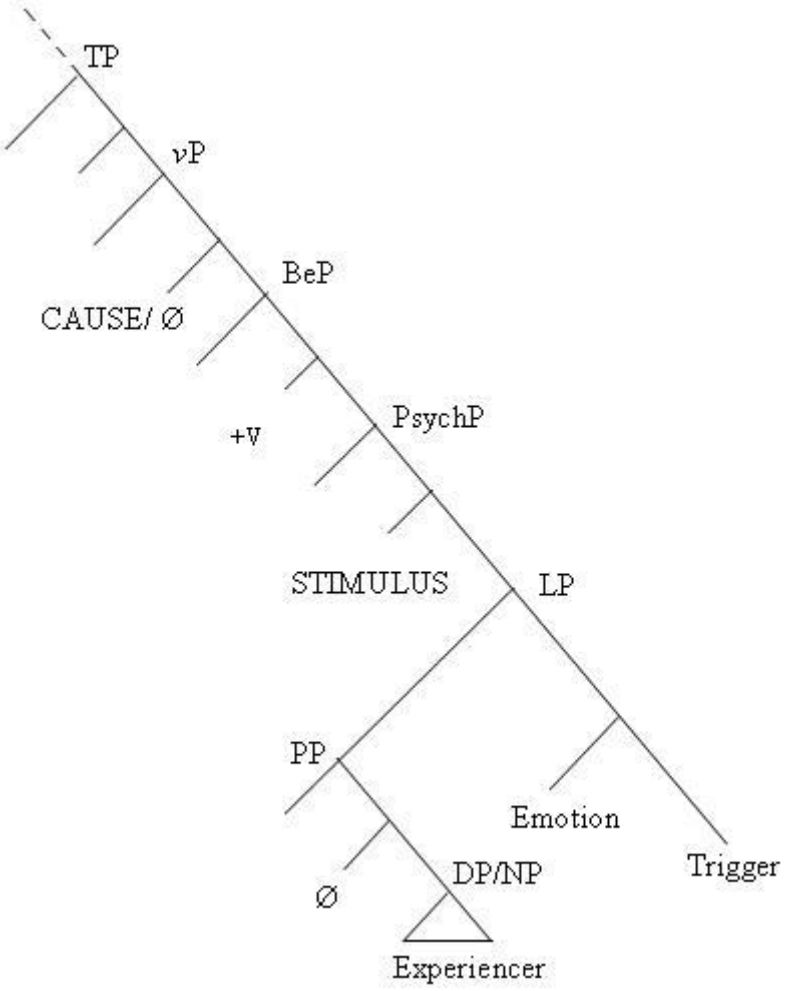
On the basis of the above analysis, I propose that all psych-verbs share the same initial phase -- cf.(20). Nevertheless, given the different numeration, Obj-Exp verbs differ from Subj-Exp verbs in terms of the presence of PsychP -- cf. (21)-(22).

19.



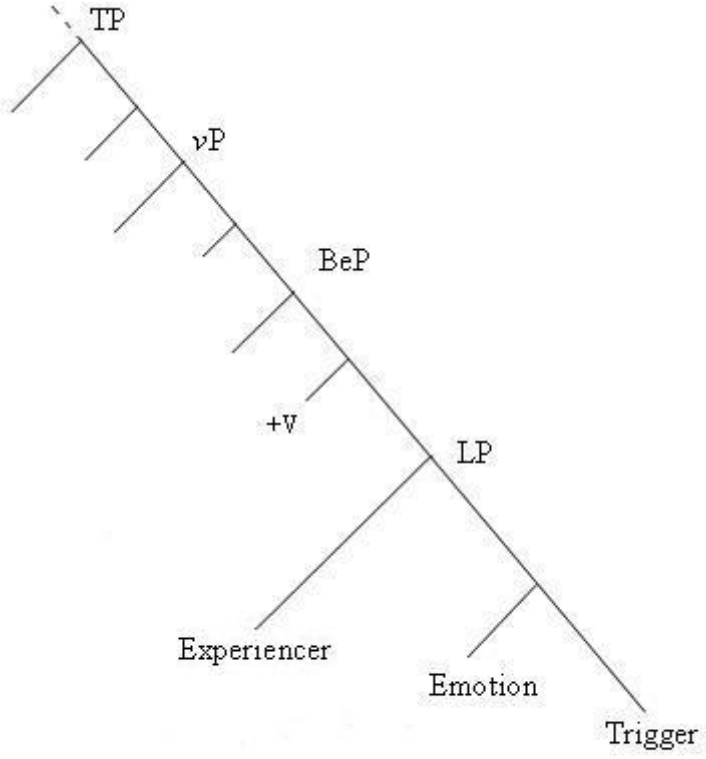

The structure in (21) represents the syntactic structure of all Obj-Exp verbs. In 13.2.2, I will show that *piacere* (to please) psych-verbs differ from *preoccupare* (to worry) ones only with respect to their syntactic derivation:

20.




Given the lack of STIMULUS in Subj-Exp verbs, I proposed that such verbs do not project PsychP. In turn, this means that Subj-Exp psych verbs do not contain CAUSE either, which is in line with Pesetsky's (1995), Grimshaw's (1990), and Pylkännen's (2000) hypothesis that the different word order between Subj-Exp and Obj-Exp verbs depends on the presence of a causative element which is present within the Obj-Exp verbs but not within the Subj-Exp ones. *Temere* (to fear) verbs have a slightly different syntactic structure. Consider (22):

21.




The structure of *temere* (to fear) in (22) differs from that of Obj-Exp verbs in (21) also for the lack of the P introducing the Experiencer. I claim that the lack of P has two consequences, i.e., the lack of *temere* (to fear) analytic psych-verbs and the lack of a locative relation between Experiencers and Emotion. Given the lack of any causative morpheme, nothing prevents the Experiencer from becoming the subject. The structure in (22) can also account for the fact that, although such verbs do passivize, their passive counterparts are different from the passive of traditional transitive verbs (see ch. 4.6).

Leaving aside for the moment *temere* (to fear) verbs, I will now briefly show how Obj-Exp verbs such as *preoccupare* (to worry) and *impaurire* (to frighten) are derived. Recall that the *impaurire* (to frighten) verbs have a different semantics in terms of the locative relation established between Experiecers and Emotions.

12.2.2.1. OBJ-EXP PSYCH-VERBS DERIVATION

Let us now consider how Content and Container Obj-Exp verbs derive. Obj-Exp verbs entail an intentional or unintentional causative semantics. On this basis, I propose the following Numerations for *impaurire* (to frighten) and *preoccupare* (to worry) as in in (23)[188]:

22. a. *impaurire*:
$N_0$ {CAUSE$_1$, STIMULUS$_1$, *paura*$_1$, in$_1$, BE$_1$, Experiencer$_1$, Trigger$_1$}
b *preoccupare*:
$N_0$ {STIMULUS$_1$, *preoccupazione*$_1$, in$_1$, BE$_1$, Experiencer$_1$, Trigger$_1$}

Let us start from (23a). The syntactic derivation follows as in (24). Note that I consider (25) as the result of the selection of CAUSE from $N_5$ in (6)-(12) above, repeated here as (24). Moreover, note that the computational system selects part of the structure and (re)merge it with another element of the structure only after the numeration has been exhausted:

23. a. $N_1$ {CAUSE$_1$,STIMULUS$_1$,paura$_0$,IN $_1$,BE$_1$,Experiencer$_1$,Trigger$_0$}
b. K [paura Trigger]

c. $N_2$ {CAUSE$_1$,STIMULUS$_1$,paura$_0$,IN $_0$,BE$_1$,Experiencer$_0$, Trigger$_0$}
d. K [paura Trigger]
e. L [IN Experiencer]
f. M [IN Experiencer [paura Trigger]]

g. $N_4$ {CAUSE$_1$,STIMULUS$_0$,paura$_0$,IN $_0$,BE$_1$,Experiencer$_0$,Trigger$_0$}
h. P [STIMULUS[IN Experiencer [paura Trigger]]]

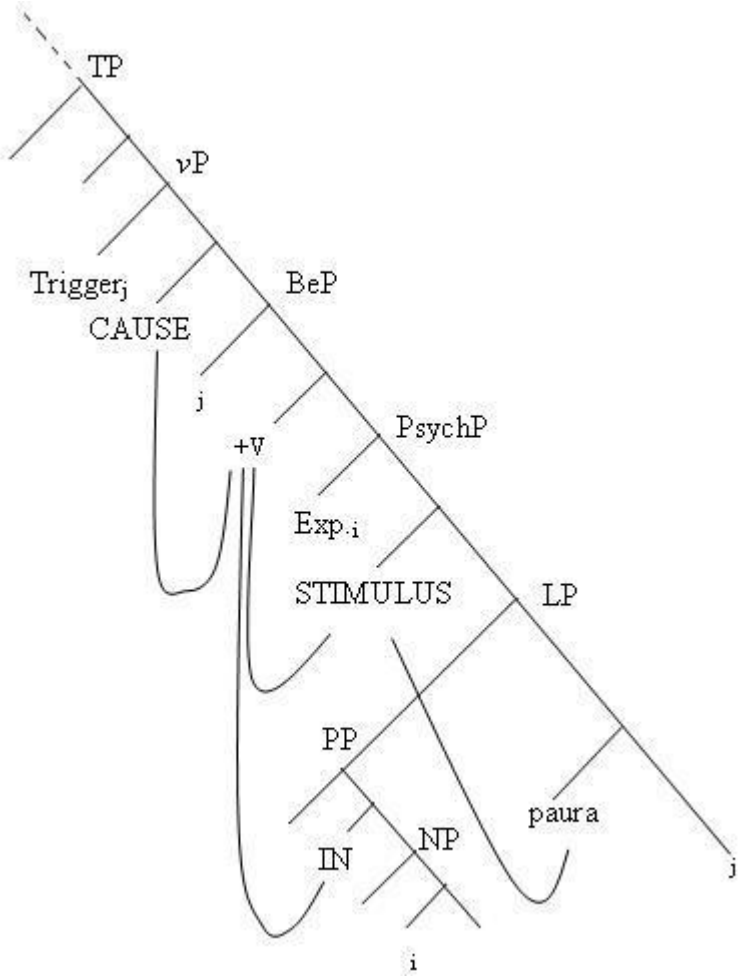
i. $N_5$ {CAUSE$_1$,STIMULUS$_0$,paura$_0$,IN $_0$,BE$_0$,Experiencer$_0$,Trigger$_0$}
l. Q [BE[STIMULUS [IN Experiencer [paura Trigger]]]]

m. $N_5$ {CAUSE$_0$,STIMULUS$_0$,paura$_0$,IN $_0$,BE$_0$,Experiencer$_0$,Trigger$_0$}

188 *Impaurire* (to frigthen) and *preoccupare* (to worry) represent intentional and unintentional psych-verbs class respectively

n. R [CAUSE[BE[STIMULUS[IN Experiencer [paura Trigger]]]]

24.




Note that (25) follows directly from (54) in 8.5 above[189]. Similarly to (23a), (23b) has the following derivation:

25. a. $N_1$ {$STIMULUS_1$,$preoccupazione_1$,$IN_1$,$BE_1$,$Experiencer_1$,$Trigger_0$}
b. K [preoccupazione Trigger]

c. $N_2$ {$STIMULUS_1$,$preoccupazione_0$,$IN_0$,$BE_1$,$Experiencer_0$, $Trigger_0$}
d. K [preoccupazione Trigger]

189 The order of moving out of LP in (25) is therefore the same as the one in (54) in sec. 8.4, i.e.,: the Experiencer in SpecPsych, the Emotion in Psych°. The following derivations depend on the presence of CAUSE.

e. L [IN Experiencer]
g. M [IN Experiencer [preoccupazione Trigger]]

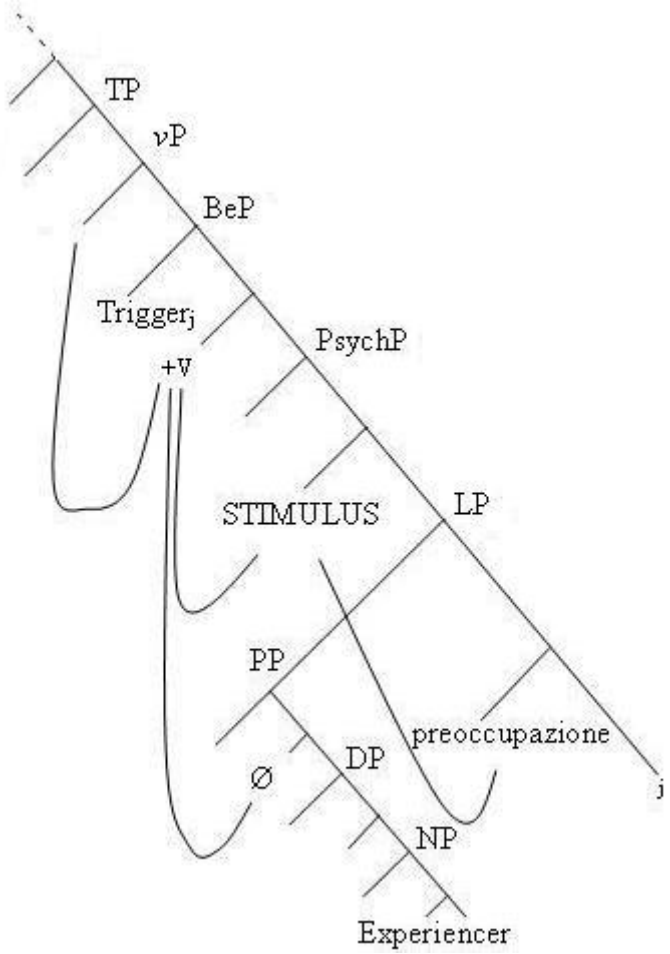
h. $N_3$\{STIMULUS$_0$,preoccupazione$_0$,IN $_0$,BE$_1$,Experiencer$_0$,Trigger$_0$\}
i. P [STIMULUS [IN Experiencer [preoccupazione Trigger]]]

l. $N_4$\{STIMULUS$_0$,preoccupazione$_0$,IN $_0$,BE$_0$,Experiencer$_0$,Trigger$_0$\}
m. Q [BE[STIMULUS [IN Experiencer [preoccupazione Trigger]]]]

n. $N_5$\{STIMULUS$_0$,preoccupazione$_0$,IN $_0$,BE$_0$,Experiencer$_0$,Trigger$_0$\}
o. R [[BE[STIMULUS [IN Experiencer [preoccupazione Trigger]]]]

The syntactic structure of *preoccupare* (to worry) and alike psych-verbs is as in (27). Recall that Experiencers are not merged in a unique way:

26.



Before concluding this section, there are two points worth noting. First of all, the above numeration and representations concern mainly synthetic psych-verbs only. A different numeration, containing also a light verb, would lead to a different syntactic representation. Most importantly, the emotion could not have raised to Be°, given that it is occupied by a light verb – e.g., *mettere* (to put) or *dare* (to give). Secondly, according to the presence or absence of CAUSE in (25)-(27), the Trigger of emotion raises to different positions.

### 12.2.2.2. THE DUAL NATURE OF *v*

According to Harley (1995), *v* can be of two different types, i.e., Cause and Happen/Become. Harley claims that while the former can have a specifier, which will end up being an external argument with an agent/causer thematic role, the latter will not merge with an external argument. Consequently, verbs containing the Happen/Become *v* are unaccusatives. Collins (1997) further proposes that *v* is present also in unaccusative verbs, though it is somehow deficient, as it does not check accusative case and does not assign an external theta-role. In particular, the recent literature distinguishes two types of light *v*s, i.e., transitive and intransitive:

27. a. transitive v [+external argument] v1 = Cause
    b. intransitive v [−external argument] v2 = Become/Happen

A causative *v* introduces the causer argument whereas a non-causative one does not. Alexiadou (2003) proposes that the distinction between transitive and intransitive *v* is responsible for the process vs. result nature of nominals. According to the author, only *v* of the type in (28b) is *licit within process nominal of the destruction type* (Alexiadou 2001:112). Moreover both type of *v* in (28) *can combine with roots like √DESTROY denoting a change of state, not internally caused and implying an external cause or an agent and with roots like √GROW denoting a change of state that is internally caused. In both cases embedding the roots under transitive v yields a transitive structure. When non-causative v combines with √DESTROY the result is a verbal passive or a nominalization, depending on whether the structure will appear under T or D. In both cases the agent appears in the form of a PP. When non-causative v combines with √GROW*

*the result is an unaccusative verb, in the domain of T , or a nominal in the domain of D. Crucially, the presence of an agent is dictated by both the semantics of the root and the properties of v* (Alexiadou 2001:113).

The analysis proposed by Alexiadou concerns mainly nominalizations and traditional transitives verbs, but it will be shown that this is perfectly in line with the hypothesis the psych-verbs are all denominal verbs. For the moment, simply note that the two possible *v* heads postulated in the literature can deal straightforwardly with the fact that Obj-Exp verbs might entail an intentional or unintentional causative semantics. Note that the *v* subdivision postulated in (28) is also in line with the two slightly different syntactic structures assumed in (25) and (27), where it was shown that the lack of the causative zero-morpheme CAUSE in (27) results in final psych-verbs with a temporary internal argument contrary to the external one in (25).

## 12.3 **ANALYSIS OF THE PROBLEMATIC DATA**

### 12.3.1. NOMINALIZATION

Based on previuous works -- Abney (1987) Kratzer (1993, 1996), and Lees (1960) -- Distributed morphologists identify the verbalizing v° head with the external-argument introducing the VP-shell. Moreover, the lower VP head is no longer named VP and the head projecting it is an a-categorial root. It turns into a "verb" only after the incorporation of the lower non-categorized root -- √ in DM terms.

Recall Alexiadou's (2001) proposal that *a functional head of type v needs to be present within certain nominals, otherwise we would have no account for the process/event reading a group of nominals is associated with* (Alexiadou 2003:112). I propose that psych-nominals and psych-verbs share the same structure, but for the environment they appear in, i.e., either D° or T°. Let us also assume, contrary to Pesetsky (1995), that psych-nominalizations do entail causativity, just like *destruction* in (29), in that such nominalizations describe a change of state that is not internally caused and implies an external causer or an Agent:

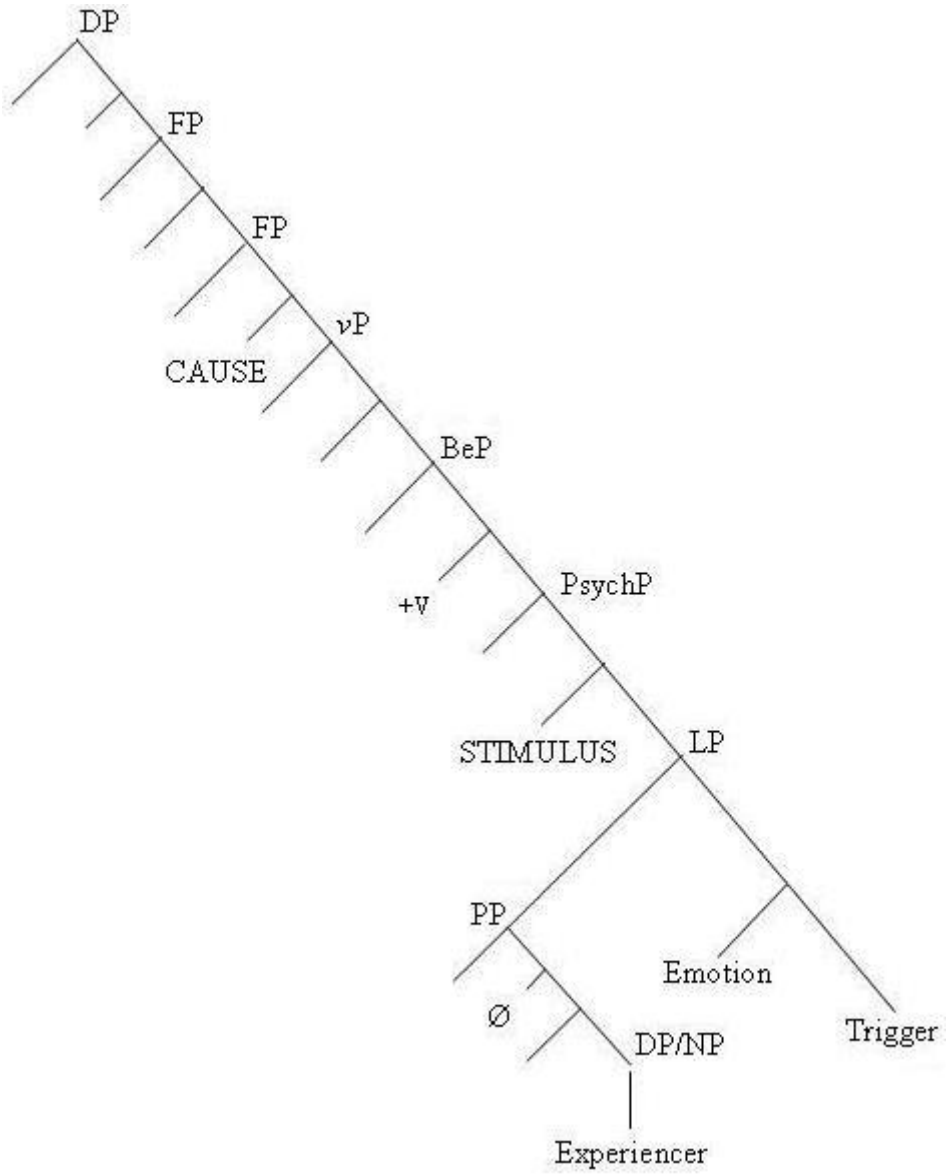
28. The barbarians destruction of the city.

Assuming that psych-verbs and their nominal counterparts entail causativity, I propose that psych-nominalizations involve a causation too. This implies that a causative element must be present in their structure. Consider the following nominal construction:

29. La preoccupazione dei veneziani per l'acqua alta.
    the anxiety of the Venetians for the water high

In (30), we can see that the nominalization contains a cause, *l'acqua alta* (high water), introduced by *per* (for). This indicates the reason/cause of Venetians' *preoccupazione* (anxiety). Alexiadou argues that such nominals are predicted only if the *v* they project does not licence an external argument. Nevertheless, given the causal element in (30), I propose that psych-nominalizations contain another cause morpheme which is able of licencing a causer element. Given that process nominalizations are possible only with *v*s that do not licence an external argument, the cause element must occupy a position outside the functional *v* of the nominal structure. Given that both Agent and Causer are external arguments, I propose that such a derivation is possible only for those psych-verbs that do not contain the CAUSE zero -morpheme -- i.e only those verbs that project a *v* of the type in (28b) can undergo such a derivation.
On the basis of this analysis, I propose that the structure of psych-nominalizations resemble that proposed by Alexiadou (2001) for process nominals in (17). Consider the syntactic representation of psych-nominals in (31):

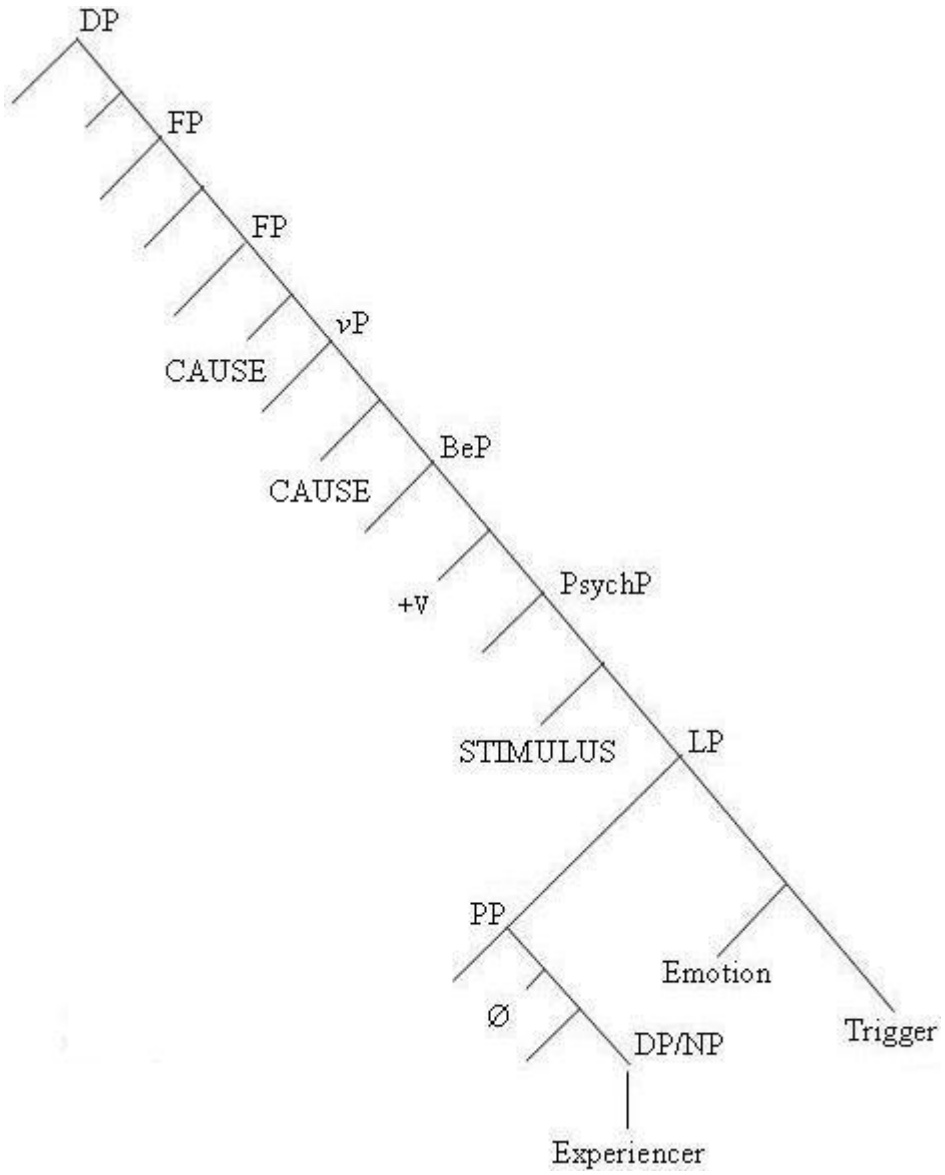
30.




In (31), as in (17), I show that psych-verbs and their corresponding nominal forms share the same initial structure but, depending on whether the structure (*v*P) appears under T or D, we obtain either a nominal or a verb. The fact that only *v*= Become/Happen is present within nominalizations explains why only certain psych-verbs nominalize. Note that, contrary to Alexiadou's (2001) analysis in (17), I do not specify the nature of the FP above *v*P.

Let us suppose that nominalization does not depend on the type of *v*. In this case, also *impaurire* (to frighten) verbs should be able to nominalize[190]. Assuming that all psych-nominalizations entail some kind of causativity as shown in (30) and that psych-verbs and process nominals share the same (initial) structure, the resulting structure is the one given in (32):

31.




190 I claim that psych-verbs like *impaurire* (to frighten) project a *v* of the type of (28a).

In (32) CAUSE is present in both *v*° and F°. Given that such psych-verbs incorporate the cause zero-morpheme on their way to *v*P, the impossibility of having process psych-nominalizations follows. In other words, the first incorporation of CAUSE blocks the second.

### 12.3.2. ANALYTIC VS. SYNTHETIC PSYCH-VERBS

Recall that in (44) in ch.7.3, repeated here as (33), I claimed that analytic psych-construction have to be considered as normal psych-verbs:

32. a. Class 1: Fear EXPERIENCER V TRIGGER
    b. Class 2: Frighten TRIGGER V EXPERIENCER
    c. Class 3: Strike TRIGGER V EXPERIENCER
    d. Class 4: all other non-incorporating constructions

In 12.2.2, I showed that Obj-Exp verbs -- Class 2 and 3 -- and SubjExp verbs -- Class 1 -- share the initial syntactic structure -- LP-- but have a different numeration. As a consequence, their final derivation differs. I focus now mainly on Class 2 and 4. Considering the structure in (25) and (27) as the two possible structures available for such psych-verbs, I propose that the presence of the functional element +v in BE° leads to synthetic psych-verbs such as *impaurire* (to frighten) or *preoccupare* (to worry). The psych-nominal that merges in L° raises to Psych° to incorporate the causative zero-morpheme STIMULUS and then raises to Be° to incorporate the verbal morphology. Depending on the presence/absence of CAUSE then, the psych-verb further raises to *v*°, to incorporate CAUSE, or not. On the other hand, if the numeration contains a light verb instead of +v, then the psych-nominal derivation stops right after having raised to Psych° and having incorporated STIMULUS. As a consequence, the final syntactic derivation leads to analytic psych-verbs such as *mettere paura* (put fear) or *dare preoccupazioni* (give worries).
Note that not all light verbs are able to appear in such an environment, hence the higher number of synthetic psych-verbs with respect to analytic ones.

## 12.3.3. ARGUMENT STRUCTURE

In 4.4 I discussed the fact that transitive verbs can lack the final object --i.e., as intransitives -- and some psych-verbs can appear without an object. According to B&R's hypothesis this is quite natural. In fact, the linear subject might be considered as a derived one or remain *in situ*, which is what happens in the example below:

33. a. Questo è uno di quei film che annoiano.
    This is one of those films that bore
    *This is one of those boring movies.*
    b. Indispettisce lo spazio dato alla società civile a scapito dei poteri partitici da Zapatero.
    vex the space given to the society civil at the expense of powers parties by Zapatero

Other psych-verbs, similarly to normal transitive -- e.g., *visitare* (to see/visit)-- cannot be used intransitively. This seems to undermine the unaccusative analysis. Bearing in mind the analysis proposed in (25) and (27), I propose instead that psych-verbs can be used intransitively or not depending on a feature on the object itself. I therefore follow Rizzi's (1986) analysis that a null object can be licensed when fully identifiable. Moreover, the analysis proposed so far deals perfectly with the data above. Indeed, the structure of psych-verbs resembles that of transitives, thence the possibility to lack the object. On the other hand, according to the unaccusative structure, all psych-verbs should potentially select a null objects.

## 12.3.4. PASSIVES

Both *temere* (to fear) verbs and *preoccupare* (to worry) verbs passivize. B&R assume that the passives of *preoccupare* (to worry) verbs are adjectival. Leaving aside *temere* (to fear) passive for the moment (see sec. 13.2.1 for further discussion), I will now focus on *preoccupare* (to worry) data.

According to (25) and (27) above, I propose that *preoccupare* (to worry) verbs do passivize, given that they assign both an internal and an external argument. Furthermore, recall that analytic *preoccupare* (to worry) verbs describe a process. Consider the following passive constructions:

34. a. ?Sono stati tutti impauriti da quelle urla.
are been everybody scared by those yells
*Those yells scared everybody.*
b. ??Il governo americano è stato preoccupato a lungo dalle operazioni di riarmo iraniano.
the american government is worried by the operations of rearm Iranian
*The American government is seriously concerned about the Iran arms race operations.*
c. *Il difensore è stato inebetito dal gioco di gambe di Ronaldo.
the back player is been made stupid by the game of legs of Ronaldo
*The back has been fooled by Ronaldo's ability.*

In (35), we can see that not all psych-verbs passivize, i.e., while *impaurire* (to frighten) and *preoccupare* (to worry) are (slightly) marginal, *inebetire* (to make sb. stupid) is ungrammatical. Recall that all of them belong to the *preoccupare* (to worry) class. I propose that the mismatch in (35) has to do with their syntactic derivation. In particular, I claim that the marginality and ungrammaticality of (35b) and (35c), respectively, depend on the different *v* selected (cf. (28) above). The three sentences in (35) differ in terms of agentivity. Recall that psych-verbs might describe either an intentional action or an non-intentional one, depending on the presence of the causative zero-morpheme CAUSE in *v*. I therefore propose that the ungrammaticality of (35c) depends on the lack of CAUSE in *inebetire* (to make stupid), which in turn leads to the selection of the intransitive *v* in (28b). Given the basic intransivity of *inebetire* (to make stupid), the ungrammaticality of (35c) follows. On the contrary, according to (25), *impaurire* (to frighten) does contain CAUSE, which means that the selected *v* is of the transitive type in (28a); the grammaticality of (35a) then follows.

To conclude, I propose that the marginality of passives with psych-verbs is due to their structure, because Experiencers merge in a higher position than Triggers. As a consequence, Triggers of emotion hold the subject function only through

derivation. Moreover, I propose that the marginality of the passive of psych-verbs depends on the necessity for Triggers to turn into subjects. The fact that *temere* (to fear) passive is less marginal than the one of *preoccupare* (to worry) ones supports this hypothesis. Consider the following examples:

35. a.Gianni teme il suo datore di lavoro.
    Gianni fear the his boss of job
    *Gianni fears his boss.*
    b. Il professore è temuto da tutti i suoi studenti.
    The professor is feared by all the his students.
    The professored is feared by all his students.

## 12.3.5. Ne-CLITICIZATION

In 4.7, I pointed out that both *piacere* (to please) and *temere* (to fear) objects can be Ne-cliticized. Consider however the examples with *preoccupare* (to worry) verbs:

36. a. ??Questo fatto ne preoccupa molti.
    this fact of-them worries many
    *This fact makes many of them worried about it*. (B&R:330 ex(96))
    b. L'avvocato ne ha convinti molti.
    the lawyer of them has convinced many
    *The lawyer convinced most of them*.

Psych-verbs such *convincere* (to convince), *impaurire* (to frighten) and others pattern with unaccusative verbs in allowing *ne*-cliticization. On the contrary, *preoccupare* (to worry) objects can be Ne-cliticized just when an agentive context is forced (Arad, 1998), as in the following examples:

37. La ragazza di cui Gianni spaventa i genitori perché gliela facessero sposare.
    the girl of which Gianni frightens the parents for him-her makeSUBJ marry

> *The girl whose parents Gianni frightens so that they will allow him to marry her*. (Arad, 1998: (18))

As mentioned in 4.2, such data are not predicted by B&R's theory. According to the present analysis, both (37) and (38) can be accounted for. The fact that Ne-Cliticization with *preoccupare* (to worry) verbs is acceptable only when an agentive reading is forced confirms the possibility for psych-verbs to have both types of *v*, as predicted in (28).

## 12.4 **INTERIM CONCLUSION**

According to the analysis proposed so far, psych-verbs VPs are split into three functional projections: LP, PsychP, and BeP, which are responsible for the special behaviour of these verbs. In particular, in this section I showed that such a hypothesis accounts for several observations (see ch. 4). First of all, assuming a split psych-VP, the different grammatical function assigned to Experiencers can be easily accounted for by arguing that Subj-Exp and Obj-Exp verbs have a different *numeration*, and that Obj-Exp verbs include a causative zero-morpheme. In 9, I showed that Obj-Exp verbs are inherently causative verbs. The presence of such morphemes has two concequences. First of all, it forces the structure to project a functional structure to host them, selecting a causer/actor as the grammatical subject of the predication. Moreover, the analysis proposed so far accounts also for the fact that psych-constructions include also a fourth class introduced by Bouchard (1995), i.e., that of non-incorporating psych-verbs – that are considered analytic in the present analysis. In particular, depending on the type of numeration -- i.e., whether it includes a light verb or not -- the syntactic derivation results in a synthetic or analytic psych-construction; recall that synthetic psych-verbs and their analytic counterparts share the same basic semantics too. Given the syntactic representation in (25) and (27), it is also possible to argue that psych-verbs are analytic and that the synthetic counterparts are derived by means of successive head-movements.

In conclusion, I showed that this split analysis predicts the data introuced in 4. Following Alexiadou (2001), I proposed that psych-verbs and the corresponding nominal forms share the same syntactic structure, the only difference being the

environment they are inserted in, i.e., under T or D. Such a proposal accounts for the mismatch inside the *preoccupare* (to worry) class in terms of nominalization possibilities. Using a split structure, I adopted Alexiadou's (2001) hypothesis that only *intransitive v*Ps allow such a derivation. The presence/absence of CAUSE in the representation of psych-verbs patterns with the selection of either the *transitive* or the *intransitive v*P.

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# SECTION V
# CONCLUSIONS AND FURTHER CONSIDERATIONS

## CHAPTER 13
## OPEN PSYCH-VERBS ISSUES

### 13.1 PSYCH-VERBS CLASSIFICATION

#### 13.1.1 *TEMERE* PSYCH-VERBS AND TRANSITIVITY

In the present analysis all psych-verbs share the same syntactic structure. Subj-Exp verbs differ from Obj-Exp verbs because of the lack of the causative zero-morpheme. Although their structures are similar, they project a different syntactic structure -- cf. (21) and (22) in sec. 12.2. Assuming the numeration in (1), for *temere* (to fear) verbs the derivation is as in (2):

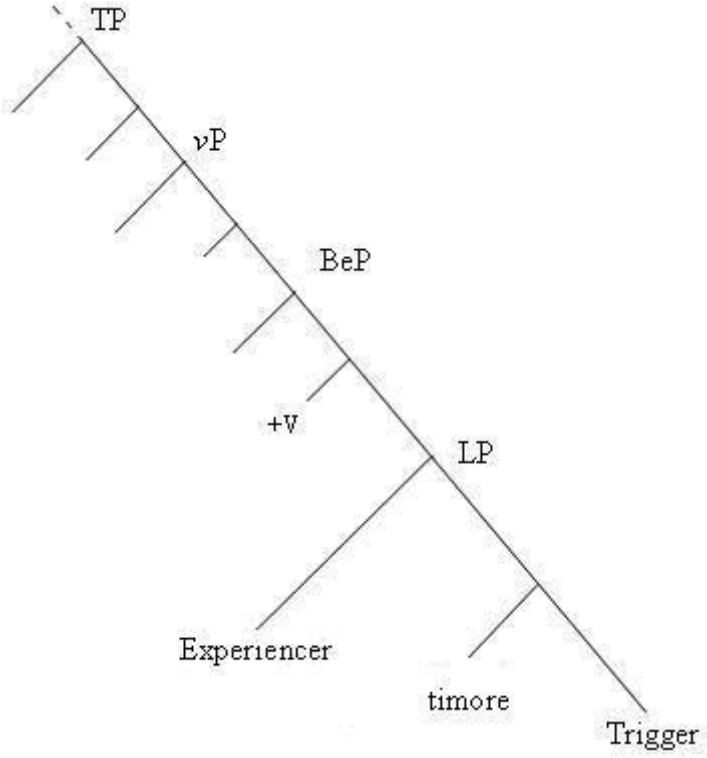
1. a. *temere*:
   $N_0$ { *timore*$_1$, $BE_1$, Experiencer$_1$, Trigger$_1$}
2. a. $N_1$ {*timore*,$BE_1$,Experiencer$_1$,Trigger$_0$}
   b. K [*timore* Trigger]

   c. $N_2$ {*timore*$_0$,$BE_1$,Experiencer$_0$, Trigger$_0$}
   d. M [Experiencer [*timore* Trigger]]

   e. $N_3${*timore*$_0$$BE_0$,Experiencer$_0$,Trigger$_0$}
   f. O [BE[Experiencer [*timore* Trigger]]]

The derivation in (2) is syntactically represented as in (3). The absence of both the causative morpheme and the locative preposition gives rise to a different derivation. Moreover, *temere* (to fear) verbs exhibit a complex psychVP:

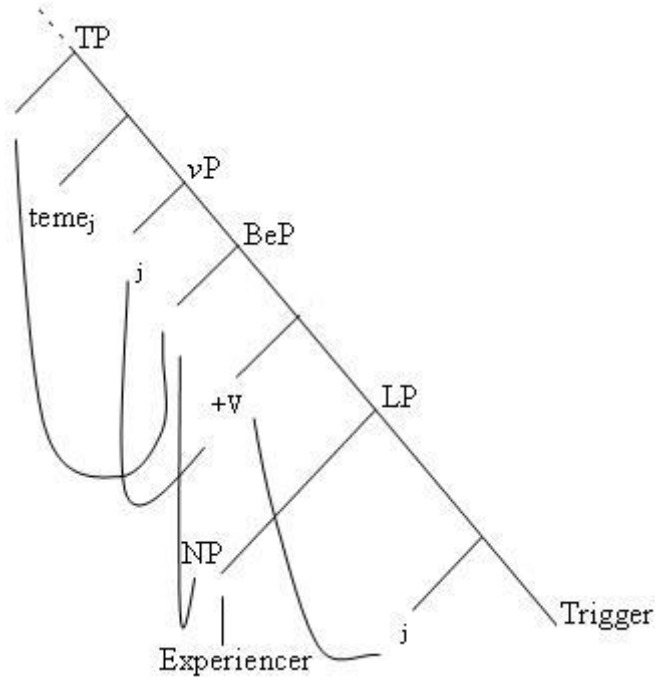
3.




After the numeration in (1) has been exhausted, the computational system selects part of the structure and (re)merges it with another element of the structure. Consider the syntactic representation of (4a) in (4b):

4. a. Gianni (Experiencer) teme Paolo (Trigger).
*Gianni fears Paolo.*

b.




Note that in (4b), *v* does not project an external argument and the Experiencer stays in Spec,BeP. This structure resembles the one proposed for those *preoccupare* (to worry) verbs that do not project CAUSE. Note that *preoccupare* (to worry) verbs with CAUSE have a less marginal passive derivation. T*emere* (to fear) verbs too project a *v* type that does not project an external argument. The lack of a causative meaning and the lack of CAUSE with *temere* (to fear) verbs support the proposed hypothesis. Furthermore, the subject of such psych-verbs is not an agent nor a causer. In particular, I propose that the Experiencer in *temere* (to fear) verbs becomes the subject since it occupies a higher position within the thematic hierarchy with respect to the Trigger. According to Pesetsky (1995), T/SM occupy a lower position with respect to the Experiencer – see sec. 9.2.1. On the basis of (4), I claim that, although *temere* verbs resemble transitives ones, they are not entirely transitive. To support this, I showed that the passives of *temere* (to fear) verbs are different from those deriving from normal transitive verbs – see sec. 4.6.2.1.

To sum up, *temere* (to fear) verbs too merge initially as nominals, hence their denominal nature. Consider the nominal form *timore* (fear). I propose that this nominal is the basic form giving rise to the derivation of *temere* (to fear). *Timore*

(fear) is also the same nominal selected in the numeration of *intimorire* (to intimidate) in (5):

5. $N_0$ {STIMULUS$_1$, *timore*$_1$, in$_1$, BE$_1$, Experiencer$_1$, Trigger$_1$}

Note that STIMULUS in (5) reflects the Obj-Exp nature of *intimorire* (to intimidate). The syntactic structure derived from (5) is different from the one proposed above for *temere* (to fear). Finally, note that the passive of *intimorire* (to intimidate) is grammatical.

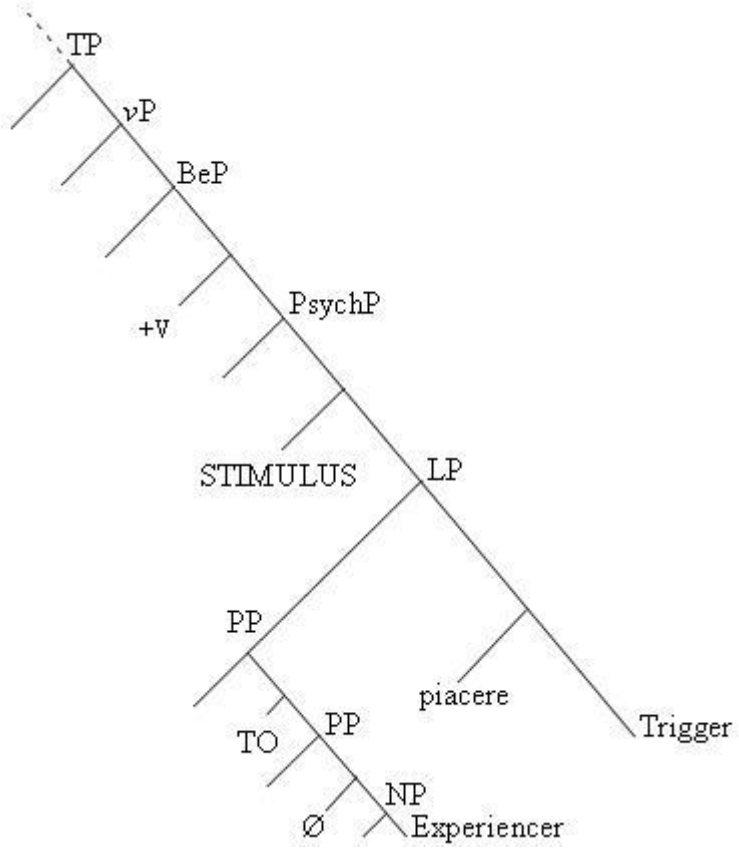
## 13.1.2 *PIACERE* PSYCH-VERBS AND FREE WORD-ORDER

Assuming that all psych-verbs have a unique syntactic structure, I propose that *piacere* (to please) verbs pattern with the *preoccupare* (to worry) ones. Nevertheless, three points seem to contraddict the above hypothesis, i.e., the different auxiliary selection, the preposition *a*, and the relative free word-order possibility with such verbs. The latter two points will be considered now. The reader is referred to the next section for a discussion of the first point.

### 13.1.2.1THE PREPOSITION *A* IN *PIACERE* PSYCH-VERBS

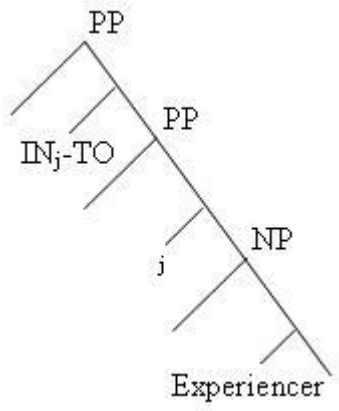
The preposition *a* (to) with *piacere* (to please) verbs is obligatory. Moreover, no *piacere* (to please) verbs can be decomposed like *impaurire* (to frighten), i.e., *in*+psych-state. I propose therefore that the structure of these psych-verbs diverges slightly from the one proposed above for *preoccupare* (to worry) verbs. Given that *a* selects *the* Experiencer, I claim that the differences between *preoccupare* (to worry) verbs and the *piacere* (to please) ones has to do with the syntactic structure related to the Experiencer. Given that all Obj-Experiencers are introduced by a locative preposition, I propose that the Experiencer in *piacere* (to please) verbs has a more complex structure. In particular, in addition to LOC-P, another preposition merges with the Experiencers, i.e., *a* (to). Consider (6):

6.




In (6) too, the zero-causative morpheme STIMULUS is present. In this respect, recall the previous assumption that Obj-Exp psych-verbs select their Trigger as their superficial subject due to the presence of some causative element, as in Pesetsky (1995). Note the presence in (6) of the preposition TO-- A in Italian—above the LOC-P ∅. I propose that the incorporation of LOC-P IN -- ∅ in (6)—into TO makes the locative nature of Experiencer visible. Consider the derivation in (7):

7.




(7) is the result of head movement of the lower LOC-P in order to be spelled-out by PF. Consequently, Experiencers cannot raise to Spec,PsychP (HMC). Moreover, the complex P in (7) cannot be incorporated into the verb. Therefore, it is pronounced as is. Once IN incorporates into TO, the resulting PP is frozen as is. Recall that LOC-P is not always overtly realized. The fact that the Experiencers of *piacere* (to please) verbs are introduced by the bare preposition *a* (to) is a consequence of this optionality.

13.1.2.2 THE WORD-ORDER

Consider now the following sentences:

8. a. Il gelato piace a tutti.
   ice-cream pleases the to everybody
   b. A tutti piace il gelato.
   *Everybody likes ice-cream.*

In (8), we can see that *a tutti* (lit. to everybody) can be either pre-verbal or post-verbal. Recall that B&R interpret such a freedom of movement as a consequence of the nature of inherent Case assigned to the Experiencer, i.e., the dative preposition/Case marker frees its object from any further Case-theoretic constraints, hence movement is free. On the contrary, an accusative-marked NP cannot be extracted from the VP if the Case realization requirement is to be met (B&R:336). Nevertheless, B&R are not concerned with the landing site for the

extracted object. Furthermore, their analysis wrongly predicts that all the elements can appear either postverbally or preverbally, contrary to facts. As for the freedom of movement related to the dative Case assigment, consider the following sentences:

9. a. La siccità preoccupa tutto il paese.
   *The drought worries all villagers*.
   b. *La siccità preoccupa a tutto il paese.
   c. ?A Marco preoccupa molto la tua situazione.
   to Mark worries a lot your situation
   *Your personal situation worries Mark*

Although (9c) is slightly or very marginal, it is more acceptable than (9b). With B&R's analysis in mind, (9b) cannot be predicted, given that *tutto il paese* (all the villagers) has been assigned Accusative and not Dative Case.
On the contrary, I propose that the relative free word-order found in (8) and (9) has a different motivation. The PP in Spec,LP in (8) and in (9) can be inspected for convergence right after the psych-state raises up to Psych° --see (27) in 12.2.2. In a way, I consider these PPs much as a phase in Chomsky's terminology (2000, 2001, 2004). Considering the PP in Spec,LP as a frozen element, I propose that this element can be extracted and freely moved higher in the structure above IP.
Before concluding this section, I will further comment on the judgement of marginality given in (9c). Its marginality is a direct consequence of the different PP syntax in *piacere* (to please) verbs with respect to *preoccupare* (to worry) verbs. In *preoccupare* (to worry), Experiencers are introduced by a silent locative preposition, whereas *piacere* (to please) Experiencers are governed by the Dative preposition *a* (to). Therefore, the marginality of (9c) is due to the fact that *a* in (9c) is not the Dative marker as in (8). Moreover, note that *a* in (9c) is forced to be spelled-out. Consider the sentence in (10):

10. *Marco preoccupa molto la tua situazione.

## 13.2 AUXILIARY SELECTION

In this section, I am going to analyse the auxiliary selection properties of both *preoccupare* (to worry) and *piacere* (to please) verbs. According to B&R, both *preoccupare* (to worry) and *piacere* (to please) verbs are unaccusatives, which means that both of them should select *essere* (to be) as their auxialiary. In 4, I showed that it is not the case, given that only *piacere* (to please) verbs select it.
In 8, I proposed the split VP approach to psych-verbs formation, as in the DM framework. Recall that, following DM, there are two verbal heads, i.e., a light verbal head --the *v*P -- and a VP. In particular, the *v*P is a functional projection with a very restricted inventory of meanings, including, but not necessarily limited to, CAUSE, DO, BECOME, and BE. The spec,*v*P is not projected if the vP head is BECOME, or BE, but it is projected if the vP head is CAUSE or DO. If it is projected, this position is an Agent or Agent-like. Suppose that there is an auxiliary that can select two types of *v*P as its complement. Such an auxiliary is spelled out as *avere* (to have) when its complement (*v*P) is the projection of [+active] light verbs, otherwise it is spelled out as *essere* (to be).
In sec. 1.3, I introduced Kayne's (1993) hypothesis concerning auxiliary selection. Kayne argues that the auxiliary *have* is the result of the incorporation of a D/P° with BE, as in (11)[191]:

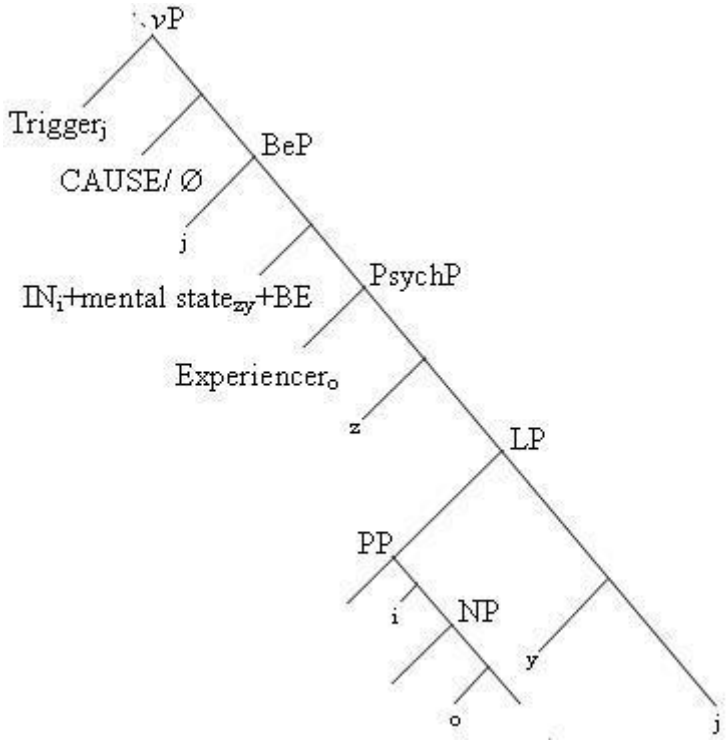
11. $DP_{subj/i}$ $D/P_e$+BE$[_{DP}$ $[e]_i$ D/P°...$[_{VP}$ $[e]_i$ V DP]

Kayne considers (11) as responsible for the *have* aux selection. In particular, D/P+BE is spelled out as HAVE, yielding for instance, with V=*break* and $DP_{obj}$ =the window to "John has broken the window" (Kayne 1993:8).
In what follows, I shall demonstrate that the auxiliary mismatch between *piacere* (to please) and *preoccupare* (to worry) psych-verbs can be predicted on the basis of a similar hypothesis.
Adopting Kayne's (1993) analysis, I claim that Obj-Exp psych-verbs auxiliary selection depends on the incorporation of the preposition governing the

191 Recall tha Kayne (1993) adopts the idea that English has a non-overt prepositional (oblique) D° in possessive constructions, through whose spec the possessor DP moves. Moreover, he claims that the representation $D/P_e$ is the result of the incorporation of the possessive DP to SpecD° (Kayne 1993:7).

Experiencer. In 7.1, I claimed that locative prepositions incorporate, giving rise to forms such as *impaurire* (to frighten), derived from *paurire+in* [192]. This incorporation process takes place in all *preoccupare* (to worry) verbs, but not in *piacere* (to please) ones (see. sec. 13.1.2). Let us now consider whether Kayne's (1993) theory can predict the selection of the auxiliary with Obj-Exp verbs. Consider (12):

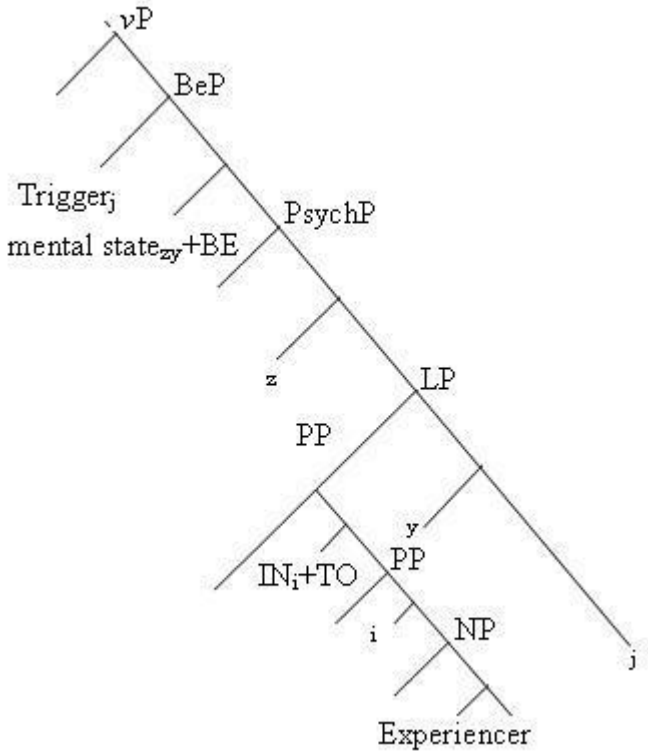
12.




In (12), the derivation of *preoccupare* (to worry) verbs leads to a derived verb containing both a preposition and the functional element BE. Consider now the derivation of *piacere* (to please) in this respect:

192 Technically, incorporation of the P allows the V to govern into the PP.

13.




Contrary to (12), in (13), the derivation leads to a derived verb containing just the functional element BE. Recall that BE can be phonetically realized as *essere* (to be), as in *c'è preoccupazione in tutti noi* (lit. there is worry in all of us).
Following Kayne (1993), auxiliary selection with Obj-Exp verbs depends on their syntactic derivation. In particular, *preoccupare* (to worry) psych-verbs select *avere* (to have) due to the presence of both P and BE in the final derived verb (cf. (12)). On the contrary, *piacere* (to please) psych-verbs select *essere* (to be) due to the absence of P in the final derived verb (cf.(13)).

## 13.3 ARE *PREOCCUPARE* PSYCH-VERBS TRANSITIVES, UNERGATIVE OR UNACCUSATIVES?

As I have shown above, *piacere* (to please) verbs and *preoccupare* (to worry) ones behave in a complete different way. I propose that the *preoccupare* (to worry) class can be split into psych-verbs that resemble transitive verbs and other ones that resemble unergatives, depending on the *v* selected. In other words,

assuming their denominal nature, I claim that their status depends on the *v* selected. If this is correct, I predict that some psych-verbs can be passivized, whereas others cannot. Consider the following examples:

14. a. Il professore ha intimidito Gianni.
    The professor has intimidated Gianni
    *The professor intimidated Gianni*.
    b. Gianni è stato impaurito dal professore.
    Gianni is been frightened by the professor
    *Gianni has frightened by the professor*.

15. a. Marco ha appassionato tutti con il suo discorso.
    Marco has fascinated everybody with the his talk
    *Marco has fascinated everybody with his talk*.
    b. *Siamo stati tutti appassionati dal suo discorso.
    (We) are been everybody fascinated by the his talk
    *We have been all fascinated by his talk*.

It is possible to passivize *intimidire* (to intimidate), as in (14b), but the same is not true for *affascinare* (to fascinate). Verbs such as *allarmare* (to alarm), *impaurire* (to frighten), *emozionare* (to excite) behave like *intimidire*, whereas verbs such as *appassionare* (to thrill), *preoccupare* (to worry), *interessare* (to interest) and *sconfortare* (to discourage) behave like *affascinare* (to fascinate).

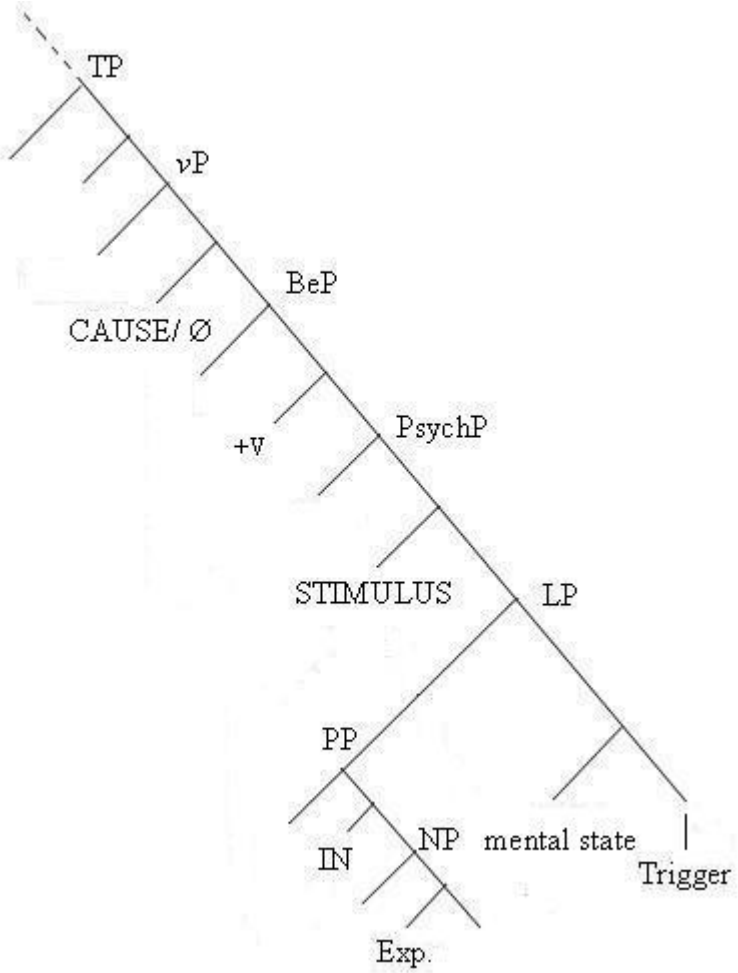
# CHAPTER 14
# CONCLUSION

The main claim of this work is that psych-verbs constructions are denominal. The main arguments in favour of this claim can be summarized as follows. Similarly to *water*N and *water*V, Obj-Exp psych-verbs merge as bare nominals -- in H&K sense -- and then turn into verbs due to successive head-movements. Moreover, psych-constructions include both synthetic and analytic constructions, as in Bouchard (1995)-- e.g., *impaurire* (to frighten) and *fare paura* (lit. make fear)--. In particular, synthethic psych-verbs are derived from analytic ones. In the present analysis, psych-constructions merge as a light verb plus a mental state (analytic form). Following Baker (2003) and Ramchand (2008), it has been argued that the VP of psych-verbs should be split. In particular, each element present in analytic psych-constructions corresponds to a different projection within the syntactic structure. Adapting Baker's (2003) hypothesis about transitive verbs, it has been claimed that the VP of psych-verbs has a more fine-grained structure, consisting of the following projections: BeP, PsychP, and LP. The distribution and the properties of each of these projections have been discussed on the basis of both intra and cross-linguistic data. Following Landau (2010), it has also been claimed that Experiencers are governed by a locative preposition, which, depending on the specific derivation, can be overtly realized or not. On the basis of Pesetsky (1995), it has been shown that Subj-Exp and Obj-Exp psych-verbs have the same syntactic structure, the only difference being the presence of a causative zero-morpheme, i.e., STIMULUS. When this morpheme is present, it prevents the Experiencer from being the superficial subject. As a consequence, the causative morpheme makes Obj-Exp psych-verbs select Triggers of emotions as their superficial subjects. On the contrary, because of the lack of STIMULUS, Subj-Exp psych-verbs select an Experiencer as their subject, as Experiencers are thematically higher than Triggers of emotions (Pesetsky 1995). In conclusion, the subject selection of psych-verbs is thematically driven.

As for the syntactic structure, mental states merge with the Trigger and then with the Experiencer. In other words, the mental state selects Trigger and Experiencer

as its internal and external argument, respectively. In the present analysis, psych-verbs share the same initial syntactic structure in (16), as in Baker (2003):

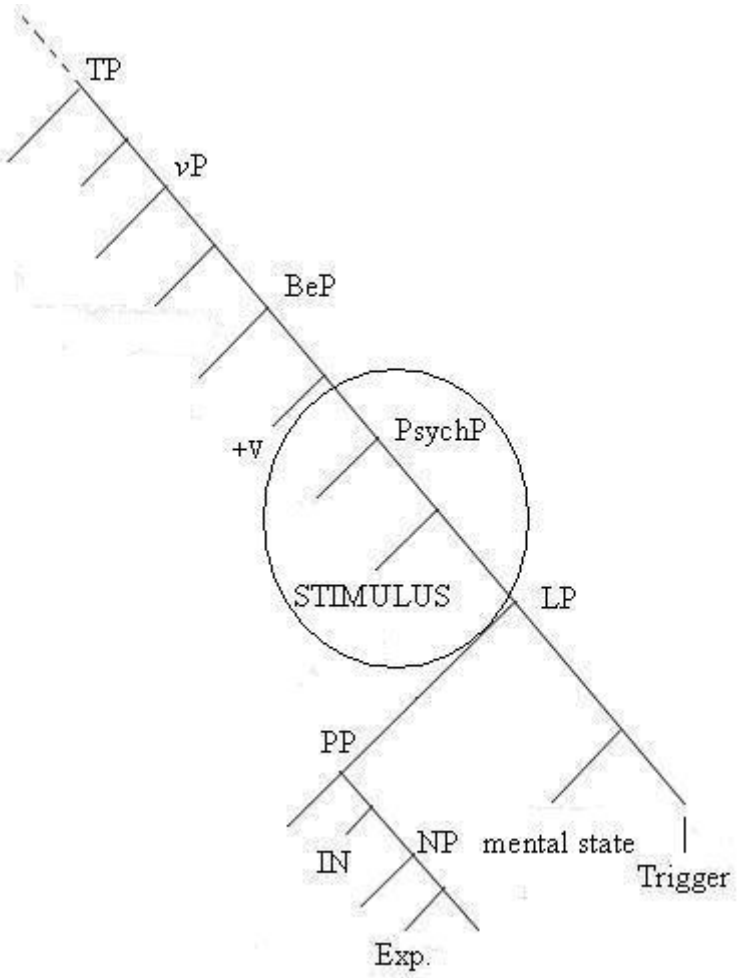
16.




By analysing analytic psych-constructions, it has been shown that psych-verbs express a strict locative relation between Experiencers and mental states, visible both in analytic constructions and in synthetic ones. Converging evidence comes from nominalizations, passivizations and selection of locative prepositions.

Note that the analysis proposed in (16) would be impossible without a comparative analysis of psych-verbs – (cf. data from Japanese, Finnish, and Hungarian in sec. 9.3). In conclusion, the syntactic difference between Subj-Exp and Obj-Exp psych-verbs is represented in (17):

17.




While many aspects of the derivation and behaviour psych-verbs remain open, I hope that this study has advanced our understanding of the problems and theoretical challenges that future research faces in this domain.

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# Appendix1 Psych- verbs classified following B&R

| **TEMERE psych-verbs** | **PREOCCUPARE psych-verbs** | **PIACERE psych-verbs** |
|---|---|---|
| aborrire (to abhor) | abbattere (to dishearten) | convenire (to be worthwhile) |
| adorare (to worship) | abbagliare (to dazzle) | dispiacere (cont. to please) |
| amare (to love) | abbonacciare (lit.to calm sb./st.) | dolere (to ache) |
| ammirare (to admire) | abbonire (to ) | fare (paura,ribrezzo...) (to make sb scared…) |
| apprezzare (to appreciate) | accontentare (to satisfy) | garbare (to please) |
| bramare (to crave for) | addolorare (to sadden ) | gustare (to please) |
| compatire (to pity) | addolcire (to soften) | importare (to matter to sb.) |
| compiangere (to pity) | affascinare (to fascinate) | nuocere (to be harmful) |
| detestare (to detest) | affliggere (to afflict) | piacere (to please) |
| dispregiare | agghiacciare (to chill) | premere (to push) |
| disprezzare (to despise) | agitare (to shake) | quadrare (to please ) |
| esecrare (to execrate) | allarmare (to alarm ) | repellere (to repel) |
| gradire (to like) | allettare (to tempt) | rincrescere (to regret) |
| idolatrare (to idolatrize) | allietare (to cheer) | spiacere (lit. not please) |
| inorridire (to horrify) | amareggiare (to embitter) | |
| invidiare (to envy) | ammaliare (to captivate) | |
| misconoscere (lit. not recognize) | ammalinconire (lit.make sb. melancholy) | |
| odiare (to hate) | ammaliziare | |
| patire (to undergo/suffer) | angosciare (to distress) | |
| paventare (to dread) | angustiare (lit. give angst) | |
| pazientare (to wait patiently) | annoiare (to annoy) | |
| prediligere (to have a preference) | appassionare (to thrill) | |
| preferire (to prefer) | assillare (to torment) | |
| pregustare (to forestate) | atterrire (to terrify) | |
| rimpiangere (to regret) | attirare (to attract) | |

| | | |
|---|---|---|
| rinsavire (to come to one's senses) | attrarre (to attract) | |
| rispettare (to respect) | attristare (lit.make sb. sad) | |
| schifare (to disgust) | avvilire (to discourage) | |
| sgradire (lit not like) | avvincere (to engross) | |
| soffrire (to suffer) | calmare (to calm) | |
| sopportare (to withstand) | colpire (to hit) | |
| sottostimare (to underestimate) | commuovere (to move sb. to tears) | |
| sprezzare (to despise) | compiacere (to gratify) | |
| stimare (to value) | confondere (to confound) | |
| temere (to fear) | confortare (to confort) | |
| tollerare (to tolerate) | consapevolizzare (lit. make sb aware ) | |
| tribolare (to suffer) | consolare (to console) | |
| venerare (to worship) | contrariare (to vex) | |
| | conturbare | |
| | convincere (to convince) | |
| | costernare (to dismay) | |
| | crucciare (lit. give worries) | |
| | deconcentrare (to deconcentrate) | |
| | deludere (to disappoint) | |
| | demoralizzare (to demoralize) | |
| | deprimere (to depress) | |
| | desolare (to desolate) | |
| | dilettare (to de light) | |
| | disarmare (to disarm) | |
| | disgustare (to disgust) | |
| | disilludere (to disenchant) | |
| | disincantare (to disenchant) | |

| | | |
|---|---|---|
| | disingannare (to disillusion) | |
| | disorientare (to disorientate) | |
| | disperare (to despair) | |
| | disturbare (to disturb) | |
| | divertire (to amuse) | |
| | eccitare (to excite) | |
| | elettrizzare (to electrify) | |
| | emozionare (to touch) | |
| | entusiasmare (to fill with enthusiasm) | |
| | esacerbare (to exacerbate) | |
| | esaltare (to elate) | |
| | esasperare (to esasperate) | |
| | esaurire (to exhaust) | |
| | estasiare (to enrapture) | |
| | illudere (to delude ) | |
| | imbarazzare (to embarrass) | |
| | immalinconire (to make sb. melancholy) | |
| | impaurire (to frighten) | |
| | impazientire | |
| | impensierire (to worry sb.) | |
| | impermalire (lit. male sb. annoyed) | |
| | impietosire (to move sb to pity) | |
| | impressionare (to impress) | |
| | incantare (to bewitch) | |
| | incoraggiare (to encourage) | |
| | incretinire (lit. make sb. stupid) | |

| | | |
|---|---|---|
| | incuriosire (to intrigue sb.) | |
| | indignare (to make sb indignant) | |
| | indispettire (to pique) | |
| | indisporre (to upset) | |
| | inebetire (to make sb. stupid) | |
| | inebriare (to inebriate) | |
| | infastidire (to annoy) | |
| | infatuare (lit. make sb. infatuated ) | |
| | infervorare (to overheat sb) | |
| | infervorire | |
| | infiammare (to inflame ) | |
| | infuriare (to work sb. uo into a rage) | |
| | ingelosire (to make sb. jealous) | |
| | innamorare (to enamour) | |
| | innervosire (to make sb nervous) | |
| | inorgoglire (lit. make sb. proud) | |
| | inquietare (to trouble) | |
| | insospettire (to arouse sb. suspicion) | |
| | intenerire (to touch) | |
| | interessare (to interest) | |
| | intimidire (to intimidate) | |
| | intimorire (to frighten) | |
| | intontire (to numb) | |
| | invaghire (lit. make sb. infatuated) | |
| | invasare (to obsess) | |

| | | |
|---|---|---|
| | invelenire (to embitter) | |
| | invogliare (to prompt sb to do) | |
| | ipnotizzare (to hypothesize) | |
| | irretire (to ensnare) | |
| | irritare (to irritate) | |
| | istupidire (lit. make sb. stupid) | |
| | letiziare (lit. give joy ) | |
| | lusingare (to flatter) | |
| | meravigliare (to astonish) | |
| | mortificare (to mortify) | |
| | nauseare (to nauseate) | |
| | offendere (to offend) | |
| | oltraggiare (to outrage) | |
| | opprimere (to oppress) | |
| | ossessionare (to obsess) | |
| | persuadere (to persuade) | |
| | pervertire (to pervert) | |
| | preoccupare (to worry) | |
| | prostrare (to prostrate) | |
| | provocare (to provoke) | |
| | rabbonire (to calm down) | |
| | raccertare (to ascertain) | |
| | racconsolare (to console) | |
| | racquetare (to quieten) | |
| | rallegrare (to cheer up) | |
| | rammaricare (to afflict) | |
| | rapire (to enrapture) | |
| | rasserenare (to brighten) | |
| | rassicurare (to reassure) | |
| | rattristare (to make sad) | |

| | | |
|---|---|---|
| | rattristire (to make sad) | |
| | ributtare (to disgust sb.) | |
| | rimbaldanzire | |
| | rimbecillire (lit. make sb. stupid ) | |
| | rincitrullire (to fuddle) | |
| | rincoglionire (volg. of rincretinire) | |
| | rincretinire (to make sb. dumb ) | |
| | rincuorare (to hearten) | |
| | rinfrancare (to reassure) | |
| | ringalluzzire (to make sb. jaunty) | |
| | rintenerire (to move) | |
| | ripugnare (to disgust ) | |
| | rugare | |
| | sbalordire (to amaze) | |
| | sbigottire (to costernate) | |
| | scaltrire (to make sb. more wordly-wise) | |
| | scandalizzare (to scandalize) | |
| | scioccare (to shock) | |
| | scocciare (to annoy) | |
| | scombussolare (to unsettle) | |
| | sconcertare (to baffle) | |
| | sconfortare (to discourage) | |
| | sconsolare (cont. of to console) | |
| | scontentare (to displease) | |
| | sconvolgere (to upset) | |
| | scoraggiare (to | |

| | | |
|---|---|---|
| | discourage) | |
| | scorare | |
| | scuotere (to shake) | |
| | sdegnare (to make sb.indignant) | |
| | seccare (to bother) | |
| | sedurre (to seduce) | |
| | sfagiolare (to ) | |
| | sfiduciare (to distrust sb.) | |
| | sgomentare (to dismay) | |
| | shockare (to shock) | |
| | sincerare (to make sure) | |
| | smaliziare (to make sb. crafty) | |
| | soddisfare (to satisfy) | |
| | sorprendere (to surprise) | |
| | sovreccitare (to overexcite) | |
| | spassare (to amuse sb.) | |
| | spaurire (cont. of to scare ) | |
| | spaventare (to scare) | |
| | spazientire (to test sb.'s patience) | |
| | spoetizzare (to take the poetry out of sth.) | |
| | spregiare (to despise) | |
| | spregiudicare | |
| | squinternare (to trouble) | |
| | stancare (to wear sb. out) | |
| | stimolare (to stimulate) | |
| | stizzire (to irritate) | |
| | stomacare (to sicken) | |
| | stordire (to stun) | |

| | | |
|---|---|---|
| | strabiliare (to astound) | |
| | stravolgere (to distort) | |
| | stregare (to bewitch) | |
| | stressare (to put sb. uunder stress) | |
| | struggere (lit. make sb.be consumed) | |
| | stuccare (to bore) | |
| | stufare (to tire) | |
| | stupefare (to stupefy) | |
| | stupire (to astonish) | |
| | suggestionare (to influence) | |
| | svagare (to distract) | |
| | svelenare (lit. calm sb. down) | |
| | talentare (lit. make sb. be talented) | |
| | tediare (to bore) | |
| | terrificare (to terrify) | |
| | terrorizzare (to terrorize) | |
| | tormentare (to torment) | |
| | tranquillizzare (to pacify) | |
| | trastullare (to flirt) | |
| | traumatizzare (to traumatize) | |
| | travagliare (to torment) | |
| | turbare (to disturb) | |
| | umiliare (to humiliate) | |
| | urtare (to irritate) | |

# Appendix2 Psych-verbs nominalizations and participial forms

| **TEMERE psych-verbs** | **Nominalization** | **Present Participle** |
|---|---|---|
| aborrire (to abhor) | aborrimento (abhorrence) | |
| adorare (to worship) | adorazione (worship) | adorante (adoring) |
| amare (to love) | | amante (lover) |
| ammirare (to admire) | ammirazione (admiration) | |
| apprezzare (to appreciate) | apprezzamento (appreciation) | |
| bramare (to crave for) | brama (craving) | bramante |
| compatire (to pity) | compatimento (compartment) | |
| compiangere (to pity) | | |
| detestare (to detest) | detestazione | |
| dispregiare | dispregio | |
| disprezzare (to despise) | | |
| esecrare (to execrate) | esecrazione | |
| gradire (to like) | gradimento (approval) | |
| idolatrare (to idolatrize) | | |
| inorridire (to horrify) | | |
| invidiare (to envy) | | |
| misconoscere (lit. not recognize) | misconoscimento (disregard) | misconoscente |
| odiare (to hate) | odio (hate) | |
| patire (to undergo/suffer) | patimento (suffering) | |
| paventare (to dread) | paventazione (feared) | |
| pazientare (to wait patiently) | | paziente (patient) |
| prediligere (to have a preference) | predilezione (predilection) | |
| preferire (to prefer) | preferenza (preference) | |
| pregustare (to forestate) | pregustazione (anticipation?) | |
| rimpiangere (to regret) | | |
| rinsavire (to come to one's | | |

| | | |
|---|---|---|
| senses) | | |
| rispettare (to respect) | | |
| schifare (to disgust) | | |
| sgradire (lit not like) | | |
| soffrire (to suffer) | soffrimento | sofferente (suffering) |
| sopportare (to withstand) | sopportazione (endurance) | |
| sottostimare (to underestimate) | | |
| sprezzare (to despise) | | sprezzante (disdainful) |
| stimare (to value) | | |
| temere (to fear) | | |
| tollerare (to tolerate) | | tollerante (tolerating) |
| tribolare (to suffer) | tribolazione (tribulation) | |
| venerare (to worship) | venerazione (venerazione) | |

| **PREOCCUPARE psych-verbs** | **Nominalizations** | **Present Participle** |
|---|---|---|
| abbattere (to dishearten) | | |
| abbagliare (to dazzle) | | |
| abbonacciare (lit.to calm sb./st.) | | |
| abbonire (to ) | | |
| accontentare (to satisfy) | | |
| addolorare (to sadden ) | | |
| addolcire (to soften) | | |
| affascinare (to fascinate) | affascinamento (fascination) | affascinante(fascinating) |
| affliggere (to afflict) | | affliggente |
| agghiacciare (to chill) | | agghiacciante (dreadful) |
| agitare (to shake) | | |
| allarmare (to alarm ) | | allarmante (alarming) |
| allettare (to tempt) | allettamento (alluremento) | allettante (tempting) |

| | | |
|---|---|---|
| allietare (to cheer) | | |
| amareggiare (to embitter) | amareggiamento (embittered) | |
| ammaliare (to captivate) | ammaliamento | ammaliante (captivating) |
| ammalinconire (lit.make sb. melancholy) | | |
| ammaliziare | | |
| angosciare (to distress) | | angosciante (distressing) |
| angustiare (lit. give angst) | | |
| annoiare (to annoy) | annoiamento (bored) | annoiante (annoying) |
| appassionare (to thrill) | appassionamento | appassionante (thrilling) |
| assillare (to torment) | | |
| atterrire (to terrify) | atterrimento(terrifying) | |
| attirare (to attract) | | |
| attrarre (to attract) | attrazione (attraction) | attraente (charming) |
| attristare (lit.make sb. sad) | | |
| avvilire (to discourage) | avvilimento | avvilente (discouraging) |
| avvincere (to engross) | | avvincente (engrossing) |
| calmare (to calm) | | |
| colpire (to hit) | | |
| commuovere (to move sb. to tears) | | commovente (touching) |
| compiacere (to gratify) | compiacimento (compacency) | compiacente (complaisant) |
| confondere (to confound) | | |
| confortare (to confort) | | |
| consapevolizzare (lit. make sb aware ) | | |
| consolare (to console) | consolazione (consolation) | consolante (consoling) |
| contrariare (to vex) | contrariamento | contrariante |
| conturbare | | |
| convincere (to convince) | | convincente (convincing) |
| costernare (to dismay) | costernazione (costernation) | |
| crucciare (lit. give worries) | | |

| | | |
|---|---|---|
| deconcentrare (to deconcentrate) | deconcentrazione | |
| deludere (to disappoint) | delusione (disappointment) | deludente (disappointing) |
| demoralizzare (to demoralize) | demoralizzazione (demoralization) | demoralizzante (demoralizing) |
| deprimere (to depress) | | deprimente (depressing) |
| desolare (to desolate) | desolazione (grief) | desolante (desolating) |
| dilettare (to de light) | dilettazione | |
| disarmare (to disarm) | | disarmante (disarming) |
| disgustare (to disgust) | | |
| disilludere (to disenchant) | disillusione (disenchantment) | |
| disincantare (to disenchant) | | |
| disingannare (to disillusion) | | |
| disorientare (to disorientate) | disorientamento (disorientation) | |
| disperare (to despair) | | |
| disturbare (to disturb) | | |
| divertire (to amuse) | divertimento (amusement) | divertente (amusing) |
| eccitare (to excite) | eccitamento (excitement) | eccitante (exciting) |
| elettrizzare (to electrify) | | elettrizzante (thrilling) |
| emozionare (to touch) | | emozionante (touching) |
| entusiasmare (to fill with enthusiasm) | | entusiasmante (exciting) |
| esacerbare (to exacerbate) | | |
| esaltare (to elate) | esaltazione (exaltation) | esaltante (thrilling) |
| esasperare (to esasperate) | esasperazione (exasperation) | esasperante (exasperating) |
| esaurire (to exhaust) | esaurimento (exhaustion) | esauriente (exhaustive) |
| estasiare (to enrapture) | | |
| illudere (to delude ) | | |
| imbarazzare (to embarrass) | | imbarazzante (embarrassing) |
| immalinconire (to make sb. melancholy) | | |

| | | |
|---|---|---|
| impaurire (to  frighten) | | |
| impazientire | | |
| impensierire (to worry sb.) | | |
| impermalire (lit. male sb. annoyed) | | |
| impietosire (to move sb to pity) | | |
| impressionare (to impress) | | impressionante (impressive) |
| incantare (to bewitch) | incantamento (enchantment) | |
| incoraggiare (to encourage) | incoraggiamento (encouragement) | incoraggiante (encouraging) |
| incretinire (lit. make sb. stupid) | incretinimento | |
| incuriosire (to intrigue sb.) | | |
| indignare (to make sb indignant) | indignazione (indignation) | |
| indispettire (to pique) | | |
| indisporre (to upset) | | indisponente (unsympathetic) |
| inebetire (to make sb. stupid) | | |
| inebriare (to inebriate) | inebriamento | inebriante (intoxication/heady) |
| infastidire (to annoy) | | |
| infatuare (lit. make sb. infatuated ) | infatuazione (infatuazione) | |
| infervorare (to overheat sb) | infervoramento | |
| infervorire | | |
| infiammare (to inflame ) | | |
| infuriare (to work sb. uo into a rage) | | |
| ingelosire (to make sb. jealous) | | |
| innamorare (to enamour) | | |
| innervosire (to make sb nervous) | | |
| inorgoglire (lit. make sb. proud) | | |
| inquietare (to trouble) | | inquietante (worrying) |
| insospettire (to arouse sb. | | |

| | | |
|---|---|---|
| suspicion) | | |
| intenerire (to touch) | intenerimento (tenderizing) | |
| interessare (to interest) | interessamento (interest) | |
| intimidire (to intimidate) | intimidimento | |
| intimorire (to frighten) | intimorimento (intimidated) | |
| intontire (to numb) | | |
| invaghire (lit. make sb. infatuated) | | |
| invasare (to obsess) | invasamento | |
| invelenire (to embitter) | | |
| invogliare (to prompt sb to do) | | |
| ipnotizzare (to hypothesize) | | |
| irretire (to ensnare) | irretimento | |
| irritare (to irritate) | irritazione (annoyance) | irritante (annoying) |
| istupidire (lit. make sb. stupid) | | |
| letiziare (lit. give joy ) | | |
| lusingare (to flatter) | | |
| meravigliare (to astonish) | | |
| mortificare (to mortify) | mortificazione (mortification) | mortificante (mortifying) |
| nauseare (to nauseate) | | nauseante |
| offendere (to offend) | | |
| oltraggiare (to outrage) | oltraggiamento (outraged) | |
| opprimere (to oppress) | oppressione (oppression) | opprimente (oppressing) |
| ossessionare (to obsess) | | ossessionante (obsessing) |
| persuadere (to persuade) | persuasione (persuasion) | persuasivo (persuading) |
| pervertire (to pervert) | pervertimento (perversion) | |
| preoccupare (to worry) | preoccupazione (worry) | preoccupante (worrying) |
| prostrare (to prostrate) | prostramento | |
| provocare (to provoke) | provocazione (provocation) | |
| rabbonire (to calm down) | | |
| raccertare (to ascertain) | | |

| | | |
|---|---|---|
| racconsolare (to console) | | |
| racquetare (to quieten) | | |
| rallegrare (to cheer up) | rallegramento | |
| rammaricare (to afflict) | rammaricamento | |
| rapire (to enrapture) | rapimento (ravishment) | |
| rasserenare (to brighten) | rasserenamento (brightening) | rasserenante |
| rassicurare (to reassure) | rassicurazione (reassurance) | rassicurante (reassuring) |
| rattristare (to make sad) | rattristamento | rattristante |
| rattristire (to make sad) | | |
| ributtare (to disgust sb.) | | ributtante (disgusting) |
| rimbaldanzire | | |
| rimbecillire (lit. make sb. stupid ) | | |
| rincitrullire (to fuddle) | | |
| rincoglionire (volg. of rincretinire) | | |
| rincretinire (to make sb. dumb ) | | |
| rincuorare (to hearten) | | |
| rinfrancare (to reassure) | | rinfrancante |
| ringalluzzire (to make sb. jaunty) | | |
| rintenerire (to move) | | |
| ripugnare (to disgust ) | | ripugnante (repugnant) |
| rugare | | |
| sbalordire (to amaze) | sbalordimento (amazement) | |
| sbigottire (to costernate) | sbigottimento (costernation) | |
| scaltrire (to make sb. more wordly-wise) | scaltrimento | |
| scandalizzare (to scandalize) | scandalizzamento | |
| scioccare (to shock) | | scioccante (shocking) |
| scocciare (to annoy) | | scocciante (bothering) |
| scombussolare (to unsettle) | scombussolamento (upheavel) | scombussolante |
| sconcertare (to baffle) | sconcertamento (bewildered) | scontertante (baffling) |
| sconfortare (to discourage) | sconfortamento | sconfortante |

| | | |
|---|---|---|
| | | (disheartening) |
| sconsolare (cont. of to console) | sconsolazione | sconsolante (distressing) |
| scontentare (to displease) | | |
| sconvolgere (to upset) | sconvolgimento (upheavel) | sconvolgente (upsetting) |
| scoraggiare (to discourage) | | scoraggiante (discouraging) |
| scorare | | |
| scuotere (to shake) | | |
| sdegnare (to make sb.indignant) | | |
| seccare (to bother) | | seccante (annoying) |
| sedurre (to seduce) | seduzione (seduction) | seducente (seductive) |
| sfagiolare (to ) | | |
| sfiduciare (to distrust sb.) | | |
| sgomentare (to dismay) | | |
| shockare (to shock) | | shockante (shocking) |
| sincerare (to make sure) | | |
| smaliziare (to make sb. crafty) | | |
| soddisfare (to satisfy) | soddisfacimento (satisfaction) | soddisfacente (satisfactory) |
| sorprendere (to surprise) | sorprendimento (surprise) | sorprendente (surprising) |
| sovreccitare (to overexcite) | sovreccitamento | |
| spassare (to amuse sb.) | | |
| spaurire (cont. of to scare ) | spaurimento | |
| spaventare (to scare) | | |
| spazientire (to test sb.'s patience) | | |
| spoetizzare (to take the poetry out of sth.) | | |
| spregiare (to despise) | | |
| spregiudicare | | |
| squinternare (to trouble) | | |
| stancare (to wear sb. out) | stancamento (wearily) | stancante (tiring) |
| stimolare (to stimulate) | stimolazione (stimulation) | stimolante (stimulating) |
| stizzire (to irritate) | | |

| | | |
|---|---|---|
| stomacare (to sicken) | | |
| stordire (to stun) | stordimento (daze) | |
| strabiliare (to astound) | | strabiliante (astonishing) |
| stravolgere (to distort) | stravolgimento (distortiong) | |
| stregare (to bewitch) | stregamento (bewitched) | |
| stressare (to put sb. under stress) | | stressante (stressing) |
| struggere (lit. make sb.be consumed) | struggimento (torment) | struggente (aching) |
| stuccare (to bore) | | |
| stufare (to tire) | | |
| stupefare (to stupefy) | stupefazione (amazement) | stupefacente (astonishing) |
| stupire (to astonish) | | |
| suggestionare (to influence) | | |
| svagare (to distract) | svagamento | |
| svelenare (lit. calm sb. down) | | |
| talentare (lit. make sb. be talented) | | |
| tediare (to bore) | | |
| terrificare (to terrify) | | terrificante (terrifying) |
| terrorizzare (to terrorize) | | terrorizzante (terrorizing) |
| tormentare (to torment) | | |
| tranquillizzare (to pacify) | | |
| trastullare (to flirt) | trastullamento | |
| traumatizzare (to traumatize) | | traumatizzante |
| travagliare (to torment) | | |
| turbare (to disturb) | turbamento (perturbation) | |
| umiliare (to humiliate) | umiliazione (humiliation) | umiliante (humiliating) |
| urtare (to irritate) | | urtante (irritating) |

| **PIACERE psych-verbs** | **Nominalization** | **Present Participle** |
|---|---|---|
| convenire (to be worthwhile) | convenire | conveniente (convenient) |
| dispiacere (cont. to please) | dispiacere | dispiacente |
| dolere (to ache) | dolere | dolente (aching) |
| fare (paura,ribrezzo...) (to make sb scared…) | | |
| garbare (to please) | | |
| gustare (to please) | gustare | |
| importare (to matter to sb.) | | importante (importante) |
| nuocere (to be harmful) | interessamento | interessante (interessing) |
| piacere (to please) | nuocere | |
| premere (to push) | piacere | piacente (attractive) |
| quadrare (to please ) | premere | premente |
| repellere (to repel) | quadrare | |
| rincrescere (to regret) | repellere | repellente (revolting) |
| spiacere (lit. not please) | rincrescimento | |
| convenire (to be worthwhile) | spiacere | spiacente (sorry) |

Università
Ca'Foscari
Venezia

**DEPOSITO ELETTRONICO DELLA TESI DI DOTTORATO**
**DICHIARAZIONE SOSTITUTIVA DELL'ATTO DI NOTORIETA'**
**(Art. 47 D.P.R. 445 del 28/12/2000 e relative modifiche)**

**Io sottoscritto NICOLA VARCHETTA, nato a Padova (prov. PD ) il 07/10/1981, residente a PADOVA in VIA TRIESTE n. 12, matricola 955595 autore della tesi di dottorato dal titolo: "Rethinking Italian psychological verbs"**

**Dottorato di ricerca in Scienze del linguaggio**

**Ciclo 24°**

**Anno di conseguimento del titolo 2011-2012**

**DICHIARO**

di essere a conoscenza:
1) del fatto che in caso di dichiarazioni mendaci, oltre alle sanzioni previste dal codice penale e dalle Leggi speciali per l'ipotesi di falsità in atti ed uso di atti falsi, decado fin dall'inizio e senza necessità di nessuna formalità dai benefici conseguenti al provvedimento emanato sulla base di tali dichiarazioni;
2) dell'obbligo per l'Università di provvedere, per via telematica, al deposito di legge delle tesi di dottorato presso le Biblioteche Nazionali Centrali di Roma e di Firenze al fine di assicurarne la conservazione e la consultabilità da parte di terzi;
3) che l'Università si riserva i diritti di riproduzione per scopi didattici, con citazione della fonte;
4) del fatto che il testo integrale della tesi di dottorato di cui alla presente dichiarazione viene archiviato e reso consultabile via internet attraverso l'Archivio Istituzionale ad Accesso Aperto dell'Università Ca' Foscari, oltre che attraverso i cataloghi delle Biblioteche Nazionali Centrali di Roma e Firenze;
5) del fatto che, ai sensi e per gli effetti di cui al D.Lgs. n. 196/2003, i dati personali raccolti saranno trattati, anche con strumenti informatici, esclusivamente nell'ambito del procedimento per il quale la presentazione viene resa;
6) del fatto che la copia della tesi in formato elettronico depositato nell'Archivio Istituzionale ad Accesso Aperto è del tutto corrispondente alla tesi in formato cartaceo, controfirmata dal tutor, consegnata presso la segreteria didattica del dipartimento di riferimento del corso di dottorato ai fini del deposito presso l'Archivio di Ateneo,

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e che di conseguenza va esclusa qualsiasi responsabilità dell'Ateneo stesso per quanto riguarda eventuali errori, imprecisioni o omissioni nei contenuti della tesi;
7) del fatto che la copia consegnata in formato cartaceo, controfirmata dal tutor, depositata nell'Archivio di Ateneo, è l'unica alla quale farà riferimento l'Università per rilasciare, a richiesta, la dichiarazione di conformità di eventuali copie.

**Data _____ Firma _____**

## AUTORIZZO

- l'Università a riprodurre ai fini dell'immissione in rete e a comunicare al pubblico tramite servizio on line entro l'Archivio Istituzionale ad Accesso Aperto il testo integrale della tesi depositata;
- l'Università a consentire:
- la riproduzione a fini personali e di ricerca, escludendo ogni utilizzo di carattere commerciale;
- la citazione purché completa di tutti i dati bibliografici (nome e cognome dell'autore, titolo della tesi, relatore e correlatore, l'università, l'anno accademico e il numero delle pagine citate).

## DICHIARO

1) che il contenuto e l'organizzazione della tesi è opera originale da me realizzata e non infrange in alcun modo il diritto d'autore né gli obblighi connessi alla salvaguardia di diritti morali od economici di altri autori o di altri aventi diritto, sia per testi, immagini, foto, tabelle, o altre parti di cui la tesi è composta, né compromette in alcun modo i diritti di terzi relativi alla sicurezza dei dati personali;
2) che la tesi di dottorato non è il risultato di attività rientranti nella normativa sulla proprietà industriale, non è stata prodotta nell'ambito di progetti finanziati da soggetti pubblici o privati con vincoli alla divulgazione dei risultati, non è oggetto di eventuali registrazione di tipo brevettuale o di tutela;
3) che pertanto l'Università è in ogni caso esente da responsabilità di qualsivoglia natura civile, amministrativa o penale e sarà tenuta indenne a qualsiasi richiesta o rivendicazione da parte di terzi.
A tal fine:
- dichiaro di aver autoarchiviato la copia integrale della tesi in formato elettronico nell'Archivio Istituzionale ad Accesso Aperto dell'Università Ca' Foscari;
- consegno la copia integrale della tesi in formato cartaceo presso la segreteria didattica del dipartimento di riferimento del corso di dottorato ai fini del deposito presso l'Archivio di Ateneo.

**Data _____ Firma _____**

La presente dichiarazione è sottoscritta dall'interessato in presenza del dipendente addetto, ovvero sottoscritta e inviata, unitamente a copia fotostatica non autenticata di un documento di identità del dichiarante, all'ufficio competente via fax, ovvero tramite un incaricato, oppure a mezzo posta

**Firma del dipendente addetto ……**

Ai sensi dell'art. 13 del D.Lgs. n. 196/03 si informa che il titolare del trattamento dei dati forniti è l'Università Ca' Foscari - Venezia. I dati sono acquisiti e trattati esclusivamente per l'espletamento delle finalità istituzionali d'Ateneo; l'eventuale rifiuto di fornire i propri dati personali potrebbe comportare il mancato espletamento degli adempimenti necessari e delle procedure amministrative di gestione delle carriere studenti. Sono comunque riconosciuti i diritti di cui all'art. 7 D.

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# Estratto per riassunto della tesi di dottorato

L'estratto (max. 1000 battute) deve essere redatto sia in lingua italiana che in lingua inglese e nella lingua straniera eventualmente indicata dal Collegio dei docenti.
L'estratto va firmato e rilegato come ultimo foglio della tesi.
Studente: Nicola Varchetta
Matricola: 955595
Dottorato: Scienze del Linguaggio
Ciclo: 24°
Titolo della tesi: Rethinking Italian psychological verbs

Estratto:

Nella letteratura è stato ampiamente osservato come i verbi psicologici presentino delle proprietà peculiari in quanto all'assegnazione dei ruoli tematici, poiché l'Esperiente può essere realizzato sia come soggetto (Subj-Exp verbs) che come oggetto (Obj-Exp verbs) (Pesetsky 1995, Arad 1998), a differenza di quanto previsto dalla UTAH (Baker 1988). Nell'ambito di tale classificazione, i verbi psicologici a soggetto esperiente sono stati tradizionalmente analizzati come transitivi, mentre quelli a oggetto esperiente sono stati analizzati come inaccusativi (Belletti&Rizzi 1988). Nel presente lavoro verranno presentati nuovi dati empirici che contraddicono tale analisi e verrà avanzata un' ipotesi alternativa circa il comportamento speciale di questi verbi rispetto a diversi test diagnostici. In particolare, si proporrà che l'interazione tra sintassi e semantica dei verbi psicologici svolge un ruolo particolare nella loro derivazione e che le differenze lineari tra le diverse classi sono in realtà la manifestazione superficiale di derivazioni sintattiche distinte. Nello specifico, si dimostrerà come la distinzione tra verbi psicologici a soggetto od oggetto esperiente sia in realtà da correlarsi alla presenza o assenza, rispettivamente, di uno speciale morfema causativo nullo.

Abstract:

In the literature, psych-verbs are known to exhibit some peculiar properties with respect to the theta-assignment, in that their Experiencers can be realized either a subjects (Subj-Exp verbs) or objects (Obj-Exp verbs) (Pesetsky 1995, Arad 1998), contrary to what predicted by the UTAH (Baker 1988). Traditionally, Subj-Exp verbs have been analysed as transitive, while Obj-Exp verbs as unaccusative (Belletti&Rizzi 1988). In the present work, new empirical data contrasting this hypothesis will be presented and an alternative account for their special behaviour with respect to different diagnostics will be proposed. In particular, the claim will be made that the interplay between the semantics and the syntax of psych-verbs plays a crucial role in their derivation and that the linear differences between different classes of psych-verbs are the superficial manifestation of different syntactic derivations. More specifically, it will be shown that the Subj-Exp vs. Obj-Exp distinction is related the absence vs. presence, respectively, of a causative zero-morpheme.

Firma dello studente

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