

PSYCHOLOGICAL VERBS FROM A NEW PERSPECTIVE.

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0. Psychological Verbs

Psychological predicates (psych-vs) concern something invisible, in that we use them in order to describe something that is not actually happening in the real world, but inside people's mind; they describe one's emotive reaction to an external stimulus. Since their nature of being inner-feeling predicates, it is reasonable to analyze these verbs taking into their specific features.

I. Claims (In what follows I will argue in favour of the following hypotheses):

- i. Psych-vs have their own syntactic structure, which, contrary to what generally assumed, is the same for both object-experiencer and subject-experiencer verbs. On the basis of this, the difference in the final syntactic linearization of their arguments (i.e. subject vs object experiencer) must be due to differences in their syntactic derivation.
- ii. Psych-vs are not merged as such –i.e. as simple verbs expressing the whole content of their lexical meaning, but as a combination of an emotion – i.e., a nominal/adjectival component expressing the emotional state in question- the experiencer (henceforth Exp)– i.e. the person feeling the emotion - and the external stimulus – i.e. the reason for the emotion. This, in turn, entails that we cannot analyze psychological predicates as normal verbs but as either denominal or deadjectival verbs.
- iii. Given i-ii, and the fact that (Italian) psych-vs do not behave all in the same way with respect to linguistic diagnostics, I claim that the psych-vs VP is much more complex than normally assumed, and that we should adopt a more fine-grained analysis . I will dub my proposal the Split psych-VP hypothesis.
- iv. Summing up, my proposal is the following: all psych-vs are inherently unaccusative, their structure resemble the one of double-object verbs, and psych-vs describe a metaphorical locative displacement.

II. Introduction

- i. Since Pesetsky (1987), psych-vs have been classified depending on the grammatical role of the Exp: subject-experiencer (SubjExp), and object-experiencer psych-vs (ObjExp). On the basis of Case assignment properties, Belletti and Rizzi (1988) (henceforth B&R) further split ObjExp into two: the *preoccupare* 'worry' and the *piacere* 'please' psych-vs, which assign ACC and DAT Case to their object respectively.
- ii. Psych-vs have been analyzed in different ways. B&R analyze Subj-Exp as transitive verbs, whereas they propose for Obj-Exp an unaccusative analysis with two internal arguments as in (4). Pesetsky (1995) claims instead that the psych-vs syntactic structure resemble the one proposed by Larson (1988) for double-object verbs. Landau (2010) considers instead Experiencers as mental locations.
- iii. Psych-vs entail some kind of metaphorical locative relation between an emotion/state of mind and an Exp, cf. (1). This relation is caused, independently of intentionality, by a third

participant, as can be seen in (2).

1. John felt *in* love with Anna.
2. Paul a mis Marie en colère.
Paul has put Mary in rage
- iv. I will focus my attention only on Object-Experiencer psych-vs.
- v. B&R classification seems to be unable to account for all the Italian psych-vs behavior (auxiliary selection, nominalization etc etc).

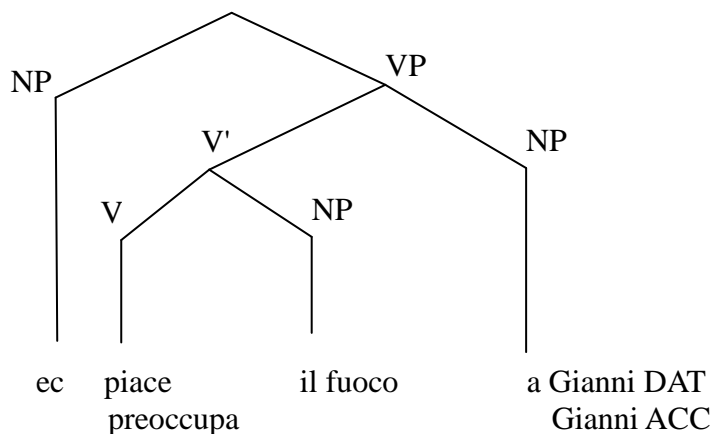
III. B&R analysis

Belletti & Rizzi's (1988) tripartite classification of psych-v:

3. a) Class I/*Temere* class: Nominative experiencer, accusative theme.
John loves Mary.
- b) Class II/*Preoccupare* class: Nominative theme, accusative experiencer.
The show amused Bill.
- c) Class III/*Piacere* class: Nominative theme, dative experiencer.
The idea appealed to Julie.

Psych-vs, in B&R, are seen as unaccusatives with two internal arguments; the apparently first position of the Theme for B&R is the result of an NP movement, from the internal argument position (as *il fuoco* in (4)), (Burzio,1986)

4.



Following B&R, the subject of (1a) has a cluster of properties typical of derived subject: anaphoric cliticization (5); arbitrary pro (6); the causative construction (7).

5. a) Gianni si è fotografato.
Gianni himself photographed (BR, 7)
- b) *Gianni si sembra simpatico.
Gianni to himself seems nice (*ibid*, 8b)
- c) Gianni si teme.
Gianni himself fears (*ibid*, 10a)

- d) * Gianni si preoccupa.
Gianni himself worries (ibid, 10b)
6. a) *pro* hanno telefonato a casa mia.
somebody telephoned at my place (B&R 22a)
- b)**pro* sono arrivati a casa mia.
somebody arrived at my place (ibid 23a)
- c) Evidentemente, in questo paese per anni *pro* hanno temuto il terremoto.
evidently, in this country for years people feared the earthquake (ibid 24a)
- d) Evidentemente, in questo paese per anni *pro* hanno preoccupato il terremoto.
evidently, in this country for years people worried the earthquake (ibid 24b)
7. a) Questo lo ha fatto apprezzare ancora di più a Mario.
This made Mario estimate him even more (B&R 31a)
- b)*Questo lo ha fatto preoccupare ancora di più a Mario.
This made Mario worry him even more (B&R 31b).

Passive in B&R : *the Blocking Principle (BP) and the da-phrase.*

8. Gianni è disgustato dalla corruzione in questo paese.
Gianni is disgusted by the corruption of this country. (B&R, 47a)

Class II verbs lack an external argument and therefore cannot form verbal passives and that the apparent passive structure of (10) is instead an instance of an adjectival passivization.

The BP

9. a) Le sue idee mi stufano
His ideas tire me
- b)* Sono stufato dalle sue idee.
I am tired by his ideas (B&R 55)
10. Sono stufo delle sue idee.
I am tired of his ideas (ibid 56)

The da-phrase

11. a) Gianni è interessato a/*da Maria.
Gianni is interested to/ by Maria (ibid (i)a¹)
- b) Gianni è appassionato di/*dalla poesia.
Gianni is fond of/ by poetry (ibid (i)a)

1 Examples taken from the note 13 page 311 of (B&R).

IV. Comments on B&R's analysis

Nevertheless, we can have normal psych-passives as in (12) and special prepositions are excluded in contexts that force the choice of a verbal passive (13).

12. a) Sono sempre più addolcita dalla tua personalità.

I am always more sweeten by your personality

b) Siamo sempre più costernati dalla sua arroganza.

we are always more dismayed by his/her arrogance

13.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

b) Il governo americano è (fortemente) preoccupato *di/*a/da/per il forte riarmo
the american government is (highly) worried of/ at/by/due to the impressive rearm

iraniano.

Iranian

Furthermore:

- the *preoccupare* psych-vs select *avere* (to have) as their auxiliary and not *essere* (to be) as would be typical of unaccusative verbs.

To sum up, we can say that psych-vs of the *preoccupare* class can be considered as normal transitives:

- they select at least two arguments;
- some of them can passivize;
- they select *avere* as their auxiliary.

Despite the appearances, we cannot consider them as pure transitive either, let us see why.

V. A causative-denoting device: nominalization.

Above, I proposed that psych-vs entail some kind of causativity, in fact normally no one gets scared, or becomes happy, or disgusted without reasons. Cross-linguistically, psych-vs are composed by a lexical verb plus a causative morpheme (i.e. -tta in Finnish). Unfortunately in Italian, causativity is not lexically visible. Still, Italian psych-vs have a causative nature too. In fact, psych-vs do not assign an AGENT theta-role to their subject, but something different. Let's analyse the theta role assignment in (14) recall that *confondere* is a *preoccupare* psych-v:

14. *Tutte queste tue teorie lo hanno confuso profondamente.* (lo= Luca)

All these your theories him have confused deeply (him=Luca)

Confuse assigns the EXPERIENCER theta role to *Luca*, what about *tutte queste tue teorie* 'all your theories'?

It is plausible to argue that the subject in (14) did not intend to cause anything. Therefore, we cannot consider the subject of (14) as an Agent but as something different.

Given the fact that, although unintentionally, someone has caused Luca to be confused, it's plausible to claim that psych-vs do not assign an AGENT theta-role to their subject but a CAUSER

one instead (as proposed by Pesetszky, 1995).

Although in Italian the causative nature of psych-vs is not so self-evident, as in other languages, there is still a linguistic device showing their causative nature: nominalization.

By nominalizing a normal psych-v we obtain a strong relationship between the nominalized feeling and an external CAUSE as in (15) and (16).

15.a) Mario preoccupa sempre tanto i suoi genitori (per i suoi voti a scuola).

Mario preoccupies always very much his parents (for his school marks)

b) La *preoccupazione* dei genitori di Mario **per** i suoi voti è grandissima.

The anxiety of the parents of Mario for his school mark is very big

16. a) Quel goal all'ultimo minuto ha deluso tutti, soprattutto Marco.

That goal at the last minute have everyone, especially Marco

b) La delusione di Marco **per** aver perso la finale all'ultimo minuto è stata molto forte.

The delusion of Marco for have lost the final at the very last minute has been very strong

While in (15a) what is behind Mario's parents worry can be omitted, in (15b) it cannot, and it has to be introduced by the preposition *per* 'for'. Note that in Italian, that preposition can be replaced by *a causa di*, which can be translated as 'due to'. (15b) clearly shows that Mario's parents worry is something they would not have if it weren't for Mario, i.e. his school marks.

Therefore, even though not all nominalizations entail causativity, psych-nominalizations describe a causative event. I decided then to analyse all the other *preoccupare* psych-vs to see whether they behave in the same way.

VI. Italian psych-v nominalization.

Shortly, psych-v do not nominalize all in the same way.

In fact while both *sopportazione* (tolerance/patience) and *emozione* (emotion), deriving from *sopportare* (to tolerate) (16) and *emozionare* (17) (to move/to touch) (psych-v class I e class II, respectively) are possible, *piacimento*, a deverbal nominals derived from *piacere* (18) (to like) is not.

16. a) I genitori di Luigi sopportano tutte le sue marachelle.

The parents of Luigi tolerate every of his tricks

Luigi's parents tolerate every tricks he does.

b) La sopportazione di tutti ha un limite.

the tolerance of everybody has a limit.

There's a limit to my tolerance/patience.

17.a) Questa partita ha emozionato tutti.

This match has touched (deeply) everybody.

b) L'emozione per essere qui con voi è molto grande.

the emotion for be here with you (it) is very big

It's such an emotion being here with you guys.

18.a) Il gelato piace molto a Marco.

the ice-cream pleases a lot to Marco

Marco likes the Ice-cream a lot.

- b) *Il piacimento di Marco per il gelato è onesto.
 The likeness of Marco for the ice-cream is sincere.

Although Class III psych-vs do not nominalize as the Class I and Class II psych-vs, they too have deverbal nominals, which share the same PF form of the infinitive, that is *piacere* from *piacere*, *spiacere* from *spiacere* etc as in (19).

19. Il piacere di Marco per la lettura supera quello per lo sport.
 The pleasure of Marco for the reading overcomes the one for the sport
 Marco's pleasure for reading overcomes the one for sports.

These nominalization differences, that seem to link together the Class I and Class II psych-vs, could be on a par with the fact that both psych-vs classes select *avere* (to have) as their auxiliary while, Class I psych-vs select *essere* (to be). But things aren't so neat; namely Class II psych-vs, compared to Class I, is far from being homogeneous.

Nevertheless, many Class II psych-vs do not nominalize. As we can see in (20), some of Class II psych-vs' nominalizations are simply ungrammatical, indeed for some reason they just don't exist. B&R theory could not easily account for (20b).

- 20.a) La sua recente scomparsa ha addolorato tutti noi.
 his recent passing has sadden all of us

- b)*L'addoloramento/addolorazione dei suoi amici.
 the sadness of his/her friends

Tab.1 is a sample of ClassII psych-v list with respect to the nominalization.

PREOCCUPARE class	Nominalization
<i>addolorare</i> (to sadden)	
affascinare	affascinamento
<i>allarmare</i>	
amareggiare	amareggiamento
<i>avvincere</i> (to captivate)	
consolare	consolazione
desolare	desolazione
disorientare	disorientamento
divertire	divertimento
exasperare	exasperazione
<i>impaurire</i> (to frighten)	
<i>impensierire</i> (to worry sb.)	
<i>incuriosire</i> (to intrigue sb.)	
<i>indispettire</i> (to vex)	
<i>ingelosire</i> (to make sb. jealous)	
<i>innervosire</i> (to get sb. nervous)	

<i>insospettare</i> (to arouse sb.'s suspicion)	
mortificare	mortificazione
oltraggiare	oltraggi(ament)o
sbigottire	sbigottimento
<i>spazientire</i> (to test sb.'s patience)	
<i>spoetizzare</i> (to take magic out of sth.)	
stimolare	stimolazione
<i>svelenire</i> ()	
<i>urtare</i> ()	

Tab. 1 A sample of the nominalization within the ClassII psych-v class.

Note that the psych-vs that do not nominalize are for the most part those that start with *in-* plus either a noun (*paura* 'fear') or an adjective (*curioso* 'curious'). That affix has clearly a prepositional nature as the locative preposition *in*. Although many non-nominalizing psych-vs do not begin with *in-*, I consider that preposition to be in general related to the nominalization impossibility, or at least in part. I believe so in that none of the nominalizing psych-vs start with the preposition *in-* or have a similar prepositions affixed. Tab.2 recollects all the ClassII psych-v starting with *in-*. Most of them do not have the derived nominal form².

PSYCH-V STARTING WITH I(N)-		
<i>imbarazzare</i>	<i>incrudelire</i>	<i>innervosire</i>
<i>imbestialire</i>	<i>incuriosire</i>	<i>inorgogliare</i>
<i>immalinconire</i>	<i>indiavolare</i>	<i>inorridire</i>
<i>impallidire</i>	indignare	inquietare
<i>impaurire</i>	<i>indispettire</i>	<i>insospettare</i>
<i>impazientire</i>	indisporre	intenerire
<i>impazzire</i>	indottrinare	intimidire
<i>impensierire</i>	<i>inebetire</i>	intimorire
<i>imperialire</i>	inebriare	intontire
<i>impietosire</i>	<i>infastidire</i>	intristire
<i>impressionare</i>	infatuare	invaghire
inasprire	<i>inferocire</i>	invasare
incantare	infervorare	<i>invelenire</i>
<i>incattivire</i>	<i>infiammare</i>	<i>invogliare</i>
incoraggiare	infuriare	istupidire
<i>incollerire</i>	<i>ingelosire</i>	
incretinire	innamorare	

Tab2 A list of the ClassII psych-v that starts with *i(n)*

That *in* has an important role, as we will see, in the psych-vs formation. First of all it isn't just a

² In *italics* all the *preoccupare* psych-v that do not nominalize.

bare prefix but a locative preposition³. Further, note that all psych-vs in Tab.2 but *imbarazzare* ‘embarrass’ can be decomposed as *incuriosire* ‘intrigue sb.’ and/or *impaurire* ‘scare’, that is *in+curiosità/ paura*, and that *in* can be replaced by *dentro* ‘inside’, i.e. *impaurire* can be decomposed as *dentro la paura* ‘inside the fear’. Hence, it is plausible to assume that that *in* simply reflects that psych-vs are not simple verbs but compounded ones. Further, given that psych-vs describe the experiencer’s feeling, it is plausible to assume that that preposition relates the Exp and a mental state.

In the next sections, I will show in fact that Italian psych-vs aren’t but composed verbs, and that they clearly describe a locative relationship between an experiencer and a mental state.

VII. Analytic vs Synthetic psych-vs.

In many languages, Class II and the Class III psych predicates can have either a simple form, like *to frighten*, or a compounded one, composed by a light verb and a noun/adjective as its complement, like *to fall in love*, I will refer to the first type of as the *synthetic* forms and to other as the *analytic* forms.

Analytic form: *metre en colère*, *fall in love* etc

Synthetic form: *impaurire*

There are languages in which this distinction is self-evident enough, as French for instance and languages, like Italian, in which this distinction is not so self-evident. There is not an Italian analytic counterpart for the French *metre en colère*.

Although Italian seems to have more synthetic psych-vs than analytic ones, an analytic form can often be derived from a synthetic psych-vs, like with *impaurire* in (21).

21. a) Il professore *impaurisce* sempre i suoi alunni durante la lezione.
 the professor scares always his students during the lesson
- b) Il professore di matematica *mette* sempre *paura* ai suoi alunni, a prescindere.
 The professor of maths puts always in fear his students.

Although less evident, the same is true for all the other psych-vs that do not nominalize and do not start with *in-* either, as *allarmare* (22).

22. a) Quelle sirene in lontananza *allarmarono* fortemente tutti i cittadini.
 those sirens in distance alarmed heavily all the citizens
- b) La sirena dei vigili del fuoco *mise* tutta la famiglia *in allarme*
 the siren of the fireman put all the family in alarm

I assume that synthetic (like Italian *impaurire*) and analytic psych-vs (like French *metre en colère* or Italian *mettere paura a*) share the same syntactic structure and what differentiate them is the morphological spell-out of their lexical items.

Note that, metaphorically speaking, psych-vs seem to describe an Exp displacement inside an hypothetical box containing an emotion (22b).

³ All psych-v in Tab.2 are etymologically derive from a noun/adjective plus *in* with a clearly locative meaning. From Devoto-Oli (2009) IN- : verbal prefix with an *illative* value (illative: that indicates motion toward or into something). It is used to form denominal or deadjectival verbs (...) that preposition clearly preserves the value of the latin preposition IN, i-e-. “inside” (*incarcerare* ‘imprison’ from *carcere* ‘prison/jail’: “*mettere dentro il carcere*” ‘put inside the prison/jail’).

INTERIM CONCLUSION

We have seen so far that not all Italian Class II psych-vs nominalize. Non-nominalizing psych-vs seem to describe a situation in which a person (the Exp) enter into a locative relationship with a mental state. We have further seen that psych-vs are inherently causative verbs in that they describe an action that causes a particular state of mind in the experiencer.

- not all Class II psychological verbs nominalize
- non-nominalizing psychological verbs semantically entail some kind of metaphorical displacement (as in (22b)) of the Exp from one place to another while the other do not⁴
- all Class II psychological verbs entail a causative semantics
- non-nominalizing psychological verbs of the Class II class seem to have an analytic counterpart⁵

VIII. Psychological verbs as describing a metaphorical displacement of the Exp.

The fact that among non-nominalizing *preoccupare* psych-vs some of them can actually be decomposed into a form like *in*+ either an adjective or a noun is a manifestation of the locative relation between the Exp and the psych-state.

- Much in the same way as Baker (2004)⁶ decomposes transitive verbs, psych-vs like *impaurire* can be semantically decomposed in:

23. [x CAUSE[y BE [[*in* paura]]]].

Translatable as “X causes Y to be *in* fear”.

Addolorare too can be semantically decomposed exactly in the same way as *impaurire* [x CAUSE[y BE [[*nel* dolore]]]]⁷.

What about nominalising psych-vs like *esasperare* (to exasperate)?

24. *[x CAUSE[y BE [[*in* esasperazione]]]]

Even if (24) is not possible as a semantic decomposition for *esasperare*, still it can be semantically decomposed as in (25) which can be translated as something like “there is *esasperazione* in y”.

25. [x [BE [esasperazione [*in* y]]]]

Translatable as something like “there is *esasperazione* in y”

Given the two possible semantic decompositions for the ClassII psych-vs and that all psych-vs entail a of cause and effect (recall *preoccupare* in(15)), **two different causative theta-roles are at**

⁴ Although they do not metaphorically describe the same displacement as the one of non-nominalizing psych-v, also psych-v that do nominalize semantically entails a metaphorical displacement.

⁵ I will show that also nominalizing psychological verbs of the *preoccupare* class have an analytic counterpart.

⁶ Ordinary transitives are decomposed into (at least) three arguments: they have a representation like [x CAUSE[y BE [ADJECTIVE]]] (...) the lexical verb is the result of conflating CAUSE+BE+ADJECTIVE into a single X° by successive head movement (Baker (2004), 221).

⁷ “nel” = in + il (the).

stake with these kind of psych-vs: CAUSER and STIMULUS. Verbs like *impaurire* select a Causer theta-role, whereas verbs like *preoccupare* select a Stimulus theta-role.

I propose that verbs of the former class assign a CAUSER theta-role while verbs from the latter a STIMULUS theta-role instead. The CAUSER theta-role is almost like a proper AGENT⁸, the STIMULUS instead is not. But there is still causation on this reading in fact, *perception of the stimulus (the subject) by the experiencer (the object) triggers a mental state in the experiencer* (Arad 1998, 210).

IX. A UNIQUE STRUCTURE.

Before going any further, I would like to say a few words on a topic that will help me explaining why and how the account proposed by B&R should be revised, namely that **the syntactic structure of psych-vs is influenced by the core semantics of those verbs.**

Some aspects of the semantics of lexeme might be compositionally built up in the syntax (Grimshaw (1990), Hale and Keyser (1993/2003), Levin and Rappaport Hovav (1995), Ramchand (2010)).

It is quite possible that at some conceptual level, psych-vs are decomposed into a light verb, for example the “causative” *make / rendre / causare*, plus a mental state, and that this decomposition reflect a more complex deep syntactic structure.

Within the same framework, Arad (1998, 228) suggested that psych-vs “are essentially locatives. The basic relation they express is that of location.”

At this point, to recap, the basic intuition that I will pursue is very simple:

30. **Psychological predicates describe a locative relation between an experiencer and an emotion/taste of mind driven somehow by a third participant.**

To the extent that this thesis is grammatically, and not just metaphorically true, two major consequences follow.

31. 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.**

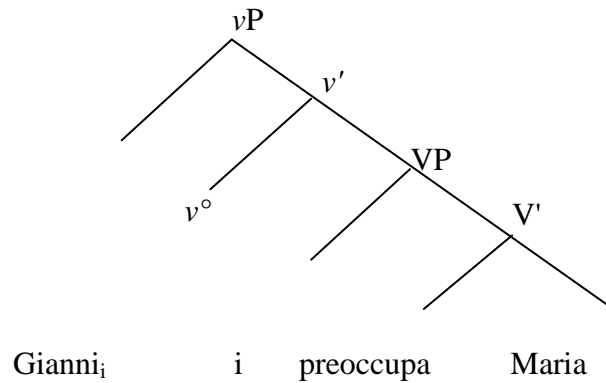
I suggest the ClassII psych-vs’ structure should be more similar to the one proposed by Larson (1988) for the DO verbs, in which the Theme and Exp occupy different positions with respect to V’(32b)⁹.

- 32.a) Gianni preoccupa Maria.
Gianni worries Maria

⁸ Arad in fact 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 transitivity of a change of state predicate” (Arad 1998, 213)

⁹ I will show that the theta-role actually occupy different positions.

b)



Further, given the decompositional hypothesis that I have shown in previously, I propose that *preoccupare* psych-vs' VP should be split into a more fine-grained structure.

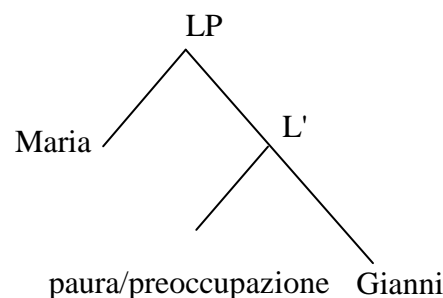
X. THE SPLIT PSYCH-VP HYPOTHESIS.

I will no longer describe *preoccupare* psych-vs in terms of VP but in terms of a derivation from a basic merge of a psych-state and the reason of that emotion (Causer or Stimulus) it. The Exp will then merge. A Psychological state then selects either the Causer or the Stimulus as its complement and the Experiencer as its specifier. In other words, I consider sentences like *Gianni preoccupa Maria* and/or *Gianni impaurisce Maria* as the result of a derivation that starts from an operation of merge of the psych-state *preoccupazione/paura* with the emotion trigger, and the Exp Maria, much in the sense of Baker (2004)¹⁰:

33. [*Maria [preoccupazione Gianni]*], [*Maria [paura Gianni]*].

Given my hypothesis that psych-vs do not merge as verbs but as mental state plus the Exp and either a Causer or a Stimulus, I claim that the deep structure of psych-vs starts with what I call Lexical Phrase (LP), much in the sense of Alexiadou (2001)¹¹: the mental state is L°, the Causer/Stimulus in Comp and the Exp in Spec,LP (34).

34.



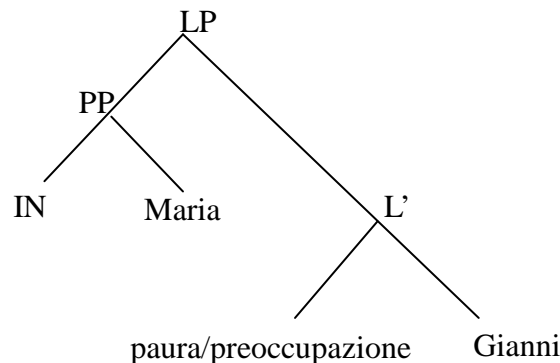
Both (33) and (34), although accounting for the semantic decomposition of the ClassII psych-vs, do not seem to give a structural account of the inherent locative nature of these verbs. Recall now that both verbs like *preoccupare* and *impaurire* seem to describe a locative relationship between the mental state and the experiencer: a metaphorical locative displacement of the experiencer inside a particular mental state (*impaurire*) or the presence of a particular state of mind inside the experiencer (*preoccupare*). Therefore, there must be a locative preposition within the first-merge

¹⁰ See footnote 4.

¹¹ A category neutral-lexical projection (LP) headed by a stem, identical to that of the corresponding verb. The stem L° becomes a noun *or a verb* at the syntactic component, by head raising which makes event nominals necessarily cases of syntactic nominalization. (Alexiadou 2001, 73) (the part in *italics* is mine).

structure of psych-vs Since the basic element involved in both type of locative relationship is the experience, I propose that the experiencer does not merge as a bare element but introduced by a locative preposition (35) ¹².

35.



Prepositional element a part, all the other elements have to move out of LP in order to be assigned a lexical category. Further, the fact that almost all psych-vs have an analytic counterpart suggests two things:

- analytic psych-vs are the basic form, synthetic psych-vs derive from them through syntactic derivation;
- there is only one structure for both the analytic and the synthetic psych-vs.

The movement of these three elements in LP depends on two factors, namely:

- the need for both arguments selected by the mental state to receive their thematic roles;
- the need for the psychological state to be categorized either as noun (analytic psych-vs) or as a predicate (synthetic psych-vs).

Given the two possible semantic translations given above, I claim that ClassII psych-vs should be semantically divided into two subclasses. Following Arad (1998), “the basic relation *psych-vs* entail is that of location. The experiencer can be either the *stuff* which is at some mental state, or the container, which is filled by the mental state” (Arad 1998: 228). Hence a ClassII psych-vs can be either a **Container** and **Content** psych-vs.

37. a) **Container psych-vs class**

Container psych-vs describe situation in which a state of mind metaphorically contains Exp.

b) **Content psych-vs class**

Content psych-vs describe situation in which an Exp metaphorically contains emotions/state of mind.

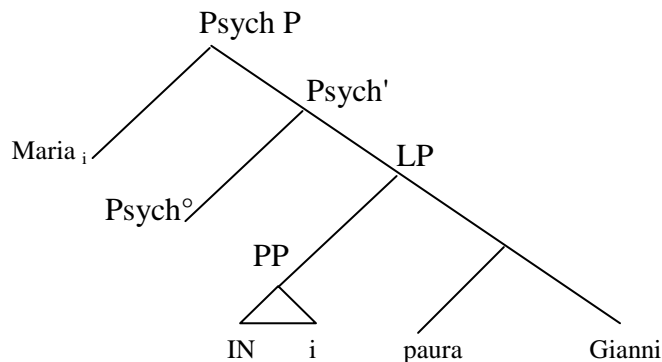
In my framework, this aspect of the psych-vs semantics should be compositionally built up in the syntax. An example of a **container** psych-vs is *impaurire* (to scary someone) that can be semantically decomposed as *causare X (essere) in paura* (cause/force someone to be in fear), or *allarmare*, which can be decomposed as *causare X (essere) in allarme* (cause/force someone to be

¹² I wrote the locative preposition in capital letter, IN, to indicate that the locative derivation of psychological verbs might need either one of the possible locative preposition or a null phonetically null preposition in P⁰. That preposition might be syntactically active or not.

in alarm).

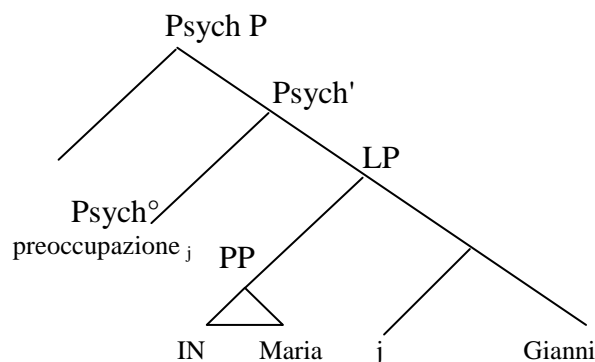
Since we are dealing with psychological predicates, it is plausible to hypothesize that the LP itself is a complement of another operator in the sense of Baker (2004), say a psychological one (PsychP¹³)(38).

38.



An example of a **content** psych-vs is *preoccupare* (to worry) or *commuovere* (to touch sb.) which can be semantically decomposed as *mettere/dare/c'è preoccupazione/commozione in X* (there is/to put/to give anxiety/emotion in/to X)¹⁴.

39.



These two subclasses of Class II psych-vs differ from each other with respect to which element moves out of LP first in order to establish a psychological relationship with the other¹⁵:

- within Container psych-vs, as in (38), the Exp raises to Spec,PsychP, the emotion raising to Psych° then follows;
- within Content psych-vs, the psych-state raises to Psych Exp raising to Spec,PsychP then follows.

Since Baker(2004)¹⁶ and Alexiadou(2001)¹⁷, Psych-P is itself the complement of another

¹³ Psych-P is a functional projection needed in order to establish a psychological relationship between the elements that have been merged in LP. It attracts the psych-state in order to establish the psychological relation needed to derive a psych-v; therefore in Psych° there must be a feature that attracts the psych-state.

¹⁴ The preposition in *content* psych-v is neither syntactically nor phonetically active but only semantically, namely they indicate that a specific state of mind is inside the experiencer.

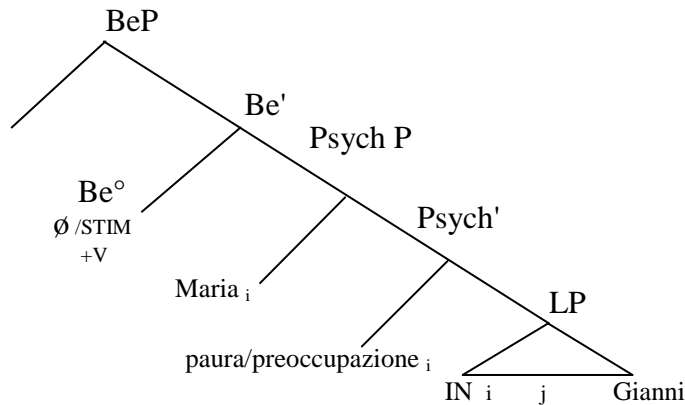
¹⁵ As we will this difference is not syntactic free and, in addition, because of this, final psychological verbs will select either a Causer or a Stimulus.

¹⁶ See 6

¹⁷ I restrict myself in just saying that the HAVE construction in principle could be derived either via incorporation of P to BE or follow a derivation similar to the path followed in English and Greek. Note that Irish uses for the expression of statives and psychological states exactly the same

projection, say BeP, which is needed in order to verbalize the psych-state, namely to turn it into a verb.

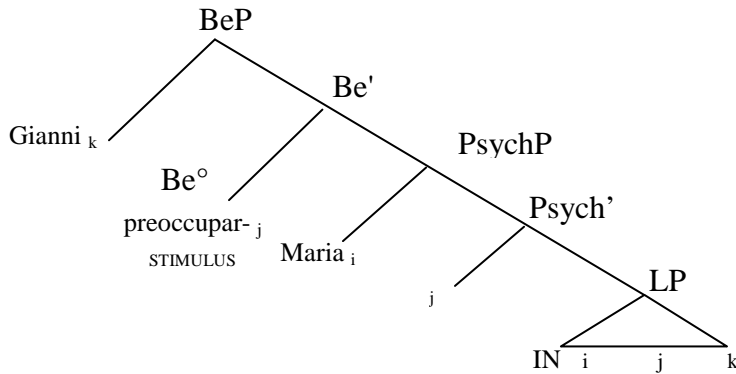
40.



In Be° we can have either a zero-morpheme (STIM)¹⁸ or nothing (∅) which depends on the psych- vs.

As we can see in (40), the CAUS does not occupy the same position as STIM but a different one, namely v°, as in (42).

41.



In (42), we can see that despite the fact that also *paura* raises to Be°, to become a verb, it does not incorporate any zero-morpheme since¹⁹.

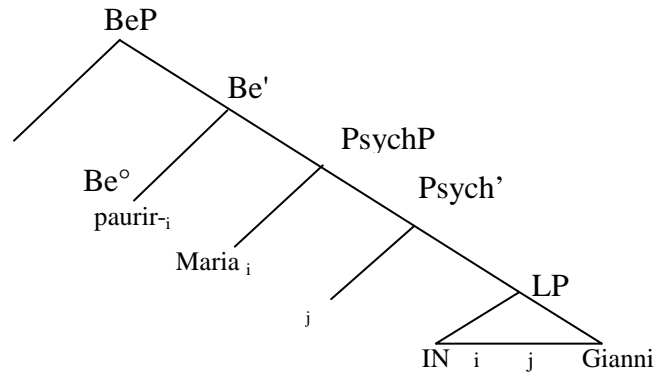
structures used to express possession. The experiencer appears in a prepositional phrase in object position (see Noonan 1993):

- a. ta gaeilge ag Flíodhais
be Irish at Flíodhais
'Flíodhais knows Irish'
- b. ta eagla roimh an bpuca ag Ailill
be fear before the Puca at Ailill
'Ailill fears the Puca (2001, 193)

¹⁸ STIM is zero-morpheme that assign the STIMULUS theta-role much in the same way as CAUS in Pesetsky (1995).

¹⁹ Psychological verbs derived from mental state as *paura* (Container psych-v) will incorporate another zero-morpheme, CAUS, which is located higher than STIM.

42.

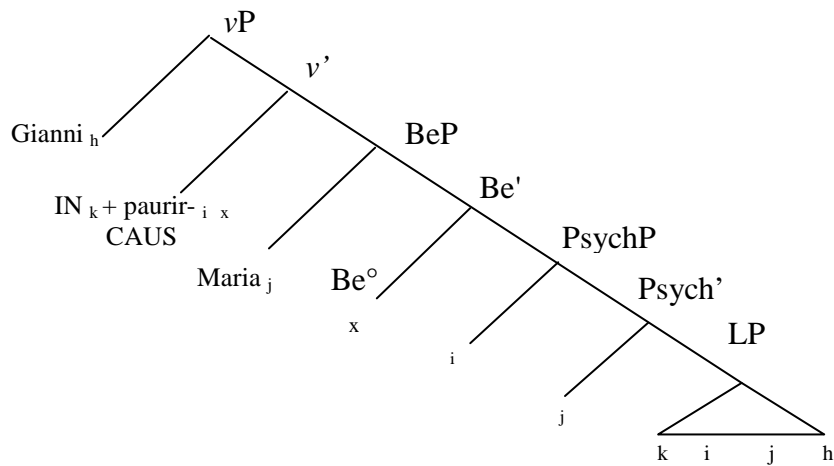


In (42), we can see that what *causes* the feeling to the Exp remain *in situ*, namely the *causer*, which is radically different from what happens with verbs like *preoccupare*, as in (41), where no argument remain *in situ*. We can consider the derivation until **BeP** as if it were the basic psychological VP, which for the reasons mentioned previously needs to be split up. But let's see, what happen next, since so far only Content psych-vs have incorporated a causative-like morpheme whereas Container psych-vs have not.

In (43), we can see that the verbalized mental state incorporates a causative-like morpheme only outside the VP (in v°), which has been split up. As a consequences, the verb can now assign the CAUSER theta-role to its subject, which raises up to Spec,Vp; just like *Gianni* in (41). CAUS, like STIM in (40), is a zero-morpheme, as in Pesetsky (1995)²⁰.

I claim finally that, in Container psych-vs, the preposition incorporates into the final verb in v° . The IN incorporation, only with container psych-vs (namely only causative psych-vs), is nothing new in the literature²¹.

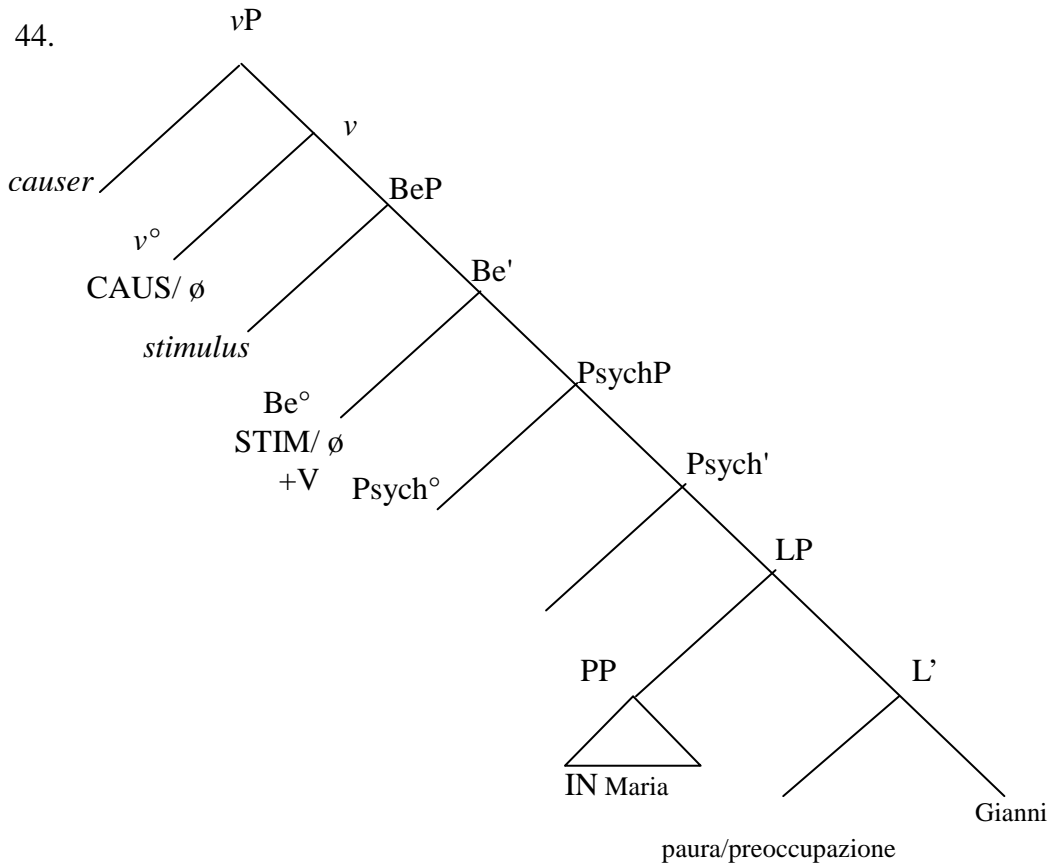
43.



To sum up, in (44) we can see psych-VP split into a more fine-grained structure. Still, we have not explained yet why some psych-vs can nominalize whereas some other cannot.

²⁰ Pesetsky in fact argues that "ObjExp like *annoy* are actually morphologically complex...consisting of a phonologically zero causative morpheme" and a bound root" (1995, 65).

²¹ The general idea of causative prepositional affix is not original here, it has been first developed by Walinska de Hackbeil (1986) for the causative *en-* in *enlarge*, *embitter*, *endear* (Pesetsky 1995, 196).



XI. A POSSIBLE ACCOUNT FOR THE NOMINALIZATION PROBLEMATIC DATA.

Following Arad (1998), I claimed that psych-vs can be divided into two groups. Depending on whether the Exp is the content or the container of the *state of mind* we would have *Container* or *Content* psych-vs. Container psych-vs are those verbs that metaphorically describe a situation in which the psych-state is filled in by the Exp.

This difference is thematically relevant: container psych-vs select a CAUSER content, whereas psych-vs select a STIMULUS. So this could be one of the reason why only from some of the *preoccupare* psych-vs class we can derive a nominalised form. But why?

- Container psych-vs are those verbs that metaphorically describe a situation in which the psych-state is filled in by the Exp.
- This syntactic difference is that container psych-vs select a CAUSER and content psych-vs select a STIMULUS.

Before trying to explain this last derivation, I would like to introduce very briefly what Alexiadou, in her monograph concerning nominalization (2004), proposes as the syntactic derivation for nominalizations. She first recalls that in “the recent literature distinguishes two types of light vs: a transitive light v, and an intransitive one. The former combines with the external argument, the latter does not” (*ibid*, 112) (44).

Two types of light vs: a transitive light v, and an intransitive one. The former combines with the external argument, the latter

does not”(Alexiadou 2004, 112):

44. a) transitive v [+external argument] v1 = Cause
 b) intransitive v [-external argument] v2 = Become/Happen

A functional head of the 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 with²²” (*ibid*).

The derivation of *destruction* and *destroy* starts from the same lexeme, $\sqrt{\text{destroy}}$, which, as the head of L do not have a category yet. Hence, both process nominals and verbs can be derived from the same root, they both have a vP and the only difference between them is whether they are complement of a T or a D.

Now let’s analyse again the semantics of psych-vs nominalization.

46. a) Giorgio preoccupa sempre i suoi genitori
 Giorgio preoccupies always his parents
- b) La preoccupazione dei genitori di Giorgio per il suo rendimento scolastico è alta.
 The preoccupation of parents of Giorgio for his school mark is deep.

Since psych-vs nominalization entails some kind of causative meaning, as in (46), it is plausible to say that there must be a CAUSE morpheme somewhere in the nominal derivation of *preoccupare*. Giorgio's parents' preoccupation is due to something specific, in fact it is caused by the Giorgio's bad school grades.

Preoccupare can have a nominal derivation with a causative meaning is possible because it incorporates CAUSE only outside vP namely through the nominal derivation

For *Impaurire* instead, it is not possible to incorporate a causative morpheme, although silent, for it has already incorporated one in precedence in v^0 .

XII. CONCLUSIONS

- *Preoccupare* psych-vs do not seem to be a unique class with respect to the nominalization test: **allarmazione* vs *disorientamento*.
- Metaphorically, *preoccupare* psych-vs describe a locative relation between the Exp and the psych-state forced/stimulated by a third element.
- The psych-vs VP should split in a more fine-grained structure that can reflect the locative derivation described by these verbs: LP, PsychP, and BeP.
- *Preoccupare* psych-vs must be split into two groups: *Content* (*preoccupare*) and *Container* (*impaurire*) psych-vs; the only difference between them is the theta-role they assign to their external argument: STIMULUS vs CAUSER.
- Psych-vs nominalization entails some kind of causative semantics.
- The fact that *Container* psych-vs cannot nominalize might be due to the fact that they have already incorporated a *cause* zero-morpheme in their derivation.

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²² Alexiadou proposes that vP and AspP are present within process nominals and verbs too, the only difference between them is whether the final lexeme that raises to Asp⁰ is the complement of TP or DP.

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