

Psych-verbs: A locative derivation

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Abstract

This paper is concerned with Italian psychological verbs (henceforth psych-v) and their syntactic behaviour. After having briefly introduced the topic, I will consider the analysis given by Belletti and Rizzi (1988, henceforth B&R). In order to provide a new possible analysis of the Italian psych-v I have decided first to classify all of them following the B&R tripartition. After this, I further analyzed the psych-v of the *preoccupare* (worry) class (henceforth the *preoccupare* psych-v) in relation to nominalization, the present participle, the intransitive use, and finally the passive form. The data show that the B&R unaccusative analysis is no longer feasible, at least not entirely; that is, not all arguments of the psych-verbs are internal, only the experiencer, and all the three B&R subclasses have the same VP structure which resemble the one proposed by Larson (1988) for the double object (DO) verbs.

I will also show that the *preoccupare* psych-v class is far from being homogeneous, namely not all the *preoccupare* verbs behave in the same way with respect to the same diagnostics (nominalization, intransitive use, present participle, passivization and prepositional selection). In order to explain all these differences, a new VP analysis, a composed/split one, will be given too.

To sum up, the aim of this work is two-fold: first I want reanalyze the B&R tripartition in the light of new data and see how much of the B&R analysis is on the right track; secondly, give a new account of the Italian psych-v.

1. Introduction

Psych-v are special predicates. They describe something that is not visible, that is something that doesn't happen in the real/physical world but inside people's mind. Hence, psych-v describe **mental states**, the feelings or reactions of someone to something that happened in the real world. We will see later on that this characteristic is not a trivial one.

Hence, psych-v are mainly about inner feelings that an animate participant (the Experiencer, henceforth Exp) experiences in response to some kind of **external stimulus**, whatever it is. Another important fact worth remembering is that, contrary to the Exp constraint, namely that it must be animate, everything, even an inanimate object, can provoke some kind of emotion, intentionally or unintentionally; that's the reason why we can't actually refer to the other participant as the Agent but as the **Theme**. But that cannot be the whole story. Let's see why.

All linguists that have worked on the topic have noticed that psych-v have other special properties, for instance the possibility for the Exps to be lexicalized either as the subject or as the object of the sentence¹. Following Pesetsky (1995), we can in fact divide psych-v into two subclasses: Subject-Experiencer psych-v (henceforth SubjExp) and Object-Experiencer psych-v (henceforth ObjExp). Unfortunately, this first subdivision is not complete. In fact, it does not take into consideration the different Case-marking possibilities within the ObjExp class, that is we have to tell ObjExp that assign ACC from the ones that assign DAT to their objects.

This paper is organized in the following way: the first section is devoted to a brief description of the psych-v and the main analyses given in the literature. In the second I try to look and analyse Italian psych-v from a different perspective, with respect to that given in B&R.

1. See also Giorgi (1984) for an analysis of the role of the experiencer in the psych-verbs and its properties with respect to binding.

FIRST PART

2. Psych verbs and !-Theory (B&R)

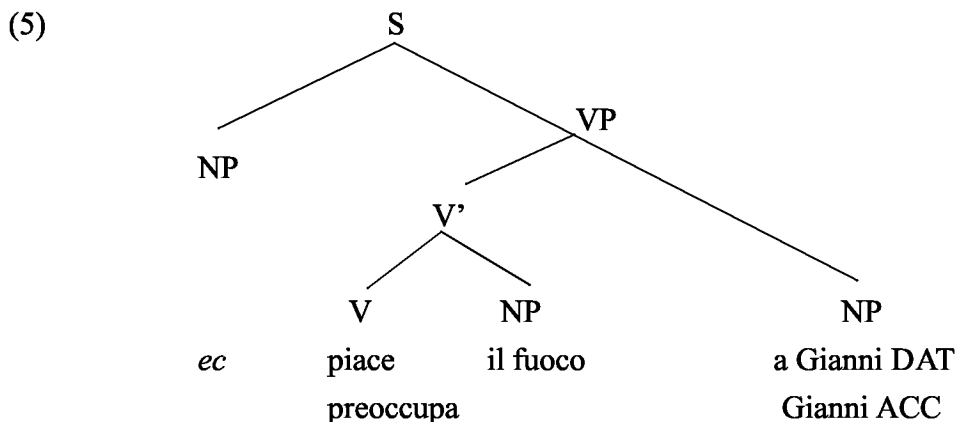
B&R by means of !-role and Case assignment tests divide psych-v in three subclasses, the *piacere* (appeal) (1), *preoccupare* (worry) (2), and *temere* (fear)(3) psych-v: *temere* psych-v subcategorise with NOM Exp and ACC object; *preoccupare* psych-v subcategorise with NOM Theme and ACC Exp, and *piacere* psych-v subcategorise with NOM Theme and DAT Exp. In Italian these two types of verbs have different word-order possibilities (1a), (2a), (3a) and select different AUXs with respect to compound past tenses (1b), (2b), (3b):

- (1) a. Gianni teme il suo capo.
Gianni fears his boss
b. Gianni ha sempre temuto il suo capo.
Gianni has always feared his boss
- (2) a. Il rendimento scolastico di Luca preoccupa sempre tutti.
The efficiency scholastic of Luca worries always everybody
b. La tempesta di ieri sera ha preoccupato tutti.
The storm of yesterday night HAS worried everybody
- (3) a. Ultimamente, non piace a nessuno investire in BOT/
Lately (it) not like to nobody to invest in TB /
A nessuno piace investire in BOT.
To nobody like to invest in TB
b. L'esperienza in Cina è proprio piaciuta a tutti.
The experience in China IS really pleased to everybody.

Since in this paper I am concerned with Italian psych-v behaviour, a language in which the just mentioned difference in Case marking is remarkable, I think it is worth noting briefly the B&R analysis and the way the two subclasses of ObjExp are described.

Psych-v, in B&R, are seen as unaccusatives with two internal arguments (5); the subject (*il fuoco* in (4)) for B&R is not deep but derived, that is the result of an NP movement, from the internal argument position (Burzio, 1986).

- (4) a. Il fuoco preoccupa Gianni.
 the fire worries Gianni
- b. *(?A) Gianni preoccupa (tantissimo) il tuo comportamento
 to Gianni worries (very much) your behaviour
- c. Il fuoco piace a Gianni.
 the fire pleases to Gianni.
- d. A Gianni piace il fuoco.
 to Gianni likes the fire



Both the *piacere* and *preoccupare* psych-v have, according to B&R, two internal arguments and a non thematic subject position to which both arguments can move to through an NP-movement. The structure in (4b) with the overt preposition *a*, though not completely grammatical, is marginal. Notice that the moved Exp needs to be preceded by the preposition *a* which resemble the same preposition used in Spanish in front of animate/specific objects (DOM²).

Concerning the unaccusative analysis of the *preoccupare* psych-v, B&R argue that the subject of (4a) has a cluster of properties typical of derived subjects: anaphoric

2. Differential Object Marking (Bossong 1985, Aissen 2003): direct objects are divided in two different classes, depending on different meanings, and, in most DOM languages, only one of the classes receives a marker, the other being unmarked (as in Spanish). Consider the following examples:

(i) Pedro besó a Lucía.
 Peter kissed to Lucy

(ii) Pedro besó el retrato.
 Peter kissed the picture

(iii) Pedro vio (a) la gata.
 Peter saw (to DEF) the cat FEM

Burzio (1986) has shown that in Italian structures containing a derived subject cannot be embedded under the causative construction.

- (8) 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))

It is well known that structure with non-thematic subject, like structures with ergative verbs for example, cannot undergo passivization; B&R claim that it is also true for psych-v and that the apparent passive structure of (9) is instead an instance of an adjectival passivization.

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

They add further support to their analysis, i.e. the contrast in (10)/(11) recalling Kyparsky (1973) *Blocking Principle*.⁴ The contrast in (10)/(11) shows that *preoccupare* psych-v do not naturally allow regular participial forms and the fact that the correct form in (11) is unquestionably an irregular adjectival form leads them to say that (9) is not a verbal passive but an adjectival one.⁵

- (10) 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))

- (11) Sono stufo delle sue idee.
 I am tired of his ideas (*ibid.* (56))

4. The existence of an irregular form blocks the formation of a regular form.

5. See also the paragraph *Passive (verbal passivization and by-phrase)*.

3. Italian problematic data

I illustrated in the previous part the data that B&R provide in support of the unaccusative analysis⁶; now in this section, I will introduce some new data in order to decide whether the unaccusative analysis can be maintained or not.

The linguistic tests that I have done show that the analysis that B&R proposed to account for the psych-v behaviour can no longer be maintained; though *problematic* for the unaccusative analysis given by B&R, this data gave me the possibility to start thinking about a new possible account for (Italian) psych-v⁷.

I follow Pesetsky (1995), and claim that the B&R unaccusative analysis, though no longer tenable, is not totally wrong; in fact, “*in Italian and in English there are indeed ObjExp that have both properties associated with unaccusativity, but only a proper subset of the ObjExp verbs fall into this pure category*”; leaving aside the *piacere* psych-v class (that can be considered real unaccusatives), there are some psych-v of the *preoccupare* class that do behave like unaccusatives.

Furthermore, If we put some verbs together into a unique class of verbs it should mean that all those verbs behave in the same way with respect to all the linguistic test we want to test them with. But as we will see this is not true for psych-v and in particular for the *preoccupare* class. I will show that not all the psych-v do behave exactly in the same way and this is true with respect to many points of view.

Although in the literature there are many psych-v's studies, I found no Italian psych-v lists, so, in order to start recollecting new data I had first to subdivide them following B&R (basically looking at the Case assignment). Doing so I have found that, at least in Italian, psych-v belong, for the most part, to the *preoccupare* class.

After having properly classified all of them, I started observing their behaviour with respect to: nominalization; present participle possibility, the *-nte*⁸ form; passive (verbal passivization and the *by-phrase*); auxiliary selection; intransitive use⁹.

6. Landau (2010) gives further examples in support of the B&R analysis; Pesetsky (1995), Arad (1988) and Taegoo (1998) discuss instead some counterexamples that invalidate the unaccusative analysis.

7. Nominalization, intransitive use, present participle, passivization and prepositional selection.

8. *-ante* (or *-ente*, depending on which class of infinitive the verb come from: *-are*, *-ere* or *-ire*) is the present-participial suffix that attaches to the verb root, like *parl-are* (to talk)/ *parl-ante*.

9. In this work we will take into consideration only the nominalization, passive, and intransitive use data only.

Nominalization

Saying that a verb that pertains to a specific class of verbs entails that whatever the decomposition or the number of pieces it is made from this verb has to behave in just the same as the others of the same class.

Psych-verbs do not nominalize all in the same way: in fact while both *sopportazione* (tolerance/patience) and *emozione* (emotion), which derive from *sopportare* (to tolerate) (12) and *emozionare* (13) (to move/to touch) (a *temere* and a *preoccupare* psych-v class, respectively) are possible, *piacimento*, a deverbal nominals derived from *piacere* (14) (to like) is not.

- (12) a. I genitori di Luigi sopportano tutte le sue marachelle.
 The parents of Luigi tolerate every of his tricks
 Luigi's parents tolerate every trick 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.
- (13) a. Questa partita ha emozionato tutti.
 This match has touched (deeply) everybody.
- b. L'emozione per/di 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.
- (14) 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 it is not as the nominalization of the *temere* and *preoccupare* psych-v, *piacere* psych-v too has deverbal nominals but surprisingly they share the same PF form of the infinitive, that is *piacere* from *piacere*, *spiacer* from *spiacer* etc as in (15).

- (15) 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's pleasure for reading overcomes the one for sports.

These nominalization differences, that seems to link together the *temere* and the *preoccupare* psych-v but separate them from the *piacere* psych-v, could be on a par with the fact that both *temere* and *preoccupare* psych-v select *avere* (to have) as their auxiliary while, *piacere* psych-v select *essere* (to be). But things aren't so neat; namely the *preoccupare* psych-v class, compared to *temere* one, is far from being homogeneous. In fact, many *preoccupare* psych-v do not even nominalize. As we can see in (16), some *preoccupare* psych-v nominalizations are simply ungrammatical, indeed for some reason they just don't exist. Given the theoretical homogeneity of the *preoccupare* psych-v proposed in B&R, (16b) can hardly be explained.

- (16) 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

On the contrary, both the *temere* and the *piacere* psych-v are homogeneous, at least in a higher degree than the *preoccupare* psych-v; in fact, only a few verbs of both classes do not nominalize, namely *compiangere* (to pity), *inorridire* (to horrify), *paventare* (to dread), *pazientare* (to have patience), *rinsavire* (to come to one's senses) and *sgradire* (not like) for the formes class and *garbare* (to like) for the latter one; we will see that, this ungrammaticality can be explained in much the same way as the one of *preoccupare*.

Tab.1

PREOCCUPARE <i>class</i>	Nominalization
addolorare (to sadden)	
avvincere (to captivate)	
impaurire (to frighten)	
impensierire (to worry sb.)	
incuriosire (to intrigue sb.)	
indispettire (to vex)	
ingelosire (to make sb. jealous)	
rinfrancare (to reassure)	
sfagiolare (to appeal to sb.)	
spazientire (to test sb.'s patience)	
spoetizzare (to take magic out of sth.)	
svelenare ()	
terrificare (to terrify)	
urtare (to irritate)	

Some of the *preoccupare* psych-v that do not nominalize.

With respect to all these differences, we can suppose that what probably causes them is the role that the subject of the verbal predicate hold. In fact psych-v do not assign an AGENT theta-role to their subject, but something different. Let's analyse the arguments' theta role in (17), recall that *confondere* is a *preoccupare* psych-v.

(17) *Tutte queste tue teorie* AGENT (?) *mi* EXP *hanno confuso profondamente.*
 All these your theories me have confused deeply

Analysing semantically this sentence, we can fairly say that what *confuses* the Exp didn't really mean it, in fact it could be the case that the person that has claimed all *those theories* had no reasons *to confuse* anybody. So, he/she has just **caused** that kind of feeling. Therefore, it's plausible to claim that psych-v do not assign an AGENT theta-role to their subject but a CAUSER one instead.

Now, it is clear that the psych-state of the Experience does not come for free but it is forced by a third element, whatever it is. I tried then to analyse psych-v with respect to a causative denoting device: psych-v nominalization.

I have chosen to analyse them in terms of nominalization because if we nominalize a normal psychological verb what we get is something that entails a strong relationship between the nominalized feeling and an external CAUSE as (18)¹⁰.

- (18) a. Mario preoccupa sempre tanto i suoi genitori.
Mario worries always very much his parents
- b. La preoccupazione dei genitori di Mario **per** i suoi voti è grandissima.
The worry of the parents of Mario for his school mark is very big.
- c. Quel goal all'ultimo minuto ha deluso tutti, soprattutto Marco.
That goal at the last minute have disappointed everyone, especially Marco
- d. La delusione di Marco **per** aver perso la finale all'ultimo minuto è stata molto forte.
The disappointment of Marco to have lost the final at the very last minute has been very strong

(18b) clearly shows that Mario's parents worry is something they would not have if it weren't for Mario, for example his school marks. Therefore, even though this is not true for all type of nominalization, it seems that psych-nominalizations entails some kind of causation. In fact in (18d), it's clear that the feeling of disappointment of Marco is due to the fact that he has lost the match at the last minute.

Passive (verbal passivization and *by-phrase*)

The issue of whether class II psych-v can have a verbal passive or not has long been discussed in the literature. There are basically two schools of thought: one holds that class II psych-verbs lack an external argument and therefore cannot form verbal passives (B&R; Grimshaw 1990; Landau 2010). The other holds that class II psych-v are normal transitive and hence they do form verbal passives (Pesetsky 1995; Pylkkänen 1999)¹¹.

Verbal passivization with Italian psych-v has been discussed too in the pioneristic work

10. Both *preoccupare* and *commuovere* pertain to the *preoccupare* psych-v class.

11. In the literature the psych-verbs classes are named differently from the one adopted in this work, but basically the verbs are subdivided starts alike: class I corresponds to the *piacere* class, class II and class III to the *preoccupare* and *piacere* class respectively.

on Italian psych-verbs of B&R. Starting from their unaccusative analysis, B&R claimed that the *preoccupare* psych-v cannot passivize and that what apparently seem to be a verbal passive is instead an adjectival one. They presented four arguments in favour of the adjectival status of psych-v 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* class psych-v do not have regular participial form(19); (iv) some psych passives resist the regular *da*-phrase and occur only with special prepositions (20)¹².

- (19) a. *Sono stufato/ stancato/ entusiasmato dalle sue idee.
I am tired/ tired/ exited by his ideas (B&R (55))
b. Sono stufo/stanco/entusiasta delle sue idee.
I am tired/ tired/ exited of his ideas (*ibid.* (56))
- (20) a. Gianni è interessato a/*da Maria.
Gianni is interested to/ by Maria (*ibid.* (i)a¹³)
b. Gianni è appassionato di/*dalla poesia.
Gianni is fond of/ by poetry (*ibid* (i)a⁹)

Concerning the first two arguments, Pesetsky (1995) claimed that argument (i) rests on a problematic choice of clitics and that argument (ii) doesn't diagnose adjectivehood but stativity. Focusing on the other two arguments instead, we have to be aware of the fact that in Italian passives participles are ambiguous between a verbal and an adjectival form. But still this can't lead one to argue that all of the *preoccupare* class psych-v are unaccusative.

In fact, we can have some verbs of the *preoccupare* class that seem able to passivize perfectly (21); the special prepositions, considered the hallmark of adjectival passives, are excluded in contexts that force the choice of verbal passive (22):

- (21) a. Sono sempre più addolcita dalla tua personalità.
I am always more sweeten by your personality

12. B&R interpret this as a consequence of the Blocking Principle: an irregular form blocks the regular one. In (10b) the irregular form is unambiguously adjectival; hence the blocked form must be adjectival too.

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

- b. Siamo sempre più costernati dalla sua arroganza.
we are always more dismayed by his/her arrogance

- (22) 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 iraniano.
the american government is (highly) worried of/ at/ by/due to the impressive rearm iranian
- c. La concorrente è stata demoralizzata/umiliata *di/*a/da/*per tutti
the contentent has been demoralized /humiliated of/ at/by/ due to everybody

The contrast between (19)/(20) and (21)/(22) shows again that the *preoccupare* psych-v class is not homogeneous. I think that we have to take into consideration the fact that, at least, some psych-v are not unaccusative and therefore can passivize.

Even though we do have some examples of *preoccupare* psych-v passives (22), we should say that they seem to be different from those derived from normal transitives (23), semantically at least. Still, comparing (23) with (24),¹⁴ as an Italian speaker I can say that, although both of them are real verbal-passives, there is a slight semantic difference between the two passive subjects; instead, (24) and (22), seem more alike, semantically.

- (23) La casa in campagna è stata costruita dallo zio di Michele.
the house in the country has been built by the uncle of Michele

- (24) Il professore è temuto da tutti.
the professor is feared by everybody

Semantically speaking, while the subject in (23) seems to undergo some kind of action or to be the result of some of action the same is not entirely true for (24) for two reasons: first, the *professore* is the one that somehow provokes the fear-feeling to *tutti* and, secondly, he might have provoke it without meaning it. Further, the argument introduced by *da* (by) in (24), in the active sentence, does nothing to the object. Note that *lo zio di Michele* and *tutti* seem to hold different thematic roles: Agent and

14. Recall that the psych-v of the *temere* class are considered alike transitives.

Experiencer¹⁵.

The arguments introduced in the *by*-phrase in (22a) and (24) seem to share some kind of non-intentionality.

This difference in meaning might be indicative of the different syntactic structure of the psych-v of both the *temere* and the *preoccupare* class with respect to the one of normal transitives verbs; again, the fact that not all psych-v of the *preoccupare* class can have the passive form can be a further prove of the *preoccupare* class internal structural differences.

Intransitive use

If we consider *preoccupare* psych-v as unaccusatives (B&R), we won't be able to account for (20). While all the unaccusatives verbs can have structures like the ones in (21), this is not true for all *preoccupare* psych-v, (25b); still, there are some verbs of *preoccupare* psych-v that can be used intransitively, subcategorizing for a missing object, a *null object* (Rizzi 1986).

(25) a. La situazione di Luigi imbarazzerebbe chiunque.
the situation of Luigi would embarrass anyone

b. ?*La situazione di Luigi imbarazza.
the situation of Luigi embarrasses

(26) a. Marco è tornato a casa.
Marco has come back home

b. Marco è tornato.
Marco has come back

(27) a. Questo film ha annoiato tutti.
this movie has bored everybody

b. Questo è uno di quei film che annoiano.
this is one of those movies that bore

The example in (26) weaken the unaccusative hypothesis for the *preoccupare* psych-v

15. Note that also *la casa* and *il professore* hold different thematic roles: Patient and Target/Subject Matter (Pesetsky 1995).

given by B&R, but the example in (27) tells us that there are some verbs of the *preoccupare* psych-v that behave like unaccusatives.

This incongruence is not necessarily something bad. In fact, it seems to be in line with the incongruence within the unaccusative verbs, (Tab. 2).

Tab.2

UNACCUSATIVE <i>verbs</i>		PREOCCUPARE <i>class</i>	
apparire (to appear)	apparizione (appearance)	innamorare (to charm)	innamoramento ⁸ (falling in love)
avanzare (to move fwd)	avanzamento (advance)	invogliare (to temp sb to do)	
capitare (to happen)		opprimere (to oppress)	oppressione (oppression)
evadere (to break free ¹⁶)	evasione (break out)	persuadere (to persuade)	persuasione (persuasion)
finire (to finish)		spazientire (to test sb.'s patience)	
pervenire (to receive)		stufare (to tire)	
rinascere (to revive ¹⁰)	rinascita (revival)	turbare (to disturb)	turbamento ¹⁷ (perturbation)

Infinitival form in the left column and nominalization on the right column.

Furthermore, all the verbs of the *preoccupare* psych-v that do not have the *-nte* form (Tab.3) can be used intransitively (28) and vice versa. Indeed those that do have the *-nte* form cannot be used intransitively (29a) but, with the *-ante* form, in a copular sentence (29b).¹⁸

16. *Evadere* can also mean *to escape*; *rinascere* can also be translated with the periphrasis *to come back to life*.

17. *Turbamento* like *innamoramento* describe something that is more an internal process than something due to an another person like in *persuasione*.

18. The suffix *-ante* is necessary to create the present participial form of the verb.

Tab.3

PREOCCUPARE		
affascinare (to fascinate)	affascinamento (the act of fascinate)	affascinante (fascinating)
amareggiare (to embitter)	amareggiamento (the act of embitter)	
convincere (to convince)	convincimento (conviction)	convincente (convincing)
confondere (to confuse)	confusione (confusion)	
deludere (to disappoint)	delusione (disappointment)	deludente (disappointing)
deconcentrare (to break sb's concentration)	deconcentrazione (<i>opp of</i> concentration)	
imbarazzare (to embarrass)	imbarazzo (embarrassment)	imbarazzante (embarrassing)
indignare (to fill sb with indignation)	indignazione (indignation)	
scioccare (to shock)	scioccaggine (the act of shocking)	scioccante (shocking)
turbare (to disturb)	turbamento ⁸ (perturbation)	
umiliare (to humiliate)	umiliazione (humiliation)	umiliante (humiliating)

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

- (28) Questo continuo ticchettio deconcentra tantissimo.
 this continuous ticking breaks concentration a lot
- (29) a. La questione degli armamenti in Iraq sta allarmando *(tutti).
 the issue of the armaments in Iraq is allarming (everybody)
- b. La questione mediorientale è allarmante.
 the issue (of) Middle-Eastern is frightening

So, while a verb that has the *-nte* form cannot be used intransitively, a verb without the *-ante* form can. This is another fact that needs to be accounted for, but the B&R analysis can hardly do so.

SECOND PART

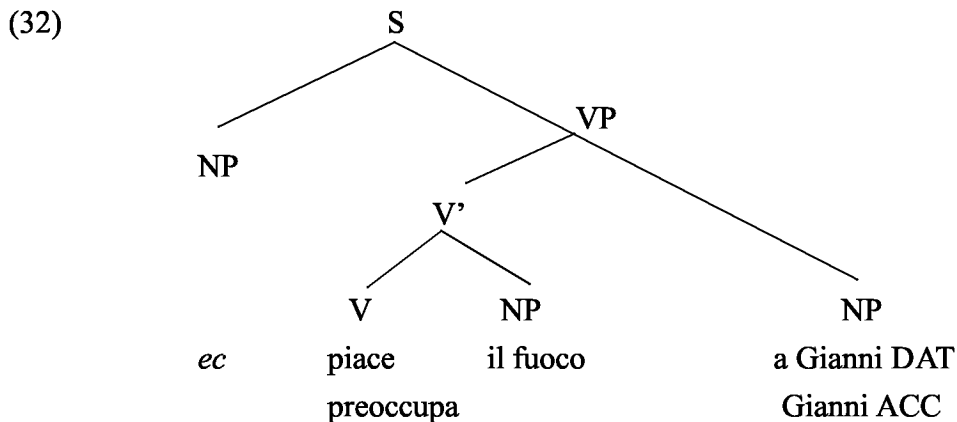
4. Psych VPs

In this section I will try to give an account that can explain the data illustrated above.

I will pursue the idea that (33), provided by B&R, cannot be the syntactic representation neither of (30) nor of (31).

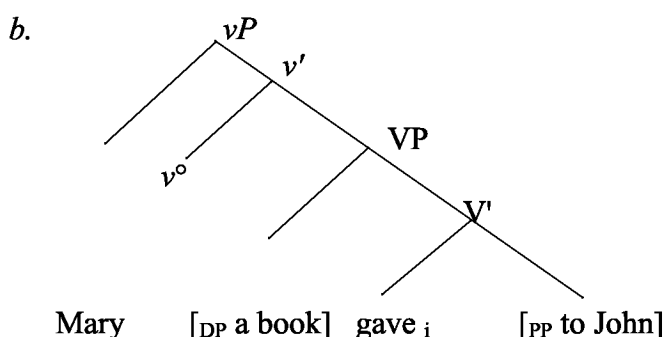
(30) Il fuoco preoccupa Gianni.
 the fire THEME worries Gianni EXP.

(31) A Gianni piace il fuoco
 to Gianni EXP pleases the fire THEME



I suggest instead, starting from the structure Larson (1988) propose, cf. (33b), for the DO verbs in sentence (33a), a structure in which the Theme and Exp occupy different positions with respect to V', namely internal and external with respect to V', and the VP splits into a more fine-grained structure. Taking (33b) as a template, the Theme would be in Spec, VP and the Exp would be the complement of V.

(33) a. Mary gave a book to John.



5. Split Psych-VPs Hypothesis

5.1. A finer VP structure: The three arguments.

Before going any further, it is important to stress that the structure I have in mind to account for psych-v's behaviour born from the idea that a bare VP structure is not enough to explain the psych-v complex semantics, I decided then to split the VP in more projections.

I will no longer describe psych-v in terms of VP but in terms of a derivation from a basic merge of a *state of mind* and the Theme, and after with Exp to the complete psych sentence. In other words, I consider a sentence like *Gianni preoccupa/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):¹⁹ [*Maria [preoccupazione Gianni]*], [*Maria [paura Gianni]*].

Analytic vs Synthetic psych-v

In many languages, the *preoccupare* and the *piacere* psych-v can be either a single verb, like *to frighten*, but also formed out of a light verb with a noun or an 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.

19. 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).

There are languages in which this distinction is self-evident enough, as French,²⁰ for instance, and also languages in which this distinction is not so self-evident, like Italian for instance. In fact, there isn't any Italian analytic counterpart for the French *mettre en colère* but still the analytic form can be derived, like with *impaurire* in (34). Arad (1998) gives also some examples from Hebrew.²¹

- (34) a. Il professore *impaurisce* sempre i suoi alunni durante la lezione.
 the professor scares always his pupils during the lesson
 b. Il professore di matematica *mette* sempre *paura* ai suoi alunni, a prescindere.
 the professor of Maths put always fear to his pupils irrespectively

Even though it's even less evident, the same is true for all the other psych-v that do not nominalize but do not start with *in-*, as *allarmare* (35).

- (35) 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 in allarme* tutta la famiglia.
 the siren of the fireman put in alarm all the family

I assume that the synthetic psych-v (like *impaurire*) and the analytic psych-v (like *mettre en colère*) share the same syntactic structure and what differentiate them is the morphological spell-out of their lexical items.

With the analytic vs synthetic dichotomy in mind, it seems that the non-nominalizing psych-v semantically entail some kind of metaphorical displacement (as in (36b)) of the Exp from one place to another while the other do not.²²

The fact that among all *preoccupare* psych-v that do not nominalize only some of them can actually be decomposed into a form like *in+* either an adjective or a noun is nothing but a clear manifestation of the locative relation between the Exp and the psych-state, in other words although not so evidently, the Exp-psych state locative relation is derivable with those verbs too.

Hence there is no difference between the non-nominalization psych-v, as *addolorare*

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

21. Hu hipil paxad/shiamum al ha kahal" that literally means "he dropped fright/bordo on the audience".

22. We will see that 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.

and *impaurire* are, the only thing is that the locative relation with verbs like *impaurire* is more self-evident than the one with verbs like *addolorare*.

As in Baker (2004),²³ we can then semantically decompose this psych-v starting with *in-* like this: [x CAUSE[y BE [[*in* psych-state]]]]. Hence, a psych-v like *impaurire* can be semantically decomposed as:

(36) [x CAUSE[y BE [[*in* paura]]]].

The same semantic decomposition can be maintained also for those verbs that do not nominalise but that cannot be subdivided like *impaurire*, at least not immediately. *Addolorare*, for instance, can be semantically decomposed exactly in the same way as *impaurire* [x CAUSE[y BE [[*nel*²⁴ dolore]]]].

If this reasoning is on the right track, it would mean that all the *preoccupare* psych-v that do nominalise cannot be semantically derived as those that do not nominalise.

Now, if we analyse the semantics of those psych-v that do not nominalize,²⁵ we will find that they are somehow different from the other psych-v that instead do nominalize.

Let's consider *exasperare* (to exasperate): it does nominalize, *exasperazione* (exasperation), but it cannot be decomposed like neither *impaurire* nor *addolorare*, in fact (37) is not possible and this seems to be in line with what just said, namely that the non-possible nominalization is probably due to the locative relation established between the Exp and the psych-state

(37) *[x CAUSE[y BE [[*in* esasperazione]]]]

Even if (37) is not possible as a semantic decomposition for *exasperare*, still it can be semantically decomposed as in (38) which can be translated as something like “there is *exasperazione* in y”.

23. 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).

²⁴. *nel* = *in* + *il* (the).

²⁵. There are verbs, like *angosciare* (distress), *compiacere* (to gratify), *emozionare* (to move), and *impressionare* (to impress) that seem to have a derived nominal form, respectively *angoscia*, *compiacimento*, *emozione*, and *impressione*, just like *affascinare*, *desolare*, and *stimolare*, respectively *affascinamento*, *desolazione*, and *stimolazione*. Although both groups of verbs apparently nominalize, only the latter entail some kind of process.

(38) [x [BE [esasperazione [in y]]]]

Containers vs Contents

Simplifying we can say that generally verbal predicates have to be placed spatiotemporally, namely a place and time in which the “action” develops hence describing something that, normally, somehow meets the eye, a result of some kind of physical action, for example a normal transitive verbs like *to build* describes a situation in which something that didn't exist before is there, or at least will be there in the future. In (39) instead, *tutti* is neither the result nor the endpoint of any “action”; further there is no visible place in which the action of the *preoccupare* took place. Let's consider now sentence (39):

(39) Marco ha preoccupato tutti con le sue urla.
 Marco has worried everyone with his yells

Leaving aside the temporal placement of these verbs, we can say that *preoccupare* describes something happening inside the *tutti* (Exp), precisely in their mind. (39) is more similar to a copular sentence like (40a) than to normal transitive sentence like (40b).

(40) a. La macchina di Giovanni è rossa
 the car of Giovanni is red.
 b. La pallotola ha ferito gravemente il soldato.
 the bullet has injured badly the soldier

(40a) just describes one of Giovanni's car's characteristics, namely that it is red, in other words we have a description of a subject. The difference between (39) from (40a) is the location of the predication, the real/physical world in (40a), the inner one in (39). Hence, the psych-verbs predication is a *state of mind*.

Paraphrasing Landau (2010) basic intuition, repeated in (41), we can further say that psych-verbs describe the final place where the Exp/state of mind has been moved.

(41) Experiencers are mental locations, that is, locatives.

Arad (1998), talking about the SubjExp, argues that psych-verbs denote locative relationships. An rather important aspect in Arad (*ibid*) is the fact that “the experiencer is either conceived as the *stuff* contained in the mental state (42a) or the container in which the mental states resides (42b)”:

- (42) a. Nina **felt in love** (with Paul).
 b. **There is in me** a great admiration for painters.

This subdivision that Arad postulated is present also in the Bouchard (1995) but in neither works it has been further pursued. We will see later that instead it will be a very useful.

Concerning (42a), there are two important things to notice: the infinitival verb is *to fall in love* explicitly indicate some kind of movement from one place to another and that there is no synthetic form for it. Spatial prepositions, like *in*, then play a special role; but still not all the psychological predications can be described as (42). In (43), *worries* entail a different kind of spatial relationship between the Exp (*his mother*) and the mental state (*worry*).

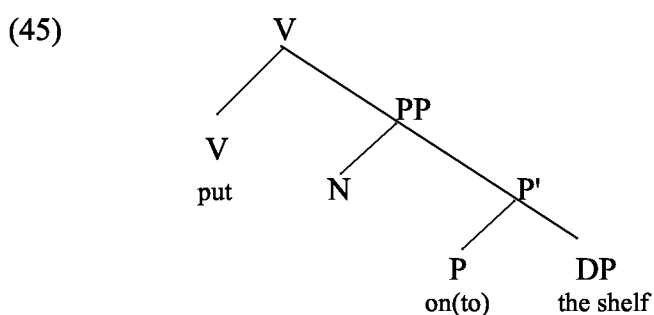
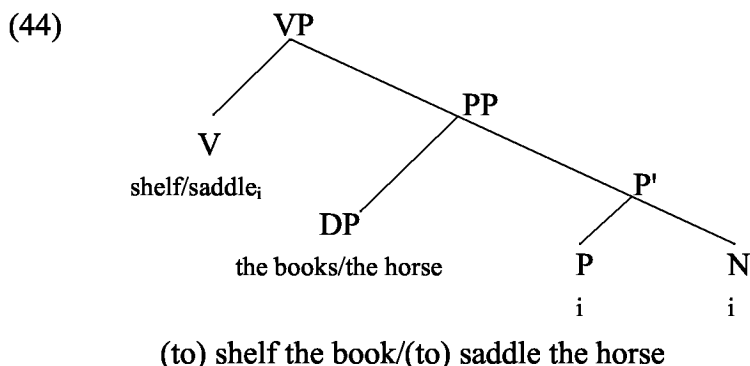
- (43) Mark worries his mother every day.

In order to account for this, I think that a slightly different dichotomy from the one proposed by Arad is needed. Before going any further though I have to briefly introduce another linguistic fact, i.e. the mechanism of conflation in English.

Hale & Keyer (2002) (henceforth H&K), argue that, at least in English, some verbs can be derived from a noun. In fact for them *shelf* and *to shelf* are not two different lexical entries but only one and the verbal one derives from the nominal one, as in (44). They also argue that the structure of those verbs is identical to the structure of their synthetic counterparts as in (45); the only difference is the presence of a light verb, *put*. For H&K the noun can be either the location where to move something or the object to has to be moved somewhere: location and locatum verbs (44/45).^{26;27}

26. Examples of location verbs are: bag, bank, bottle, cage, corral, garage, jail, pocket, pot, shelve, shoulder.

27. Examples of locatum verbs are: bandage, bell, bread, butter cloathe, hook, house, ink, oil, paper, seed, water, word.



In Italian though, this kind of derivation seems to be apparently unproductive,²⁸ i.e. it's not possible to derive a verb from the noun as in English. In fact, given *scaffale* (shelf), we can't have anything similar to (10), (46a). Instead a periphrastic form, (46b), is possible; notice that (46b) is similar to (45), the English counterpart of (44):

- (46) a. *Luigi ha scaffalato tutti i libri che erano sul tuo tavolo.
 Luigi has shelled all the books that were on your table
 b. Luigi ha messo tutti i libri che erano sul tuo tavolo sullo scaffale.
 Luigi has put all the books that were on your table on the shelf

Even though it seems that in Italian there are no synthetic predication like the one analysed by H&K, making therefore the location/locatum verbs dichotomy useless, we will see that the analysis just mentioned can be very useful to explain the psych-v behaviour.

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

28. Although not as productive as in English, in Italian too we have some examples of verbs obtained by means of incorporation: *cestinare* from *cestino* (bin) and *messaggiare* from *messaggio* (message).

- (47) Psychological predicates describes a locative relation between an experiencer and an emotion/state of mind driven somehow by a third element.

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

- (48) 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.

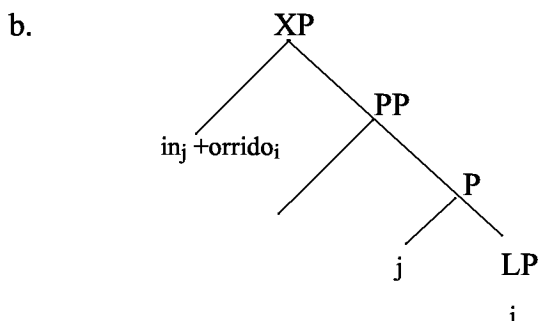
Let's analyse the sentences in (49).

- (49) a. Chiunque *inorridirebbe* davanti a fatti di simile gravità.
 anyone would horrify in front of facts of such a seriousness
 b. Questo zampirone ha un profumo gradevole per l'uomo ma *sgradito* agli
 this mosquito coil has a perfume lovely for humans but unpleasant for
 insetti.
 insects
 c. Il racconto di Luigi mi ha molto *addolorato*.
 the story told by Luigi me has very grieved

The verbs used in (49) are all psych-verbs, of the *temere*, *piacere* and *preoccupare* class respectively; these three verbs are all composed of a preposition plus either a noun or an adjective like *inorridire* (horrify) is composed of *orrido* (horrid)+*in*; *addolorare* is composed of *dolore* (pain)+*a* or of a prefix plus noun: *sgradire* is composed of *gradire* (from *grado*, pleasure) (to please)+*s*.

Both *in* and *a* are locative prepositions and although it doesn't seem so the same is true for *s*, because it can be semantically translated with *fuori da* (out of). I will refer to all those verbs in which the composition P+Noun or Adjective, like the ones in (49), as to the **Container** psych-v. This composition is the result of a morphological derivation starting from as illustrated in (50b).

(50) a. ... $[_{XP}[_{PP}in[_{LP}Gianni\ orrido\ quella\ immagine]]]$

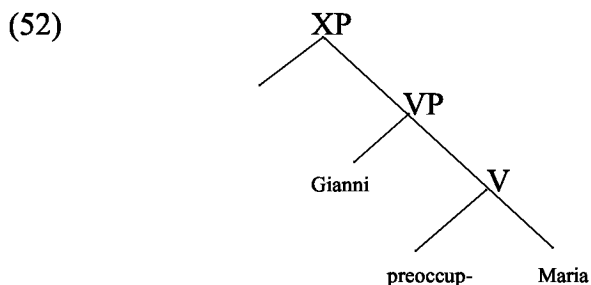


The basic intuition behind (50) is that these verbs do not enter in the derivation as they appear in (49) but, instead, as in (50a): a plain *state of mind* (no matter whether a noun or an adjective) that in order to become a verb needs to be incorporated with a preposition.

Opposite to *Container* psych-v we have the *Content* psych-v, as in (51), namely verbs in which the Exps is itself the container of the emotion.

- (51) a. Tutti i bambini *temono* il buio.
 all kids fear the darkness
- b. I gelato *piace* a tutti.
 the ice-cream likes to everybody
- c. Marco sta *preoccupando* tutti con le sue teorie.
 Marco is worrying everybody with his theories

Verbs like the ones in (51) cannot be semantically decomposed as the ones in (49), therefore it is plausible to hypothesize that they don't share the same syntactic structure either. Hence, a structural derivation as the one proposed for the Container psych-v in (50) do not seems to be the correct one for Content psych-v. (52) seems to be the proper syntactic structure for these kind of psych-v



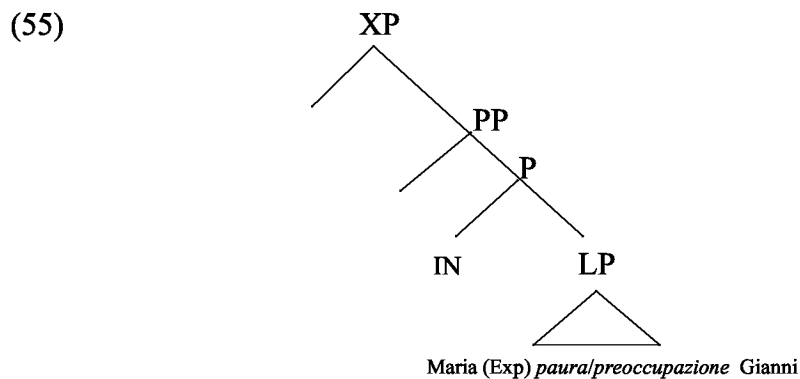
Even though both (50) and (52) seem the plausible syntactic structures for the *Containers* and the *Contents* psych-v respectively, the difference between these two structures might lead one to say that the *Containers* psych-verbs (50) one seems too *ad hoc* as an account and the classification in *Contents* might seem too forced as well.

Recall that psych-v deal with inner emotion and, similarly to copular sentences like (53), describe a locative relation.²⁹ One could argue that (54a) is somewhat equivalent to (54b).

(53) La macchina è in casa.
the car is inside home

(54) a. Marco è preoccupato (per l'esame di domani).
Marco is worried (for the exam of tomorrow)
b. La preoccupazione (per l'esame di domani) è in Marco.
the preoccupation (for the exam of tomorrow) is inside Marco

Although in (18a) the locative relation (*X is in Y*) is not visible (at PF), it is still there, say at LF (54b). The locative preposition therefore has to be present also in the syntactic structure of Content psych-v, though silent.



I claim then that both the *Container* and the *Content* psych-verbs share the same syntactic structure (55) and that what makes them different is the presence or not of the preposition by PF.

To sum up, we can say that psych-v can be decomposed into two subclasses as in (56):

²⁹. Analytic vs Synthetic psych-v.

(56) A. Content psych-v class

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

B. Container psych-v class

Container psych-v describe situation in which emotions metaphorically contains Exp.

Psych-verbs decomposition

In Baker (2003), “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” (221).

If Baker's intuition is on the right track, then the same can be true also for psych-v; in other words, we can decompose psych-v into (at least) three arguments and the final lexical verb is the result of conflating of those arguments into a single X° by successive head movements. We have already met one of those arguments in (55), namely P°.

Now recall what has been said previously concerning the stative nature of the psych-v (39): psych-v can be described as copular sentences in which psych-v describe the Exp's *state of mind*. (57) can be semantically translated as (58). Both (58a) and (58b) entail a description of Paola's *state of mind*, no matter the source or what causes it.

(57) Il film (di stasera) ha commosso Paola.
the movie (of tonight) has touched Paola

(58) a. Paola è commossa a causa del film di stasera
Paola is touched because of the movie of tonight
b. Il film di stasera ha reso Paola commossa.
the movie of tonight made Paola touched

Given the above subdivision of psych-v in two subclasses, *Container* and *Content* psych-v, we can further say that (57) can be semantically translated as in (59); indeed *commuovere* is a *Content* psych-v.³⁰

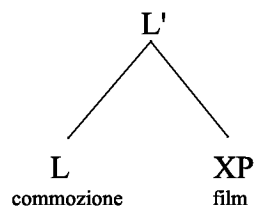
30. Recall that *Content* psych-verbs describe a situation in which the Exp contains the emotion contrary to the *Container* ones in

- (59) (C'è) commozione in Paola (a causa del film)
 (There is) emotion in Paola (due to the movie)

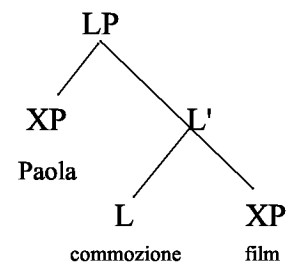
We have already seen the first part of (59) in (55) but we have not justified yet how to derive *commozione in Paola* from *in commozione*.

Let's suppose that we have a phrase, call XP for now, with a *state of mind* as a head (L) that selects an Exp as its complement, like *commozione* and *Paola* of (60a). L°, then projects, becoming LP (60b).³¹

(60) a.

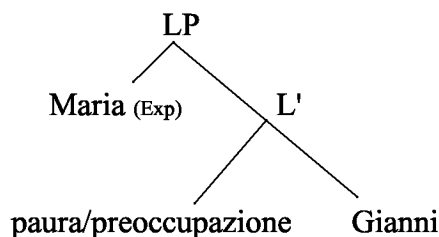


b.



In order to obtain the final psychological predication, the two basic elements of a psychological predication, the psych-state and the Exp, merge in a projection that I will call Lexical Phrase (LP), much in the sense of Alexiadou (2001),³² in which the psych-state is the head and the Exp its specifier (61).

(61)



After these merge operation, in order to derive the final psychological predication, all these elements will have to move. Recall the basic intuition in (47) of the previous part, namely that Exp are in a locative relation with the psych-state and vice versa; now,

which the Exp are contained/merged into an hypothetical emotional-box.

31. *Commozione* is not a proper lexeme but a concept, hence no category is assigned to it.

32. 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).

structurally this relation means that the LP is itself the complement of a PP (55).

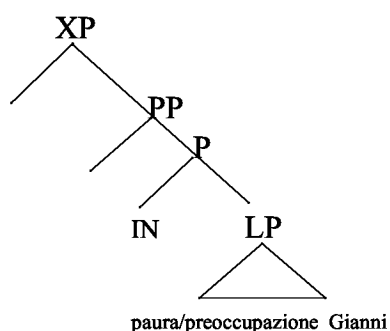
The movement of these three elements in LP though it might seem discretionary, at first glance at least, depends on two factors, namely: the fact that we are dealing with predication that concern people's (Object) feeling/reaction (Psych-state) about/to something done by a third element (Subject), which metaphorically means a displacement of the either the Exp in the psych-state or of the psych-state inside the Exp in order to derive a psych-v have to establish a locative relation; the need for all of them to be categorized.¹⁴

If the intuition that what psych-v basically describe is fundamentally a locative relation between an Exp and an emotion is on the right track, LP has then to merge with a locative preposition like *in* or *a*; from this position both arguments of LP moves out.

Before going any further, it is useful to remember that (semantically) the decomposition we adopted to explain the locative relation between the *state of mind* and the Exp is something that pertains to LF, that is to say it refers to a certain level of mental representation of the linguistic expression; the locative relation (indicated by the locative prepositions *in* or *a*) may or may not be assigned a phonetic representation at PF. Furthermore that LP is start of the derivation, therefore part of the split VP, but a conceptual stage.³³

In (55), repeated here in (62), we have seen that after LP has merged with P, there is room for either of the arguments to move out of the LP though to different positions.

(62)



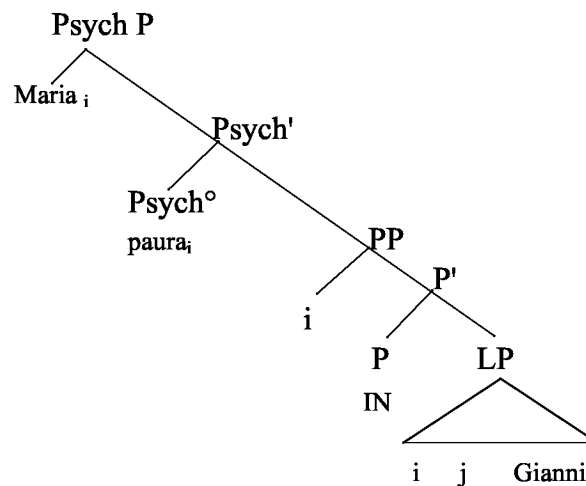
I wrote the locative preposition in capital letter, IN, to indicate that the locative derivation of psychological verbs might need either one of the possible locative preposition or a null phonetically null preposition in P⁰.

Since the necessity for either of the elements to move and the fact that we are dealing

³³. LP, as in Alexiadou (2001), deals not with proper/categorized lexeme but with concepts, therefore they are not proper head either.

with psychological predicates, it is plausible to hypothesize that the PP itself is a complement of another projection, say a psychological one (PsychP³⁴). Psych, as shown in (63/64), is the psych-state attractor, in other words it represents the cornerstone of psychological derivation while PP is the Experiencer attractor.

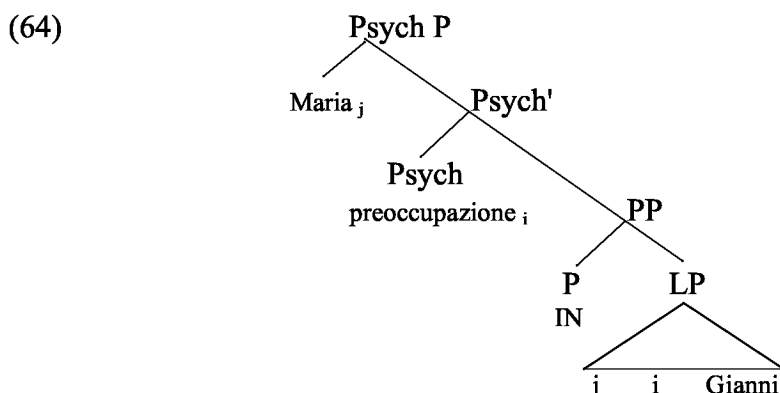
(63)



In (63) we can see that within container psych-v the first element that moves is the experiencer and this is due to the presence of the locative preposition IN which is syntactically active. Despite of the fact that it's syntactically active, it triggers the Experiencer up to Spec,PP, we will see that it will not always realized phonetically.

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

34. Psych-P 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.



In (64) we can see how a content psych-v can be translated syntactically. With this kind of verb the preposition is neither syntactically nor phonetically active but only semantically, namely they indicate that a specific state of mind is inside the experiencer. The syntactically and phonetically non active preposition is in fact what differs this kind of verbs from the former ones.

The fact that among all *preoccupare* psych-v that do not nominalize only some of them can actually be decomposed into a form like *in+* either an adjective or a noun nothing but a clear manifestation of the locative relation between the Exp and the psych-state, in other words their locative relation is self-evident only with these verbs. Hence there is no difference in the non-nominalization possibility between *addolorare* and *impaurire*, the only thing is that the locative relation with verbs like *impaurire* is more self-evident. In (62-64), we can see that both the Exp and the psych-state move out of LP but not exactly in the same way. Concerning container psych-v, as in (63), first the Exp moves up to Spec,PP (triggered by the syntactically active P) and after that the psych-state move up to Psych°. With Content psych-v instead only the psych-state moves up to Psych°. ³⁵ For both container and content psych-v, after the psych-state movement to Psych° follows the raising of the Exp to Spec,Psych P.

Given (63/64), we have still to explain how to derive *preoccupare* from *preoccupazione* and *impaurire* from *paura*. Remember that the psych-states that are represented already nominalized only for the sake of clarity and that therefore *preoccupazione* and *paura* are only representatives of the psych-state in question and they don't have any category at all, that's they have to move, to be categorised.

Following the Baker tripartition ³⁶ and Alexiadou (2001), ³⁷ I hypothesise that Psych-P is

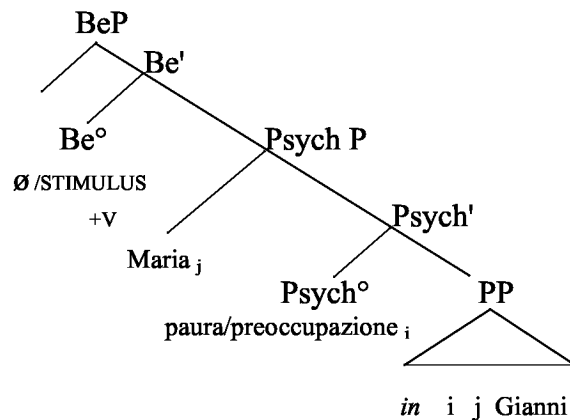
³⁵ . See fn32.

³⁶ See fn 9.

³⁷ I restrict myself in just saying that the HAVE construction in principle could be derived either via incorporation of P to BE or

itself the complement of another projection, say BeP, that, contrary to what it might seem, is just a functional projection: it is needed in order to categorise the psych-state, namely to turn it into a verb. Without BeP in fact we would not be able to justify the psycho-locative relation between the psych-state and Exp.

(65)



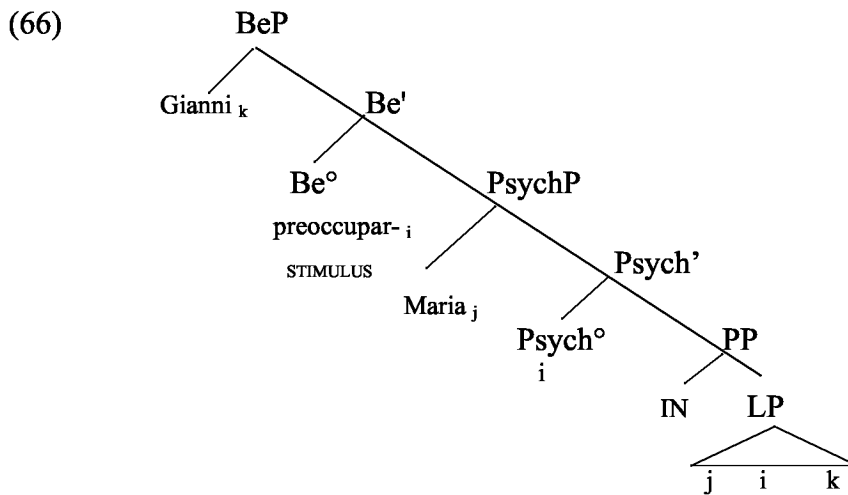
In (65) we see that in order to become a verb the psych-state moves up to Be° which can verbalize it. The fact that we can have either a zero-morpheme (STIM)³⁸ or nothing (∅) depends on the verb we are dealing with, namely either a content psych-v (66), which assign a STIMULUS theta-role as their external argument, project its theta-role in Spec,BeP or container psych-v (67) that select a CAUSER instead of a STIMULUS do not.

As we can see in (65), the CAUS does not occupy the same position as STIM but a different one, namely v°, as in (42).

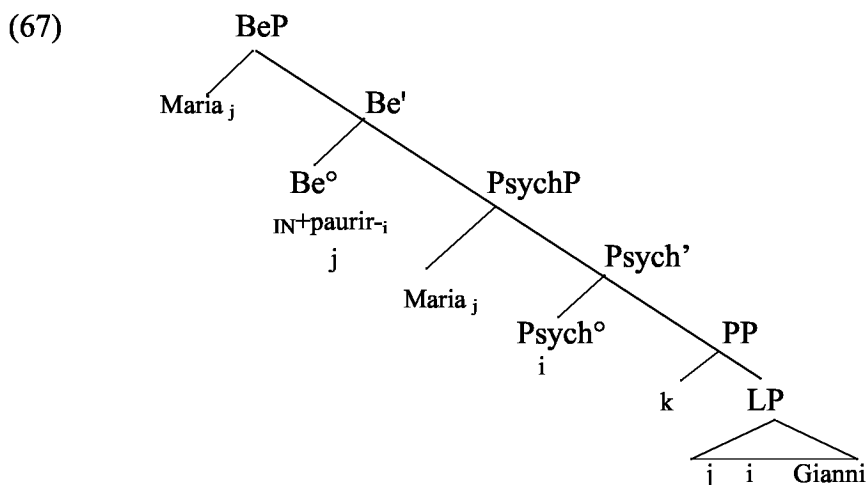
follow a derivation similar to the path followed in English and Greek. Note that Irish uses for the expression of statives and psychological states exactly the same structures used to express possession. The experiencer appears in a prepositional phrase in object position (see Noonan 1993):

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

³⁸. STIM is zero-morpheme that assign the STIMULUS theta-role much in the same way as CAUS in (Pesetsky 1995).



In (41), we can see that despite the fact that also *paura* raises to Be° , to become a verb, it will not incorporate any zero-morpheme since, as we will see in (68), the CAUS morpheme is located higher than STIM.



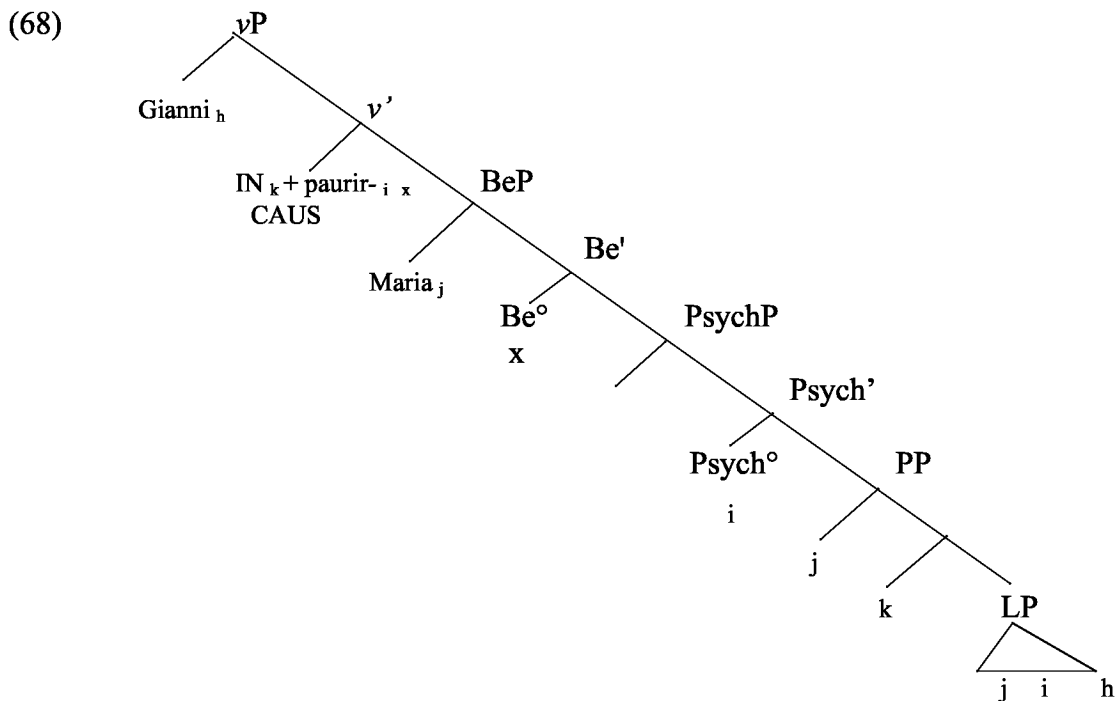
Now the only element in (67) that is still *in situ* is the element that *causes* the feeling to the Exp, namely the *causer*.

Recall that it still needs to be categorized and that Spec,BeP is occupied by the Exp. In the container psych-v syntactic derivation, the verbalized psych-state raises up to v° and incorporate CAUS and further projects an external argument, Spec, v P to which assign a CAUSER theta-role.

In (67), we can see that after the raising of the verbalized psych-state the *causer* raises up to Spec, v P to be assigned the CAUSER theta-role. Again, this late movement is triggered by CAUS, just like STIM triggers *Gianni* in (65).

For now, let's notice that this difference between (65 and 66), can be compared with the

nominalization problem, that is the presence or not of a causative meaning due to *CAUS* which is a zero-morpheme, much in the sense the *CAUS* in Pesetsky (1995)³⁹. It forces the *Exp* to move to *Spec,PP* before the psych-state raises to *Psych°* and merges with it. Let's consider now the incorporation of *IN* to verbalized form in *Be°* and recall that *IN* will not always be realized phonetically by *PF*, most of these psych-v will delete that *in* by *PF* (*allarmare* vs *impaurire*). The fact that *IN* incorporates, and sometime is also self-evident, only with container psych-v, namely only causative psych-v it is not something new in the literature. Citing Pesetsky, “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).



5.2. A finer structure for psych VPs: A derivational history

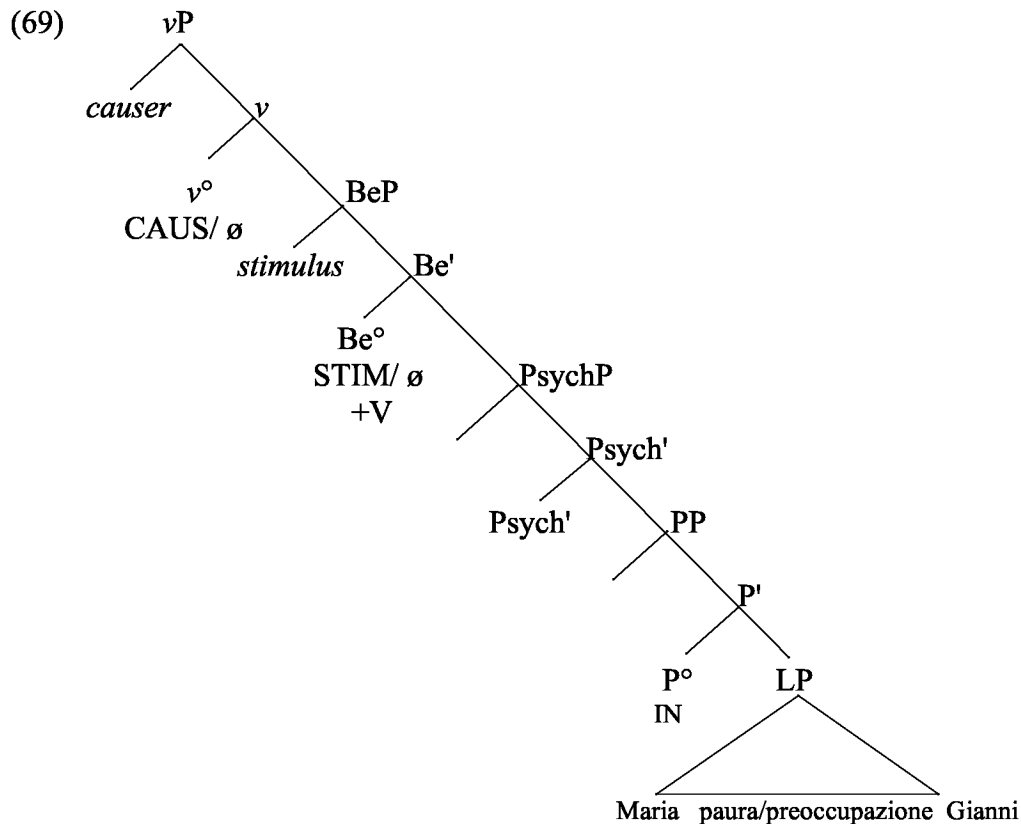
In the preceding section we saw that psych-v can be subdivided into two groups. This subdivision differs substantially from the one proposed by Pesetsky (1995)⁴⁰ which

39. 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).

40. Subject Experiencer vs Object Experiencer psych-verbs.

classifies psych-verbs merely in syntactic terms while the one I am proposing here has some semantic flavour too. To show how the locative semantics of psych-v can be possibly translated structurally, I split the psych-VPs in three: BeP, PsychP, and PP.⁴¹ I then tried to justify this tripartition derivationally on the strength of the needs of the *state of mind*: first, to be merged with either the Causer or the Stimulus (60a) and then with Exp (60b); second, to be in locative relation with the Exp (62-64); third, to become a denominal/deadjectival verb (65).

Recollecting all the single projections that I have shown so far, we can see how the psych-VP can be split into a more fine-grained structure (69). Still, we have not explained yet why some psych-v can nominalize while instead some other cannot.



The VP of both *Content* and *Container* psych-v is therefore more fine grained the one proposed by B&R (see the Introduction).

41. LP is not a proper argument, at least not as the others are, but the first merge projection.

5.3. A preliminary conclusion

In the introduction we have seen briefly B&R analysis of the psych-v together with Pesetsky (1995) counter-analysis. After having given some new data in support of the non unaccusative nature of the *preoccupare* psych-class (contra both B&R and Landau, 2010) I showed that also the B&R tripartition seems to be no longer tenable. Recall that the tripartition is basically based first on the grammatical role of the Exp, subject (*piacere* class) or object and second on the Object Exp Case, ACC vs DAT (*preoccupare* or *piacere* class). Analysing all the psych-verbs behaviour with respect to some test (like the nominalization), I found out that not all *preoccupare* psych-verbs behave in the same way, hence a new analysis was necessary.

Following Arad (1998) and H&K, I claimed that psych-v can be divided into two groups. In fact, depending on whether the Exp is the container or the content of the *state of mind* we would have *Container* or *Content* psych-verbs. Given Baker analysis of the category (2003) and Landau locative account of the Exp (2010), I semantically decompose all the *preoccupare* psych-verbs: x CAUSE y to BE IN ADJ (*geloso-jealous*)/NOUN (*paura-fear*).

In the light of what just mentioned, I tried to rethink psych-v structure from a different perspective, i.e. a more semantic flavoured structure.

The structure I propose for *preoccupare* psych-v is in fact more fine grained than the one proposed in B&R; in light of the semantic decomposition (Baker 2003) and the locative relation between the Exp and the *state of mind*, I postulated that, at least concerning psych-v, the VP has to be split into (at least) three arguments: BeP, PsychP, and PP. This tripartition is needed to derive psych-v from the *state of mind* and replace entirely the VP

6. A possible account for Italian problematic data

Following Arad (1998), I claimed that psych-v 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-v. Container psych-v are those verbs that metaphorically describe a situation in which the psych-state is filled in by the Exp.

This difference is syntactic relevant, while container psych-v select a CAUSER content psych-v select a STIMULUS.

Let's see how this new analysis can account for the various problematic data that I

introduced in the first part of this work.

Nominalization

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 *v*: a transitive light *v*, and an intransitive one. The former combines with the external argument, the latter does not” (*ibid.* 112) (70):

- (70) a. transitive *v* [+external argument] *v*1 = Cause
 b. intransitive *v* [-external argument] *v*2 = Become/Happen

and that “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 with” (*ibid.*). Basically Alexiadou proposes a unique derivation for both verbs and process nominals⁴². The derivation of *destruction* and *destroy* starts from the same lexeme, #destroy, which, as the head of L do not have a category yet. From #destroy, we can derive either a verb or a nominalization: embedding it under transitive *v* yields a transitive structure, when non-causative *v* combines with it the result is a verbal passive or a nominalization, depending on whether the structure will appear under T or D. Hence, both process nominals and verbs can be derived from the same root, they both have a *v*P 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-*v* nominalization.

Now, the fact that *preoccupare*, like all the other content psych-*v*, can have a nominal derivation with a causative meaning is possible because it incorporates CAUSE only outside *v*P. Instead, verbs like *impaurire*, namely containers psych-*v*, that do incorporate *cause* in Psych^o, therefore before BeP cannot nominalize, and this is due to the fact that for a verb it is not possible to incorporate some morpheme (i.e. a causative morpheme), although silent, once it has already incorporated either the same one or another one in precedence (Fabb 1988).

42. Alexiadou proposes that *v*P and AspP are present within process nominals and verbs too, the only difference between them is whether the final lexeme that raises to Asp^o is the complement of TP or DP.

Passive

As I argued in the first part, contrary to B&R *preoccupare* psych-v too can passivize. In fact sentences like (71a) are perfectly grammatical as the *temere* psych-v passives (71b) which for B&R are the only psych-v that can passivize. In the first part of this work I also claimed that (71b) is different from (71c), at least semantically.

- (71) a. La concorrente è stata umiliata da tutti.
 the competitor has been humiliated by everyone.
- b. Il professore è temuto da tutti i suoi alunni.
 the professor is feared by all his pupils
- c. La casa in campagna è stata costruita dallo zio di Michele.
 the house in the country has been built by the uncle of Michele

Given the fine grained structure I hypothesize in (69), I claim that this difference is structural. The subject of the two passives starts their derivation from different positions in the structure: *il professore* starts from the highest position of the split VP, Spec, BeP; *la casa in campagna* starts from a the lowest position in the structure, as the complement of *costruire*. These difference is visible in (72) which a simplified version of the split VP.

- (72) a. [gli alunni]_j IP [temono_k [il professore BeP[k j]]]
 the pupils fearPLU the professor
- b. [lo zio di Michele]_j IP [costruisce_k [j vP [k [VP[k la casa]]]]]
 the uncle of Tom build the house

The different passive reading is therefore due to a different starting position of both the subject and the object in the respective active counterparts.

What gets NOM Case in (71b) is not the argument that somehow suffers the action of the *temere* but actually what causes the bad feeling, *timore* (fear), to the Exp while *la casa in campagna* in (71c) is the argument that undergoes the action of *costruire*. Again, in (72) we can see how this semantic difference is visible also from a structural point of view.

The *by*-phrase argument too seems to be semantically different. *Lo zio di Michele* is the person that, for whatever reasons, built the house in the country on purpose, that is he is the Agent of the active counterpart; *gli alunni* instead are not the Agent in the active

counterpart but the Exp. Contrary to (72b), in which the argument that in the passive will be introduced in the *by*-phrase merges in Spec,VP, we can see that nominative argument merges as the complement of the psych-v.

To sum up then we can say that, even though the final subject position and the *by*-phrase possibility, achieved through the passive derivation (71b-c), might lead one to say that we are dealing with similar kind of verbs⁴³, psych-v are different from normal transitive verbs. Recall indeed that this kind of verbs describe something that happens inside Exp's mind and that this peculiarity is both semantically and syntactically relevant.

Intransitive use

So far we have considered the unaccusative analysis given by B&R as no longer compatible with psych-v, at least with the data I recollected; remember though that B&R analysis cannot be discarded totally. A part from the structure they propose, their basic intuition, namely that the *preoccupare* psych-v are unaccusatives, is valid for some of them, not for all.

Given the similarity concerning the possibility of having present participial form or not between the *preoccupare* psych-v and true unaccusatives and the present participle restriction,⁴⁴ I think that it is fair to say that a further verb decomposition is a possible account. For now, I can only try to speculate about what it is about this discrepancy that seems to link some unaccusatives verbs with some psych-v.

In the literature, it has been postulated that some aspects of the semantics of lexeme are compositionally built up by the syntax (Hale and Keyser (1993), Grimshaw (1990), Levin and Rappaport Hovav (1995)). Let's suppose now that some kind of temporal decomposition of the predicate is part of the meaning aspects that should be represented in the syntactic system. This late speculation relates closely in spirit to the one proposed by Ramchand (2008) which seeks to correlate the morphosyntax and semantic of event in a direct way (see Borer 2005). In Ramchand (2008) the event-structure syntax is split into three important subevental components, each of these is represented as its own projection: a causing subevent (*initP*), a process-denoting subevent (*procP*) and a subevent corresponding to result state (*ResP*) (see *ibid.* 39). All three projections are

43. Ergative and unaccusative verbs do not passivize.

44. It is not a very productive process mainly because it can be used only with verbs that entail some kind of permanent semantic values (Benincà).

essentially verbal and none of them correspond to V individually: the notion of verb in Ramchand is always derivationally composite, i.e. it involves one, two or all of these elements.

Concerning the participial form restriction, I speculate that in much the same way as Ramchand (2008) we can temporally decompose unaccusative and psych-v in three parts: the beginning, the development, and the endpoint part. As in Ramchand (*ibid*), these tripartition are represented in the syntactic system.

Now if the Ramchand tripartition is on the right track, we can hypothesize that once the verb is formed, say at BeP (69), it needs further derivations in order to be classified as a verb that describe one, two, or all temporal phases of an *action*. Let's further assume that to entail a permanent semantic value a verb needs to be one of those verbs that describes all of the *action* phases.

At this point, we can speculate that all the unaccusative verbs and psych-v that do not entail any permanent semantic value lack one or two of those projections. In regard to *preoccupare* psych-v, we can further say that it is this lack that influences the possibility to use one of those verbs intransitively or not. The present participle and the intransitive use diagnostics show indeed that within the *preoccupare* psych-v there is a quite strong relation between them, in other words almost all of the *preoccupare* psych-v that can be used at the participial form cannot be used intransitively.

This last section as already stated is very speculative and further researches are needed in order to see whether this tripartition analysis can be maintained or not.

7. Conclusion

In this paper, I have put forward a syntactic analysis of Italian psychological verb structures from a new perspective. After a brief discussion about the psych-v literature, I claimed that the B&R analysis of Italian psych-v does not account for psych-v behaviour totally. Their unaccusative analysis would not account why (and how) some psych-v of the *preoccupare* class, do not behave in the same way. In fact, following B&R we would not be able to explain the following facts: while *preoccupazione* is grammatical, *impaurimento* is not; while *annoiare* can be used intransitively and *imbarazzare* not.

Hence I started to analyse them with respect to some tests like nominalization and intransitive use. In addition, I decided to give a possible account for the difference I as an Italian speaker perceive between a normal passive and a psych-v passive, i.e. the

NOM argument of the passive does not really undergo the action of the element in the *by*-phrase.

From these considerations and following Baker (2003)'s intuition that VP can be semantically decomposed, I argued that psych-v VP has to be split into (at least) three arguments: PP, PsychP, BeP.

Following Landau (2010) and Arad (1998), I then postulated that psychological predications fundamentally entail a locative relation between an Exp and a *state of mind*. After the first merge of Exp and the *state of mind*, we can derive through derivation psychological predicates.

This split-VP analysis sheds light also on the different role that the NOM argument holds in the psych-passives compared to the one in the normal passives. Within the Split-VP analysis, we can be accounted for this (apparent) idiosyncrasy assuming that the object of the psych-v, compared to the one of the normal transitive verbs, merges in a different position.

Furthermore, depending on which kind of locative relation the Exp and *state of mind* have, we can have, I hypothesized two different types of psych-v, i.e. *Container* psych-v and *Content* psych-v.

We have seen how this new subdivision sheds light on the apparently nominalization and intransitive uses discrepancies between verbs of the *preoccupare* class.

In regard to the intransitive use impossibility with some psych-v, speculating a bit, I hypothesized that a further decomposition of the VP is necessary. Following Ramchand (2008) I think that temporal decomposition of the predicate is part of the meaning aspects that should be split in three syntactic arguments (the beginning/the development /the endpoint); depending on how many of these three arguments a verb raises to we have a verb that describe the start and/or the development and/or the endpoint of the predication. This derivation influences the possibility for a psych-v to be used intransitively or not.

These data allow us to conclude that the view of VP as a monolithic element is no longer tenable. We might start thinking at the VP as a complex structure in which the verb and its argument have to raise in order to achieve this or that particular meaning.

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