

## Psych Verbs and Unaccusativity

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- (1) *Class I: Exp<sub>NOM</sub> – Th<sub>ACC</sub>*  
a. Gianni teme questo  
Gianni fears this

- Class II: Th<sub>NOM</sub> – Exp<sub>ACC</sub>*  
b. Questo preoccupare Gianni  
this worries Gianni

- Class III: Th<sub>NOM</sub> – Exp<sub>DAT</sub>*  
c. i. Questo piace a Gianni.  
ii. A Gianni piace questo.

- (2) The Linking Problem: The same  $\theta$ -roles appear to be linked to different structural positions (but are they the identical  $\theta$ -roles?). Note that the pattern in (1) poses a problem both for UTAH and for RUTAH.

- (3) Structural claim of Belletti & Rizzi (1988): Exp. Is always generated above Th.

- a. [S Gianni [VP teme [NP questo]]].  
b. [S ec [VP [V' preoccupare/piace [NP questo]]] [NP/PP (a) Gianni]]]

Surface order in (b) is derived by NP-movement to the subject position, as in passive/unaccusative derivations. In both (a) and (b), V  $\theta$ -marks Th. And [V+Th]  $\theta$ -marks the Exp.

B&R: If we have independent evidence for (3b), then RUTAH is strongly supported; why would otherwise language learners bother to postulate underlying structures that reverse S-structures?

- (4) What's the role/locus of  $\theta$ -theory in the grammar?
- a. Grammatical processes may refer to specific  $\theta$ -roles (Aget, Patient, Experiencer, etc.).
- b. Specific  $\theta$ -roles are only relevant for the initial projection of arguments into DS. Beyond that, the grammar only refers to the distinction between thematic/nonthematic positions. Apparent sensitivity to specific  $\theta$ -roles is an epiphenomenon of their different structural realizations.

B&R advocate (b), which is indeed more desirable on restrictiveness grounds.

- (5) Arguments for structure (3b): i) The subject of class II/III verbs behaves like a derived subject; ii) The object (Exp.) in class II verbs doesn't behave like a canonical direct object.

### **Anaphoric cliticization**

- (6) Deep subjects can bind anaphoric clitics, derived subjects can't.

- a. Gianni *si* è fotografato.  
Gianni himself photographed
- b. \* Gianni *si* è stato affidato.  
Gianni to-himself was entrusted
- c. \* Gianni *si* sembra simpatico.  
Gianni to-himself seems nice

Explanation: All possible parses of  $[NP_i \dots si_i \dots t_i]$  violate the Chain Condition.

- (7) Class I allows anaphoric cliticization, class II doesn't.

- a. Gianni *si* ammira.  
Gianni himself admires
- b. \* Gianni *si* commuove.  
Gianni himself moves

[Note that (b) is OK under the non-psych reading, or the inchoative psych reading 'Gianni got moved about something'].

Full anaphors are marginal:

- c. \*? Gianni preoccupare se stesso.

B&R: Stress obviates the intervention of the anaphor. Focused anaphors become "binding visible" only at LF, hence wouldn't disrupt chain formation (which applies at SS). Of course, *si* can't be stressed. Furthermore, agentive readings are expected to be OK, since the agent is generated above the Exp; see [17].

(8) Comments & problems

- a. B&R are correct to point out that psych effects disappear in agentive contexts. That's a systematic pattern that many proposals ignore. What's special about psych verbs isn't inherent to the experiencer, but must be due to the Th-Exp relation (as opposed to the Agent-Exp relation).
- b. Still, sentences like (7c) are marginal even when no focus is placed on the anaphor and care is taken to guarantee nonagentivity. The examples are worse with stative verbs.
  - i. John and Mary accidentally startled each other in the dark.
  - ii. \* John and Mary rather concerned each other in their youth.
- c. What about class III? Contrary to B&R's prediction, anaphoric clitics are OK:
  - i. Gianni si piace.  
Gianni likes himself.

Landau (2002): *si* absorbs accusative/dative case, but not oblique case. If Exp. In class II bears oblique case (masked as accusative), then the contrast with class III follows.

**Arbitrary *pro***

- (9) On the nonreferential reading, 3pl *pro* in Italian takes an arbitrary reading. This is possible with deep subjects, but not with derived ones.
- a. *pro* hanno telefonato a casa mia  
Somebody called my place
  - b. *pro* hanno visto Gianni in giardino.  
Somebody saw Gianni in the garden.
  - c. \* *pro* sonno arrivati a casa mia.  
Somebody arrived at my place.
  - d. \* *pro* mi sonno sembrati matti.  
Somebody seemd to me crazy

B&R: Assuming that Infl  $\theta$ -marks the subject (via inheritance from VP), we can say that “*pro* in subject position can have *arb* interpretation when the licensing Infl  $\theta$ -marks it”.

- (10) Class I allows arbitrary *pro*, class II doesn't.
- a. Evidentemente, in questo paese per anni *pro* hanno temuto il terremoto.  
Evidently, in this country people feared the earthquake for years.
  - b. \* Evidentemente, in questo paese per anni *pro* hanno preoccupato il governo.  
Evidently, in this country people worried the government for years.

### Causative constructions

- (11) Burzio (1986) has shown that derived subjects aren't possible under the causative construction.
- a. Gianni ha fatto telefonare Mario.  
Gianni made Mario call.
  - b. \* Gianni ha fatto essere licenziato Mario.  
Gianni made Mario be fired.

Classes I and II differ in this respect  $\Rightarrow$  class II is unaccusative:

- c. \* Questo lo ha fatto preoccupare/commuovere/attrarre ancora più a Mario.  
this him has made worry/move/attract even more to Mario  
'This made Mario worry/move/attract him even more'
  - d. Questo lo ha fatto apprezzare/temere/ammirare ancora più a Mario.  
this him has made estimate/fear/admire even more to Mario  
'This made Mario estimate/fear/admire him even more'
- (12) Problems

Burzio assumed that causative complements that assign dative case to the external argument are full clausal projections. The embedded VP undergoes leftward movement past the subject, giving rise to the VOS word order. If the subject is derived, as with passive and unaccusative verbs, the unbound trace in the fronted VP yields ungrammaticality (irreparable by reconstruction).

However, subsequent work (e.g., Guasti 1996, 1997) has established that the causative complement is in fact subclausal, lacking all functional projections where Aux/Neg/Tense are licensed. If no movement to [Spec,IP] is involved in causative complements, then (11b,c) remain unexplained.

Landau (2002): Causative formation involves case alternations. In particular, the original case of the embedded direct object is suppressed, and instead it is assigned structural accusative case by the matrix causative verb. If the case of the Exp. is oblique, this process will be blocked and the case alternation fail.

### Passive

(13) If class II is unaccusative, it should not give rise to passive (The 1AEX Law). Apparent class II passives must therefore be adjectival (not derived by NP-movement).

(14) Only verbal passives can host clitics in reduced relatives (why?).

- a. La notizia che gli è stata comunicata / ignota  
The news that was communicated/unknown to him
- b. La notizia comunicatagli / \*ignotagli  
The news communicated / \*unknown to him

A *da*-phrase can be pronominalized by the clitic *ne*, but not in a reduced relative of class II verbs. ⇒ The passive participle in the reduced relative is adjectival ⇒ There is no verbal passive for class II.

- c. La sola persona che ne è affascinata.  
The only person that is fascinated by it.
- d. La sola persona affascinata da questa prospettiva.  
The only person that is fascinated by this perspective.
- e. \* La sola persona affascinatane.  
The only person that is fascinated by it.

(15) Only verbal passives allow the auxiliary *venire* ‘come’.

- a. La porta è/viene chiusa alle cinque.  
The door is/comes closed at five [stative/eventive]

Class I passives are but class II aren't compatible with *venire*:

- b. Gianni viene temuto / \*preoccupato da tutti.  
Gianni comes feared / \*worried by everyone.

(16) Some class II verbs do not have regular participial forms, as in (b), and instead have only irregular adjectival forms (c)

- a. Le sue idee mi stufano/stancano/entusiasmano.  
His ideas tire/excite me
- b. \* Sono stufato/stancato/entusiasmato dalle sue idee.  
I am tired/excited by his ideas
- c. Sono stufo/stanco/entusiasta dalle sue idee.  
I am tired/excited by his ideas

B&R: According to the Blocking Principle, an irregular form blocks the regular form. Since the irregular form is unambiguously adjectival, the blocked participial form must also be adjectival, otherwise no competition should arise. This implies that the verbs in (16) have no verbal passives.

(17) Some psych passives resist the regular *da*-phrase and only occur with special prepositions. The occurrence of idiosyncratic prepositions is a hallmark of adjectival passives, which are lexically derived (cf. *amused by/at X*).

- a. Gianni è interessato a/\*da Maria.  
'Gianni is interested to/\*by Maria'
- b. Gianni è appassionato di/\*dalla poesia.  
'Gianni is fond of/\*by poetry'

Note: Arguments (16)-(17) are indeed conclusive, but apply to a small subset of class II verbs. One needs more general arguments.

### **Backward binding**

(18) It's an old observation that an experiencer object can bind into the theme subject, in apparent violation of the c-command requirement on binding:

- a. Questi pettegolezzi su di sé preoccupano Gianni più di ogni altra cosa.  
These gossips about himself worry Gianni more than anything else
- b.\* Questi pettegolezzi su di sé descrivono Gianni meglio di ogni biografia ufficiale.  
These gossips about himself describe Gianni better than any official biography

Given structure (3b), the puzzle of (18a) is solved: Condition A is met at DS, where the Exp does c-command the Th. Simple transitives, like (18b), can't avail

themselves of this solution, since the prominence relation between their arguments is not reversed from DS to SS.

- (19) Where does binding theory apply? B&R: Anywhere (at least, condition A).
- Each other's<sub>1</sub> remarks annoyed John and Mary<sub>1</sub>.
  - They<sub>1</sub> seemed to each other<sub>1</sub> t<sub>1</sub> to be intelligent.
  - Which picture of himself<sub>1</sub> do you think that Bill<sub>1</sub> likes t<sub>1</sub> best?

(a) shows that condition A can apply at DS. (b) shows that it can apply at SS. (c) was taken to show that it can apply at LF (after reconstruction), but (c) can now be reanalysed as (a), namely, DS satisfaction of condition A (before movement).

Note 1: We have seen more sophisticated arguments, in Lebeaux (1998), that condition A applies only at LF (the “trapping effect”). Still, the influential idea that interpretive conditions can apply derivationally originates in B&R.

Note 2: With copies (instead of traces), no appeal to DS is necessary.

Note 3: Backward binding in fact defies a structural account (see first handout).

- (20) Conditions B & C apply at SS.

DS satisfaction of conditions B/C isn't enough:

- \* Himself<sub>1</sub> worries John<sub>1</sub>/him<sub>1</sub>.
- DS: [<sub>S</sub> ec [<sub>VP</sub> [<sub>V'</sub> worries himself<sub>1</sub> ] John<sub>1</sub>/him<sub>1</sub>]].

The anaphor is bound at DS, and the name/pronoun is free. Therefore, the SS violation at (1) is sufficient to make the sentence ungrammatical. See also:

- \* He<sub>1</sub> seems to him<sub>1</sub>/Bill's<sub>1</sub> sister [t<sub>1</sub> to be the best].

- (21) Do conditions B & C apply also at DS? Obligatory reconstruction suggest so:

- ?? [Which picture of John<sub>1</sub>]<sub>2</sub> did he<sub>1</sub> like t<sub>2</sub> ?
- \* Mary, [John's<sub>1</sub> picture of whom]<sub>2</sub> he<sub>1</sub> likes t<sub>2</sub>, is very pretty.

B&R indicate that if these are representative, then conditions B & C must be satisfied both at DS and at SS. Today, we would say that they apply everywhere. But recall the annoying contrast between A-movement, which obviates these violations, and A-bar movement, which doesn't.

- c. [Bill's<sub>1</sub> sister]<sub>2</sub> seemed to him<sub>1</sub> [t<sub>2</sub> to be the best].

**The experiencer is not a canonical object**

(22) Direct objects are transparent to extraction, Exp isn't.

- a. Il candidato di cui questa ragazza apprezza i sostenitori.  
the candidate of whom this girl likes the supporters
- b. \* Il candidato di cui questa prospettiva impaurisce i sostenitori.  
the candidate of whom this perspective frightens the supporters

B&R: This is reminiscent of the islandhood of postverbal subjects of transitive and unergative verbs, and adverbial NPs:

- c. Il ragazzo di cui amavi la sorella.  
the boy of whom you-loved the sister
- d. ?? Il ragazzo di cui to amava la sorella.  
the boy of whom you contacted the sister  
(‘The boy whose sister contacted you’)
- e. \* Il mese di cui Gianni è tornato la prima settimana.  
the month of which Gianni came back the first week  
(‘The month (on) the first week of which Gianni came back’)

(23) Barriers-type analysis

[<sub>IP</sub> NP<sub>0</sub> [<sub>I'</sub> [<sub>I'</sub> I [<sub>VP</sub> [<sub>VP</sub> V NP<sub>1</sub> (obj) ] NP<sub>2</sub> (subj) ] ] NP<sub>3</sub> (adv)]]

Extraction from NP<sub>1</sub> crosses no barriers (it is L-marked);  
Extraction from NP<sub>2</sub> crosses one barrier (NP<sub>2</sub>);  
Extraction from NP<sub>3</sub> crosses two barriers (NP<sub>3</sub> and IP);  
Extraction from NP<sub>0</sub> crosses two barriers (NP<sub>0</sub> and IP).

The system derives the reported 3-way distinction between (22c,d,e)!  
[I ignore further refinements introduced by B&R to distinguish (22d) from other cases where crossing of a single barrier is acceptable].

(24) Weaker contrasts with *ne*-extraction (why?).

- a. \*? Questo fatto ne preoccupa il presidente.  
this fact of-it worries the president

- b. ?? Questo fatto ne preoccupa molti.  
this fact of-them worries many
- (25) Problem 1: If the accusative case on the Exp. is standard structural case, it's not clear why it can't be assigned to the Theme, allowing the Exp to raise to the subject:
- a. Questo<sub>1</sub> preoccupa t<sub>1</sub> Gianni.  
This worries Gianni.
- b. \* Gianni<sub>1</sub> preoccupa questo t<sub>1</sub>.  
Gianni worries this
- (26) Problem 2: Class II verbs assign accusative case, but are shown to be unaccusative. That's a violation of Burzio's generalization.
- (27) Solving both problems at once: The case of the experiencer is *inherent!*
- a. Inherent case is associated with a  $\theta$ -role. If Exp. bears inherent case in virtue of its  $\theta$ -role, this case can't be suppressed (the Projection Principle). (25b) would then involve a doubly case-marked chain.
- b. Burzio's generalization applies to *structural* accusative only.
- (28) Consequences
- a. Separation of morphological from abstract (structural) case; not all accusatives are alike (e.g., quirky accusatives in Icelandic, accusative prepositional objects in German).
- b. Classes II and III are brought together; in both Exp. bears inherent case (ACC or DAT).
- c. Revision of Aux-selection rule  
Old rule: No external argument  $\Leftrightarrow$  *essere*  
New rule: Capacity to assign accusative (inherent or structural)  $\Leftrightarrow$  *avere*
- (29) More evidence for inherent case
- Benincà (1986): When dislocated, the Exp. of class II verbs can surface as a dative – associated with an accusative clitic. This option is not available for standard accusative objects, as in class I verbs:
- (30) a. A Giorgio, questi argomenti non l'hanno convinto.  
to Giorgio, these arguments not him-have convinced

- b. \* A Giorgio, la gente non lo conosce.  
to Giorgio, people not him know

Other verbs, like *interessare* ‘interest’, take either an accusative or a dative Exp.

(31) Comment

B&R demonstrate that Exp. objects aren’t canonical objects. Their observations in fact extend to many other languages. Their account posits two independent differences between canonical objects and Exp.:

- a. Exp. is a “second” object (sister of V’).  
b. Exp. bears inherent case.

Notice that (a) and (b) are logically independent, which is a flaw in the analysis. A natural question then arises: Is one of them superfluous? Can we explain *all* psych effects by reference to either (a) or (b)?

**Class III verbs**

- (32) Class III verbs select a dative Exp., the auxiliary *essere*, and surface in two word orders:

- a. A Gianni è sempre piaciuta la musica.  
to Gianni is always pleased the music  
b. La musica è sempre piaciuta a Gianni.  
‘Music always pleased Gianni’

B&R (1): “Permutability” of the dative follows from case theory. Although inherent case is assigned at DS, it must be licensed at SS by a governing head. In the case of a dative, the governing head is the preposition *a*, so moving the PP doesn’t disrupt case licensing. But an accusative Exp. will be ungoverned after movement, hence it can’t permute with the Theme.

Notes: i) A-bar movement can move accusative NPs (B&R: variables can satisfy government for case); ii) B&R predict free A-movement of PPs in any language. That’s massively disconfirmed. In fn. 33 they exclude preverbal dative Exp. in French by the null subject parameter, that doesn’t allow rightward assignment of nominative case to the Theme. That still allows impersonal dative subjects (“To-me is cold”).

- (33) Exp. in (32a) is a subject, not a topic
- a. Exp.-V-Th. Is the unmarked word order in class III.
  - b. Preverbal Exp. doesn't create a barrier, preverbal Ind. Obj does.
    - i) ?? I libri che a Gianni ho dato sono questi.  
the books that to Gianni I gave are these
    - ii) I libri che a Gianni sono piaciuti sono questi.  
the books that to Gianni are pleased are these
  - c. Preverbal Exp. can be a negative quantifier, dislocated Ind. Obj can't.
    - i) \* A nessuno gli hanno detto di andare al diavolo.  
to nobody to-him they said to-go to hell
    - ii) ? A nessuno gli piace esser mandato al diavolo.  
to nobody to-him pleases to-be sent to hell  
[marginality due to clitic-doubling of an A-position)

### Lexical representations

- (34) A verbal lexical entry contains:
- a. Unordered  $\theta$ -grid.
  - b. Marking of the external argument (“underscore”).
  - c. Case-grid (inherent case only).
- (35) Mapping principle: Exp. is projected higher than Theme.

### Psych verb entries

- (36) a. **temere**:  $\theta$ -grid [Exp, Theme]  
Case-grid [ - , - ]
- b. **preoccupare**:  $\theta$ -grid [Exp, Theme]  
Case-grid [ACC, - ]
- c. **piacere**:  $\theta$ -grid [Exp, Theme]  
Case-grid [DAT, - ]

These entries derive the desired DS, given the mapping in (35).

(37) Towards a deeper explanation: Why do we find *only* these options?

- A. Why can't the Theme in classes II and III be external?
- B. Why can't the Exp in classes II and III be external?
- C. Why must the Exp in class I be external?

(38) Answer to (A): The external argument is the highest on the  $\theta$ -hierarchy. An external Theme would be thematically higher than Exp., in violation of (35).

(39) Answer to (B): An external argument is not governed by V (it's VP-external). Inherent case is assigned by V under government. Given that Exp bears inherent case in classes II and III, it must be internal.

Note: i) If external arguments are generated inside VP, then they're governed by V; ii) B&R don't address the more fundamental question – why *must* Exp in classes II and III bear inherent case?

(40) Answer to (C): One argument in class I must get structural accusative case (since no inherent case is lexically specified). By Burzio's generalization, the other argument must be external. It has to be Exp, given (35).

Note: B&R manage to reduce all the syntactic differences between the three classes to minimal stipulations about their Case grids. The next obvious question to ask is – can these stipulations be derived from something deeper?

(41) Question: Why are psych effects gone with agentive verbs?

Answer: Agent is intrinsically external, so Exp will be internal, and BG guarantees that structural case is available for it. But what *excludes* inherent case on an agentive class II/III verb? And do B&R assume two different lexical entries for agentive and non agentive uses of the same verb, with different Case grids?