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Gradual vs. Total Completion and Event Structure in Italian Unaccusative Verbs

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Introduction

The aim of this paper is twofold:
i. to show that Italian has not one but two sorts of Unaccusative verbs, i.e. Simple (cadere ‘to fall’) and Pronominal (ammalarsi ‘to get ill’);
ii. to verify whether the ‘difference in grammatical behaviour between Simple and Pronominal Unaccusativity reflects a difference in their Event Structures.

In order to pursue our aims, we will proceed as follows. First, we will submit a selection of Italian Pronominal verbs to some of the tests that are commonly used to establish the nature (ungerative vs. unaccusative) of Intransitive verbs. The tests will show that Pronominal verbs behave like Unaccusatives and can therefore be considered as a (sub)class of Unaccusative verbs. Secondly, we will submit a selection of both Simple (i.e. [t]) and Pronominal ([+t]) Unaccusative verbs to a series of tests in order to identify their Event Structures. The tests will show that the two sorts of verbs resemble each other w.r.t. the type of event that they express, but differ w.r.t. the portion of the event they focus on.

On the basis of the analysis we will at the end put forth a proposal of Event Structure representation for the two sorts of Unaccusative verbs.


1. Classes of Intransitive verbs in Italian

Traditionally, descriptive grammars of Italian (see among others Renzi 1988) distinguish among three classes of Intransitive verbs, on the basis of two parameters, i.e.: 1) auxiliary selected in the compound tenses (avere or essere); 2) presence or absence of the pronominal marker st in the conjugation. A few examples for each class are given in (1) below.

(1)  Intr. Av  dormire, russare, mostrare  to sleep, to snore, to swim
     Intr. Br  arrivare, partire, cadere  to arrive, to leave, to fall
     Intr. Pron 1 svegliarsi, bagnarsi, ammalarsi  to wake up, to get wet, to get ill

As is widely known, verbs belonging to the first two classes have been extensively studied within the framework of the Unaccusative Hypothesis (Perlmutter 1978). Within this same hypothesis, less attention has been dedicated to the class of Pronominal Intransitive Verbs. In this section we will show that these verbs are Unaccusatives. We will do so by making use of the tests (also called diagnostics) commonly used to establish the nature (ungerative vs. unaccusative) of Intransitive Verbs.

Test 1: Neg-cliticization of the Subject

1 Notice that all Intr. Pron verbs select essere in the compound tenses.
Usually, the Subject of an UNACC Verb can be pronominalized with the partitive clitic *ne, whereas that of an UNERG Verb cannot. See:

(2) arrivare ‘to arrive’
sono arrivate nel porto molte navi
‘many boats arrived in the harbour’
ne sono arrivate molte

partecipare ‘to take part’
molte navi hanno partecipato alla regata
‘many boats took part in the regatta’
*ne hanno partecipato molte

Let us now see the behavior of INTR PRON Verbs:

(3) arenarsi ‘to run aground’
molte navi si sono arenate
‘many boats ran aground’
se ne sono arenate molte

infuriarsi ‘to lose one’s temper’
gli organizzatori si sono infuriti
‘the organizers lost their temper’
se ne sono infuriti molti

INTR PRON Verbs behave similarly to UNACC Verbs, inasmuch as they allow the NE-cliticization of the Subject.

Test 2: Absolute construction

Usually, the past participle of an UNACC Verb can occur in an absolute construction, whereas the participle of an UNERG Verb cannot. See:

(4) arrivato
arrivate le navi, gli equipaggi sono scesi a terra
‘arrived the boats, the crews disembarked’

partecipato
*partecipato all’evento, le navi sono ripartite
‘taken part in the event, the boats left’

Let us now see the behavior of INTR PRON Verbs:

(5) arenato
arenatesi le navi, gli equipaggi sono scesi a terra
‘ran agroundPRON the boats, the crews disembarked’

infuriato
infuriaso, gli organizzatori sono sospesi la manifestazione
‘enragedPRON, the organizers cancelled the show’

Also in this case, INTR PRON Verbs behave like UNACC Verbs, inasmuch as their past participle can occur in an absolute construction.

Test 3: Modification of the Subj. NP

Usually, the past participle of an UNACC Verb can modify the syntactic Subject, whereas the past participle of an UNERG Verb can not. See:

(6) arrivato
le navi arrivate
‘the arrived boats’

partecipato
*le navi partecipate
‘the taken part boats’

Let us see again the behavior of INTR PRON Verbs:

(7) arenato
le navi arenate
‘the ran aground boats’

infuriato
gli organizzatori infuriti (per l’accaduto)
‘the enraged organizers’

Also in this case, INTR PRON verbs behave like UNACC verbs, inasmuch as their past participle can modify the syntactic Subject. To sum up, the tests show that INTR PRON verbs behave in all cases like UNACC verbs. Therefore, we believe that it is plausible to assume that INTR PRON verbs constitute a subclass of Italian Unaccusative verbs, as suggested in (8):

(8) PRONOMINAL INTRANSITIVES Õ UNACCUSATIVES

The relations among the three sorts of Italian Intransitive verbs can be thus represented as follows.
2. Event Structure for Unaccusatives

Since the Unaccusative Hypothesis has been stated in 1978 (Perlmutter 1978), a lot of work in a variety of languages has been dedicated to the identification of the semantic parameter/s underlying the grammatical behaviors of unaccusativity and unergativity (see, among others, Chiarelli 1989, 1992, van Valin 1990, Levin & Rappaport 1995). Nowadays, it is generally accepted (cf. Arad 1998) that ASPECT, and more specifically TELICITY, together with the semantic components of AGENTY and CAUSATION, plays a crucial role in the distribution of verbs into the unergative or the unaccusative class: following this view, unaccusatives would tend to be [+telic], whereas unergatives would tend to be [-telic]. See:

(9) *resare ‘to snore’ ha riusato per due ore/*in due ore [-telic] UNACC
   ‘he snores for two hours/*in two hours’
(10) *guarire ‘to recover’ è guarito *per due giorni/*in due giorni [+telic] UNERG
    ‘he recovered *for two days/*in two days’

It has also been argued (cf. Pustejovsky & Busa 1995) that unaccusativity is, in some cases, better interpreted as a compositional property instead of a lexical property. As a matter of fact, this is very evident if we consider a verb like *chiudere* in (6):

(11) *chiudere* ‘to close’
   a. Paolo ha chiuso la porta
   ‘Paolo closed the door’
   b. La porta si è chiusa
   ‘the door PRON BE3ps closed’
   c. Paolo ha chiuso il negozio
   ‘Paolo closed the shop’
   d. Il negozio si è chiuso
   ‘the shop PRON BE3ps closed’
   e. Il negozio ha chiuso
   ‘the shop HAVE3ps closed’

where *chiudere* is unaccusative only in combination with a specific type of Subject (b), and unergative in combination with others (e). Following these premises, Unaccusativity could be interpreted as a syntactic construction associated to the Event Structure indicated in (12) below:

(12) la porta si è chiusa (the door closed)

\[
\begin{array}{cc}
T & \chi \\
P & S^* \\
\end{array}
\]

\[[-\text{chiuso (a)}] \quad [\text{chiuso (a)}]\]

where T = Transition; P = Process; S = State; < = temporally ordered such that P precedes S; * head of the event (focus of the interpretation).

3. Non reflexive si and Unaccusativity

While the investigation of the semantic parameters underlying the grammatical behaviour of unaccusatives and unergatives has lead to satisfying results, the opposition between simple and pronominal unaccusativity still represents a very controversial issue. From a theoretical point of view, the main problem is that it is not clear why the *si* is licensed in unaccusative uses such as (13) and ruled out in uses such as (14), and which is the contribution of the pronoun to the interpretation:

(13) **fermarsi** ‘to stop’

- *il treno è fermato*
  - ‘the train BE3ps stopped’
- *il treno si è fermato*
  - ‘the train PRON BE3ps stopped’

(14) **partire** ‘to leave’

- *il treno è partito*
  - ‘the train BE3ps left’
- *il treno si è partito*
  - ‘the train PRON BE3ps left’

Notice that next to (13) and (14), a third pattern is also possible, in which case the Verb allows both the simple and the pronominal form. See (15) below:

(15) **bruciare** ‘to burn’

- *l’erba è bruciata*
  - ‘the grass BE3ps burnt’
- *l’erba si è bruciata*
  - ‘the grass PRON BE3ps burnt’

Notice also that if we look at the whole range of possible argument alternations, the number of patterns raises to at least 6. Table 1 below summarizes the possible patterns:

<table>
<thead>
<tr>
<th>Verbs</th>
<th>TR</th>
<th>SIMPLE UN</th>
<th>PRON UN</th>
<th>Formal properties</th>
<th>Aux.IN.</th>
</tr>
</thead>
<tbody>
<tr>
<td>fermare</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>unaccusative ergative</td>
<td>essere</td>
</tr>
<tr>
<td>aumentare</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>unaccusative ergative</td>
<td>essere</td>
</tr>
<tr>
<td>bruciare</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>unaccusative ergative</td>
<td>essere</td>
</tr>
<tr>
<td>partire</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>unaccusative not ergative</td>
<td>essere</td>
</tr>
<tr>
<td>pentirsi</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>unaccusative not ergative</td>
<td>essere</td>
</tr>
<tr>
<td>sedere</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>unaccusative not ergative</td>
<td>essere</td>
</tr>
</tbody>
</table>

Moving from the assumption that unaccusatives express telic events (see section II above), and more specifically events that predicate a change of state or location (cf. among others Levin & Rappaport 1995 we will now verify whether the variability in syntactic behavior ([+si]/[-si]/[±si]) shown by Italian unaccusative verbs is correlated to a variation in the nature of the change expressed by the verbs.

In particular, we believe that the *si* could have an aspectual function, i.e. mark a telic event that focuses on the result that follows the change.

The fact that the *si* has a telic function is evident if we consider the behaviour verb **bruciare** (to burn):

(16) **bruciare**

a. *l’erba è bruciata per/in due ore*  
  - the grass burnt for/in two hours

b. *l’erba *si* è bruciata *per/in due ore*  
  - the grass PRON burnt *for/in two hours

where the presence of the *si* in (b) disambiguates between the two possible readings (telic vs. telic) allowed by the V **bruciare** and selects the telic one. In (17) below we introduce the Event Structure representations corresponding to the two interpretations allowed by **bruciare**. Notice that the *si* seems to act as a function that shifts the event type from Process to Transition.

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2 Auxiliary selected in the intransitive use.
4 ‘Unaccusative ergative’ verbs show a TR/IN alternation, where the subject of the IN use corresponds to the object of the TR one. ‘Unaccusative not ergative’ verbs do not show this alternation.
(17) atelic interpretation telic interpretation

\[ P \quad e_1 \quad e_2 \quad e_3 \]

\[ T \quad P \quad S^* \]

\[ \text{P} \text{erba \ è \ bruciata \ per \ due \ ore} \]

\[ \text{P} \text{erba \ s\i \ è \ bruciata \ in \ due \ ore/\*per \ tre \ ore} \]

What still needs to be clarified is if and how the change expressed by \(+si\) verbs like \textit{partire} (to leave) and \textit{esplodere} (to explode) differs from the change expressed by \(+si\) verbs like \textit{fermarsi} (to stop) and \textit{rompersi} (to break). In this respect, we believe that the relevant abstract components are: completion; culmination; result.

4. Types of Completion, Types of Culminations

4.1 Presence of Telicity

This first test is meant to verify if both \(+si\) and \(-si\) unaccusative constructions do express telic events (as stated in section 2 above), in which case they should both allow perfective adverbials like ‘in x time’, ‘suddenly’, ‘at 12’ etc.

(18) \(+si\) constructions
   a. la televisione \(+si\) è rota
      \(\text{alle 7}\) ‘the television broke down at 7’
   b. il bucato \(+si\) è asciugato
      \(\text{in un’ora}\) ‘the laundry dried in an hour’

(19) \(-si\) constructions
   a. \(-si\) è scattato l’allarme
      \(\text{a mezzanotte}\) ‘the alarm went off at midnight’
   b. il prezzo è aumentato
      \(\text{in un mese}\) ‘the price rose in a month’

The test shows that both \(+si\) and \(-si\) unaccusative constructions do in fact express telic events. Telicity is thus a relevant feature with respect to unaccusativity. The test also shows that the change can be \(+dur\) or \(-dur\) \((\text{\(+dur\)} = ‘in un’ora’; ‘in un mese’; \(-dur\) = ‘a mezzanotte’, ‘alle 7’) and that this fact does not seem to be correlated to the distribution of the \(si\), since we have:

(20) \(+dur\) \(+si\) verbs: \textit{asciugarsi}
    \(-dur\) \(-si\) verbs: \textit{aumentare}

4.2 Types of completion

Let us now investigate more deeply which types of telicity can be expressed by the unaccusative constructions. As has already been noted (cf. among others Bertinetto & Squartini 1995), a predicate can express TOTAL completion, in which case it implies the attainment of a final goal in a given direction, or GRADUAL completion, in which case it implies the attainment of a (further) step along a scale. The two types of completion and the corresponding meaning representations are given below:

Types of Completion Meaning representations
a. total completion \([\text{BECOME} \ x \ <\text{pred}>]\)
b. gradual completion \([\text{BECOME MORE} \ x \ <\text{pred}>]\)

We are interested to see whether the distribution of the \(si\) is sensitive to the type of completion expressed by the verb. In order to verify whether a given unaccusative construction predicates gradual or a total completion, we will make use of the adverbial ‘di parecchio’ (by a lot). As has been noted by Bertinetto & Squartini 1995, this adverbial is generally allowed only by verbs that are intrinsically
comparative (i.e. encode a comparative component in their lexical meaning), and indicate therefore
ggradual completion (from now on, GRAD Verbs).
(21) [+si] constructions
   a. *la televisione si è rotta di parecchio
   b. Luigi si è ingrassato di parecchio
   'the television broke down by a lot'
   'Luigi got fatter by a lot'
(22) [-si] constructions
   a. *l'allarme è scattato di parecchio
   b. la temperatura è aumentata di parecchio
   'the alarm went off by a lot'
   'the temperature increased by a lot'
As we can see from the test, there are both [+si] (ingrassarsi) and [-si] (aumentare) GRAD verbs.
According to these data, the presence of the si does not seem to be correlated to the type of telicity
expressed by the predication. To a closer look, we notice though that:

a) many GRAD verbs, besides a gradual completion interpretation also allow a total completion one.
   See ingrassarsi (to get fat(ter)) in (23):
   (23) ingrassarsi
       ho notato che L. si è ingrassato
       'I noticed that L. PRON ...'
       a. TOTAL [BECOME x <fat>]
       b. GRAD [BECOME MORE x <fat>]

b) among the verbs that allow both interpretations, [+si] Verbs are the majority.

c) [-si] verbs express by preference gradual completion. See aumentare (to increase) in (24):
   (24) aumentare
       ho notato che la temperatura è aumentata a. ??TOTAL
       'I noticed that the temperature ...'
       b. GRAD [BECOME MORE x <fat>]

Confront now the following two lists of GRAD V:
(25) [+si] GRAD Verbs
    altarsi  alto  to get high(er)  high
    allargarsi  largo  to get large(er)  large
    ingrassarsi  grasso  to get fat(ter)  fat
(26) [-si] GRAD Verbs
    aumentare  ?  to increase
    diminuire  ?  to decrease
    scendere  ?  to descend

Most [+si] GRAD verbs are morphologically related to an adjective that lexicalizes the final goal of a
total completion (alto, largo etc.). In this case, the final goal is thus already encoded in the lexical
semantics of the V. On the contrary, most [-si] GRAD verbs are not morphologically related to an
adjective that lexicalizes a final goal. In this case, the final goal is left unspecified and even if it can be
reconstructed pragmatically, it is not relevant for the interpretation, that focuses on the comparison
between two (intermediate) stages.
In other words, there seems to be morphological evidence that [+si] verbs are more closely related to
total completion than [-si] verbs.
Notice that there are many [+si] GRAD verbs that allow both a [+si] and a [-si] variant. See:
(27) ingrassare to get fat(ter)
    a. L. è ingrassato
    'Luigi BE3ps got fat(ter)'
    b. L. si è ingrassato
    'Luigi PRON BE3ps got fat(ter)'

It is interesting to notice that when the focus of the interpretation is on gradual completion, the [-si]
variant is preferred. See:
(28) a. (?si) è ingrassato molto dall’ultima volta che l’ho visto
    "he has got much fatter since last time I saw him"
    = [BECOME MORE x <fat>]
    b. guarda L. come si è ingrassato!
    'look how L. got fat!' = [BECOME x <fat>]

In our opinion, this fact constitutes a further evidence that the si is closely related to total completion.
4.3 Types of culminations

Let us now concentrate on total completion verbs, and investigate what can happen after a total completion has taken place. Our aim is to verify whether the hypothesis that the si not only focuses on the attainment of total completion, but also on the result that may follow, is plausible. To do so, we will verify if the past participles of both [+si] and [-si] unaccusative constructions can also act as adjectives and indicate the new state attained by the object after the event has taken place.

(29) [+si] constructions

ho notato  un bicchiere roto  'I noticed a broken glass'
          una porta aperta  'an open door'
          una luce accesa  'a switched on light'
          *un trono fermato (fermo)  'a stopped train' (halted)

Apparently, the past participles of [+si] Verbs can have an adjectival function, and indicate the result of the change predicated by the V, i.e. the attainment and persistence of a new state. In case they do not, there is always another element in the lexicon (a 'pure' adjective) doing the job (see fermo).

(30) [-si] constructions

ho notato  *un libro caduto  'I noticed a fallen book'
          *un aereo decollato  'a taken off airplane'
          *una sveglia suonata  'a gone off alarm'
          *un trono partito  'a left train'

On the contrary, it seems that the past participles of [-si] Verbs cannot have an adjectival function. The tests evidences how it is strange to talk about a new state of the book, of the plane etc. resulting from the event.

As we have already seen in the previous section, the same is true for [-si] GRAD Verbs like aumentare (to increase), diminuire (to decrease) etc.

(31) GRAD constructions

ho notato  *una temperatura aumentata  'I noticed an increased temperature'
          *delle vendite diminuite  'some decreased sales'

5. Event Structures underlying [+si] and [-si] Unaccusative Constructions

On the basis of the discussion in the previous sections, we believe that the Event Structures underlying the unaccusative constructions that express total completion could be represented as follows.

(32) total completion [-si] constructions

   il libro è caduto ('the book fell')

   T
      P  C
         *C (S)
   \[caduto (x)]

(32) total completion [+si] constructions

   la televisione si è rotta ('the TV broke down')

   T
      P  C
         S
   \[rotto(x)]

where T=Transition; P=Process; C=Culmination; S=State; \(<\) = temporarily ordered such that P precedes C; * = head of the event (focus of the interpretation); () optionality. Following the
representations in (32), the \textit{si} would be a marker that focuses on a specific phase of the subeventive structure, namely S. When the \textit{si} is present, the focus of the interpretation would be on the result of the change; when the \textit{si} is not present, independently from the attainment or not of a new state by the object, the focus of the interpretation would be on the change itself, as ‘something happening in the world’.

**Further research**

Most probably, the difference in the Event Structures of Italian gradual and total Unaccusative verbs are correlated to the modes of semantic opposition encoded in the lexical meaning of the predicates (cf. Pustejovsky 2000). It is therefore essential to investigate further which modes of semantic oppositions are encoded in the different classes of Italian Unaccusative Verbs and explore how this modes can be integrated in their Event Structures.

**References**


Bertinetto P.M. & Squartini M. (1995) “An attempt at defining the class of “Gradual Completion Verbs”’ in P.M. Bertinetto et al., 11-26


