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A LEXICAL THEORY OF AUXILIARY SELECTION IN ITALIAN

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0. Introduction¹ Burzio (1981, 1983) claims that in Italian certain "configurational" properties of the verbs determine the selection of the appropriate auxiliary, i.e. *essere*, 'to be', or *avere*, 'to have', in the compound forms of the past. Such a selection is accounted for in terms of the theory of (proper) Binding. Burzio denies that auxiliary selection may be determined by the semantics of the predicates. The goal of this paper is to demonstrate that auxiliary selection in Italian is determined by the lexical semantic properties of the predicates, rather than, as claimed by Burzio, by their D-structure syntactic configuration. Additionally, it will also be shown that the choice of *essere* or *avere* reflects parameters of *prototypicality* and *markedness* in the selection of particular NP as 'surface' subject. Role and Reference Grammar [RRG] (Foley and Van Valin 1984) will constitute the theoretical framework of the present analysis.

The discussion will proceed as follows: The basic phenomenon of auxiliary selection will be described in section 1.0. In section 2.0 I will summarize Burzio's account of the choice of auxiliary and will focus mainly on those parts of his argument which will be relevant to my later analysis of the phenomenon. In section 3.0 I will review some of the most notable semantic accounts of auxiliary selection in Italian. In section 4.0 I will provide an account of auxiliary selection based on RRG and will compare this with previous semantic accounts. In the last section I will contrast Burzio's syntactic treatment with the RRG treatment of the Italian phenomena.

1.0 A statement of the phenomenon In Italian the compound tenses of verbs are formed by a form of the auxiliary *avere*, 'to have' or *essere* 'to be' followed by the past participle of the main verb.

- (1) a. Luisa ha visto Carlo.
PN-F have-PRES-3SG see-PSTPART PN-M
'Luisa saw Carlo.'
- b. Il cane è corso a casa.
the-MSG dog-MSG be-PRES-3SG run-PSTPART-MSG to house-FSG
'The dog ran home.'
- c. Gianni ha corso per un' ora.
PN-M have-PRES-3SG run-PSTPART for a-FSG hour-FSG
'Gianni ran for an hour.'
- d. Maria ha dormito molto ieri.
PN-F have-PRES-3SG sleep-PSTPART much yesterday
'Maria slept a lot yesterday.'
- e. Maria è caduta dal letto.
PN-F be-PRES-3SG fall-PSTPART-FSG from.the-MSG bed-MSG
'Maria fell off the bed.'

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- f. Manfredi l' ha letta [la lettera].
 PN-M it-FSG have-PRES-3SF read-PSTPART-FSG [the-FSG letter-FSG]
 'Manfredi read it [the letter].'
- g. Elisa li ha salutati.
 PN-F them-MPL have-PRES-3SG greet-PSTPART-MPL
 'Elisa greeted them.'

Most verbs occur with only one of the two possible auxiliaries in the appropriate tenses. In some cases, as in the sentences (lb) and (lc) above, the same predicate occurs with both *essere* and *avere*.

According to traditional grammar (see Lepschy and Lepschy 1981) the general rule for the use of the two auxiliaries is that transitive verbs are always conjugated with the auxiliary *avere* and intransitive verbs with the auxiliary *essere*. However, there are some intransitive verbs such as *dormire*, 'to sleep', and verbs such as *bere* 'to drink' and *mangiare* 'to eat' used intransitively, i.e. without a surface direct object, which are also conjugated with *avere*. Moreover, a small group of verbs including motion verbs such as *correre*, 'to run' may occur with either auxiliary depending on the presence of a prepositional phrase indicating the source or goal of the motion (see above (lb) and (lc)).

So called impersonal verbs are always conjugated with *essere*: *è successo*, *è accaduto* 'it happened'. Reflexives require the auxiliary *essere*. In Italian there are four types of reflexive constructions: 1. Reflexives of transitives, i.e. where the subject and the direct object are coreferential.² 2. Benefactive reflexives, where the subject and the benefactive dative are coreferential. (Tekavčić 1972 calls benefactive reflexives "riflessivi apparenti", 'apparent reflexives'.) However, *avere* is used when in transitive and benefactive structures the subject is not coreferential with the direct object or the benefactive dative (3).

- (2) a. Mi sono pettinata.
 REFL-1SG be-PRES-1SG comb-PSTPART-FSG
 'I combed myself.'
- b. Luigi si è comprato una macchina nuova.
 PN-M REFL be-PRES-3SG buy-PSTPART-MSG a-FSG car-FSG new-FSG
 'Luigi bought himself a new car.'
- (3) a. Ho pettinato il cane.
 have-PRES-1SG comb-PSTPART the-MSG dog-MSG
 'I combed the dog.'
- b. Luigi le ha comprato una macchina nuova.
 PN-M to.her have-PRES-3SG buy-PSTPART-MSG a-FSG car-FSG new-FSG
 'Luigi bought her a new car.'

3. Intransitive reflexives. These verbs have also a transitive counterpart.

2. I include in this category also "reciprocal reflexives" as in

- (i) Maria e Carlo si sono guardati.
 PN-F and PN-M REFL be-PRES-3PL look-PSTPART-MPL
 'Maria and Carlo looked at each other.'

- (4) a. La tazza si è rotta.
 the-FSG cup-FSG REFL be-PRES-3SG break-PSTPART-FSG
 'The cup broke.'
- b. Fabio ha rotto la tazza.
 PN-M have-PRES-3SG break-PSTPART the-FSG cup-FSG
 'Fabio broke the cup.'

4. Inherent reflexives. They can never occur in a non-reflexive transitive form.

- (5) a. Marcella si è arrabbiata.
 PN-F REFL be-PRES-3SG get.angry-PSTPART-FSG
 'Marcella got angry.'
- b. *Marcella ha arrabbiato Claudia.
 PN-F have-PRES-3SG get.angry PN-F
 'Marcella got angry Claudia.'

Si-impersonal constructions require that all verbs, both transitive (6a) and intransitive (6b), be conjugated with *essere*. In *Si*-impersonal constructions containing transitive verbs, the direct object normally becomes the new subject, thus triggering the agreement in person and number with the verb. These constructions are called 'medio-passive' (6a).

- (6) a. Ieri si sono guardate le olimpiadi.
 yesterday IMP be-PRES-3PL watch-PSTPART-FPL the-FPL Olympics-FPL
 'Yesterday one watched the Olympics.'
- b. Si è andati al mare.
 IMP be-PRES-3SG go-PSTPART-MPL to.the-MPL sea-MPL
 'One went to the seaside.'

Impersonal predicates describing weather condition can occur both with *essere* and *avere*: *ha nevicato* and *è nevicato* 'it snowed'.

Related to auxiliary choice is the agreement of the past participle with the 'surface subject' of the sentence. The past participle will agree in gender and number with the sentence subject if the verb is one of those normally conjugated with *essere*, [henceforth E-verb] (e.g. intransitives such as those in (1b) & (1e) above) and in the medio-passive *Si*-impersonal constructions as that in (6), reflexives (2), (4a), (5b)). If instead the verb is an *avere*-verb [henceforth A-verb] the past participle will not agree with the subject of the clause (see (1a), (1c) & (1d) above).

In two cases, however, past participle agreement [henceforth PP agreement] does not co-occur with *essere*. (1) The PP obligatorily agrees in gender and number with its direct object whenever this is a clitic pronoun (see above (1f) and (1g)), (for a detailed discussion of clitic pronominalization see Lo Cascio 1976), and it will optionally agree with the direct object when this is either a relative pronoun or a full NP,³ (7).

3. Historically the past participle of transitive verbs always agreed with the direct object as it had primarily an adjectival function (see Tecavčić 1972: para. 835, cited in Vincent 1982:82). Furthermore, synchronic data shows agreement of the past participle of A-verbs with its non-pronominal direct object also for emphasis.

- (7) a. I libri che ho comprato...
 the-MPL book-MPL that have-PRES-1SG buy-PSTPART
- b. I libri che ho comprati...
 the-MPL book-MPL that have-PRES-1SG buy-PSTPART-MPL
 'The books that I bought...'
- c. Marco ha comprato gli spinaci.
 PN-M have-PRES-3SG buy-PSTPART the-MPL spinach-MPL
- d. Marco ha comprati gli spinaci.
 PN-M have-PRES-3SG buy-PSTPART-MPL the-MPL spinach-MPL
 'Marco bought the spinach.'

(2) PP agreement does not occur in *Si*-impersonal constructions where the predicates are intransitive or intransitively used A-verbs, as in (8a) and (8b).

- (8) a. *Si* è camminato molto ieri.
 IMP be-PRES-3SG walk-PSTPART much yesterday
 'One walked a lot yesterday.'
- b. **Si* è camminati molto ieri.
 IMP be-PRES-3SG walk-PSTPART-MPL much yesterday
 'One walked a lot yesterday.'

A satisfactory treatment of the distribution of *avere* and *essere* should aim to account for the occurrence of the two auxiliaries in all of the contexts above considered.

2.0 Burzio's syntactic account of auxiliary selection There have been several studies of the phenomenon of auxiliary choice and related PP agreement in Italian. Some studies attempt to provide an account of the Italian facts in syntactic terms, while others provide a semantic explanation of the phenomena. In this section I will discuss Burzio's syntactic account of auxiliary selection in Italian.

Burzio (1981, 1983) adopts Perlmutter's unaccusative hypothesis (1978, 1980) on the basis of which he classifies Italian intransitive verbs in *ergative* and *intransitive* verbs.⁴ Burzio (1981) takes issue with those who believe that in (9) below the italicized phrase is in direct object position as result of rightward NP movement from (10), and claims that rightward movement has taken place in (9b), while in (9a) the subject NP is in its D-structure configuration.

- (9) a. Arrivano le ragazze.
 arrive-PRES-3PL the-FPL girl-FPL
 'The girls arrive.'

4. Perlmutter (1978) proposes a classification of intransitive predicates according to the 'stratum' structure of the clause in which they occur. He defines transitive clauses as having both an initial 1 (subject relation) and an initial 2 (direct object relation). Within the class of intransitive clauses he distinguishes one class which contains an initial 2 but no initial 1; these are called unaccusative clauses; and another class which instead presents an initial 1 but no initial 2; these are called unergative clauses. Perlmutter (1980) claims also that the distribution of *avere* and *essere* in Italian depends on whether the predicate contains an initial 2 or 1 in its initial stratum. Burzio renames Perlmutter's unaccusatives 'ergatives'.

- b. Telefonano le ragazze.
 telephone-PRES-3PL the-FPL girl-FPL
 'The girls make a phone call'

- (10) a. Le ragazze arrivano.
 'The girls arrive.'
 b. Le ragazze telefonano.
 'The girls make a phone call.'

He refers to verbs such as those in (9b) as 'intransitive' and to those in (9a) as 'ergative' and attributes them two different D-structure configurations. Intransitives occur in the syntactic frame in (11), while ergatives display the configuration in (12), where [NP e] is a lexically empty NP subject.

- (11) NP V Intransitive
 (12) [NP e] V NP Ergative

In the ergative configuration the object position is filled. It follows from this that the surface subjects of ergative verbs are D-structure objects which have been moved into subject position.

This structural difference accounts for discrepancies in the syntactic behaviour of intransitive and ergative verbs. In particular the two classes of verbs differ in allowing the clitic partitive pronoun *ne*, 'of it', 'of them' to substitute for the post verbal surface subject. "Ne-cliticization [Ne-cl.] is possible with respect to all and only direct objects" (Burzio 1981:24), i.e. structurally the NP must occupy the direct object position (13). (Note that the PP agrees in gender and number with the NP pronominalized by *ne*, as in (13b) and (13d).)

- (13) a. Maria ha comprato due chili di frutta.
 PN-F have-PRES-3SG buy-PSTPART two kilo-MPL of fruit
 'Maria bought two kilos of fruit'.
 b. Maria ne ha comprati due.
 PN-F of.them have-PRES-3SG buy-PSTPART-MPL two
 'Maria bought two of them.'
 c. Simonetta ha bevuto molto vino.
 PN-F have-PRES-3SG drink-PSTPART much-MSG wine-MSG
 'Simonetta drank a lot of wine.'
 d. Simonetta ne ha bevuto molto.
 PN-F of.it have-PRES-3SG drink-PSTPART-MSG much-MSG
 'Simonetta drank a lot of it'

While intransitives do not allow *Ne-cl.* of their postverbal surface subjects (14), ergatives allow *Ne-cl.* of their post-verbal surface subject (15a-b). Burzio notes that *Ne-cl.* fails also with ergative verbs if the pronominalized NP is in subject position (15c).

- (14) a. Hanno telefonato alcune ragazze.
 have-PRES-3PL telephone-PSTPART some-FPL girl-FPL
 'Some girls telephoned.'
 b. *Ne hanno telefonate alcune.
 of.them have-PRES-3PL telephone-PSTPART-FPL some-FPL
 'Some of them telephoned.'

- (15) a. Sono arrivati due telegrammi.
 be-PRES-3PL arrive-PSTPART-MPL two telegram-MPL
 'Two telegrams arrived.'
- b. Ne sono arrivati due.
 of.them be-PRES-3PL arrive-PSTPART-3PL two
 'Two of them arrived.'
- c. *Due ne sono arrivati.
 two of.them be-PRES-3PL arrive-PSTPART-3PL

Ne-cl. is for Burzio both a test for and a criterial property of ergative verbs. He in fact defines Italian ergative verbs as those whose subject can be substituted for the direct object clitic *ne*.

The class of ergative verbs subsumes intransitive verbs which have a transitive counterpart (16), and intransitive verbs such as *arrivare* 'to arrive' etc. In transitive/ergative pairs the direct object of the transitives and the surface subject of intransitives have the same selectional restrictions.

- (16) a. La marina ha affondato la nave.
 the-FSG navy-FSG have-PRES-3SG sink-PSTPART the-FSG ship-FSG
 'The navy sank the ship.'
- b. La nave è affondata.
 the-FSG ship-FSG be-PRES-3SG sink-PSTPART-FSG
 'The ship sank.'

One of the advantages of the existence of a class of ergative verbs for Burzio is that it reduces

the amount of idiosyncrasy in the mapping between D-structure representation (which we assumed is essentially carried over into L.F. by means of trace theory) and semantic interpretation. In particular under this view there would be no dissociation between D-structure direct object and some appropriate notion of "patient" or "theme". (1981:40)

Ergative structures [_{NP} e] V NP display a number of characteristics. In the first place the lexically empty subject is not assigned a thematic role (agent, patient), and secondly the direct object is not assigned accusative case. The empty NP subject position must be filled during the course of the derivation by the NP object. Once the NP has been moved into subject position it will receive nominative case. Thus in the case of verbs entering both in transitive and ergative frames, the lexical entries for ergatives would be related to those for transitives by the following lexical specification:

- (17) Do not assign thematic role to the subject. (1981:42)

The transformation of a transitive into an ergative verb is a lexical process and therefore it will not be fully productive. In some ergatives, which which Burzio labels "si-ergatives", the loss of subject-thematic role is indicated in the morphology of the verb by the addition of the reflexive clitic *si*.

- (18) a. Lucio ha macchiato la tovaglia.
 PN-M have-PRES-3SG stain-PSTPART the-FSG tablecloth-FSG
 'Lucio stained the table cloth'.

- b. La tovaglia si è macchiata.
 the-FSG tablecloth REFL be-PRES-3SG stain-PSTPART-FSG
 'The table cloth got stained.'

Burzio notes that the pattern of auxiliary selection in Italian is parallel to that of the distribution of *Ne-cl*, and that it reflects the different D-structure configurations of ergatives and intransitive verbs. All ergative verbs select the auxiliary *essere*, while non-ergatives (i.e. both intransitives and transitives) select the auxiliary *avere*.

- (19) a. Maria è andata al supermercato.
 PN-F be-PRES-3SG go-PSTPART-FSG to.the-MSG supermarket-MSG
 'Maria went to the supermarket.'
- b. Dario ha visto il film.
 PN-M have-PRES-3SG watch-PSTPART the-MSG film-MSG
 'Dario saw the movie.'
- c. Elisabetta le ha telefonato.
 PN-F to.her-FSG have-PRES-3SG telephone-PSTPART
 'Elisabetta called her up.'

Burzio claims that "auxiliary selection reflects some relational properties of the subject in derived structure; and that PP agreement reflects relational properties of the direct object" (1981:52). The phenomena of auxiliary selection and PP agreement are accounted for by two separate statements.

- (20) a. Essere assignment: the auxiliary will be realized as *essere* when a binding relation exists between the subject and a nominal constituent of the predicate (where an element is a constituent of the predicate if and only if it is either part of the verb morphology or it is governed by the verb)
- b. Past Participle agreement: A past participle will agree (in gender and number) with an element binding its direct object [where a direct object is the NP governed by the verb(1981:148)]

The system of auxiliary assignment and past participle agreement will operate at the level of S-structure. At this level the NP moved into subject position will also be assigned nominative case.

The above statements will account for all the cases in which the selection of *essere* is accompanied by past participle agreement, as in the case of ergative predicates, and for all those cases in which *essere* and PP agreement are dissociated, that is in the case of (a) the agreement of a past participle with a direct object clitic (21), and (b) in the case of *Si*-impersonal constructions with intransitive (non-ergative) predicates, see below (23a).

- (21) Maria le_i ha comprate t_i
 PN-F them-FPL have-PRES-3SG buy-PSTPART-FSG them-FPL
 'Maria bought them.'

This statement of PP agreement will not account, however, for the optional agreement with a full NP direct object (see above (7d)). Burzio, in fact, says that those cases are ungrammatical (1981:92), even though many speakers find them perfectly grammatical.

Let us see how several constructions are accounted for by the above statements. In (22) below the distribution of *essere* and that of PP agreement overlap.

(22) Ergatives

- a. $Giovanna_i$ è ritornata t_i .
 PN-F be-PRES-3SG come.back-PSTPART-FSG
 'Giovanna came back.'
- b. [NP e_i] AUX ritornare Giovanna

In S-structures such as (22a) derived via leftward NP movement of the direct object NP from structure (22b), the binding relation between the NP subject and its trace will trigger both the selection of *essere* and past participle agreement. In fact, the relation between the subject NP *Giovanna* and its verb governed trace will account for the selection of *essere*, while the past participle will agree in gender and number with the NP subject phrase which binds its direct object.

(23) Si-Impersonal

- a. [NP e_i] [VP si_i è telefonato a Carlo].
 REFL be-PRES-3SG telephone-PSTPART to PN-M
 'One phoned Carlo.'
- b. [NP Gli spaghetti $_i$] [VP si sono mangiati t_i]
 the-MPL spaghetti-MPL REFL be-PRES-3PL eat-PSTPART-MPL
 ieri sera.
 yesterday night-FSG
 'One ate the spaghetti last night.'
- c. [NP e_i] [VP si è arrivati t_i in ritardo]
 REFL be-PRES-3SG arrive-PSTPART-MPL in delay-MSG
 'One arrived late.'

Burzio observes that *si* is a clitic which is related to subject positions only (for discussion and arguments see Burzio 1981:27-32). He also claims that *si* is inserted in D-structure under any NP node and that it will undergo NP movement just like all the other NP's. Obligatory *si*-cliticization can only take place from subject position. Furthermore Burzio assumes that

in derived structure *si* properly 'binds' the subject position, in spite of the fact that the latter is not c-commanded by *si*. Some such exceptional provision seems required for any case of subject cliticization" (1981:29).

For this reason, in *Si*-impersonal sentences the selected auxiliary will always be *essere* regardless of whether the verb is ergative or not. The PP agreement will occur in (23c), which contains an ergative verb, since the trace of *si* in subject position binds the direct object, while in (23b) PP agreement will apply just in the case that Object Preposing has also applied.

(24) Passives

- Lucia $_i$ è stata rapita t_i .
 PN-FSG be-PRES-3SG be-PSTPART-FSG kidnap-PSTPART-FSG
 'Lucia was kidnapped.'

In passive structures such as (24), there is a direct object trace, bound by the phrase *Lucia* in subject position. Such binding relation will trigger both *essere*

and PP agreement, as in the ergative case.⁵

(25) Reflexives

- a. Marta si è arrabbiata.
PN-F REFL be-PRES-3SG get.angry-PSTPART-FSG
'Marta got angry.'
- b. Marta si è tagliata.
PN-F REFL be-PRES-3SG cut-PSTPART-FSG
'Marta cut herself.'
- c. Marta si è comprata un libro.
PN-F REFL be-PRES-3SG buy-PSTPART-FSG a-MSG book-MSG
'Marta bought herself a book.'

Burzio assumes that (1) in the case of reflexives (inherent reflexives included (25a)) there is a binding relation between the subject and the reflexive clitic: this relation will induce *essere*; and that (2) the reflexive clitic is related to a phonologically null direct or indirect object position (see (25b) and (25c) respectively): this relation will trigger past participle agreement.

Burzio's discussion of the phenomenon of auxiliary selection in Italian is based on distributional arguments and on theory-internal parameters, i.e. binding principles. Although impressive, his account has several shortcomings. The treatment of *Si*-impersonal constructions is rather ad hoc. In fact, for the rule of *essere* selection to produce the desired result the stipulation must be made that the impersonal clitic pronoun *si* properly binds the subject position, although *si* does not c-command it. Furthermore, Burzio denies the possibility that the past participle may agree with the direct object. He considers examples such as *Marco ha comprati gli spinaci*, 'Marco bought the spinach', ungrammatical (see (7d) for glosses and translation). Needless to say the statement of his PP agreement rule would need a major revision to allow for the optional agreement with the object, which is grammatical for many speakers. For such an optional agreement to occur Burzio would need to postulate the existence of an element which binds the direct object of the PP.

Finally, and perhaps most significantly, Burzio's analysis does not deal with verbs such as *correre* 'to run', which can occur both with *essere* and *avere*. He simply says that they can "also appear with with auxiliary A and thus in non-ergative frames" (1981:438). *Correre* and the other intransitive verbs which can occur with both auxiliaries posit a substantial problem for his theory since the lexical specification rule (17) would not do the work of relating the two uses of the verb. In fact, if such a rule succeeded in establishing a lexical relationship between transitive and intransitives whose respective object and subject share the same selectional restrictions, it would not succeed in establishing the relationship between an intransitive verb with a thematic subject position and no object, and an ergative verb with no thematic subject and a filled direct object position. It is also obvious that a lexical relationship between the two forms of the verb would be impossible under the assumption that a verb like *correre* can be considered a 'pseudo-transitive' verb of motion with an

5. Also the relationship between an active and a passive construction is expressed via the statement in (17). However, in the case of passives the process triggered by the statement is morphological and not lexical.

extent NP, as in *correre due miglia*, 'to run two miles'. It seems likely then that within a GB framework *correre* would have to be entered twice in the lexicon, once as an intransitive verb, just like *camminare*, 'to walk', and once as an ergative verb, like *andare*, 'to go'. Thus there does not seem to be any principled account of auxiliary selection with verbs like *correre* within Burzio's framework.

3.0 Semantic accounts of auxiliary selection in Italian There have been several attempts to correlate the choice of auxiliary in Italian with the semantics of the predicate. Leone (1954, 1970) claims that the choice of the auxiliary is related to the nature of the past participle of the verb. If the past participle has an attributive function --and not just a verbal function-- the selected auxiliary is *essere*. If, instead, the past participle has only a verbal function, the selected auxiliary is *avere*. The attributive or verbal functions of a past participle depend on its semantic value, i.e. they depend on whether the past participle expresses a particular state of the subject, or it expresses a volitional active subject. Thus, verbs such as *andare*, 'to go', *uscire*, 'to go out', *morire*, 'to die' etc. require *essere* because the past participle has an attributive function and it describes a state of the subject. Whereas verbs such as *camminare*, 'to walk' focus on the subject as an actor, rather than as the subject of a state. With respect to those verbs which can occur either with *essere* or *avere*, e.g. verbs describing weather conditions, Leone says that the selection of the auxiliary depends on the speaker's decision to represent a certain situation as an objective fact, independent from any subject's activity, (*è piovuto*, 'it rained'), or as the result of the activity of some (not easy to define) subject, (*ha piovuto*, 'it rained'). Furthermore, he considers a number of verbs, such as *bollire* which, in spite of having adjectival past participles such as *bollito*, 'boiled', still occur with *avere*. In these cases, Leone maintains that the auxiliary *avere* restores the lost 'verbal force' ("forza verbale") of the predicate.

- (26) a. La carne ha bollito per due ore.
the-FSG meat-FSG have-PRES-3SG boil-PSTPART for two hour-FSG
'The meat boiled for two hours.'
- b. La carne è bollita.
the-FSG meat-FSG be-PRES-3SG boil-PSTPART-FSG .
'The meat is boiled.'

Leone says that ultimately the decision of whether or not a past participle has an attributive function depends on the "coscienza linguistica del parlante" ("linguistic consciousness of the speaker" (1970:30)), and that this choice reflects the the speaker's level of linguistic education. This account, as the discussion of *bollire* shows, is largely circular, as it lacks independent criteria for the interpretation of the past participle.

The semantic properties of the past participle are also at the center of Parisi's study of PP agreement and auxiliary selection. (Parisi 1976). Parisi distinguishes two classes of verbs according to whether or not their past participles imply a state in one of the arguments of the predicate. The first class, (A), includes both transitive verbs such as *lavare*, 'to wash', which imply a state in their direct object, (27a-b); and intransitive verbs such as *uscire*, 'to go out', which imply a state in their subject (27c). The second class, (B), includes intransitive predicates such as *dormire*, 'to sleep' in which no state can be predicated of their only argument (27d).

- (27) a. Marco ha lavato le camicie.
 PN-M have-PRES-3SG wash-PSTPART the-FPL shirt-FPL
 'Marco washed the shirts.'
- b. Marco ha lavate le camicie.
 PN-M have-PRES-3SG wash-PSTPART-FPL the-FPL shirt-FPL
 'Marco washed the shirts.'
- c. Luisa è uscita con Paolo.
 PN-F be-PRES-3SG go-PSTPART-FSG with PN-M
 'Luisa went out with Paolo.'
- d. Gianni ha dormito fino alle nove.
 PN-M have-PRES-3SG sleep-PSTPART until to.the-FPL nine
 'Gianni slept until nine.'

The class membership of predicates is decided case by case on the basis of a compositional analysis of the predicate. Parisi notes, also, that all those predicates which contain the component CHANGE are verbs which typically imply a state in one of their arguments. He claims that the PPs which express a state in one of their arguments exhibit agreement (27b-c); while those which express no state in their argument do not exhibit agreement (27d). PP agreement is obligatory if the argument of which the PP expresses a state is the subject of the sentence (27c); if instead the argument in a state is the direct object the PP agreement is optional (or "substandard" in Parisi's own words), (see above (27a) without PP agreement, and (27b) with PP agreement).

With respect to auxiliary selection, Parisi states that the occurrence of *essere* depends on the existence of a state in the argument of the predicate which is selected as subject.⁶ While *avere* occurs when the past participle does not imply a state in the argument selected as subject. The use of both auxiliaries with verbs such as *correre* 'to run', as in (28) below is explained by Parisi in terms of the differences in semantic representation of the predicates as they occur in the two sentences.

- (28) a. Maria è corsa a Milano
 PN-F be-PRES-3SG run-PSTPART-FSG to
 'Maria ran to Milan'
- b. Maria ha corso a Milano
 PN-F have-PRES-3SG run-PSTPART at
 'Maria ran in Milan'

In (28a) *Maria* undergoes a change of state, and she finds herself in Milan as a result of her action; while in (28b) the fact that *Maria* has run does not imply any resultative state in which *Maria* finds herself. Parisi underscores the fact

6. Parisi provides the following definition of 'subject':

that particular argument of a nucleus' predication which the verbal element of such predication is made to agree with, both in number and person. ... by 'verbal element' of the predication we mean the morphology of the finite verb, that is to say, the -e ending in *uccide* 'kills', the so-called copula in *è alto* 'is tall', the so-called auxiliary verbs *essere* and *avere* 'to be' and 'to have' in *è uscito* lit: 'is gone out' and *ha dormito* 'has slept'." (1976:88)

that one of the advantages of this formulation of the rule of PP agreement and auxiliary selection is that just one principle can account for both the agreement of predicative adjectives and PPs and can eliminate the distinction between the use of *essere* as copula (29a) and as auxiliary verb (29b).

- (29) a. Maurilio è magro.
 PN-M be-PRES-3SG thin-MSG .
 'Maurilio is thin.'
- b. Maurilio è dimagrito.
 PN-M be-PRES-3SG get.thin-PSTPART-MSG
 'Maurilio got thin.'

Parisi also discusses the occurrence of *essere* in *Si*-impersonal constructions. He distinguishes two types of impersonal constructions: those with intransitive verbs, and those with transitive verbs. He considers intransitive *Si*-constructions "subjectless" and claims that in these cases the principles governing the choice of the auxiliary do not apply. Instead, "we get the fixed form *essere*" (Parisi 1976:94). The principles regulating PP agreement, however, apply. (30a), in fact, displays PP agreement, because the predicate implies a state in its argument, while (30b) does not display PP agreement, because the predicate does not imply any state in its only argument.

- (30) a. Si è usciti.
 IMP be-PRES-3SG go.out-PSTPART-MPL
 'One went out.'
- b. Si è dormito.
 IMP be-PRES-3SG sleep-PSTPART
 'One slept.'

If, on the other hand, the *Si*-impersonal construction contains a transitive verb, and one of its arguments cannot be selected as subject, there still is another argument, the direct object, which may become the subject of the clause. If this option is taken the verb agrees in person and number with the new subject, (31a); if instead this option is not taken (31b), the sentence is subjectless as in the case of intransitive impersonal constructions and the second argument has the grammatical status of object, as in (31c), where *le*, 'them' is the direct object clitic pronoun.⁷

- (31) a. Si sono viste le montagne.
 IMP be-PRES-3PL see-PSTPART-FPL the-FPL mountain-FPL
 'One saw the mountains.'
- b. (*) Si è visto le montagne.
 IMP be-PRES-3SG see-PSTPART the-FPL mountain-FPL
 'One saw the mountains.'
- c. Le si è viste [le montagne].
 them-FPL IMP be-PRES-3SG see-PSTPART-FSG
 'One can see them [the mountains].'

7. The grammaticality judgement on sentences such as (31b) varies from region to region in Italy, and consequently from linguist to linguist. Parisi (1976) considers them ungrammatical, while Rizzi (1978) and Burzio (1981) consider them grammatical.

The same principles of PP agreement and auxiliary selection account for the occurrence of both phenomena in reflexive constructions. In reflexive constructions one argument finds itself in a state as the result of the accomplishment of something. And since this argument is coreferential with the subject, also the subject will find itself in a state. Therefore the PP must agree with the subject and the selected auxiliary is *essere*. The argument to which the subject is coreferential may be a direct object (32a), an indirect object (32b), a benefactive dative ("object of interest"), (32c) or at any rate an argument which appears in the semantic representation of the predicate (32d). (For details on the semantic representation of the various predicates see Castelfranchi & Parisi 1976.)

- (32) a. Mara si è vestita.
 PN-F REFL be-PRES-3SG dress-PSTPART-FSG
 'Mara got dressed/dressed herself.'
- b. Paolo e Carlo si sono parlati.
 PN-M and PN-M REFL be-PRES-3PL talk-PSTPART-MPL
 'Paolo and Carlo talked to each other.'
- c. Maria si è letta la lettera.
 PN-F REFL be-PRES-3SG read-PSTPART-FSG the-FSG letter-FSG
 'Maria read (herself) the letter.'
- d. Il latte si è versato dappertutto.
 the-MSG milk-MSG REFL be-PRES-3SG spill-PSTPART everywhere
 'The milk spilled all over the place.'

Vincent (1982) bases his account of auxiliary selection in Latin and modern Romance languages on a classification of verbs in terms of both the syntactic relations (subject, direct object) and semantic relations (agent, locative, etc.) expressed by the argument(s) of the verb. He notes that the selection of auxiliary in Italian (for details about Latin and the other Romance languages see Vincent 1982) depends on the semantic role expressed by the subject of the sentence. That is, *essere* is selected when the subject of the sentence is a "neutral". Vincent defines neutral as follows:

Neutral is the case of the argument which is, so to speak, semantically inert, and thus takes its interpretation from the meaning of the verb rather than from any independently definable case function as Agentivity, Location, etc. (1982:76)

The term 'neutral' subsumes a number of case relations which previously had been given a different label and somewhat different content. In particular it includes Gruber's theme (1965), i.e. with verbs of motion or state the theme is that NP whose location or change of location is predicated. Vincent is thus able to account for the selection of *essere* with motion verbs (e.g. *andare*, 'to go', *venire*, 'to come', *partire*, 'to leave'), state verbs (e.g. *restare*, *rimanere*, 'to remain', *stare* 'to stay'), change of state verbs (e.g. *nascere*, 'to be born', *morire*, 'to die', *finire*, 'to finish'), and verbs derived from an adjectival basis (e.g. *ingiallire*, 'to become yellow', *invecchiare*, 'to become old'). With respect to change of state verbs and adjectival verbs, Vincent says that they describe some kind of abstract movement from one state to another and a "transition into the state described by the adjectives" respectively. Furthermore, impersonal verbs such as *accadere*, 'to happen', *bisognare*, 'to be necessary' are also accounted for since, on his analysis, their sentential subjects express the neutral case.

It is in terms of the semantic role expressed by the subject of the sentence that Vincent expresses the contrast between sentences in which the same predicate can select either *avere* or *essere* (33) and (34) and the contrast between active and passive sentences (35). (Example (33) is from Vincent 1982:89.)

- (33) a. Il vaso ha traboccato (di vino)
 the-MSG vase-MSG[LOC] have-PRES-3SG overflow-PSTPART of wine-MSG[NEUT]
 'The vase has overflowed with wine.'
- b. Il vino è traboccato
 the-MSG wine-MSG[NEUT] be-PRES-3SG overflow-PSTPART-MSG
 (dal vaso).
 from.the-MSG vase-MSG[LOC].
 'The wine overflowed from the vase.'
- (34) a. Lorenzo ha corso a Roma
 PN-M[AG] have-PRES-3SG run-PSTPART at
 'Lorenzo ran in Rome.'
- b. Lorenzo è corso a casa
 PN-M[NEUT] be-PRES-3SG run-PSTPART-MSG to house-FSG
 'Lorenzo ran home'
- (35) a. Mirella ha rotto la finestra.
 PN-F[AG] have-PRES-3SG break-PSTPART the-FSG window-FSG[NEUT]
 'Mirella broke the window.'
- b. La finestra è stata rotta
 the-FSG window-FSG[NEUT] be-PRES-3SG be-PSTPART-FSG break-PSTPART-FSG
 da Mirella.
 by PN-F[AG]
 'The window was broken by Mirella.'

The subjects of the (b) sentences express all the semantic role of neutral. In all these sentences *essere* is the chosen auxiliary. The subjects of the (a) sentences, instead, express the semantic role of locative (33a), and agent (34a) and (35a). In these utterances, *avere* is the selected auxiliary. It seems, however, difficult to maintain with Vincent that in a sentence such as (34b) the subject is a neutral and is therefore semantically inert. In fact, in both (34a) and (34b) the subject is the volitional initiator of the action, although in (34b) the subject is also a theme since it undergoes motion. Within Vincent's framework it is not possible to make explicit how a single NP can express both the agent and theme roles. This highlights a serious problem with his approach: there are no independent criteria for deciding which roles are assigned to a verb, and therefore the choice appears to be either arbitrary or circular (i.e. a verb assigns neutral to its subject because it takes *essere*, and then *essere* choice is explained in terms of the subject's semantic role).

A propos of reflexive constructions Vincent says that they have at least two uses: (1) They can be used as medio-passive constructions, where the agent can be left unspecified, as in the case of *Si*-impersonal constructions. In these constructions the neutral NP is selected as subject, thus triggering the selection of *essere*, as in e.g. (36) below.

- (36) Si riparano lavatrici.
 IMP repair-PRES-3PL washing-machine-FPL
 'We repair washing-machines.'

(2) They are true transitive constructions in which the direct object is identical to the subject. Providing examples from thirteenth century Italian⁸ where either of the two auxiliaries can occur in reflexive structures, Vincent concludes that the choice of *essere* in reflexive constructions seems to be due to "the statistical preponderance of the medio-passive over the genuine transitive use" (1982:96).

In sum, these semantic accounts of auxiliary selection and related PP agreement in Italian underscore a number of points: (1) The selection of *essere* correlates with the semantic properties of the NP chosen as subject, that is, it is the argument of a state (Leone 1954, 1970; Parisi 1976), or it is a neutral (Vincent 1982). (2) *avere* occurs in those cases in which the argument selected as subject is not the argument of a state; rather it expresses volition, (Leone 1970) and agentivity (Vincent 1982). (3) With predicates that can occur both with *essere* and *avere*, the selection of the auxiliary depends either on the semantic role of the selected subject or on whether the subject is the argument of a state. (4) The PP of a predicate may imply the existence of a state in one of the arguments of the verb (Leone 1954, 1970; Parisi 1976). The PP agrees only with the argument of a state. (5) The subjects of the constructions in which *essere* is selected as auxiliary (passives, reflexives and impersonal of transitives such as (36) above) display the same semantic characteristics, i.e. they are arguments of a state and express the neutral semantic role.

It is crucial to such semantic accounts that independent criteria be found for the semantic structures attributed to verbs or the semantic roles assigned to arguments. None of these accounts includes anything like Burzio's criterion of *ne*-cliticization for determining whether a verb is ergative or not. Until such independent criteria are provided, such accounts are ultimately circular and of little explanatory value.

Since these analyses hinge on the semantics of the subject of a sentence, they do not provide a satisfactory account for the selection of the auxiliary *essere* in *Si*-impersonal constructions, constructions which, at least with intransitive verbs, are always 'subjectless'. Parisi, in fact, says that in the case of impersonals the principle regulating the selection of the auxiliary does not operate and that in these constructions we find the fixed form *essere* also for verbs which normally appear with *avere*. Vincent, in his analysis, can only account for *Si*-impersonal constructions of transitives whose neutral NP is promoted to subject. It would be of interest to find out if the choice of *essere* in impersonal constructions has any deeper motivation.

We must also note that the above analyses, one in terms of a componential analysis of the predicate, and the other in terms of case relationships, are

-
8. (i) *che si era posto in cuore di provarsi.*
 that REFL be-IMPF-3SG put-PSTPART-MSG in heart-MSG of test-INF-REFL-3SG
 '...that he had set his heart to test himself.'
- (ii) *io m' ho posto in cuore di così fare tutti i giorni.*
 I REFL-1SG have-PRES-1SG put-PSTPART in heart-MSG of thus do-INF all-MPL
 the-MPL day-MPL
 'I have set my heart to do so every day.'

not irreconcilable in principle, but rather are complementary. The two analyses, however, cannot easily interface, as they operate at two different levels, that of abstract representation of meaning and that of the assignment of semantic roles on the basis of the predicate surface realization. In the next section we will see that the Role and Reference Grammar framework, elaborated in Foley and Van Valin (1984), will account for the Italian phenomena both in terms of the semantic decomposition of the predicates, and in terms of the semantic roles expressed by their arguments.

4.0 An overview of Role and Reference Grammar Role and Reference Grammar is a theory rooted in semantics. Essential components of RRG relevant to this discussion are a system of verb classification and predicate semantics (Vendler 1967, Dowty 1979), and a theory of semantic roles. Vendler (1967) proposes a classification of English predicates in terms of their restrictions on particular time adverbials, aspectual frames, i.e. their grammaticality in the progressive form, and their logical entailments. He distinguishes four main classes of predicates: activities (e.g. 'run', 'eat'), accomplishments (e.g. 'run a mile', 'draw a circle'), achievements (e.g. 'recognize', 'spot'), and states (e.g. 'know'). Activities and accomplishments differ from achievements and states in that the former can occur in the progressive form, while the latter cannot. Activities describe atelic actions while accomplishments describe telic actions with a result state. States and achievements both describe states. They differ, however, with respect to the temporal dimension: states take place over (a long) time, while achievements occur on a specific point in time.

Dowty (1979) adopts and modifies Vendler's classification of verbs. He proposes a number of syntactic and semantic tests for distinguishing the classes (see 1979:60). While he leaves intact the division in four classes, he proposes that not just the verb but the features of the entire VP be taken into account in its classification. The classification of a predicate as an activity or an accomplishment may depend also on the presence of a definite direct object vs an indefinite plural direct object or mass-noun direct object or of a prepositional phrase. The verbs in (37a) and (38a) are activities, while those in (37b) and (38b) are accomplishments.

- (37) a. Last night Mary ate peanuts.
 b. Last night Mary ate a bag of peanuts.
- (38) a. Ed ran for two hours.
 b. Ed ran home.

In addition, Dowty further distinguishes predicates with respect to whether or not they are controllable by the agent. Control is the feature which distinguishes the verb 'see' from 'look at'.

- (39) a. The man saw the mouse.
 b. The man looked at the mouse.

Dowty's assignment of a specific logical structure to each class of predicates constitutes the most notable innovation in the Vendler system. The logical structure of a verb consists of a stative predicate, plus the sentential connective CAUSE and a series of operators such as BECOME and DO. The operator DO expresses the notion of "unmediated control of the agent" (Dowty 1979:118) over a certain state or process. One place state predicates, such as 'good' have the structure predicate' (x), where x is the single argument of the verb; the two place predicates 'know' and 'see' have the structure predicate' (x,y). The

structure of achievements consists of a stative predicate preceded by the operator BECOME. Thus the verb 'notice' would have the structure BECOME notice' (x,y), while the one place 'die' would be represented as BECOME dead' (x). Activities are more difficult to represent as it is not possible to find an underlying atomic 'stative' predicate, as in the case of states or achievements. The activity verb appears in logical structure in its unanalysed surface form. The logical structure of an activity simply indicates by means of the operator DO whether the activity is marked or not for control. For example, the logical structure of a verb such as 'run' would be DO (x,[run' (x)]); while the verb 'cough', depending on whether it implies a controlling agent or not, could be represented either by (a) DO (x,[cough' (x)]), as in 'Tony coughed intentionally' or by structure (b) cough' (x) as in 'Tony coughed involuntarily'. The logical structure of accomplishment verbs have a logical structure which consists of the structure of an activity predicate and that of an achievement predicate linked by means of the sentential connective CAUSE. The verb 'kill' has the structure [DO (x, [do' (x)])] CAUSE [BECOME dead' (y)].

Table 1 below, adapted from Foley and Van Valin (1984:39), provides a list of verb classes and their corresponding logical structures. Note that the state, achievement and activity structures below represent intransitive verbs of those classes, while the structure of accomplishment verbs is appropriate for representing both transitive and intransitive accomplishment verbs.

Table 1 Verb classes and logical structures

Verb Class	Logical structure
State	predicate' (x)
Achievement	BECOME predicate' (x)
Activity	DO(x, [predicate' (x)])
Accomplishment	[DO (x,[predicate' (x)])] CAUSE [BECOME predicate' (y)]

Foley and Van Valin (1984) adopt the system of verb classification and semantic decomposition developed in Dowty (1979) and modify it by assigning semantic roles to the arguments of the predicates which appear in logical structure. They identify the following semantic roles: *Agent*, the willful performer of an action; *Effector*, the non-volitional performer of an action; *Locative*, the argument which describes a location; *Theme*, the entity whose location is at issue; and *Patient*, the argument of a predicate describing a state or condition of being. As an illustration, consider the following sentences.

- (40) a. The girl is tall.
b. tall' (the girl)
- (41) a. The book is on the table.
b. be-at' (the book, the table)
- (42) a. The child smelled the cake.
b. smell' (the child, the cake)
- (43) a. Mary thinks that white socks are tacky
b. think' (Mary, [tacky' (white socks)])
- (44) a. Peggy intentionally smiled at the blond man.

- b. DO (Peggy, [smile' (Peggy, blond man)])
- (45) a. Peggy instinctively smiled at the blond man.
b. smile' (Peggy, blond man)
- (46) a. Jack broke the door with an ax.
b. [[DO (Jack, [do' (Jack)])] CAUSE [do' (ax)]] CAUSE [BECOME broken' (door)]
- (47) a. Bill arrived at the station.
b. BECOME be-at' (Bill, the station)

The single argument of a state predicate describing a quality ('tall', 'sick', 'good') is a patient (40); the first argument of a locative state predicate is a theme, while the second argument is a locative (41). Two place predicates describing perception, (e.g. 'smell', 'see', 'feel'), cognition and propositional attitude (e.g. 'think', 'know', 'realize', 'believe') have the same logical structure of locative state predicates, but the order of their arguments is inverted, i.e. the first argument is a locative and the second is a theme (42)-(43). In activity predicates which describe controllable acts the argument of the operator DO is always an agent (44). In non-controllable activities the first argument of the predicate is an effector (45). In (46) the NP ax is also an effector, it is the instrument with which the volitional agent performs the action. In motion predicates the argument undergoing motion, i.e. changing location, is a theme (47).

Table 2, adapted from Foley and Van Valin (1984:53), summarizes the logical structures and the semantic relations of the various verb classes.

Table 2 Logical structures and semantic relations

I. State Verbs		
A. Locative	be-at' (x,y)	x=theme y=locative
B. Non-locative		
1. State or condition	predicate' (x)	x=patient
2. Perception	see' (x,y)	x=locative y=theme
3. Cognition	believe' (x,y)	x=locative y=theme
4. Possession	have' (x,y)	x=locative y=theme
II. Activity verbs		
A. Potentially controllable		
1. Controlled	DO(x, [predicate' (x)])	x=agent
2. Uncontrolled	predicate' (y)	y=effector
B. Motional	fall' (x)	x=theme

These various semantic relations are subsumed under the two generalized semantic notions of *actor* and *undergoer*. The actor is "the argument of a predicate which expresses the participant which performs, effects, instigates, or controls the situation denoted by the predicate" (Foley & Van Valin 1984:29); this macrorole subsumes the semantic relations of agent, effector, and locative. The undergoer is instead "the argument which expresses the participant which

does not perform, initiate, or control any situation but rather is affected by it." (ibid.); the notion of undergoer subsumes the semantic relations of patient and theme (and locative with some predicates). (See Foley & Van Valin 1984 for a detailed discussion of 'undergoer'.) When within a sentence there occurs a number of arguments expressing various semantic relations, the interpretation of one relation as actor and/or undergoer is regulated by an accessibility hierarchy. The hierarchy for the actor is agent>effector>locative, and the hierarchy for the undergoer is patient>theme>locative. These hierarchies can be combined into a single cline, as in Table 3, where '—>' indicates the increasing markedness of an argument with a particular semantic role functioning as actor or undergoer. Within a transitive structure there can be only one actor and one

Table 3 Actor/Undergoer Accessibility Hierarchy

Actor			Undergoer	
Agent	Effector	Locative	Theme	Patient
—————>			<—————	

undergoer. In intransitive sentences the single argument of the verb will be either an actor or an undergoer, depending on the semantic class of the predicate, i.e. actor if activity, undergoer if state or achievement.

RRG does not posit grammatical relations like 'subject' and 'direct object' as theoretical primitives. Rather, it employs the concept of 'pivot of a syntactic construction'. Pivots are defined on a construction by construction basis, and while in many languages all or most of the major syntactic constructions have the same pivot, there are languages which use a variety of different pivots for different constructions (see Van Valin 1981). There are also languages which lack pivots altogether. In languages which have syntactic pivots, "the pivot of a construction is the NP crucially involved in it; i.e. it is the NP around which the construction is built" (Foley & Van Valin 1984:110). In English and Italian, pivot corresponds to the traditional notion of syntactic subject. In transitive constructions in languages such as English and Italian, the actor is the pivot, i.e. the NP *Mary* in *Mary hit the dog*, while in a passive construction undergoer is the pivot, e.g. *the dog* in *The dog was hit by Mary*. Given that the passive is the marked member of the active-passive opposition, we can say that the actor is the unmarked pivot choice and the undergoer the marked choice. In passives, in fact, the use of the auxiliary 'to be' followed by the past participle indicates a marked pivot choice (see also Fillmore 1968:37).

Having sketched those aspects of the Foley and Van Valin's theoretical framework which will be most relevant to our analysis, we will resume our discussion of auxiliary selection in Italian.

4.1 An RRG analysis of Italian auxiliary selection Let us now consider the following Italian intransitive verbs. A (*avere*) and E (*essere*) indicate the auxiliary verb which each verb selects in compound tenses. Some verbs which can be conjugated both with A and E are marked by A/E. Note that some of the following verbs occur also in transitive structures, i.e. they take two arguments. Here, however, I will consider these verbs in their intransitive use i.e. as one place predicates whose expressed argument is the pivot of the structure.

- | | |
|--------------------------------|------------------------------|
| (a) parlare A 'to talk' | umentare E 'to increase' |
| telefonare A 'to telephone' | diminuire E 'to decrease' |
| chiacchierare A 'to chat' | morire E 'to die' |
| borbottare A 'to mutter' | nascere E 'to be born' |
| bisbigliare A 'to whisper' | crescere E 'to grow' |
| | affondare E 'to sink' |
| | annegare E 'to drown' |
| (b) ruggire A 'to roar' | (i) spezzarsi E 'to break' |
| cinguettare A 'to chirp' | pentirsi E 'to regret' |
| miagolare A 'to meow' | arrabbiarsi E 'to get angry' |
| (c) starnutire A 'to sneeze' | (j) stare E 'to stay' |
| singhiozzare A 'to sob' | rimanere E 'to remain' |
| piangere A 'to cry' | |
| sorridere A 'to smile' | (k) esistere E 'to exist' |
| (d) camminare A 'to walk' | (l) accadere E 'to happen' |
| nuotare A 'to swim' | succedere E 'to happen' |
| guidare A 'to drive' | diventare E 'to become' |
| viaggiare A 'to travel' | |
| (e) ballare A 'to dance' | (m) cominciare E 'to begin' |
| mangiare A 'to eat' | finire E 'to end' |
| bere A 'to drink' | |
| fumare A 'to smoke' | (n) piacere E 'to like' |
| (f) arrivare E 'to arrive' | appartenere E 'to belong' |
| partire E 'to depart' | bastare E 'to be enough' |
| cadere E 'to fall' | mancare E 'to lack' |
| (g) uscire E 'to go out' | (o) volare A/E 'to fly' |
| tornare E 'to return' | correre A/E 'to run' |
| andare E 'to go' | saltare A/E 'to jump' |
| venire E 'to come' | vivere A/E 'to live' |
| salire E 'walk up' | |
| scendere E 'to walk down' | (p) piovere A/E 'to rain' |
| | nevicare A/E 'to snow' |
| (h) migliorare E 'to improve' | (q) suonare A/E 'to toll' |
| peggiorare E 'to get worse' | fiorire A/E 'to bloom' |
| ringiovanire E 'to rejuvenate' | |
| dimagrire E 'to become thin' | |

Following Dowty's verb classification, the above list of verbs can be grouped as follows:

(A) All of the intransitive A-verbs are activity verbs. They include verbs of speaking and manner of speaking (a), verbs describing the sounds made by animals (b), verbs describing (voluntary/involuntary) bodily activities (c), verbs describing motion (d) and general activities (e). The verbs below respond positively to the main syntactic and semantic tests for activity verbs: 'V for an hour', 'spend an hour V-ing'; 'V for an hour' entails 'V at all times in the hour'; 'x is V-ing' entails 'x has V-ed.'

- (48) Angela ha parlato/pianto /ballato per/*in un' ora.
 PN-F have-PRES-3SG talk-/cry-/dance-PSTPART for/in a-FSG hour-FSG
 'Angela talked/cried/danced for/*in an hour.'

(B) Intransitive E-verbs are members of the remaining three classes of verbs. The state class includes predicates describing states or condition of being (k), (adjectives are obviously included even though not listed), locative predicates (j), as in (49a), and some predicates of perception and possession (n), as in (49b) and (49c) respectively.

- (49) a. Maria è rimasta a casa.
 PN-F be-PRES-3SG remain-PSPPART-FSG at house-FSG
 'Maria remained at home.'
- b. A Carlo è piaciuta la mostra.
 to PN-M be-PRES-3SG like-PSTPART-FSG the-FSG exhibit-FSG
 'Carlo liked the exhibit.'
- c. Non mi sono bastati i soldi.
 not to.me be-PRES-3SG suffice-PSTPART-MPL the-MPL money-MPL
 'I don't have enough money.'

A large number of E-verbs belongs to the classes of achievement and accomplishment predicates. Inchoatives (h) and (i) (50a), aspectuals (m) (50b), and verbs of happening (l), (50c) are classified as achievements because they cannot be accompanied by a 'for-phrase'; they are grammatical in conjunction with 'in-phrase' adverbials and the entailment of 'x V-ed in y time' is not 'x was V-ing during y time'; they occur as complements of 'take-an-hour' *volerci-un'ora-a*, but they cannot occur as complements of 'spend-an-hour' *passare-un'ora-a*; they cannot be complements of the verb 'finish' *finire*, and 'stop' *smettere*.

- (50) a. La salute di Carlo è migliorata.
 the-FSG health-FSG of PN-M be-PRES-3SG improve-PSTPART-FSG
 'Carlo's health improved.'
- b. La lezione è finita.
 the-FSG lesson-FSG be-PRES-3SG end-PSTPART-FSG
 'The lesson ended.'
- c. È accaduto un fatto strano.
 be-PRES-3SG happen-PSTPART-MSG a-MSG fact-MSG strange-MSG
 'Something strange happened.'

Intransitive E-verbs of motion (f) and (g) belong to the classes of achievements and accomplishments. With respect to these verbs of motion it is somewhat difficult to distinguish the achievements from the accomplishments. The same verbs, in fact, may qualify as members of both classes depending on their particular sentential contexts. The tests applied to determine the membership of Italian verbs to the class of accomplishment verbs are: 'V in an hour' entails 'take an hour to V'; 'V for an hour' does not entail 'at all times in the hour'; 'x is V-ing' does not entail 'x has V-ed'; 'x V-ed in an hour' entails 'x was V-ing during that hour'.

- (51) a. La lettera è arrivata ieri.
 the-FSG letter-FSG be-PRES-3SG arrive-PSTPART-FSG yesterday
 'The letter arrived yesterday.'
- b. Maria è uscita con Carlo.
 PN-F be-PRES-3SG go.out-PSTPART-FSG with PN-M
 'Maria went out with Carlo.'
- c. Giovanni è andato in farmacia.
 PN-M be-PRES-3SG go-PSTPART-MSG in pharmacy-FSG
 'Giovanni went to the the pharmacy.'

Those verbs marked by A/E claim membership to two classes ((o), (p), (q)). A small number of Italian intransitive activity verbs of motion become accomplishment verbs whenever they are accompanied by the specification of a source and/or goal location (n). As Dowty points out (1979:60-62), this is true in English as well e.g. *John walked in the park for/*in ten minutes*, vs. *John walked to the park *for/in ten minutes*. The choice of the auxiliary is determined by the class membership of the predicate within a particular construction: i.e. *essere* for intransitive accomplishment verbs and *avere* for intransitive activity verbs. This is illustrated in the following examples. (cf. (48)).

- (52) a. Luisa ha corso nel parco per/*in un'ora.
 PN-F have-PRES-3SG run-PSTPART in.the-MSG park-MSG for/in a hour-FSG
 'Luisa ran in the park for/*in an hour.'
- b. Luisa è corsa a casa in/per un'ora.
 PN-F be-PRES-3SG run-PSTPART-FSG to house-FSG in/for a hour-FSG
 'Luisa ran home in/for hour.' (with *per* = 'at home for an hour', not 'running for an hour').
- (53) a. L' uccello ha volato solo per qualche minuto.
 the-MSG bird-MSG have-PRES-3SG fly-PSTPART only for some minute-MSG
 'The bird flew just for a few minutes.'
- b. L' uccello è volato via.
 the-MSG bird-MSG be-PRES-3SG fly-PSTPART-MSG away
 'The bird flew away.'
- (54) a. Ida ha saltato sul letto
 PN-F have-PRES-3SG jump-PSTPART on.the-MSG bed-MSG
 'Ida jumped up and down on the bed.'
- b. Ida è saltata dalla finestra.
 PN-F be-PRES-3SG jump-PSTPART-FSG from.the-FSG window-FSG
 'Ida jumped out of the window.'

Sentences (52)-(54) describe some particular activity or process. In all of the (a) sentences the focus of the description is on the action *qua* action and on the participant *qua* agent. In the (b) sentences, on the other hand, the focus of the description is on the resultative state brought about by a certain activity. The logical structure represents this fundamental difference between activity and accomplishment verbs. All but (53a) are accompanied by a locative phrase. In the sentences which describe an activity, (52a) and (54a), the locative phrases indicate neither the source nor the goal of the action; rather they indicate the location at which the activity takes place. In these sentences they have an adverbial function rather than a directional function, i.e. they simply set the frame within which the activity takes place. In the (b) sentences, all of which contain accomplishment verbs, the locative phrase describes the place in which the participant (in the action) *is or is not as a result of the action*. The logical representations for (52a) and (52b), (55a) and (55b) respectively make explicit the differences between the activity and accomplishment uses of the predicates at issue.

- (55) a. *be-at'* ([DO (Luisa, [run' (Luisa)])], parco)
 b. [DO (Luisa, [run' (Luisa)])] CAUSE [BECOME *be-at'* (Luisa, casa)]

In (55a), the entire activity constitutes the first argument of the stative predicate *be-at'*, while the locative *parco* indicates the location at which the

activity took place. In (55a) *Lucia* is the agent, the controller of the action. (55b) is a complex structure which consists of an activity predicate, identical to that contained in (55a), linked by means of the sentential connective CAUSE to an achievement predicate, which describes a change of state/location. In (55b) the NP *Lucia* expresses two roles. It maps onto the agent argument of the operator DO, within the activity structure; and it maps also onto the first argument, the theme, of the stative predicate *be-at* which is contained within the achievement structure. The locative expressions occurring with accomplishment verbs are the second argument of the stative predicate and thus are an essential element of the semantic representation of the verb; they indicate the location at which the theme finds itself as the result of the activity. The scope of the adverbial phrase *per un'ora* 'for an hour' varies according to whether the verb is interpreted as an activity or as an accomplishment. Thus, while *per un'ora* would have scope over the entire activity structure in (55a), in (55b) it would only have scope over the proposition describing the resultative state of the activity, i.e. 'Luisa was at home for an hour', as in (52b).

The verbs of motion in (56), i.e. *camminare* 'to walk', *nuotare* 'to swim', and *guidare* 'to drive', are inherently activities and they cannot be turned into accomplishments even with the addition of prepositional phrase describing the goal or source of the motion. The resulting sentences are in fact ungrammatical.

- (56) a. *Ho camminato a casa di Dario.
 have-PRES-3SG walk-PSTPART to house-FSG of PN-M
 'I walked to Dario's house.'
- b. *Ho nuotato ad Alcatraz.
 have-PRES-3SG swim-PSTPART to
 'I swam to Alcatraz.'
- c. *Ho guidato a San Francisco.
 have-PRES-3SG drive-PSTPART to
 'I drove to San Francisco.'

These verbs however can occur with a prepositional phrase of extent *fino a* 'as far as', and also with a prepositional phrase describing both the point of departure and that of arrival *da...(fino) a* 'from ... to'.

- (57) a. Ho camminato fino a casa di Dario.
 'I walked as far as Dario's house.'
- b. Ho nuotato fino ad Alcatraz.
 'I swam as far as Alcatraz.'
- c. Ho guidato fino a San Francisco.
 'I drove as far as San Francisco.'
- d. Ho camminato dalla stazione (fino) a casa di Dario.
 'I walked from the station to Dario's house.'

In none of the sentences in (57) is it implied that the given locations constituted the actor's point of arrival and/or state. In order to convey the meaning that a given place was where the actor ended up as a result of the activity, we must use a periphrasis with the verb *andare* 'to go' followed by an adverbial phrase such as *a piedi* 'on foot', *a nuoto* 'swimming', *in macchina*, 'by car'. Note also that the periphrasis with *andare* and the manner adverb is also grammatical when accompanied by an extent prepositional phrase (59).

- (58) a. Sono andata a piedi a casa di Dario.
 be-PRES-1SG go-PSTPART-FSG to foot-MPL
 'I went on foot/I walked to Dario's house.'
- b. Sono andata a nuoto ad Alcatraz.
 be-PRES-1SG go-PSTPART-FSG to swimming-MSG to
 'I swam to Alcatraz.'
- c. Sono andata in macchina a San Francisco.
 be-PRES-1SG go-PSTPART-FSG in car-FSG to
 'I went by car/I drove to San Francisco.'
- (59) a. Sono andata a piedi fino a casa di Dario.
 'I walked as far as Dario's house.'
- b. Sono andata a nuoto fino ad Alcatraz.
 'I swam as far as Alcatraz.'
- c. Sono andata in macchina fino a San Francisco.
 'I drove as far as San Francisco.'

A group of verbs, basically corresponding to Burzio's ergatives, can appear both as intransitive achievements ((h) and (i)) and as transitive accomplishments, (e.g. *umentare* 'to increase', *migliorare* 'improve') according to whether a causing activity/or a causing agent is present in logical structure. Many of these verbs are reflexive in their intransitive use ((i)) (e.g. *spezzarsi* 'to break'/'to get broken' vs. *spezzare* 'to break').

- (60) a. Il governo ha aumentato il prezzo
 the government have-PRES-3SG increase-PSTPART the-MSG price-MSG
 della carne.
 of.the-FSG meat-FSG
 'The government increased the price of the meat.'
- b. Il prezzo della carne è aumentato.
 the-MSG price-MSG of.the-FSG meat-FSG be-PRES-3SG increase-PSTPART-MSG
 'The price of meat increased.'
- (61) a. Il vento ha spezzato il ramo.
 the-MSG wind-MSG have-PRES-3SG break-PSTPART the-MSG branch-MSG
 'The wind broke the branch.'
- b. Il ramo si è spezzato.
 the-MSG branch-MSG REFL-3SG be-PRES-3SG break-PSTPART-MSG
 'The branch broke.'

Predicates describing weather conditions (p) may occur with either auxiliary. In some areas of Italy one form seems to be preferred to the other; in other areas both are used interchangeably. For some speakers, however, me included, the choice of the auxiliary depends on whether the predicate is interpreted as an activity or as an achievement. In these cases the phrase *per un' ora* 'for an hour', can accompany felicitously only the activity and not the achievement predicate.

- (62) a. Ieri ha nevicato per un' ora.
 yesterday have-PRES-3SG snow-PSTPART for a-FSG hour-FSG
 'Yesterday it snowed for an hour.'
- b. Ieri è nevicato per un' ora.
 yesterday be-PRES-3SG snow-PSTPART for a-FSG hour-FSG
 'Yesterday it snowed for an hour.'

Some other verbs (q) such as *suonare* 'to toll' and *fiorire* 'to bloom', also take *avere* or *essere*, according to the interpretation of the predicate as an activity or as one implying a state.

- (63) a. La campana ha suonato per due ore.
 the-FSG bell-FSG have-PRES-3SG toll-PSTPART for two hour-FSG
 'The bell tolled for two hours.'
- b. La campana è suonata.
 the-FSG bell-FSG be-PRES-3SG toll-PSTPART-FSG
 'The bell tolled'
- (64) a. Il pero ha fiorito due volte quest' anno.
 the-MSG pear have-PRES-3SG bloom-PSTPART two time-FSG this-MSG year-MSG
 'The pear-tree bloomed twice this year.'
- b. Il pero è fiorito.
 the-MSG pear tree be-PRES-3SG bloom-PSTPART-MSG
 'The pear-tree is in bloom.'

As a first generalization we can state that *intransitive A-verbs are all activity verbs, while intransitive E-verbs belong to the other three classes*. The question we must ask at this point is: What do all of the E-verbs have in common and what distinguishes them from A-verbs?

The analysis of the logical structures of the verbs and of the semantic roles expressed by their arguments will make explicit the differences. Consider the following sentences containing intransitive verbs from all of the four verb classes:

Activities

- (65) a. Maria ha corso per un' ora.
 PN-F have-PRES-3SG run-PSTPART-FSG for a-FSG hour-FSG
 'Maria ran for an hour.'
- b. DO (Maria[run' (Maria)])
- (66) a. Il ragazzo ha starnutito.
 the-MSG boy-MSG have-PRES-SG sneeze-PSTPART
 'The boy sneezed.'
- b. sneeze' (ragazzo)
- (67) a. Il sole ha brillato.
 the-MSG sun-MSG have-PRES-3SG shine-PSTPART
 'The sun shined'
- b. shine' (sole)

States

- (68) a. Maria è stata ammalata.
 PN-F be-PRES-3SG be-PSTPART-FSG sick-FSG
 'Maria was sick.'
- b. sick' (Maria)
- (69) a. Carla è rimasta a casa.
 PN-F be-PRES-3SG remain-PSTPART-FSG at house-FSG
 'Carla remained at home.'
- b. be-at' (Maria, casa)

- (70) a. A Francesca è piaciuto il film di Altman.
 to PN-F be-PRES-3SG please-PSTPART-MSG the-MSG film-MSG of
 'Francesca liked the movie by Altman.'
 b. please' (il film, Francesca)
- (71) a. L'anello è appartenuto alla
 the-MSG ring-MSG be-PRES-3SG belong-PSTPART-MSG to.the-FSG
 famiglia di Costanza per cento anni.
 family-FSG of PN-F for hundred year-MPL
 'The ring belonged to Costanza's family for a hundred years.'
 b. have' (anello, famiglia)

Achievements

- (72) a. La lettera è arrivata oggi.
 the-FSG letter-FSG be-PRES-3SG arrive-PSTPART-FSG today
 'The letter arrived today.'
 b. BECOME be-at' (lettera, y)
- (73) a. La nave è affondata.
 the-FSG ship-FSG be-PRES-3SG sink-PSTPART-FSG
 'The ship sank.'
 b. BECOME sunk' (nave)
- (74) a. Ieri Marcello è svenuto.
 Yesterday PN-M be-PRES-3SG faint-PSTPART-MSG
 'Yesterday Marcello fainted.'
 b. BECOME NOT conscious' (Marcello)

Accomplishments

- (75) a. Marco è corso a casa.
 PN-M be-PRES-3SG run-PSTPART to house-FSG
 'Marco ran home.'
 b. [DO (Marco, [run' (Marco)])] CAUSE [BECOME be-at' (Marco, casa)]
- (76) a. Claudia è andata al cinema.
 PN-F be-PRES-3SG go.PSTPART-FSG to.the-MSG movie-theater-MSG
 'Claudia went to the movies.'
 b. [DO (Claudia, [go' (Claudia)])] CAUSE [BECOME be-at' (Claudia, cinema)]

In activity verbs, the single argument of the predicate expresses the semantic relations of agent, (65), effector (66) and locative, (67), i.e. semantic relations which are all subsumed under the generalized semantic notion of actor. Therefore in a construction containing an activity verb its pivot is an actor. All of the E-verbs, states, (68)-(70), achievements (72)-(74) and accomplishments (75)-(76), contain in their logical structure a stative predicate which describes a state or condition of being.⁹ The arguments of such stative predicates express the semantic relations of patient (68) and (74), and theme (69)-

9. The classes of achievements and accomplishments, which in logical structure contain the the abstract predicate BECOME, correspond to those verbs which in Parisi's classification (1976) contained the abstract predicate CHANGE in their semantic representation.

(73) and (75)-(76).¹⁰ Thus, it appears that verbs expressing an actor pivot occur with *avere*, and verbs expressing an undergoer pivot occur with *essere*.¹¹

Burzio, as we saw above in section 2, uses *ne*-cliticization as a test for ergative verbs (cf. (13)-(15)). Since all of the ergative verbs would have undergoer arguments in an RRG analysis, we would expect that *ne* could replace all of the undergoer arguments. This is clearly the case with achievement verbs such as *annegare* 'drown' (78), and in passives (79).

- (78) a. Due ragazzi sono annegati a Viareggio.
two boy-MPL be-PRES-3PL drown-PSTPART-MPL at
'Two boys drowned in Viareggio.'
- b. Ne sono annegati due a Viareggio.
of.them be-PRES-3PL drown-PSTPART-MPL two at
'Two of them drowned in Viareggio.'
- (79) a. Molti mafiosi sono stati arrestati
many-MPL be-PRES-3PL be-PSTPART-MPL arrest-PSTPART-MPL
dalla polizia.
by.the-FSG police-FSG
'Many mafiosi were arrested by the police.'
- b. Ne sono stati arrestati molti dalla
of.them be-PRES-3PL be-PSTPART-MPL arrest-PSTPART-MPL many by.the-FSG
polizia.
police-FSG
'Many of them were arrested by the police.'
- (80) a. Due ragazzi hanno nuotato fino alla boa.
two boy-MPL have-PRES-3PL swim-PSTPART as.far.as to.the-FSG buoy-FSG
'Two boys swam as far as the buoy.'
- b. *Ne hanno nuotato due fino alla boa.
of.them have-PRES-3PL swim-PSTPART two as.far.as to.the-FSG buoy-FSG
'Two of them swam as far as the buoy.'

The pivot of *annegare* and that of the passive construction are clearly undergoers, while that of *nuotare* is an actor; therefore, *ne*-cliticization is a test for undergoer pivot. When we apply the *ne*-test to *andare* and *correre*, the results seem to support the analysis of these verbs as having an undergoer pivot.

- (81) a. Tre ragazzi sono corsi alla stazione.
three boy-MPL be-PRES-3PL run-PSTPART-MPL to.the-FSG station-FSG
'Three boys ran to the station.'

10. Also transitive A-verbs contain stative predicates in logical structure i.e. accomplishments, achievements and states. In states and achievements, it is a two place predicate describing possession, cognition and perception; the semantic role of the first argument of these verbs is locative. In accomplishments instead, the argument of the state predicate is the non pivot argument, while the pivot of the construction is always an agent, if it is the argument of DO. In all transitive verbs then the pivot expresses the role of actor.

11. This is essentially restatement of Vincent's claim in RRG terms.

b. Ne sono corsi tre alla stazione.
of.them be-PRES-3PL run-PSTPART-MPL three to.the-FSG station-FSG
'Three of them ran to the station.'

(82) a. Molte donne sono andate all' aeroporto.
many-FPL woman-FPL be-PRES-3PL go-PSTPART-FPL to.the-MSG airport-MSG
'Many women went to the airport.'

b. Ne sono andate molte all' aeroporto.
of.them be-PRES-3PL go-PSTPART-FPL many-FPL to.the-MSG airport-MSG
'Many of them went to the airport.'

However, as noted in section 3, there is a component of volitionality in sentences like (81) and (82) which is not captured by positing an undergoer pivot. One way of testing for the volitionality of the pivot in the above constructions is by adding the phrase *di proposito* 'on purpose'.

(83) a. *Due ragazzi sono annegati di proposito a Viareggio.
two boy-MPL be-PRES-3PL drown-PSTPART-MPL of purpose-MSG at
*'Two boys drowned on purpose in Viareggio.'

b. Molti mafiosi sono stati arrestati
many-MPL be-PRES-3PL be-PSTPART-MPL arrest-PSTPART-MPL
di proposito dalla polizia.
of purpose-MSG by.the-FSG police-FSG
'Many mafiosi were arrested by the police on purpose.'

*'Many mafiosi were on purpose arrested by the police.'
c. Due ragazzi hanno nuotato di proposito
two boy-MPL have-PRES-3PL swim-PSTPART of purpose-MSG
fino alla boa.
as.far.as to.the-FSG buoy-FSG
'Two boys swam as far as the buoy on purpose.'

(84) a. Tre ragazzi sono corsi di proposito
three boy-MPL be-PRES-3PL run-PSTPART-MPL of purpose-MSG
alla stazione.
to.the-FSG station-FSG
'Three boys ran to the station on purpose.'

b. Molte donne sono andate di proposito
many-FPL woman-FPL be-PRES-3PL go-PSTPART-FPL of purpose-MSG
all' aeroporto.
to.the-MSG airport-MSG
'Many women went to the airport on purpose.'

In the sentences with unambiguous undergoer pivots, (83a-b), the addition of *di proposito* 'on purpose' either is simply ungrammatical (83a) or cannot be interpreted as being related to the pivot, i.e. (83b) cannot have the meaning 'many mafiosi let themselves be arrested on purpose.' (83c) with its actor pivot, on the other hand, is perfectly grammatical with *di proposito*. In (84) the pivots are compatible with *di proposito*, and in light of the facts of (83), this suggests that they are actors rather than undergoers. This is something of a paradox, since the *ne*-cliticization test in (81)-(82) indicates that the pivots with *andare* and *correre* are undergoers. The *di proposito* test shows that the analysis of E-verbs as simply having undergoer pivots (or neutral subjects, following Vincent 1982) cannot account for these verbs which have pivots exhibiting clear properties of both actors and undergoers.

The single argument of an intransitive accomplishment verb appears in logical structure both as the agent of the activity predicate and as the theme argument of the achievement predicate. Thus the same argument expresses both the volitional initiator of the action as well as the participant which undergoes a change of location. With an intransitive activity verb, on the other hand, the single argument is only the volitional initiator of the action; no change of location is coded. The logical structures in (55), repeated here as (85), illustrate this contrast clearly.

- (85) a. *be-at'* ([DO (Luisa, [run' (Luisa)])], parco) (=52a))
 b. [DO (Luisa, [run' (Luisa)])] CAUSE [BECOME *be-at'* (Luisa, casa)] (=52b))

What verbs like *andare* and *correre* have in common with the state and achievement E-verbs is the feature of having a pivot which is affected, i.e. the argument of a state predicate. *Andare* and *correre*, since they contain in their logical structure an activity predicate, will express an actor as their pivot. The pivot nominal, however, is also the theme, the affected argument of the state predicate. The pivot of *andare* and *correre* is therefore what we may call an *affected actor*. As Table 3 shows, affected arguments, i.e. theme and patient, are outside the normal range of choices for the actor role, and are therefore highly marked.

We can then state as a preliminary generalization about auxiliary selection in Italian that *essere* occurs with those verbs whose pivot is the affected argument of a stative predicate in logical structure, i.e. the argument in a state or location or undergoing a change of state or location.

This generalization will allow us to account not only for intransitive E-verbs but also for passives and transitive constructions containing reflexive pronouns (benefactive reflexives). In both of these cases, in fact, it is clear that the pivot is an affected argument.

- (86) a. Roberto ha comprato la carne.
 PN-M have-PRES-3SG buy-PSTPART the-FSG meat-FSG
 'Roberto bought the meat.'
 b. La carne è stata comprata da Roberto.
 the-FSG meat-FSG be-PRES-3SG be-PSTPART-FSG buy-PSTPART-FSG by PN-M
 'The meat was bought by Roberto.'
 c. [DO (Roberto, [do' (Roberto)]) CAUSE [BECOME *have'* (Roberto, carne)]

(86c) is the structure of a transitive accomplishment verb containing an actor, i.e. the argument of the operator DO, and an undergoer, i.e. the theme argument of the possession state predicate. In (86a) the actor, *Roberto*, is selected as pivot and this choice is accompanied by the auxiliary *avere*; in (86b) the undergoer *carne*, is chosen over the actor to become the pivot of the construction, with *essere* signalling the choice.

- (87) a. Giovanna si è tagliata.
 PN-F REFL be-PRES-3SG cut-PSTPART-FSG
 'Giovanna cut herself.'
 b. [do' (Giovanna)] CAUSE [BECOME *cut'* (Giovanna)]

- (88) a. Valeria ha fumato due sigarette.
 PN-F have-PRES-3SG smoke-PSTPART two cigarette-FPL
 'Valeria smoked two cigarettes.'

- b. Valeria si è fumata due sigarette.
 PN-F REFL be-PRES-3SG smoke-PSTPART-FSG two cigarette-FPL
 'Valeria smoked (herself) two cigarettes.'
- c. [DO (Valeria, [smoke' (Valeria)])] CAUSE [BECOME NOT be' (cigarette)]
 PURPOSE [BECOME benefited' (Valeria)]

In both (87a) and (88b), the pivot of the construction is that nominal which in logical structure, (87b) and (88c), is mapped onto the argument of a state predicate, as well as the argument of the activity verb.¹²

This analysis of transitive reflexives and benefactive reflexives differs from that in Parisi (1976). In his account, in fact, the selection of *essere* was triggered by the selection of an argument which is coreferential with the argument of a state. According to the RRG analysis, the triggering factor is the fact that the pivot is an argument of both the activity predicate and the affected argument of the state predicate in the logical structure.¹³

We have now provided an account of the general principles governing the choice of auxiliary in Italian. With respect to the previous semantic analyses, the present analysis has the unique advantage of providing a classification of the Italian verbs which is based on a set of independently motivated criteria. Each verb class is associated with a particular logical structure which makes explicit their differences and similarity with respect to the auxiliary selection phenomenon. Moreover, the RRG analysis has the advantage of combining their generalizations within a single framework.

4.2 A theory of marked pivot choice The generalization that *essere* signals a the choice of a pivot which is affected only accounts for those constructions in which the selection of a pivot is possible, i.e. the clauses which contain intransitive E-verbs, passives, reflexives. Such a generalization, however, will not be able to account for those structures which are pivotless, i.e. *Si*-impersonal constructions. It is, therefore, necessary to extend the analysis to deal with these cases: *the selection of the auxiliary in Italian is a reflex of markedness and prototypicality of pivot choice*. That is, *avere* is selected whenever the pivot is unmarked, i.e. an actor, and prototypical, i.e. it is effecting but not affected. *essere*, on the other hand, appears whenever the pivot is a marked choice, i.e. the undergoer, or is non-prototypical, i.e. an affected actor.

12. The past participles of verbs such as *bere* and *fumare*, which occur often in benefactive reflexive constructions have assumed a fully attributive function accompanied by a semantic change. In their attributive usage *bevuto* means 'drunk', and *fumato* means 'stoned'.

(i) Valentina era veramente bevuta/fumata ieri sera.
 PN-F be-IMPF-3SG truly drunk-FSG /stoned-FSG yesterday evening-FSG
 'Valentina was really stoned/drunk last night.'

13. The fact that transitive reflexives contain in their structure two arguments, the agent and the theme, both of which have some influence on the interpretation of the clause, justifies the alternation between the two auxiliaries in the thirteenth-century examples cited in Vincent (1982) (see note 8).

The actor pivot of a two-place transitive construction and the undergoer pivot of its corresponding passive represent the two opposite poles in the ideal continuum of markedness of pivot choice in Italian where actor is the prototypical, unmarked pivot choice, while the undergoer is the marked pivot choice. The markedness of the selection of an undergoer as the pivot of a transitive (state, achievement and accomplishment) construction is signalled at the morphosyntactic level by the auxiliary *essere* followed by the past participle of the verb which agrees in gender and number with the pivot undergoer. The actor and the undergoer pivots of an active and passive construction are the paradigmatic cases which regulate the distribution of the various Italian (transitive and) intransitive predicates along the continuum of markedness (see Table 4).

Table 4 Continuum of markedness in pivot choice in Italian

	ACTOR	Transitive	Accomplishments	least MARKED	A
P	[-affected]	"	Activities		V
	.	"	Achievements		E
I	.	"	States		R
	.	Intransitive	Activities		E
V	.				
	[+affected]	Transitive	Reflexives		E
O	.	Benefactive	Reflexives		S
	.	Intransitive	Accomplishments		S
T	.	"	Achievements		E
	.	"	States		R
	UNDERGOER	Passives		most MARKED	E

At the unmarked end of the continuum, starting from the most basic type of transitive predicate, we find, in the given order, transitive accomplishments, activities, achievements and states, and intransitive activities. All of these verbs have a prototypical pivot, i.e. an actor, and the specific semantic role of the actor is agent, effector, or locative (see Table 3). Clustered at the other end of the continuum are all of those verbs which have a pivot which is semantically affected by a process/state/activity; it may be an undergoer, as with a passive or intransitive state verb, or it may be an affected actor (agent-theme) with an intransitive accomplishment verb.¹⁴ For those (intransitive) verbs which do not express a pivot, such as those describing weather conditions, or those which can occur with either auxiliary, as for instance *suonare*, 'to toll', *fiorire*, 'to bloom', the selection of the auxiliary is based on the interpretation of the predicate as one describing an activity or as an achievement.

Both the syntactic and semantic analyses of auxiliary assignment in Italian have dealt in a rather ad hoc fashion with the occurrence of *essere* in *Si*-impersonal constructions (see above Burzio 1981 and Parisi 1976). Under the assump-

14. This continuum does not reflect the diachronic spread of the two Latin auxiliaries *habere* 'have', and *esse* 'be' within the various verb classes in Latin. Stative verbs of cognition were the first to occur with *habere* in the compound past tense forms. See Vincent (1982) and Tuttle (1986) for details on the spread of the auxiliary *habere* and *esse* in Latin and other Romance languages.

tion that the distribution of *essere* and *avere* reflects parameters of prototypicality and markedness of pivot choice, we can account also for the use of *essere* in *Si*-impersonal constructions. These constructions (for a discussion of both reflexive and *Si*-impersonal constructions see Castelfranchi & Parisi 1976 and Napoli 1976) have been considered semantically akin to passive constructions: they are said to be a case of "demotion" or "backgrounding" of the pivot (or subject) nominal. They, however, differ significantly from passives. Both transitive and intransitive predicates can occur in *Si*-impersonal constructions, while only a very restricted number of intransitives can occur in passives (see La Fauci 1983). The demoted or backgrounded nominal must always have the semantic feature [+human] and it refers to a plurality of individuals without specifying their identity. The personal pronoun *noi* 'we', or with the meaning of 'everybody', may co-occur with the clitic *si* in impersonal constructions.

In impersonal structures the clitic *si* indicates the lack of that argument which would have been the expected choice for pivot, be it an actor or an undergoer. In terms of a theory of markedness of pivot choice, it is obvious that the absence of a pivot is a situation even more marked than the selection of an undergoer or affected actor as pivot. The revised continuum of markedness of pivot choice is presented in Table 5.

Table 5 Continuum of markedness in pivot choice in Italian

	ACTOR	Transitive	Accomplishments	least MARKED	A
P	[-affected]	"	Activities		V
	.	"	Achievements		E
I	.	"	States		R
	.	Intransitive	Activities		E
V	.				
	[+affected]	Transitive	Reflexives		E
O	.	Benefactive	Reflexives		S
	.	Intransitive	Accomplishments		S
T	.	"	Achievements		E
	.	"	States		R
	UNDERGOER	Passives			E
Ø		<i>Si</i> -impersonal		most MARKED	

4.3 Past Participle Agreement So far we have not discussed the agreement of the past participle. Consider the following sentences.

- (89) a. Maria è uscita.
 PN-F be-PRES-3SG go.out-PSTPART-FSG
 'Maria went out.'
- b. I bambini si sono lavati.
 the-MPL child-PML REFL-3PL be-PRES-3SG wash-PSTPART-MPL
 'The children washed themselves.'
- c. Sara ha letto i libri.
 PN-F have-PRES-3PL read-PSTPART the-MPL book-MPL
 'Sara has read the books.'
- d. Sara ha letti i libri.
 PN-F have-PRES-3PL read-PSTPART-MPL the-MPL book-MPL
 'Sara read the books.'

As a generalization we can say that the PP agrees in gender and number with the affected argument, i.e. the patient or theme argument of a state predicate. This statement essentially identical to that in Parisi (1976), allows us to account for all the cases of PP agreement. The past participle agreement is obligatory when the argument of the stative predicate is the pivot of the construction (89a) and (89b), while it is optional when the argument of the state predicate is a non-pivot undergoer (89c) and (89d). Benefactive reflexives also display optional PP agreement (90). In the above structures the past participle can

- (90) a. Lia si è lavata le mani.
 PN-F REFL-1SG be-PRES-3SG wash-PSTPART-FSG the-FPL hand-FPL
 b. Lia si è lavate le mani.
 PN-F REFL-1SG be-PRES-3SG wash-PSTPART-FPL the-FPL hand-FPL
 'Lia washed her hands.'
 c. [DO (Lia, [wash' (Lia)])] CAUSE [BECOME washed' (le mani)]
 PURPOSE [BECOME benefited'(Lia)]

agree in gender and number with either of the two arguments of the stative predicates which appear in logical structure. It can agree with the pivot, which is a patient, or it can agree with the NP *le mani*, which is also a patient.

The classification of verbs in classes according to the features of the NPs and adverbials that occur with them accounts also for some facts relative to optional PP agreement. In particular, the optional PP agreement will occur with the second argument of transitive accomplishment (91a), state and achievement verbs, while it will not be possible in the case of transitive activity verbs, as in (92a).

- (91) a. Maria ha mangiata la pizza.
 PN-F have-PRES-3SG eat-PSTPART-MSG the-FSG FSG
 'Maria ate the pizza.'
 b. [DO (Maria, [eat' (Maria, pizza)])] CAUSE [BECOME NOT be' (pizza)]
- (92) a. *Anna ha mangiata pizza.
 PN-F have-PRES-3SG eat-PSTPART-FSG FSG
 'Anna ate pizza.'
 [DO (Anna, [eat' (Anna, pizza)])]

We have seen above (see section 4.0) that features of the arguments of a predicate such as specific vs. non-specific are responsible for the different classification of, say, 'eat pizza' as an activity predicate, and 'eat the pizza', as an accomplishment. This difference is represented in the logical structure of the predicates. In the accomplishment structure (91b) *la pizza* is the first argument of a stative argument, it is an undergoer, while in the activity structure (92b) *pizza*, is not the argument of a state predicate; rather, it is the second argument of the activity predicate. This feature would also account for the impossibility to select non-specific arguments of activity verbs as possible pivots of passive constructions.

- (93) a. La pizza è stata mangiata da Anna.
 the-FSG pizza-FSG be-PRES-3SG be-PSTPART-FSG eat-PSTPART-FSG by PN-F
 'The pizza was eaten by Anna.'
 b. *Pizza è stata mangiata da Anna.
 'Pizza was eaten by Anna.'

5.0 Lexical vs. syntactic theories of auxiliary selection The RRG analysis accounts for all of the same syntactic facts that Burzio's analysis accounts for. In particular it accounts for the distribution of *essere* and *avere* with the class intransitive verbs. Moreover it can account for phenomena which are not dealt with in a principled way within Burzio's treatment. In the RRG analysis Italian intransitive verbs are distributed into four classes whose logical structures are all related to each other by the simple addition or suppression of one (or more) abstract components of meaning. This ensures that all verbs, and not only those which enter in Burzio's ergative/transitive frames, are related to each other both in terms of their semantic and syntactic behavior. A lexical derivation rule for instance would derive from states such as *morto* 'dead', intransitive achievements such as *morire* 'to die', by the addition of the operator BECOME; intransitive achievements such as *morire* yield transitive accomplishments such as *uccidere* 'to kill', by adding the structure of an activity verb followed by the sentential connective CAUSE. The intransitive accomplishment use of *correre*, as in *Maria è corsa a casa*, 'Maria ran home', would derive from its intransitive activity use as in *Maria ha corso*, 'Maria run', by the simple addition of a resultative state, i.e. the logical structure of an achievement verb; this is a cross-linguistically well-motivated phenomenon. On Burzio's analysis it would be virtually impossible to show any kind of principled relationship between the two uses of verbs like *correre*, and consequently such verbs would have to be entered twice in the lexicon, once as an ergative verb and once as an intransitive verb, an analysis which misses an important generalization about the Italian verbal system.

In accounting for the occurrence of *essere* in *Si*-impersonal constructions Burzio, as we already noted above, had to stipulate that the clitic *si* properly binds the subject position although it does not c-command it. Without this ad hoc provision, it would have not been possible to account for the presence of *essere* with non-ergative verbs, there would have been no binding relation between the subject and its trace. In the RRG analysis we accounted for the distribution of *essere* in all contexts, in terms of a theory of marked pivot choice, that is *essere* is assigned to all those constructions in which there occurs a marked pivot choice, i.e. an affected actor, an undergoer or no pivot.

Burzio's formulation of the PP agreement rule does not allow and therefore cannot account for the optional PP agreement with the direct object. "A past participle will agree (in gender and number) with an element binding its direct object" (1981:148). It would be difficult in fact to find an element which binds the direct object in the case of optional agreement with a full postverbal NP. In the present treatment of PP agreement, on the other hand, both obligatory and optional agreement are accounted for by saying that the PP agrees with the patient or theme argument of a state predicate.

In light of these deficiencies in Burzio's account, we conclude that the RRG lexical semantic account is superior to a GB syntactic account of the selection of auxiliary verbs with Italian intransitive verbs.

REFERENCES

- Burzio, Luigi. 1981. *Intransitive verbs and Italian auxiliaries*. MIT dissertation.
- . 1983. Conditions on representation and Romance syntax. *Linguistic Inquiry*. 14. 193-221.
- Castelfranchi, Cristiano & Domenico Parisi. 1976. Towards One *si*. *Italian Linguistics 2: On Clitic Pronominalization*. 83-121.
- Dowty, David. 1979. *Word meaning and Montague grammar*. Dordrecht: Reidel.
- Fillmore, Charles J. 1968. The case for case. In Bach, E. & R. Harms, eds. *Universals in Linguistic Theory*, 1-88. New York: Holt, Rinehart & Winston.
- Foley, William & Robert D. Van Valin Jr. 1984. *Functional syntax and universal grammar*. Cambridge: Cambridge University Press.
- Gruber, Jeffrey. 1965. *Studies in lexical relations*. MIT dissertation.
- La Fauci, Nunzio. 1983. Passivi. In *Atti del XVII Congresso Internazionale di Studi della Società di Linguistica Italiana: Sintassi e Morfologia della Lingua Italiana d'Uso. Teorie e applicazioni descrittive*.
- Leone, Alfonso. 1954. A proposito degli ausiliari. *Lingua Nostra*. 15:127-131.
- . 1970. Una regola per gli ausiliari. *Lingua Nostra*. 31:24-30.
- Lepschy, Anna Laura & Giulio Lepschy. 1981. *La Lingua Italiana*. Milano: Bompiani.
- Parisi, Domenico. 1976. The past participle. *Italian Linguistics 1. Passive and impersonal sentences*. 77-106.
- Perlmutter, David. 1978. Impersonal passives and the unaccusative hypothesis. *BLS 4*. 157-189.
- . 1980. Relational Grammar. *Syntax and Semantics 13: Current Approaches to Syntax*, 195-29. New York: Academic Press.
- Rizzi, Luigi. 1978. A restructuring rule in Italian syntax. In Keyser, S. ed., *Recent transformational studies in European languages*. MIT Press.
- Tekavčić, Pavao. 1972. *Grammatica Storica dell'Italiano. Volume II: Morfosintassi*. Bologna: Il Mulino.
- Tuttle, Edward. 1986. The spread of *esse* as universal auxiliary in Central Italo-Romance. *Medioevo Romano* Vol. 11. Bologna: Il Mulino, in press.
- Van Valin, Robert. 1981. Grammatical relations in ergative languages. *Studies in Language* 5:361-394.
- Vendler, Zeno. 1967. *Linguistics in philosophy*. Ithaca: Cornell University Press.
- Vincent, Nigel. 1982. The development of the auxiliaries *habere* and *esse* in Romance. In Vincent, Nigel & Martin Harris eds., *Studies in the Romance verb*. 71-96. London: Croom Helm.