

Proceedings of the Eleventh Annual
Meeting of the North Eastern
Linguistic Society

Edited by
Victoria Burke
James Pustejovsky

U.Mass
Amherst, Mass.
April, 1981

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THE CHOICE OF AUXILIARY AND AGREEMENT IN ITALIAN

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This paper examines two related phenomena in Italian: the choice of auxiliary and agreement. The expression 'choice of auxiliary' refers to the fact that, in Italian, the perfective tenses can be formed with either the auxiliary avere 'to have' or essere 'to be' plus the past participle of the verb. Some relevant examples are in (1). In (1a,b) the auxiliary is avere; in (1c) essere accompanies the past participle.

- (1) a. Maria ha colpito (visto, amato, ecc.) Gianni
'Maria (has) hit (seen, loved, etc.) Gianni'
- b. Maria ha dormito (ballato, camminato, ecc.)
'Maria (has) slept, danced, walked, etc.'
- c. Gianni è partito (andato, morto, migliorato, ecc.)
'Gianni (is) left (gone, died, improved, etc.)'

The agreement I will discuss is specifically the number and gender inflection found on the past participles in certain of these constructions.¹ The distribution of the auxiliaries² is as follows. All transitive verbs (as in (1a)) take avere. Most intransitive verbs (as in (1b)) also take avere. These intransitives I will refer to as A-intransitives. Finally, there is a subset of the intransitives which take essere (as in (1c)).³ The latter are generally characterized in traditional grammars as verbs of motion or state. In this analysis they will be called E-intransitives.

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The agreement facts can be stated as follows. In E-intransitive constructions the past participle agrees in gender and number with the subject as in (2).

- (2) Le ragazze sono partite 'The girls (are) left'
I voti sono migliorati 'The grades (are) improved'

In transitive sentences the past participle agrees with a preverbal accusative clitic only as in (3).

- (3) Maria li ha comprati 'Maria them (has) bought'
 Gianni li ha visti 'Gianni her (has) seen'

In all other cases the past participle is invariant, marked by the masculine singular affix -o as in (1a,b).

It is worthwhile to note at this point, given the facts thus far presented, that any attempt to explain the choice of auxiliary or agreement based on the quasi-adjectival status of past participles will be deficient in several respects. That is to say, if these past participles are adjectives, we would expect them all to cooccur with essere since avere, presumably, is not subcategorized for adjectives. A more principled analysis would be one in which the intransitive past participles are assigned adjectival status, given that they do not assign Case. However, only a small subset of the intransitives take essere and exhibit agreement. Thus the only descriptively adequate account along these lines would assign adjectival status to the participles of E-intransitives. In these constructions the lack of Case assignment, agreement, and cooccurrence with essere would then follow. However, this split of the intransitives into adjectival past participles and verbal past participles seems to me entirely *ad hoc* since neither assigns Case, the only phenomenon which is independent of the facts we are aiming to explain. Furthermore, an analysis of this sort leaves the agreement with clitics entirely unaccounted for. It could be argued that the two cases of agreement are distinct and should be accounted for independently. In the second part of this paper I will argue that they are not and offer an analysis in which they are reduced to a unified phenomenon.

Within my own analysis, I will be assuming the Government-Binding Theory (Chomsky, 1979), specifically, the theory of (abstract) Case, which requires that all lexical NP's be assigned Case, and the Empty Category Principle (ECP), which requires that an [e]_{NP} be 'properly governed'. For the purposes of this paper we may assume 'proper government' to be minimal c-command by a [\pm N, \pm V].⁴ I further assume the theory of Thematic Roles (henceforth, θ -roles) presented in Borer (1979) and Chomsky (1980).

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This theory assumes that a complete characterization of the grammatical structure of a sentence includes a specification of the thematic relations such as agent, theme, goal, etc. θ -roles are assumed to be determined by the intrinsic properties of the lexical items and their deep structure grammatical configuration. The assignment of θ -roles conforms to the θ -Criterion, a biuniqueness condition which requires that each referring expression (R-expression) fill exactly one θ -role and each θ -role be properly filled. The θ -Criterion is stated explicitly in (4).

- (4) The θ -Criterion (Chomsky, 1980)

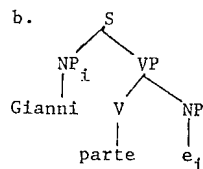
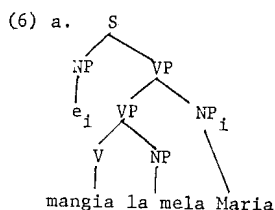
- a. Each θ -position is assigned an R-expression
- b. Each R-expression is assigned a θ -role
- c. Only R-expressions are assigned to θ -positions

A moved element is assumed to inherit its θ -role from its trace. As pointed out by Borer, the θ -Criterion thus predicts that an argument can only move from a θ -position to a non- θ -position. In Chomsky (1980) it is assumed, furthermore, that PRO is a referring expression and thus requires a θ -role.

I will begin the analysis by assuming that the verbs in Italian can be divided into three distinct classes which are to be distinguished on the basis of their thematic properties. Specifically, transitive verbs assign a θ -role to both [NP,S] and [NP,VP]; the A-intransitives assign a θ -role to [NP,S]; the E-intransitives assign a θ -role to [NP,VP] only.⁵ (This analysis for Italian has also been proposed by Burzio (1979), and by Borer (1979) for Hebrew.) Given the θ -Criterion, the arguments associated with these verbs must be base generated in the positions to which θ -roles are assigned. The base structures associated with each verb class will therefore be as in (5).

- (5) a. Maria mangia la mela 'Maria eats the apple'
 + θ + θ
 b. Gianni dorme 'Gianni sleeps'
 + θ
 c. Parte Gianni 'Leaves Gianni'
 + θ (Gianni leaves)

At surface structure all three constructions permit of both postverbal and preverbal subjects. I will assume, following Belletti & Rizzi (1980), that in sentences like (5a,b) postverbal subjects are derived via adjunction to VP, and that in (5c) a preverbal subject is derived via substitution in [NP,S]. Movement results in structures of the form of (6).



One might ask at this point if there is any independent motivation for assuming that the subject in (5c) is base generated in direct complement position. Both Burzio (1979) and Belletti & Rizzi (1980) have pointed out that the subjects of E-intransitives behave like objects with respect to ne-cliticization. Ne is the partitive clitic. Consider the sentences in (7).

- (7) a. Maria ne ha letto molti 'Maria of them (has) read many'
(Maria has read many of them)
- b. Ne sono arrivati molti 'Of them many (have) arrived'
(Many of them have arrived)

Note furthermore that it is not possible to ne-cliticize the subjects of transitive or A-intransitive verbs. Consider the ungrammatical sentences in (8).

- (8) a. *Ne hanno dormito molti 'Of them slept many'
(Many of them slept)
- b. *Ne hanno mangiato la mela molti 'Of them ate the apple many'
(Many of them ate the apple)

To account for this contrast Belletti & Rizzi propose roughly the structures in (6). If a ne-clitic was the subject of (6b), rather than Gianni, the trace left behind by cliticization would be properly governed by the verb parte. However, if ne were to replace Maria in (6a), its trace would not be governed by mangia in violation of the ECP.

Certain intonational facts also support the hypothesis that the subjects of E-intransitives appear in direct complement position. Sentences (9a,b) and (11a) may be uttered with no intonational break between the verb and the postverbal NP, while the sentences in (10) and (11b) are possible only with a pause (indicated by the comma).

- (9) a. E arrivato Gianni 'Gianni (is) arrived'
- b. Verrà uno degli studenti 'One of the students will come'

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- (10) a. Ha dormito, Gianni 'Gianni (has) slept'
- b. Ha mangiato la torta, Maria 'Maria (has) eaten the pie'
- c. Ha mangiato, Maria, la torta " "
- (11) a. E andato Giorgio al negozio 'Giorgio went to the store'
- b. E andato al negozio, Giorgio " " 6

These patterns would follow straightforwardly if we assume that the intonational break is created by adjunction in (10a,b) and (11c), and by double adjunction in (10c). Where there is no pause between the verb and a postverbal NP, we may further assume that the NP is in VP.

Assuming the correctness of the analysis proposed by Belletti & Rizzi and the facts concerning intonation, there must exist a direct complement position in the base configuration of E-intransitives. One might claim that the subject moves into postverbal position prior to cliticization. However, the simplest analysis would have the subjects of these constructions base generated directly in postverbal position. The claim that E-intransitives assign a θ -role only to the element in [NP,VP] assures this result. I will thus assume that the postverbal subjects of transitives and A-intransitives are derived via adjunction to VP and inherit their θ -role from the trace in subject position, but that the postverbal subjects of E-intransitives are base generated in direct complement position - the only position in which they may receive a θ -role.

Before proceeding, there are two further assumptions which should be made explicit. First, following Jaeggli (1980), I will assume that in Italian [NP,S] is an ungoverned position. That is, INFLECTION is located directly on the verb where it overtly appears.⁷ Given this assumption, it follows that nominative Case cannot be assigned via government. Rather, within this analysis Case is assigned freely to an NP in a tensed sentence which has not been assigned Case via strict subcategorization (equivalently, government by the verb). Where subjects are generated postverbally they may receive Case directly in that position. Given the structure in (12) movement will not be forced by the Case Filter (*N where N has no Case).

- (12) [e]_{NP} parte Gianni

As it stands, however, the sentence does violate the ECP i.e., the empty category in subject position is not properly governed. Two options are available to this construction. Either the subject reposes to cover the offending empty category as in (13), or a

"dummy" PRO is inserted into subject position as in (14),

(13) Gianni_i parte e_i

(14) PRO parte Gianni

We will require of a PRO in subject position that it be non-distinct in features from a postverbal subject. That is, we will require that it be α -coindexed with Gianni.⁸ Recall that a PRO in subject position will be licit since this position is ungoverned.⁹ Finally, there is a third possibility, namely that no lexical subject appear at all as in (15).

(15) Parte '(some unspecified person) leaves'

The structure underlying this sentence will be (16).

(16) PRO_i parte e_i

In (16) PRO has been base generated in [NP,VP]. Movement, of course, is forced by the requirement that PRO be ungoverned (see fn. 9). Note that this PRO need not be α -coindexed since the condition that it be non-distinct from a postverbal subject applies vacuously. Thus we have two PRO's in Italian, the first, a dummy PRO which has an α -index, the second, a PRO which is simply a lexical subject minus a phonetic matrix. We may now inquire into the thematic properties of these two elements. As mentioned earlier, Chomsky (1980) assumes PRO to be a referring expression. Here, however, there is a principled distinction to be drawn between the two. Where PRO is the sole subject of a sentence, that is, a lexical subject minus a phonetic matrix, PRO is in fact a referring expression requiring a θ -role. However, where PRO is a dummy element, inserted to save the construction from the effects of the ECP, it is fair to assume it has no referential properties. The claim then is that an α -coindexed PRO is not a referring expression and hence requires no θ -role. The distinction is essentially that of the two *its* in English, one a referring expression as in *John saw it*, the other, a dummy element as in *it seems to be raining*.

Returning now to the E-intransitive structures containing past participles, we have three possible derivations given in (17).

(17) a. [e]_{NP} è partito Gianni \longrightarrow Gianni_i è partito e_i

b. [e]_{NP} è partito Gianni \longrightarrow PRO è partito Gianni

c. [e]_{NP} è partito PRO \longrightarrow PRO_i è partito e_i

The postverbal subjects in (17) receive their θ -role in [NP,VP]. Movement, when it occurs, as in (a) and (c), must be to a non-thematic position. Similarly, in (b), where PRO is a non-referring expression

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it can be inserted only into a non-thematic position. In these sentences the choice of *essere* as auxiliary follows from the assumption that *be* in Italian, as in English, assigns no θ -role to [NP,S].

The analysis is analogous to that proposed by Chomsky for the English passive (Chomsky, 1980), where it is claimed that the two defining properties of the passive are 1) no Case is assigned to [NP,VP], and 2) no θ -role is assigned to the element in [NP,S], distinct from that which it receives in [NP,VP]. In the English passive movement from object position in 'e was hit John' is forced by the Case Filter. Since *John* receives a θ -role in [NP,VP], the position to which it moves is necessarily non-thematic. In Italian movement, or PRO insertion, is forced by the ECP. An *essere* AUX assures that the position to which movement or PRO insertion occurs is non-thematic.

Note that the assumption that *essere* assigns no θ -role to [NP,S] is needed independently is we are to account for the passive in Italian which is in most respects identical to the English passive.¹⁰ Consider the sentence in (18).

(18) PRO è stato letto il libro 'Was read the book'
(The book was read)

Assuming, as suggested by Chomsky, that the essential property of the passive is that it "absorbs" objective Case, *il libro* may, and indeed must, be assigned nominative Case if the sentence is to escape the Case Filter. A PRO is inserted into subject position if *il libro* does not prepose. In either case the subject position in passives is necessarily non-thematic.

Having presented the Italian passive, I would like to make one further observation. In sentence (18) notice that the past participle of the copula, *stato*, itself takes *essere* as AUX, unlike French and Spanish, for example, which form the passive with the auxiliary *have* as in (19).

(19) a. Le livre a été lu 'The book was read'

b. El libro ha sido leído " "

Given this fact, we need no independent stipulation that *essere* assigns no θ -role to subject position since it itself appears to belong to the set of E-intransitive verbs.

I would now like to briefly discuss the thematic properties of the second auxiliary *avere*. The relevant sentences are in (1a,b) (repeated below).

(1) a. Maria ha colpito (visto, amato, ecc.) Gianni

b. Maria ha dormito (ballato, camminato, ecc.)

In Italian the auxiliary avere is identical to the transitive verb meaning 'to have'. Note that this need not be the case. In Spanish, for example, the auxiliary is haber while the verb which expresses the meaning 'to have' is tener. Consider the sentences in (20).

- (20) a. (Yo) tengo el nuevo libro de Chomsky
'I have Chomsky's new book'
- b. *(Yo) he el nuevo libro de Chomsky
- c. (Yo) he comido un plátano
'I have eaten a banana'

Given the above, it is not implausible to claim that in Italian the auxiliary avere retains the transitive thematic property of having an [NP,S] θ -position, while the assignment of a θ -role to [NP,VP] is taken over by the main verb. It is an open question at this point whether avere itself assigns a θ -role to [NP,S] or whether it transmits the θ -role assigned to [NP,S] by the main verb. I will assume, without attempting to justify the choice, that avere itself does the assigning. It will thus follow that those verbs which have an [NP,S] θ -position, namely transitives and A-intransitives, take avere as auxiliary.

Turning now to agreement, recall that the past participles of E-intransitives agree in number and gender with the subject (as in (2)), while the past participles in transitives agree with a preverbal clitic (if present). Assuming that the subjects of E-intransitives are generated postverbally, agreement now appears to be a relationship which obtains between a verb and the argument to which it assigns a θ -role. More generally, we might say that agreement is a relationship which holds between a category X and the argument to which X assigns a θ -role. This broader claim will also include the agreement between a predicate adjective and its argument (as in (21)), and a predicate nominal and its argument (as in (22)).

- (21) I ragazzi sono pazzi 'The boys are crazy'
- (22) Maria è una cretina 'Maria is a cretin'

There is an immediate counterexample to the above claim, namely those transitive constructions which contain full lexical objects as in (23).

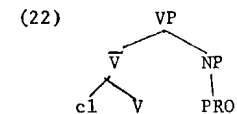
- (23) a. *Maria ha mangiata la mela 'Maria ate the apple'

b. Maria ha mangiato la mela 'Maria ate the apple'

In (23) mangiare does, presumably, assign a θ -role to its object la mela. Agreement, however, is impossible. Note that this is precisely the circumstance in which the element in object position receives Case via government by the verb. It appears then that where Case assignment via government is on, agreement is off, and vice-versa. This result would be expected if Case and agreement were two realizations of the same underlying feature. More precisely, imagine a feature [F] associated with those verbs which assign a θ -role to [NP,VP], which may be realized as Case on the NP or as agreement on the verb. In (20a), where [F] is spelled out as agreement, we may assume the ungrammaticality to be due to the absence of Case on la mela. Accordingly, this sentence will be thrown out by the Case Filter. Similarly, in (24a), a passive with postverbal subject, and (24b), an E-intransitive with postverbal subject, Maria has received Case, but not from the verb. Rather, nominative Case has been assigned freely to that position. Agreement is therefore predicted.

- (24) a. E stata vista Maria 'Maria was seen'
- b. E partita Maria 'Maria left'

Clitic constructions are slightly more complicated. Consider the sentences in (3). With regard to the structure of these sentences, I will assume, following Strozer (1976), Rivas (1977) and others, that the clitic is base generated preverbally as in (22).



The presence of the clitic destroys the c-command relation which would otherwise hold between the verb and the NP. As proposed in Jaeggli (1980), object position is thus ungoverned and may contain a PRO. The position is, furthermore, uncased, Case assignment being either an instance of government or a result of the 'assign nominative Case' rule. Since [NP,VP] does not receive Case via government in clitic constructions, we have agreement on the verb as expected. However, we must also assume that the clitic, a lexical NP, receives Case in some fashion if the structure is to survive the Case Filter. This would create a situation in which we have both Case and agreement, in apparent contradiction to the analysis proposed in this paper. This contradiction may be resolved in the following way. Given the tree in (22), we may assume that the feature [F] is located on the verb where it is realized as

agreement. We may further assume that [F] may percolate up to \bar{V} and down onto the clitic where it is realized as Case. Crucially, however, this feature may not appear on [NP,VP] (where it would also be realized as Case). With feature percolation it is thus possible for [F] in this configuration to be realized as both agreement on the past participle and Case on the clitic while still maintaining the complementarity proposed in this analysis.

To sum up, I have tried to argue that the choice of auxiliary in Italian is determined by the thematic properties of three distinct verb classes. The base structure associated with E-intransitives is independently motivated, I believe, by the facts of ne-cliticization and certain intonational patterns associated with postverbal subjects. I further suggested that the two occurrences of agreement on past participles, and the agreement in predicative constructions, can be reduced to a unified phenomenon if viewed as a relation between a lexical category and the argument to which it assigns a θ -role.

FOOTNOTES

*I am grateful to Bob Fiengo, Tom Maxfield, Carmen Picallo, Ed Battistella, Neil Elliot, Terry Langendoen, and Osvaldo Jaeggli for their many comments and criticisms. I would also like to thank Massimo Moneglia and Emanuela Cresti for their help with the data. All errors, of course, are my own.

¹I will not discuss a second instance of agreement, namely that which occurs between the nominative element in the sentence and the tense/person inflection on the verb.

²I use the term 'auxiliary' for clarity of exposition, though I do not assume Italian to contain a true auxiliary system like English. That is to say, there is no AUX constituent. Rather, essere and avere, as well as the passive marker, again essere, form part of a right branching verbal complex.

³Essere is also used in the passive, with reflexive verbs, and in the so-called 'impersonal SI' construction. I will briefly discuss the passive here, but will have nothing to say about the other two cases. For interesting discussion of the 'impersonal SI' see Belletti (1980).

⁴In Chomsky (1979) proper government is defined as follows.

α properly governs β if α governs β and
(i) $\alpha = [\pm N, \pm V]$, or
(ii) α is coindexed with β

(ii) is irrelevant to the present discussion.

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⁵More exactly, it is probably the case, as suggested in Chomsky (1980), that the object is assigned its θ -role by the verb within VP, while the subject θ -role is determined compositionally by the VP in S. Chomsky assumes that, idioms apart, every element in VP is assigned a θ -role, though this is not so of subjects. Specifically, subjects of passive, raising, and existential constructions are assigned no θ -role in [NP,S].

⁶I am grateful to Massimo Moneglia for these judgements. For a comprehensive analysis of word order and intonation in Italian see Antinucci & Cinque (1977).

⁷This is to be contrasted with the analysis proposed in Chomsky (1979) which assumes the rule $S \rightarrow NP\ INFL\ VP$ which has subject position governed by INFL. Chomsky further proposes that in PRO Drop languages, like Italian, the element in [NP,S] is coindexed with AG (in INFL). An empty category in this position would be properly governed on his analysis.

⁸Whether α -coindexing is simply an instance of the more general rule of COINDEX is unclear at this point.

⁹I am assuming, following Chomsky (1979), that PRO must be ungoverned.

¹⁰It would also follow that Raising verbs take an essere AUX since these verbs, like E-intransitives and passives, assign no θ -role to [NP,S]. See footnote 5.

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\bar{X} MORPHOLOGY*

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Sapir (1921, chapter 6) distinguishes morphological structures according to four 'techniques,' which can be arranged in the hierarchy of (1). While some of these terms are used in different senses by various authors, I shall assume the interpretation indicated in (1), which is probably not the only possible interpretation of Sapir's intentions.

- (1) a. Isolating (one morpheme per word), e.g. I have the book
- b. Juxtaposing or agglutinating (affixes loosely bound to roots within words, usually with open junctures), e.g. good#ness
- c. Fusion (affixes more tightly bound to roots within words with phonological changes in one or both, usually with close juncture), e.g. dep+th; illus+ion
- d. Symbolism (internal change; individual morphemes not isolable), e.g. sang, sung.

Most languages use two or more of these techniques and, as our examples show, English uses all four. Nevertheless, Sapir believed that languages could be grouped according to their dominant techniques. In Sapir's classification, English and Latin are both grouped as primarily fusional languages. English and Latin differ, however, along another dimension which Sapir develops, one which