North East Linguistics Society

Volume 22 Issue 1 NELS 22

Article 12

1992

Another Look at Object Agreement

Carol Georgopoulos University of Utah

Follow this and additional works at: https://scholarworks.umass.edu/nels



Part of the Linguistics Commons

Recommended Citation

Georgopoulos, Carol (1992) "Another Look at Object Agreement," North East Linguistics Society. Vol. 22: Iss. 1, Article 12.

Available at: https://scholarworks.umass.edu/nels/vol22/iss1/12

This Article is brought to you for free and open access by the Graduate Linguistics Students Association (GLSA) at ScholarWorks@UMass Amherst. It has been accepted for inclusion in North East Linguistics Society by an authorized editor of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.

Another Look at Object Agreement

Carol Georgopoulos

University of Utah Linguistics Program

This paper continues the current focus on the structural basis of object agreement, but proposes a maximally simple and transparent theory in which object agreement is related to agreement with other A positions via the same mechanism: specifier-head coindexing.

Any theory of object agreement must account not only for (1) the position from which some phrase triggers agreement, but also for (2) the conditions within VP that determine the distribution of agreement: when it is licensed and when it is not, for example, why unaccusatives do not trigger object agreement, (3) the relations among the types of agreement available (e.g., agreement with direct object vs. agreement with indirect object), and (4) the dependence of object agreement on agreement within IP (subject agreement). A theory that does only (1) without being required to account for the associated phenomena (2) through (4) does not account for object agreement in its totality. I consider the central grammatical property underlying this phenomenon to be transitivity. Since (2) through (4) are about transitivity, a complete account must cover all four.

The paper will present a theory that can derive the priority of subject agreement over object agreement, explain the complementarity of object agreement and indirect object agreement, and predict the lack of object agreement with unaccusatives. It covers the distribution of agreement in any VP (transitive, intransitive, unaccusative, 'internal-subject', 'double-object', etc.), using in each case the constraints on the same coindexing relation, spec-head coindexing within VP. The theory accounts for these phenomena without postulating any new adjoined positions or any new functional phrases.

By disallowing any VP positions beyond those provided by the conservative phrase structure theory in (1) below, there arises a "competition" for Spec(V) position. This competition is actually a key factor in accounting for all the agreement relations we will discuss.

It should be kept in mind that what is at issue here is clausal or syntactic agreement involving A positions, and not, for example, agreement between a head and a modifier within NP. Note also that what is presented below is a theory about an *abstract* syntactic relation; whether or not this relation surfaces in overt morphological forms is not considered.

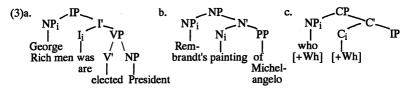
CAROL GEORGOPOULOS

1. Phrase-structural assumptions

I adopt the approach to phrase structure of Chomsky (1986), in which all syntactic categories are projected according to the following schemata, where X ranges over all zero-level heads (V is not exceptional) and order is parametrized separately. X and its specifier may be coindexed, as indicated:

(2) Specifier-head coindexing: YP_i ... X_i in all XP.

The coindexing in (2) is assumed to underlie syntactic agreement. (Particular specifiers will be referred to below as Spec(X).) The following are some familiar types of specifier-head coindexing:



 $[V_P [V_i V_i NP] NP_i]$ is also a possible instantiation of these schemata.

When this theory is extended to VPs with object-agreeing verbs, unaccusative verbs, and certain other heads, it might be expected that problems would arise. Nevertheless, the optimum situation is that these structures can be handled the same way, yielding a unified theory. In fact, they can. This is accomplished by first establishing the syntactic basis for the well known "implicative" relation between subject agreement and object agreement. It is only when there is a thematic argument in Spec(I), capable of triggering agreement, that agreement with Spec(V) is possible.

2. Object Agreement

The apparent structural problem with object agreement is that agreement seems to be with the complement rather than specifier. Consider first some actual examples of object agreement:

(4) Palauan (VOS; Georgopoulos 1991b)

a. te-'illebed-ii a bilis a rngalek 3p-hit -3s dog children The kids hit the dog.

- b. ng-'illebed-ak
 3s-hit-1s
 S/he hit me.
- c. ng-'illebed-au 3s-hit-<u>2s</u> S/he hit you.

(5) Papago (SOV; Zepeda 1983)

- a. A:cim ac g wisilo ceposid we(pl) aux(pl) det calf(sg) brand(sg) We are/were branding the calf.
- A:ñi añ g wipsilo ha-cecposid
 I(sg) aux(sg) det calves(pl) brand(pl)
 I am/was branding the calves.

(6) Swahili (SVO; Vitale 1981)

- Juma a-li-mw-a-a fisi
 he-pst-him-kill hyena

 Juma killed a hyena.
- b. tu-li-(vi)-pot-ez-a vitabu vyote

 we-pst-<u>ihem-lose-CAUSE books all</u>

 We lost all of the books.

(7) Georgian (Boeder)

- a. kata-m nior-i ar Ø-cam-a cat-ERG garlic-NOM not 3obj-eat-3s.subj
 The cat would not eat garlic.
- b. Nana Ø-kocni-s Sota-s

 Nana-NOM 3obj-kiss(PRS)-3s.subj Sota-DAT

 Nana kisses Shota.
- c. Nana-m Ø-kocn-a Sota

 Nana-ERG 30bj-kiss(AOR)-3s.subj Sota-NOM

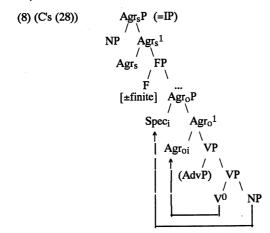
 Nana kissed Shota.

Related phenomena are the parallel paradigms for transitive verbs in Hungarian (Moravcsik 1988; Farkas 1985), in which the choice between paradigms depends on the definiteness (and other features) of the object (though number and person agreement is with the subject).

To facilitate agreement with a specifier, Chomsky (1988) proposes that the clause contains Agr_0P , headed by Agr_0 , or object agreement. (Agreement with the subject, via Agr_s within IP, is distinct from the constituents of Agr_0P .) The

CAROL GEORGOPOULOS

verb moves to Agr₀, and the object moves to specifier (see (8)). Note the proliferation of structure in this approach. In addition, if specifier-head coindexing is sufficient to agreement elsewhere, it would be preferable to account for these phenomena without a special agreement phrase for object agreement (or for subject agreement).



2.1 Double-object verbs

Before we develop an alternative account of the data in (4) through (7), consider first a VP whose head is a 'double-object' verb like 'give', 'send', 'sell', 'lend', and so on. This will establish the first step in accounting for agreement with the object in Spec(V). It is widely known that such verbs, in languages with overt object agreement morphology, prefer to agree with the dative or indirect object rather than the direct object. In thematic terms, an argument such as the goal or source triggers agreement, instead of the theme:

(9) Palauan

- a. ng-mils(k)-ak a buk a Tmerukl 3s-gave-1s book
 Tmerukl gave me a/the book.
- b. ak-mils-**terir** a buk

 1s-gave-3p book
 I gave them a/the book.
- c. ng-mils-terir a buu' a rngalek a Sabino
 3s-gave-3p betel.nut children
 Sabino gave the kids some betel nuts.

169

(10) Huichol (Comrie 1982)

nee waakanaari ne-**meci**-tikiiti eeki *I chickens 1s-<u>2s</u>-give you* I gave the chickens to you.

(11) Swahili (Vitale 1981)

- a. ni-li-m-pa kaka yangu zawadi

 I-pst-to.him-give older.brother my present
 I gave my older brother a present.

(12) Georgian (Harris)

- a. Rezo mačukebs samajurs (me)

 R-NOM he-give-it-me-IND bracelet-DAT me-DAT

 Rezo is giving a bracelet to me.
- b. Rezo gačukebs samajurs (sen)

 R-NOM he-give-you-it-IND bracelet you-DAT

 Reze is giving a bracelet to you.

(These are Harris' glosses, though most workers report only two slots available in Georgian, and that IO takes precedence over DO.)

It appears, from the literature, that the facts are similar for ASL, as for many other languages. ¹

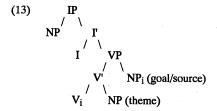
Intuitively, though both arguments are potential agreement triggers, when an indirect object is present it is the trigger.² This has often been accounted for in functional terms, for example, in terms of animacy. However, assuming any version of a thematic hierarchy that is responsible for mapping arguments to d-

¹ John E. Koontz, writing on the Linguist List electronic bulletin board (11 June 1992), notes: "...in the Mississippi Valley Siouan languages, e.g., Dakotan, Omaha-Ponca, or Winnebago... If a transitive clause includes IO, then verb object person concord is with IO, not DO. In addition, there is a specific pattern of derivation that marks verbs as S + IO verbs rather than S + DO verbs. There is no marking on the object." Pam Munro, same place on the same date, notes that the facts for Muskogean languages are the same, concluding: "if you want to express both an agreeing indirect object and an agreeing direct object, the indirect object wins".

² Such facts bear negatively on analyses in which the verbal inflections represent the arguments of a clause, with full NPs being adjuncts. In the cases at hand (see also the section on predicate NPs, below), there is no inflection for the object argument.

CAROL GEORGOPOULOS

structures (see, e.g., Jackendoff 1972), the goal/source would be in specifier position and the theme in complement; thus spec-head coindexing accounts automatically for agreement with the "indirect object" in this type of VP. (On VPinternal subjects, see below.)



This analysis gives a natural syntactic explanation of what has been a small mystery, from a syntactic point of view. That is, the apparent semantic conditioning of object agreement in these cases is another fact about agreement in VP that a theory of object agreement needs to account for.

2.2 Support from NP predicates

More generally, when two arguments are mapped inside the domain of some head X and one argument controls agreement, that argument is always in the specifier. Since the theme is most likely to be mapped as complement, the theme will not trigger agreement when a second argument is in a position to do so.

Support for this can be found in certain predicate NPs. In Palauan, a set of psychological predicates take the form of inalienably possessed nouns, whose head bears "possessor agreement". The subject of IP in these constructions is empty at d-structure; both arguments are mapped within the NP (see Georgopoulos 1991a for details). In the following examples, the N predicate head is so(a)-, and agrees with the possessor/experiencer:

- (14)ng-so-al a biang a buik 3s-like-<u>3s</u> beer **boy** The boy likes/wants beer. (Lit. '(It is) the boy's liking (of) beer')
 - b. ng-soa-rir a Willy a rbuik 3s-like-3p The boys like Willy. (Lit. '(It is) the boys' liking (of) Willy')
 - c. ng-soa-rir kemam a rbuik 3s-like-<u>3p</u> us.ex The boys like us. (Lit. '(It is) the boys' liking (of) us')

The coindexing relation in these predicate phrases would therefore be characterized as follows (ignoring the presence of the theme):

- (14)' a. [NP so- ali buiki] like 3s boy
 - b. [Np so-(a)riri rbuiki] like 3p boys

The complement (the theme) cannot trigger agreement within these NP; only the specifier (the possessor) can:

- (15) a. *ng-soa**rir** a rbuik a Willy 3s-like-3p boys (Willy likes the boys)
 - b. *ng-soal a kukau / *ak-soal a kukau
 3s-like-3s taro Is-like-3s taro
 (I like taro) (I like taro)

This is the same distinction as that made by indirect object agreement, above:

Such facts show that it is the *structural position* 'specifier', and not lexical or semantic features of a particular NP, that figures in agreement. Lex ico-semantic considerations enter the analysis only in the mapping of arguments to syntactic positions. Note further that it is not strictly accurate to say that the trigger is the IO or the DO either -- the trigger is simply the argument that is in specifier position.

2.3 Single-object verbs

The data from NP also support the present analysis in another way, in showing that agreement morphology is not triggered by the complement of X. We return now to mono-transitive VPs. Here, the object of V is mapped onto complement position, as in the standard view of subcategorization, and simply raises to the specifier to trigger agreement. This of course is possible only when that position is empty, and is thereby an appropriate landing site.

This simple analysis can be maintained even in the face of many apparent obstacles. First, unaccusatives should be a problem, as unaccusative arguments don't trigger agreement: what keeps them from raising? What about the VP-internal-subject hypothesis: wouldn't such a subject preempt the VP specifier

CAROL GEORGOPOULOS

position? And finally, there are locative verbs like 'put' which subcategorize a PP -- is this PP not in specifier position?³ In sum, isn't a looser theory of phrase structure necessary to account for all these types of VP?

Unaccusatives and possible VP-internal subjects can be dealt with by first establishing that some argument must be externalized in order for object agreement to be licensed. Having shown this, it will fall out that unaccusatives (and other intransitives with a single argument) do not trigger object agreement, and that transitive subjects must be in Spec(I), not in Spec(V), for object agreement to

3. Unaccusative verbs

Unaccusatives are intransitive predicates whose subject is mapped to a dstructure complement position.⁴ From what has been said so far, this object could simply raise to VP specifier position, and from there trigger object agreement. This in fact never happens with an unaccusative verb. We might begin by stating this lack of agreement in the following terms:

(16)
$$*[XP X_i...[Spec_X]_i]/[XP [Spec_X]_i...X_i]$$
 if X is unaccusative.

It is important to note that (16) is not a stipulation that there is a structural exception to agreement, but rather a stipulation that there is no agreement for a particular class. That is, it reflects basic unaccusative properties.

However, this stipulation probably follows from the priority of subject agreement over object agreement (see below), since unaccusatives have a single argument and that argument usually becomes the subject of IP. In IP the subject is coindexed with I, and there is no second trigger of agreement in VP.

We will return to the account of unaccusative VPs after we look at the issue of VP-internal subjects.

4. The VP-Internal-Subject hypothesis

The VP-internal subject hypothesis is an analysis (Kuroda 1988 and others) on which the subject of IP is mapped to a position within VP in d-structure, and may move to Spec(I), for reasons usually associated with assignment of

³ Locative verbs like 'put' can be straightform actually mapped as sister of V. It remains in confex extraposes in others (such as English). Several sell languages show that V and PP are a d-structure V' (V+PP] comprise V' at d-structure, it is a simple stern (the direct object) via spec-head coindexing.

⁴ The original insights into unaccusatives are coworkers; in the Relational Grammar framework, under the complex of ³ Locative verbs like 'put' can be straightforwardly dealt with by showing that the PP is actually mapped as sister of V. It remains in complement position in many languages, and extraposes in others (such as English). Several selectional and syntactic phenomena in many languages show that V and PP are a d-structure V' constituent that excludes the theme. Since [V+PP] comprise V' at d-structure, it is a simple step to conclude that V agrees with the theme

⁴ The original insights into unaccusatives are due to Perlmutter (see Perlmutter 1978) and coworkers; in the Relational Grammar framework, unaccusatives have an initial 2 with no 1.

Nominative Case. It appears to be incompatible with the possibility that an object can raise to Spec(V), since either the specifier position would be filled, or, if the subject has moved to Spec(I), movement of the object to Spec(V) would constitute a Theta Criterion violation.

However, this hypothesis actually helps us to establish the conditions for object agreement. There seems to be a crucial incompatibility between internal subjects and the possibility of object agreement. This incompatibility results from the "competition" to occupy Spec(V), mentioned in the introduction to this paper. When one puts together the facts of agreement for double-object verbs (one internal argument is in Spec(V)) and the facts of unaccusatives (that there is no agreement with Spec(V) and the subject is external), causatives, probably psych verbs (Belletti and Rizzi) and certain other constructions, one arrives at the following conclusion:

VP-internal subjects cannot be assumed for all clauses; some subjects must be externalized to specifier of IP at d-structure.

Only when there is an <u>external</u> subject is agreement within VP possible. Thus some argument must be externalized in order for object agreement to be licensed.

5. Priority of subject agreement over object agreement

The following generalization emerges: specifier-head coindexing in VP (i.e., object agreement) can occur only with those transitive heads that have an external subject (i.e., subject of IP). That is, agreement in IP is prior to agreement in VP. This implicates the relationship of I and Spec(I) in object agreement:

(17) $[V_P V_i...[Spec_V]_i / [V_P [Spec_V]_i...V_i] \rightarrow [I_P I_i...[Spec_I = \theta]_i / [I_P [Spec_I = \theta]_i...I_i]$ (informally, object agreement \rightarrow subject agreement)

(17) derives in purely syntactic terms various facts that were formerly observed but unexplained, about agreement relations. From this correlation we derive the following: (1) the correlation of the lack of object agreement with the lack of an external subject; (2) the fact that unaccusatives (and other intransitives with a single argument) do not trigger object agreement; (3) the fact that transitive subjects must be in Spec(I), not in Spec(V), for object agreement to occur; and (4) agreement with Absolutive arguments in some languages, within VP.

It should now be clear how (16) is derived from (17), i.e., how the stipulation that unaccusative arguments do not trigger object agreement actually follows from the priority of subject agreement over object agreement. There must be subject agreement for object agreement to be possible, but since unaccusatives

Published by ScholarWorks@UMass Amherst, 1992

173

⁵ Koopman and Sportiche (1991) suggest a VP-adjoined position for the external argument, in addition to the position of Spec(V), from whence the object triggers agreement. Since there is thereby no competition for Spec(V), none of the complementarities demonstrated here can be explained. Approaches using positions such as Agr_nP have similar problems.

CAROL GEORGOPOULOS

have a single argument, subject agreement (triggered by the unaccusative NP) deprives object agreement of any possible trigger.⁶

It may turn out that (17) must be weakened to remove specification of a thematic subject, though I have so far not found evidence for this. Consider that (17) depends partially on there being an externalized subject in the clause; such argument will always be an argument of the verb, and not pleonastic. In addition, object agreement is primarily a transitivity phenomenon, which presupposes thematic subject as well as object.

A similarity of (17) to "Burzio's generalization" might be noticed. It is likely that the two are independent of each other, but that both are reflections of the more basic phenomenon of transitivity. Significantly, unaccusatives are not referred to by either generalization.

Note, furthermore, that (17) is not a hypothesis based on a hierarchy of grammatical relations. GRs are derived notions in this theory, and subjects may be VP-internal (both transitive and unaccusative). In addition, this is a hypothesis about coindexing relations, which makes agreement potentially present in *every* phrase and which does not distinguish GRs. And finally, this hypothesis depends solely on the mapping of arguments to <u>structural positions</u>.

Thus another observational 'universal', that subject agreement precedes object agreement, is derived in purely syntactic terms. Furthermore, since in this theory agreement with the IO is in complementary distribution with agreement with the DO, the relation of the former to the latter is also derived. This also follows earlier Greenbergian observations, but my claim is not that IO agreement precedes DO agreement or vice versa. Rather, agreement in VP must be based on spec-head coindexing for agreement with the IO to be possible.

Languages with cooccurring DO agreement and IO agreement should be rare; agreement with the DO in such languages, when the IO is also a trigger, should be idiosyncratic, and be different from other agreement with objects. The VP in such cases must exceptionally designate one slot for DO agreement and one

⁶ The case of Choctaw allows an important distinction to be made. Choctaw unaccusatives assign accusative Case (Leslie Saxon, personal communication). Case assignment and agreement do not always involve the same argument, contrary to common assumptions. Case may be assigned to a sister, while agreement is with a specifier. For an example of this, consider the NPs in section 2.2 above: Case is assigned to the theme (sister), while the trigger of agreement is the possessor (specifier) (see Georgopoulos 1991a for arguments to this effect). More generally, transitivity can be distinguished from Case-marking phenomena: a verb that is transitive has at least two arguments, and unaccusatives by definition always have one. Note that Choctaw is an exception to Burzio's generalization, but not to (17) in the present analysis.

⁷ Both Southern Tiwa and Basque have been described as languages with "triple agreement"; interestingly, both are Ergative-Absolutive-marking languages, for which agreement parameters must in any case be restated. The Southern Tiwa facts are made more difficult by the massively complex morphology of the language (and its related languages), which may interfere with any unmarked agreement principles in language-particular ways (see Rosen 1990).

slot for IO agreement. However, the DO would still be expected to be in complement position, and the IO in specifier. (Note that no other theory of object agreement fares any better with the possibility of "triple agreement".)

6. French past-participle agreement

I would like to briefly consider French past-participle agreement here (as representative of Romance in general and of other languages in which there is auxiliary selection for unaccusative verbs). Consider the following:

- (18)a. je suis partie (à trois heures)

 I am left(fem.sg) at 3 o'clock
- b. je suis parti (à trois heures)

 I am left(masc.sg) at 3 o'clock

175

- c. j'ai marché (toute la journée)

 I.have walked all the day
- d. j'ai téléphoné (à mes amis)

 I.have telephoned to my friends

An unaccusative verb like *partir* 'leave' takes a 'be' auxiliary, while an unergative like *marcher* 'walk' or *téléphoner* 'telephone' takes a 'have' auxiliary.⁸ The 'be' auxiliary is the same as that which appears with predicate adjectives (*Je suis grande* 'I am tall(fem)'). The past participle of an unaccusative agrees with the subject in gender and number, just as a predicate adjective does.

Since the subject of an unaccusative is a d-structure object, agreement as in (18a) and (18b) has been taken to be a counterexample to the claim I made above, that unaccusatives don't trigger object agreement. However, (16) and (17) exclude this type of agreement from being object agreement. That is, an intransitive argument is not an object in the context of a discussion of transitivity properties. On the other hand, past-participle agreement is not simple subject agreement either, since there is no such agreement with the subject of unergatives ((18c), (18d)).

The type of agreement reflected in (18a) and (18b) should be viewed simply as agreement of a predicate adjective with its (s-structure) subject. That is, Je suis partie is structurally the same as Je suis grande. The distribution of agreement depends on selection of the 'be' auxiliary.

French does not have object agreement in the sense that the languages in (4) through (7) and (9) through (12) do. Past-participle agreement depends on the have/be alternation in I, proof that it is not object agreement (since I is coindexed with Spec(I), not Spec(V)). Further evidence is seen in the fact that French has no direct agreement with objects even in transitive sentences. NPs in VP do not trigger agreement morphology. The agreement that appears on participles when an object is extracted is a form of "wh agreement", and depends crucially on the extraction

⁸ This is another aspect of work originally done in RG; see Perlmutter (1978).

CAROL GEORGOPOULOS

context (see the discussion of Kayne (1987) in Georgopoulos (1991c)); essentially, this is a case of agreement with an A' binder.⁹

7. Conclusions

The above approach achieves a unification of syntactic agreement phenomena: the facts of agreement marking in any VP -- transitive, di-transitive, intransitive, and so on -- are all related via constraints on the same coindexing relation. Any strong theory of object agreement must be able to do this -- to show why unaccusatives don't trigger object agreement, for example, and relate it to the role subject agreement plays in the distribution of object agreement, or to show why indirect objects are more likely to trigger agreement than direct objects are, when both are present. Simply providing a position from which some NP may trigger agreement is inadequate; this would not be sufficient to relate the presence of agreement in one type of VP to its (necessary) absence in another, and so on. It is the competition for a *single* position, Spec(V), which is at the core of the unification arrived at here.

The relations and dependencies among different types of syntactic agreement, derived so naturally here, can only be arrived at via a restrictive theory such as this one, in which no additional specifier positions (or heads) are hypothesized, and in which there is a constant basis for agreement. Thus the present theory should be highly valued in acquisition terms.

REFERENCES

Belletti, Adriana and Luigi Rizzi (1988). 'Psych Verbs and Theta Theory', Natural Language and Linguistic Theory 6(3).

Burzio, Luigi (1986). Italian Syntax. Dordrecht, Kluwer.

Chomsky, Noam (1986). Barriers. MIT Press.

Chomsky, Noam (1988). 'Some Notes on Economy of Derivation and Representation', ms. MIT.

Comrie, Bernard (1982). 'Grammatical Relations in Huichol', in Syntax and Semantics: Studies in Transitivity, eds. Paul J. Hopper and Sandra A. Thompson. New York, Academic Press.

Farkas, Donka (1985). 'Null Pronouns without Agreement', presented at the LSA.

⁹ In contrast, object agreement as described in the body of this paper does not involve A' positions. This is seen in the fact that an argument may raise from one A position to another, and trigger agreement in situ as well as in all landing sites. Conditions on chains would not allow any of these sites, except the last, to be A' positions.

- Georgopoulos, Carol (1991a). 'On Psych Predicates', in *Interdisciplinary Approaches to Language: Essays in Honor of S.-Y. Kuroda*, eds. Carol Georgopoulos and Roberta Ishihara. Dordrecht, Kluwer.
- Georgopoulos, Carol (1991b). Syntactic Variables: Resumptive Pronouns and A' Binding in Palauan. Studies in Natural Language and Linguistic Theory. Dordrecht, Kluwer.
- Georgopoulos, Carol (1991c). 'On A and A' Agreement', Lingua 85 (2/3).
- Jackendoff, Ray (1972). Semantic Interpretation in Generative Grammar. MIT Press.
- Kayne, Richard (1987). 'Facets of Romance past participle agreement'. Ms.
- Koopman, Hilda, and Dominique Sportiche (1991). 'The Position of Subjects', Lingua 85 (2/3).
- Kuroda, S.-Y. (1988). 'Whether We Agree or Not', in *Linguisticae Investigationes* 12(1).
- Moravcsik, Edith (1988). 'Agreement and Markedness', in *Agreement in Natural Language: Approaches, Theories, Descriptions*, eds. Michael Barlow and Charles Ferguson. Stanford, CSLI.
- Perlmutter, David (1978). 'Impersonal Passives and the Unaccusative Hypothesis', Proceedings of the 4th Annual Meeting of the Berkeley Linguistics Society. Berkeley.
- Rosen, Carol (1990). 'Rethinking Southern Tiwa: the Geometry of a Triple-Agreement Language', Language 66(4).
- Vitale, Anthony J. (1981). Swahili Syntax. Dordrecht, Foris.
- Zepeda, Ofelia (1983). A Papago Grammar. Tucson, University of Arizona Press.