Context Sensitive Unaccusativity in Russian and Italian

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1. Introduction

Since the time of the formulation of the Unaccusativity Hypothesis (UH) (Perlmutter (1978), Burzio (1981), (1986)) the UH has been confronted with empirical challenges from various languages (Perlmutter (1983), Lonzi (1986), Van Valin (1990), Bentley (2006) among others). The two intransitive verb classes (unergative/ unaccusative) have been shown to behave non-uniformly and to be sensitive to various independent factors. In this paper, we are concerned with empirical observations from Russian and Italian where typical unergative predicates show unaccusative behavior sensitive to contextual factors and syntactic environment.

The Russian data involve the Genitive of Negation. Normally, only VP-internal arguments can take Genitive case under negation, thus (1) is ungrammatical with a genitive subject of an unergative verb. However, typical unergative verbs in Russian ('play', 'work', 'hide' etc.) have been shown to be acceptable with Gen of Neg in special existential contexts and/or in a Locative Inversion frame (see (2) below) (Babby (1980), (2001), Borschev and Partee (2002), Partee et al (2011)).

(1)* detej ne igralo na bajane
childrenGen not played on bayan
‘Children were not playing the bayan’

Context: Na zabrošenom zavode upal i razbilsja Saša. (Babby, 2001: 50-51)
‘Sasha fell and was badly hurt at the abandoned factory’

(2) Tam bolše ne igraet nikakih detej
there more not play no children
‘There are no longer any children playing there’

On a par with the Russian facts above, ne-cliticization, a standard unaccusativity test in Italian for diagnosing the VP-internal distribution of an argument, has been shown to be possible with typical unergative verbs. This use of ne-cliticization in these cases is characterized by a special 'existential' interpretation of a verb (Lonzi (1986), Bentley (2006), Calabrese and Maling (2009) among others).

(3) Ne giocano sempre solo tre (di bambini)
ne play always only three (of children)
‘Only three of them always play’

(4) Ne camminerà tanta (di gente) su quei marciapiedi
ne walk many of people on those sidewalk
‘Many will walk on those sidewalks’

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In this paper, we provide an account of the data involving typical unergative predicates problematic for the UH. In particular, we argue that what underlies the parallel behavior of the Russian and Italian data is an alternation of two argument structures. The speaker's choice of the argument structure is determined by the choice of a Perspective Structure (Partee and Borschev (2002), Partee et al (2011)), wherein such factors as contextual inference, the verb's lexical semantics, general knowledge and syntactic context play a role. The two argument structures are argued to be structurally disambiguated by Gen of Neg and Locative Inversion in Russian, as well as ne-cliticization and bare plural subjects in Italian.

2. Genitive of Negation Subjects in Russian

The original observation (Pesetsky (1982)) is that genitive phrases under negation in Russian can correspond to accusative direct object, nominative subjects of passive verbs and non-agent subject of monadic verbs (see (5) vs (6)). On this basis, Pesetsky (1982) proposed that Gen of Neg phrases must be VP-internal.

(5) Otveta iz polka ne prišlo
answer_{Gen} from regiment not come
‘The answer from regiment did not arrive’

(6)* Na zavode nikakih ženščin ne rabotaet
at factory no women_{Gen} not works
‘Women don’t work at a factory’

Babby (1980), (2001) argues against the standard syntactic account of Gen of Neg on the basis of the data where unergative predicates can receive Gen of Neg. He points to specific examples where prior context plays an important role for the result of the test (see (2) above). The context which allows Gen of Neg with an ostensibly unergative predicate is the one where the existential interpretation of a verb is drawn out, as opposed to a more conventional (activity) reading of the verb (compare also (7) and (8) below).\footnote{Note that (7) as well as (2) involves Locative Inversion. The use of Locative Inversion will play a crucial role for structure disambiguation in our analysis (see below).}

(7) Meždu brevnami ne skryvalos’ tarakanov
in between beams not hide cockroaches
‘There were no cockroaches (hiding) among the beams’

(8)* vorov ne skryvalos’ ot polizii
thieves_{Gen} not hid from police
‘(The) thieves were not (hiding) from the police’

Babby’s (1980), (2001) main proposal is that all intransitive sentences with Gen of Neg subjects are Existential Sentences (ES), as opposed to Declarative Sentences (DS) (in contrast to Pesetsky (1982), Babyonyshev (1996) among others). Babby appeals to the information structure to account for the contrasts like (7), (8): in an ES, the entire sentence falls within the Rheme, while in DS the subject represents a Theme with the verb phrase falling within the Rheme (see Babby (1980), (2001) for more details of the analysis)\footnote{Harves (2002:60) in her discussion of the data in (2) and (7), refers to unergative verbs with Gen of Neg subjects as ‘semantically empty’ predicates, i.e. the verbs that have lost their actual meaning and are interpreted instead as copular verbs.}\footnote{Observations about the so-called 'weak' subjects are well known on the basis of other languages as well. Torrego (1989) discusses similar effects in Spanish and Catalan, whereby, while a postverbal position is typically designated to VP-internal arguments, subjects of unergative verbs can be postverbal in the presence of a Locative phrase (see also Rigau (1997), Borer (2005)).}.\footnote{3 Observations about the so-called 'weak' subjects are well known on the basis of other languages as well. Torrego (1989) discusses similar effects in Spanish and Catalan, whereby, while a postverbal position is typically designated to VP-internal arguments, subjects of unergative verbs can be postverbal in the presence of a Locative phrase (see also Rigau (1997), Borer (2005)).}
The initial pattern in (1)-(2), however, is not limited to Gen of Neg and extends to other unaccusativity phenomena in Russian, e.g., Locative Inversion (LI) (Babylonyshev (1996), Harves (2002)). Unergative verbs can freely occur in a Locative Inversion (LI) structure, an observation that has led a number of authors (Levin and Rappaport (1995) among others) to argue against an unaccusativity analysis of LI (see (9)).

(9) Na levoj dorožke bežit sportsmen iz Rossii
on the left lane runs athlete from Russia
‘An athlete from Russia is running (is going to run) on the left lane’

2.1. Perspective Structure and Semantic ‘Bleaching’.

Building in part on Babby’s (1980), (2001) analysis, Borschev and Partee (2002) develop an account of Gen of Neg subjects in terms of Perspective Structure. They identify three components that constitute the notion of Perspective Structure: LOCation, THING, and V BE. These components are not assumed to be thematic roles of the ‘be’ verb, but participants of the situation (Partee and Borschev (2004:5)). Thus, in (10), V BE stands for a ‘potentially existential’ verb, LOCation is what is denoted by v etom kraju ‘in this region’ (place of existence) which can be explicitly expressed or left implicit (recoverable from the context), and a THING denoted by lesa ‘forests’ in (10) (the existing object).

(10) V etom kraju (LOCation) est (V BE) lesa (THING)
in that region is/are forests
‘there are forests in that region’

According to Partee and Borschev’s view, the distinction that is marked by Gen of Neg is a distinction between the ‘existential’ and ‘predicative’ sentences. The two types of sentences differ with respect to the Perspectival Center, i.e., the point of departure chosen by the speaker for describing an ‘existence/location situation’.

An ‘existence/location situation’ may be structured as either centered on the THING or centered on the LOCation. We use the term ‘Perspectival Center’ for the chosen participant.

The difference between the ‘predicative’ and ‘existential’ type sentences lies in the choice of the Perspectival Center: while in predicative sentences the Perspectival Center is fixed on the THING, in the existential sentences it is fixed on LOCation (see (12)).

(12) Perspective Structure
BE (THING, LOC): ‘predicative’ sentence
BE (THING, LOc): ‘existential’ sentence

The change in the Perspective Structure in Borschev and Partee (2002) is assumed to be a diathesis choice in syntax: ‘a choice among two alternative arguments structures for verbs that can take both a THING and a LOCation argument, analogous to the argument structure choice for verbs like ‘spray’, ‘load’ or ‘give’, ‘send’ (Partee and Borschev (2004:9).

Verbs that may occur in existential sentences in (12) are assumed to be an open class: while some verbs are independently existential by virtue of their lexical semantics, others have to undergo ‘semantic bleaching’. Partee et al (2011) propose that ‘semantic bleaching’ is a reflection of a type shifting operation that Gen of Neg arguments undergo (subjects and objects): individual type (⟨e⟩) argument is shifted to a property type (⟨e,t⟩) argument (see Partee et al (2011) for details and argumentation).
3. Locative Inversion: Parallel to Gen of Neg.

Locative Inversion (LI) has been argued to be an effective unaccusativity diagnostic by a number of sources for Russian as well as for other languages (Bresnan and Kanerva (1989), Coopmans (1989), Hoekstra and Mulder (1990), Babynoshev (1996)). The arguments in favor of analyzing LI as an unaccusative diagnostic are based on the set of verbs that can typically occur with LI: verbs of existence/appearance (*be, come, appear*), verbs of inherently directed motion, as well as subjects of passive verbs are grammatical in LI.

(Levin and Rappaport (1995:220-22))

(13) a. Over her shoulder appeared the head of Jenny’s mother
    b. out of the house came a tiny old lady and three or four enormous people
    c. at night, under the lights,… existed that stricken awareness of a dire event

In parallel to the observations on Gen of Neg subjects in sec.2, one of the major problems with analyzing LI as an unaccusativity test in Russian is its acceptability with unergative verbs.

(14) a. Na večere pela odna izvestnaja aktrisa sing at party one famous actress
    b. Na levoy dorozhe bezhit sportmen iz Rossii run on left lane athlete from Russia

More data that points to the VP-internal distribution of unergative LI subjects in Russian comes from the so-called 'definiteness effect' (Belletti (1988), Enç (1991), Diesing (1992)). Similar to subjects of existential sentences in English (see (15)), the single NP in LI is required to be indefinite/non-specific in Russian.

(15) a. there is a man in the garden
    b.* there is the man in the garden. English
(16) a.?? Na večere pela Valja
    b.??Na večere pela devushka
    c. Na večere pela odna izvestnaja aktrisa
(17)?? Na večere igralo ‘Russkoe Radio’
    a.?? there is Valja in the party
    b.?? there is the girl in the party
    c.?? there is the famous actress in the party
    English

The special nature of unergative verbs in the LI structure is also revealed by manner adverbs. While manner modification is typically grammatical with unergative predicates, it is disallowed when the same verbs occur with LI.

(18) a. Valja gromko pela
    b. Na večere pela odna izvestnaja aktrisa
    c.?? Na večere gromko pela odna izvestnaja aktrisa
    Valja loudly sang
    at party one famous actress
        English

4. Locative Inversion as Perspective Structure: Russian

In our account of the unaccusative behavior of unergative subjects with LI in Russian, as well as *ne*-cliticization and bare plurals in Italian (see sec.5 below), we will rely on the notion of the Perspective Structure proposed in Partee et al (2011) (repeated in (19) below). In particular, following
the intuition expressed in Partee et al (2011) about viewing the Perspective Structure as a reflection of a *diathesis* choice, we will argue that the choice of the Perspective Structure corresponds to a distinct argument structure.

(19) **Perspective Structure**

BE (THING, LOC): ‘predicative’ sentence  
BE (THING, LOC): ‘existential’ sentence

The gist of the proposal is that in a situation when the Perspectival Center is set on LOC(ation) (existential sentence in (19)), the corresponding argument structure is missing a vP layer (see also Harves (2002) for a similar proposal). In the absence of vP, subjects of unergative verbs have to be base generated VP-internally, adjoined to VP replicating the original analysis (Burzio (1986)) of postverbal subjects in Italian.

(20) BE (THING, LOC): ‘existential’ sentence frame

\[
\text{TP} \quad \text{T'} \quad \text{T}^0 \quad \text{VP} \quad \text{XP}_{\text{Unerg}} \quad \text{V}
\]

Subjects of unaccusative verbs are base generated in a complement to V (see (20), (21)).

(21) BE (THING, LOC): ‘existential’ sentence frame

\[
\text{TP} \quad \text{T'} \quad \text{T}^0 \quad \text{VP} \quad \text{V} \quad \text{XP}_{\text{Unacc}}
\]

Following ideas in Hale and Keyser (1993), we will assume that thematic roles are not *assigned* by a functional projection (V₀ or v₀) as such, but are interpretations of structural relations determined by categories and their projections (see Hale and Keyser (1993) for more detail and discussion of this approach).

We would like to argue that in (20), in the absence of a vP layer, the subject of an unergative verb can not be generated in its Spec. It also cannot be generated as a complement to V₀, since such a configuration yields a *Theme* interpretation of an XP and is incompatible with the semantics of the verb (‘bleaching’ verb is a *local* effect and does not alter the verb’s semantics *per se*). Thus, the subject XP is *forced* to be adjoined to the VP layer (much like an adverb) and receives an interpretation in this particular configuration (see also parallel to Italian as shown below).⁴

The alternative structure in (22) arises when the Perspectival center is set on THING (predicative frame). In this case, a traditional argument structure and base generated positions for monadic subjects is assumed, with subsequent movement of a subject to Spec,TP.

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⁴ Transitive verbs are not addressed here for the reasons of space. We connect the uniform unacceptability of ne-cliticization in Italian and Locative Inversion in Russian with subjects of transitive verbs to an obligatory presence of vP in transitive predicates (see Calabrese, Maling and Glushan (in prep)).
Certain syntactic configurations (e.g., LI and ne-cliticization) are incompatible with one of the argument structures and thus, create a disambiguation effect.

In case of Locative Inversion in Russian, the Loc PP occupies a clause initial position (Spec, TP (Harves (2002))) with the verb remaining in a low position.

Several empirical observations naturally follow from the structure in (23). The incompatibility of manner adverbials with LI in Russian (see (18) above) can be explained by the absence of the vP layer. The attachment site for manner adverbials is missing; thus, they cannot occur in a LI structure frame.

The indefiniteness/non-specificity restriction on postverbal subjects in Russian LI follows from Diesing’s (1992) Mapping Hypothesis: while indefinite/non-specific XPs are mapped to the Nuclear Scope domain (VP-internal), definite/specific XPs are mapped onto the Restrictive Clause domain (VP-external).

5. Ne-cliticization and Bare Plural Subjects in Italian

Since Burzio (1986), Rizzi and Belletti (1982), the acceptability of a ne-clitic pronominizing the NP in the complement of Q0 has been linked to a VP-internal, sister to V0 position of a verb's argument. Ne-cliticization has been shown to be restricted to the position of an object of transitive and a subject of unaccusative verb (see (24)).

In parallel to the Gen of Neg and LI facts discussed above, ne-cliticization has been shown to occur with verbs that otherwise show typical unergative behavior (selection of avere 'have' auxiliary) (Lonzi (1986), Bentley (2006), Calabrese and Maling (2009)) (see (25), (26) below). The use of ne-cliticization in these examples is characterized by a special interpretation of the verb: 'eventive' (Lonzi (1986), 'existential' (Bentley (2006) or 'achievement-like' (see Calabrese and Maling (2009) on the opposite view).
(25)a. Ne attecchirono pochi (di bulbi) \( \text{(Lonzi (1986), Bentley (2006:222))} \)
ne take-root few of bulbs
‘of them took root few (of bulbs)’
b. Ne funzionano solo due, di orologi
ne function only tow of the watches
‘of them function only two (of watches)’
c. Ne telefonano, di tifosi, la domenica
ne call of fans on Sundays
‘of them phone (many) of fans on Sundays’

(26)a. Hanno attecchito pochi bulbi
have taken root few bulbs
b. Hanno funzionato due orologi
have functioned two watches
c. Hanno telefonato molti tifosi
have telephoned many fans

Lonzi (1986) proposes to analyze instances of \textit{ne}-cliticization in (25) as a reflection of an ‘eventive’ information structure, which excludes the agentive reading of a predicate. Lonzi further points out that the emphasis in sentences like (25) is not placed on the participant (do-er) but on the event in itself.

Later work by Bentley (2006) provides a more extended solution to the compatibility of \textit{ne}-cliticization with unergative verbs in (25). She proposes to analyze these predicates as stage level existential predicates (along the lines of Van Valin (1990)). In the Logical Structure, the quantified NPs are assumed to be arguments of a stative existential predicate, and modified by an activity predicate comparable to a relative clause (compare (25), (27)).

(27)a. there are only few, of bulbs, that took root.
b. there are only two of watched that function
c. there are many, of fans, who phone on Sunday

5.1. Bare Plural Subjects in Italian

Another piece of data that appears to bear a certain similarity to the 'definiteness' restriction pointed out for LI subjects is the behavior of postverbal bare plural subjects in Italian. The topic of bare nominals in a cross-linguistic perspective has generated a lot of discussion in the literature (Diesing (1992), Longobardi, (1996), (2001), Chierchia (1998).

The basic facts for Italian (here cited from Longobardi (2001)) are described as follows: preverbal bare plural subjects are ungrammatical in Italian unless they occur with a modifier (PP, adjectival or relative clause). The modified bare nominals in the preverbal position are ambiguous between an existential and a generic reading.\(^5\)

(28)a.* Medici vengono chiamati spesso
 doctors are called up often
b. Medici del reparto di pronto intervento vengono chiamati spesso
 Doctors of the department of first aid are called up often
(Exist) ‘It is often the case that doctors of the first aid department are called up.’
‘Doctors of the first aid department have the property that they are called (Gen) up often.’

\(^5\) A distinction with respect to the type of predicate also takes place here: thus, existential level, individual level and episodic predicates are distinguished in this respect (for further details see Longobardi (1994), (1996), (2002), Chierchia (1998)).
Postverbal bare plural subjects in Italian do not require modification. A further observation concerns the difference in the interpretation of postverbal bare plurals: the generic reading becomes unavailable with bare plural subjects when they lack a modifier. Unmodified bare plurals retain only the existential interpretation with stage-level predicates (S-level) and become plainly ungrammatical with individual level predicates (I-level) where the existential reading becomes lexically unavailable (see Longobardi (2002) on details and more data).

(29) a. * Diventano subito famosi linguisti. (I-level predicate)
   become immediately famous linguists
b. Diventano subito famosi linguisti capaci di scrivere il Mémoire o
   become immediately famous linguists capable of writing the Mémoire
LSLT. (Gen)
of LSLT

(30) a. Vengono chiamati spesso medici. (S-level) (Ex)
   are called up often doctors
b. Vengono chiamati spesso medici del reparto di pronto intervento.
   are called up often doctors of the first aid department (Ex/Gen)

Crucially, the above observations cross-cut the intransitive verb distinction: the pattern is identical for both unaccusative, passive and unnegative bare plural subjects (see (30) and (31)).

(31) a. Telefonano spesso medici. (Ex)
   telephone often doctors
b. Telefonano spesso medici del reparto di pronto intervento. (Ex/Gen)
   telephone often doctors of the first aid department

The line of analysis proposed in Longobardi (2001) is in terms of a structural ambiguity between subject base generation (sister to V) and leftward movement of the predicate across the subject (remnant movement). The existential/generic ambiguity tracks the two structural possibilities. Longobardi (2001) appeals to Diesing's (1992) Mapping Hypothesis to connect the subject position to a distinct interpretation.

6. Ne-cliticization as Perspective Structure: Italian

The line of analysis proposed to account for the acceptability of unergative predicates with Locative Inversion in Russian can be straightforwardly applied to account for the unaccusative behavior of unergative subjects with ne-cliticization and bare plurals in Italian. We argue that, similar to Russian, two argument structures of unergative predicates are equally available to the speaker. What underlies the choice between the two structural possibilities is the Perspective Structure.

When the Perspectival Center is set on LOC(ation) (12), the corresponding argument structure is missing a vP layer. In the absence of vP, subjects of unergative verbs are base generated VP-externally, adjoined to VP. Subjects of unaccusative verbs are base generated as the complement to V. The alternative argument structure corresponds to the Perspective Structure where the Perspectival Center is set on THING (12) with subject of unergative verbs in the Spec, vP undergoing subsequent movement to Spec, TP (see (20)-(22)). The two structures are disambiguated by ne-cliticization and bare plural subjects in Italian. Ne-cliticization, being restricted to VP-internal positions, can be acceptable only in the 'existential' sentence frame where the subject XP is in a VP-adjoined position (see (32)). This structural configuration correctly captures the observations with respect to the 'special' interpretation of such predicates: non-agentive, eventive, stage level existential (Lonzi (1986), Bentley (2006), Calabrese and Maling (2009)).
Another empirical observation that receives a straightforward explanation is the distribution and interpretation of bare plural subjects in Italian. In particular, postverbal bare plurals receive only an existential interpretation, lacking a generic one, and are ungrammatical in a clause initial position. Another puzzling observation is that, given their general VP-internal distribution, bare plural subjects cross-cut the two intransitive verb classes and freely occur with unergative verbs. Given the proposed structure in (32), the cross-cutting effect with bare plurals is an expected one. If subjects of unergative verbs can right-adjoin to VP on one of the argument structure possibilities (thus VP-internal) it is expected that bare plural phrases will be grammatical in that position (see (33)). In addition, the existential (as opposed to generic) interpretation of the bare plurals follows from Diesing’s Mapping Hypothesis. Bare plural subjects are mapped to the Nuclear Scope domain in situ and receive an existential interpretation. The absence of a generic reading follows from the lack of mapping to the Restrictive Clause domain (see (33) below).

(33) Bare plural subjects

7. Refinements: Participial Agreement and ne-cliticization

There exists a puzzling asymmetry between ne-extraction and bare plural nouns in Italian. Lonzi (1986) observes that ne-cliticization can occur with unergative verbs only with simple verb tenses (overt auxiliary absent) (see (34)a, c), but not with compound tenses (see (34)b).

(34)a. ne telefonano, di tifosi, la domenica of them phone of fans on Sunday
   'Lots of fans call on Sundays'

   (Lonzi (1986), cited from Saccón (1993:245)

b. *ne hanno telefonato, di tifosi, la domenica of them have phoned of fans on Sunday
   'Lots of fans called on Sundays'

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6 See also Chierchia (1998) on the analysis of bare plural subjects in Italian.
c. ne sono arrivati molti, di tifosi, domenica
   of them arrived many of fans Sunday

The restriction with respect to compound tenses, however, does not extend to bare plural subjects which, as has been shown above, also have a VP-internal distribution. Bare plural subjects can freely occur with compound verb tenses in Italian as shown in (35)a, (36)a in the absence of participial agreement. The contrast with ne-cliticization pattern is demonstrated in (35)b, (36)b below.

(35)a. In questo giardino hanno passeggiato re e regine
   in this garden have walked kings and queens
b.* In questo giardino ne hanno passeggiato molti (di re e regine)
   in this garden ne have walked many

(36)a. in questa piazza hanno cantato tenori famosi
   in this square have sung famous tenors
b.* in questa piazza ne hanno cantato molti
   in this square ne have sung many

Lonzi (1986) hints at the possibility that ne-cliticization may be excluded with compound tenses of verbs that select avere in Italian because of an agreement conflict. The past participle in (36)b, as well as (35)b can not agree in features with the ne-cliticized NP.

In our account of the above asymmetry, we follow Lonzi's suggestion. In particular, we argue that the apparent asymmetry between the ne-cliticization and the bare plural subjects pattern arises from a morphological surface condition on ne-cliticization. Ne-cliticization, unlike bare plural subjects, requires participial agreement. However, as observed by Belletti (2001), the past participle never agrees with the subject of intransitive/unergative (and transitive verbs). Ne-clitic requires morphological agreement with the participle, but agreement cannot be obtained if ne originates in the subject position of an unergative verb (VP-adjoined). This impossibility of agreement in the case of (35)b-(36)b clashes with the agreement requirements of ne-clitic, which results in ungrammaticality. The conclusion is then that ne-extraction and bare pluralization are always possible in the case of the post-verbal subjects of intransitive verbs with the proviso that a special semantic interpretation (due to Perspective Structure) is required. This interpretation is natural for unaccusative verbs but less so with unergative verbs where some form of semantic ‘bleaching’ is required. This interpretation syntactically requires VP-internal subjects.

8. Summary and Conclusions

In this paper, we have drawn a parallel between Russian and Italian data pieces problematic under the Unaccusativity Hypothesis. We have argued for a syntactic implementation of Borschev and Partee (2002), Partee et al (2011) idea of Perspective Structure whereby a choice of Perspective Stucture corresponds to a change in the argument structure. We have shown that by providing a connection between the Perspective Structure and argument structure we can account for the data puzzles that have been throwing shadows on the syntactic approach to unaccusativity since the time it was originally proposed. We have shown that the suggested analysis has a broad application: the acceptability of unergative subjects with Gen of Neg, Locative Inversion in Russian as well as ne-cliticization and bare plurals have one underlying structure that uniformly captures all four types of the phenomena in two languages. In addition, we have suggested a direction of an analysis of the participial agreement generalization whereby we argued that it arises as a morphological agreement effect.

References
