

Impersonal *si* constructions: how semantics determines agreement

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1. Introduction

1.1. Impersonal *si* constructions

Impersonal *si* constructions (ISCs) introduce an unspecified, generic subject in an utterance; without *si* the sentence receives a specific interpretation (Chierchia:95:b):

- (1) a. Si mangia troppo
 si eats too much
 'People eat too much'
 b. Mangia troppo
 he/she eats too-much
 'He/she eats too much'

1.2. Agreement facts

1.2.1. *Transitive verbs*

There are two possibilities for verb agreement in *si* impersonal constructions with transitive verbs in Italian:

◇ **Present tense**

1. The verb agrees with the object:

- (2) (In Italia) si mangiano gli spaghetti
 in Italy si eat 3RD PL the spaghetti NOM PL
 'In Italy people eat spaghetti'

2. The verb shows the default agreement ending (3rd ps. sg.):

- (3) In Italia *si mangia spaghetti*
in Italy *si eats 3RD SG spaghetti ACC PL*
'In Italy people eat spaghetti'

(2) and (3) have always been considered as semantically equivalent. In this paper, I show that this is not the case.

1.2.2. *Some additional information on (2) and (3)*

- In (2) the direct object is Nominative; in (3) it is Accusative. This can be seen in (4) and (5) respectively, as in Italian pronouns bear Case:

- (4) In Italia *essi/ *li si mangiano*
in Italy *they NOM them ACC si eat 3RD PL*
'In Italy people eat them'

- (5) In Italia *li /*essi si mangia*
in Italy *them ACC they NOM si eats 3RD SG*
'In Italy people eat them'

- In both (2) and (3) the object NP is an internal argument. The partitive clitic *ne* can ONLY substitute internal arguments (see Belletti & Rizzi 1981 and Burzio 1986) ¹:

- (6) In Italia *se ne mangiano/ se ne mangia*
in Italy *si of them eat 3RD PL si of them eats 3RD SG*
'In Italy people eat many of them'

- *Si* is always plural:

- (7) In Europa *si_i è ricchi/ *ricco/*
in Europe *si is 3RD SG rich PL MASC/ rich SG MASC/*
**ricca/ ricche*
rich SG FEM/ rich PL FEM
'In Europe people are rich'

¹*Se* is an allomorph of *si* which occurs when *si* precedes an object clitic.

- *Si* is closer to the verb than any other clitic:

(8) Glielo si è
 him MASC SG DAT-it MASC SG ACC si is 3RD SG
 detto
 said PP MASC SG
 ‘People have said it to him’

◇ **Past tense**

1. The auxiliary and the past participle (pp) agree with the Nominative object

(9) In Italia si sono mangiati gli
 in Italy si are 3RD PL eaten PL MASC the PL MASC
 spaghetti
 spaghetti PL MASC
 ‘In Italy people/we have eaten spaghetti’

2. The auxiliary is singular and pp agrees with the Accusative object:

(10) In Italia li si è
 in Italy them PL MASC ACC si is 3RD SG
 mangiati/*mangiato
 eaten PL MASC eaten SG MASC
 ‘In Italy people have eaten them’

This pattern is only used with clitic objects. If the object is a full DP the auxiliary is singular and the pp may be both singular and plural (cf D’Alessandro 2003):

(11) In Italia si è mangiati/mangiato
 in Italy si is 3RD SG eaten PL MASC
 gli spaghetti
 eaten SG MASC the spaghetti PL MASC
 ‘In Italy people/we have eaten spaghetti’

1.3. Goals

- Show that the two alternating *si* constructions with transitive verbs have different semantics.
- Syntactically encode the semantic differences between ISCs.

- Show that *si* has no special properties (i.e. absorption of Theta-roles or Case), and that all the different agreement patterns follow from *si*'s clitic nature, from locality, and from different semantics of the clauses.
- Provide a derivational analysis of *si* constructions with transitive verbs.

2. Previous accounts

Belletti (1982), Burzio (1986), Manzini (1986), Cinque (1988), Raposo & Uriagereka (1990), Chierchia (1995, 2000) Dobrovie-Sorin (1996, 1998, 1999), McGinnis (1997, 1999), Manzini & Savoia (2001).

2.1. Belletti (1982)

- (12) (In Italia) *si* mangiano gli spaghetti
 in Italy *si* eat 3RD PL the spaghetti NOM PL
 'In Italy people eat spaghetti'
- (13) In Italia *si* mangia spaghetti
 in Italy *si* eats 3RD SG spaghetti ACC PL
 'In Italy people eat spaghetti'

The constructions in (2) and (3), here repeated as (12) and (13), are two different ones: in (12), *si* instantiates the passive morphology, and therefore it absorbs the external θ -role and the Accusative Case. In (13), *si* is an argument that receives Nominative, thus leaving the DP object free to be assigned Accusative.

2.1.1. Question

Is there really optionality between passive and Nominative *si*?

2.2. Cinque (1988)

Agreement: *si* has 'unspecified' person.

- The difference between the two agreement patterns in (2) and (3) is given by the argumental vs. *non*-argumental status of *si*:
 - If *si* is argumental, it will 'withdraw' the external θ -role, blocking the assignment of Accusative.

- If *si* is not argumental, it will not cause such a blocking. Accusative will be assigned to the DP object. The external θ -role will be assigned to an empty *pro* in subject position licensed by *si*.

2.2.1. Problems

In transitive ISCs there is optionality between the [+arg] and the [-arg] *si*. What determines it?

3. Agreement: Vendler’s aspectual classes and impersonal *si* constructions

The constructions with and without verb-object (V-O) agreement in (2) and (3), (here repeated as (14) and (15)) have always been considered as semantically equivalent.

- (14) In Italia *si* mangiano gli spaghetti
 in Italy *si* eat 3RD PL the spaghetti NOM PL
 ‘In Italy people eat spaghetti’
- (15) In Italia *si* mangia spaghetti
 in Italy *si* eats 3RD SG spaghetti ACC PL
 ‘In Italy people eat spaghetti’

(14) and (15) are NOT equivalent though: (14) denotes an accomplishment while (15) denotes an activity, according to Vendler’s (1967) classification.

3.1. Vendler’s classes

Vendler (1967) proposed a classification of verbs according to two parameters: duration and telicity. He identified 4 main classes:

- STATES (-duration, -telicity) (know, believe, have, desire, love)
- ACTIVITIES (+duration, -telicity) (run, walk, swim, push a cart, drive a car)
- ACCOMPLISHMENTS (+ duration, + telicity) (paint a picture, make a chair, deliver a sermon, draw a circle, recover from illness)
- ACHIEVEMENTS (- duration, + telicity) (recognize, spot, find, lose, reach, die)

Dowty (1979) proposes some tests in order to classify verbs according to Vendler’s classes.

3.2. Accomplishments vs. Activities

1. Whereas accomplishment verbs take adverbial prepositional phrases with *in* but only very marginally take adverbials with *for*, activity verbs allow only the *for* phrases [Dowty(1979:56)]

- (16) Si sono mangiati gli spaghetti in
si have 3RD PL eaten PP MASC PL the spaghetti NOM PL in
un'ora
an hour
'(Some) People have eaten the spaghetti in an hour'
- (17) *Si è mangiato spaghetti in un'ora
si has 3RD SG eaten PP SG spaghetti ACC PL in an hour
'People have eaten spaghetti in an hour'
- (18) ?Si sono mangiati gli spaghetti per
si have 3RD PL eaten PP MASC PL the spaghetti NOM PL for
un'ora
an hour
'(Some) People have eaten the spaghetti for an hour'
- (19) Si è mangiato spaghetti per un'ora
si has 3RD SG eaten PP SG spaghetti ACC PL for an hour
'People have eaten spaghetti for an hour'

⇒ The V-O agreeing construction in (14) seems to describe an accomplishment, the no-V-O agreeing construction in (15) seems to describe an activity.

2. Only accomplishment verbs can normally occur as complements of *finish* [Dowty 1979:57]:

- (20) Si sono finiti di mangiare gli
si are 3RD PL finished PP PL of to eat the
spaghetti
spaghetti MASC PL
'People have finished to eat spaghetti'
- (21) Si è smesso *finito di mangiare spaghetti
si is 3RD SG stopped PP SG finished PP SG of

to eat spaghetti
'People have finished to eat spaghetti'

In (21), the *non*-agreeing form may occur as a complement of *smettere* ('quit'), which selects activities, but not as a complement of *finire* ('finish'), which selects accomplishments.

⇒ V-O agreeing construction in (14): accomplishment, no-V-O agreeing construction in (15): activity.

3. The adverb *almost* has different effects on activities and accomplishments: '*almost-activity*' entails that the event described by the verb did NOT take place; '*almost-accomplishment*' has two meanings:

- The Agent had the intention of performing the activity but he did not do it
- The Agent began to perform the activity but did not complete it

(22) Si sono quasi mangiati gli
 si are 3RD PL almost eaten PP MASC PL the MASC PL
 spaghetti
 spaghetti MASC PL
 'People have almost eaten spaghetti'

(22) may have two entailments:

- *Spaghetti* have almost been all eaten
- People have almost started eating *spaghetti*

(23) Si è quasi mangiato spaghetti
 si is 3RD SG almost eaten PP MASC SING spaghetti MASC PL
 'People have almost eaten spaghetti'

(23) only means that people have not even started eating spaghetti.

⇒ V-O agreeing construction in (14): accomplishment, no-V-O agreeing construction in (15): activity.

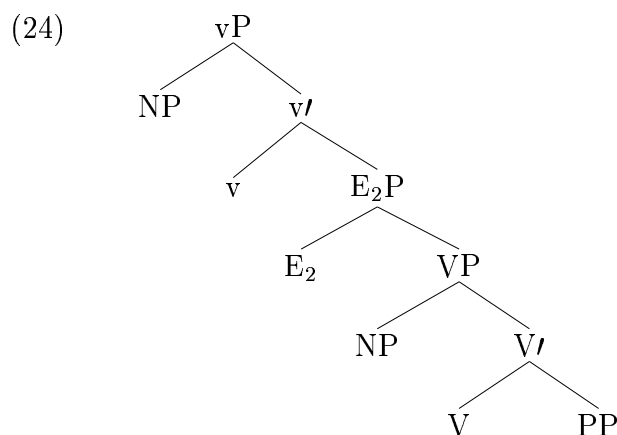
3.3. Dowty's classification

According to Dowty (1979), verb meaning is compositional. Semantic operators reflect the characterization of different verb classes. Activity, accomplishment and achievement verbs are construed of one or more stative predicates and operators like BECOME and CAUSE

- States: V (...)
- Activities: DO (V (...))
- Accomplishments: DO (V (...)) CAUSE BECOME (V (...))
- Achievements: BECOME (V (...))

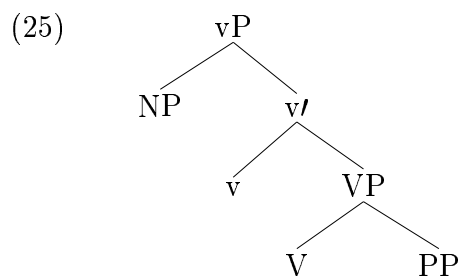
3.4. The internal structure of accomplishments and activities

Travis (1994, in prep.), and Kempchinsky (2000) have translated Dowty's classes into syntax. They both propose, in different terms, that accomplishments and activities (but also achievements and states) have different VP internal structures. Following Travis and Kempchinsky, I adopt the following structure for accomplishments:



E_2P encodes the telicity of the event and hosts the BECOME operator ². It is common to Achievements and Accomplishments. The above vP hosts the DO operator.

The structure of Activities lacks the E_2 projection (i.e. it lacks the telicity head):



Proposal : ISCs with V-O agreement have the structure in (24); ISCs with no V-O agreement have the structure in (25).

²I do not represent the E_1 head encoding the DO operator for the sake of simplicity. E_1 coincides with v in this simplified version.

Second step: *si* is merged in Spec, E₂P (when present), and from there it intervenes in the assignment of Accusative.

3.4.1. Arguments in Spec, E₂P

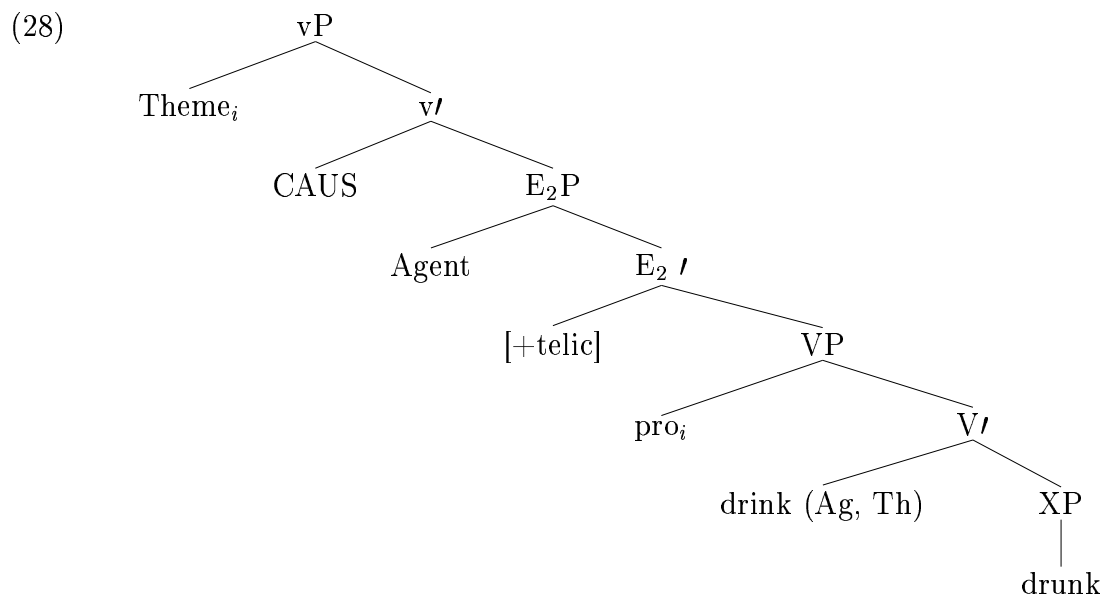
Chinese is an SVO language. Chen (1995): when telicity is overtly expressed in Chinese S and O may flip positions:

(26) Fangfang he-zui le jiu
 Fangfang drink-drank ASP wine
 ‘Fangfang drank the wine and got drunk’

(27) Zhe bei jiu he-zui le Fangfang
 this CL wine drink-drank ASP Fangfang
 ‘This glass of wine made Fangfang drink(it) and she got drunk’

Chen (1995):

A predicate with an inner aspectual projection (E₂P) may have an argument merged in Spec, E₂P. This argument must be an Agent. A [+telic] predicate is able to trigger early θ -role discharge of the Agent θ -role.



My proposal ISCs with V-O agreement have a structure similar to Chinese subject-object flip. *Si* is the Agent, merged in Spec, E₂P.

3.4.2. Agentivity of *si*

Si is an Agent. If an Agent is projected in a clause, a *by*-phrase cannot be inserted in the clause. This is the case with *si* constructions:

- (29) **Si mangiano gli spaghetti da Gianni*
 si eat the spaghetti by Gianni
 ‘Gianni eats spaghetti’

Note the difference between (29) and (30), a passive construction (which allows a *by*-phrase).

- (30) *Gli spaghetti sono mangiati da Gianni*
 the spaghetti are eaten by Gianni
 ‘Spaghetti are eaten by Gianni’

So far :

- ISCs with V-O agreement denote accomplishments. ISCs with no V-O agreement denote activities.
- Accomplishments have an extra projection in the VP: E_2P
- *Si* is merged in Spec, E_2P when such a projection is present

3.5. Why no other Agent in E_2 ?

In Italian, only *si* may be merged in the Spec, E_2 . Other (full) referential subjects may not be merged there. No intervention effect takes place in plain transitive structures. This is due to the fact that the interpretation of *si* strictly depends on sentential aspect (Cinque 1988, D’Alessandro & Alexiadou 2003), but also on the interaction of sentential aspect with *Aktionsart* (D’Alessandro 2003). If the underlying predicate is atelic, like unergatives in general, the sentence exhibits an existential reading under boundedness (Iatridou et al, 2003, Smith 2003), and a generic reading under unboundedness [cf. D’Alessandro (2003)]:

- (31) *Si è lavorato ieri*
 si is worked yesterday
 ‘Someone/we have worked yesterday’
- (32) *Si lavora sodo qui*
 si works hard here
 ‘People/one work(s) hard here’

If the underlying predicate is telic, like unaccusatives in general, the sentence exhibits an inclusive reading when the event is bounded and a generic reading when it is unbounded:

- (33) Si è arrivati
 si is arrived
 ‘People have arrived’
- (34) Si arriva sempre tardi con questo treno
 si arrives always late with this train
 ‘People/one always arrive(s) late with this train’

Other arguments do not depend on the *Aktionsart* of the verb for their interpretation \Rightarrow they are not merged in an eventual (= inner aspectual) head.

3.6. Evidence: *ci si*

Zagona (1996) shows that aspectual *se* in Spanish is merged in the inner aspectual projection which encodes telicity. Aspectual *si* is in fact not licensed in ISCs with no V-O agreement (which do not express telicity) (D’Alessandro 2003):

- (35) *Ci si è mangiato spaghetti
 si ASP si is 3RD SG eaten PP SG MASC spaghetti
 ‘Somebody/we have eaten spaghetti’

Moreover, the disambiguation *ci si* is necessary when the two *si*’s occur together in ISCs with V-O agreement. I propose that such a disambiguation is due to the fact that the two *si*’s occupy two specifiers of the same head (Cinque’s morphological constraint):

- (36) Ci si sono mangiati gli spaghetti
 si ASP si are 3RD PL eaten PP PL MASC the spaghetti
 ‘We have eaten (out) spaghetti’

4. Theoretical background

My analysis is based on the following assumptions, which are in conformity with Chomsky (1999):

- Unvalued features on lexical items need to be valued in the syntax during the derivation, before the interface with other systems is reached.

- The valuation of unvalued features takes place via Match of ϕ -features + Agree.
- The Agree relation doesn't necessarily take place in a Spec, Head configuration, but it can act long-distance, subject to locality conditions (closest c-command).
- The valuation of unvalued features takes place at the end of a phase.
- The Event Phrase and the Speech Phrase are phases (Sigurðsson 2003).

Additionally, I assume that:

- Impersonal *si* is ϕ -complete (number: plural, person: generic (but see D'Alessandro 2003 for details), gender: masc. or fem., and its features are valued.
- *Si* may be argumental.
- *Si* is a clitic, and therefore it displays a double nature of DP and head. As a DP, it enters Agree relations for valuation of features. Once it cliticizes, it doesn't intervene any longer in Case checking.
- θ -roles are determined configurationally.

5. The derivation(s)

◇ ISCs with V-O agreement

- (37) In Italia *si* mangiano gli spaghetti
 in Italy *si* eat 3RD PL the spaghetti PL
 'In Italy people eat spaghetti'

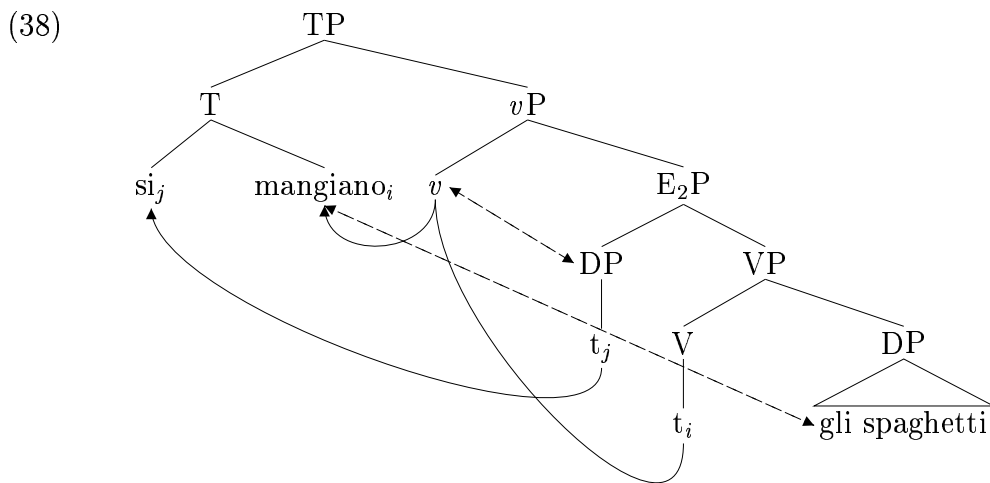
Recall! The sentences with Verb/Object agreement have an inner E_2 projection because they are Accomplishments: *si* is merged in Spec, E_2 P .

Remarks

- *v* assigns accusative Case.
- The Agent θ -role is assigned in Spec, E_2 P (when present, or in Spec, *v*.)
- In V-O agreeing constructions, *si* is merged in the specifier of E_2 P.

What happens-Step by Step

- The DP object is merged with the V. It needs to get its Case feature valued.
- The E_2 head is merged with the VP.
- Si is merged in Spec, E_2P , and there it gets the Agent θ -role.
- v is merged with the E_2P .
- v needs to get its ϕ -features valued, and therefore it looks down for a DP with which it Matches.
- v meets si , which is a DP, and which values its ϕ -features and gets Accusative Case.
- The DP object stays without Case.
- T is merged.
- Right after the merging of T, si cliticizes on the verb in T.
- T enters a Match+Agree relation with the DP object, and values the Case feature on the object. This triggers valuation of the ϕ -features on T, which agrees with the object.



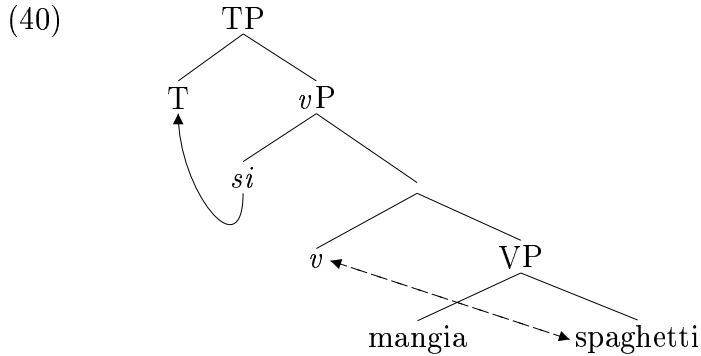
◇ **ISCs with no V-O agreement**

The constructions with no agreement of the verb with the object have a structure which does not contain an E_2P because they denote activities.

5.0.1. *The derivation*

- (39) In Italia *si* mangia spaghetti (in continuazione)
 in Italy *si* eats 3RD SG spaghetti PL ACC in continuing
 ‘In Italy people eat spaghetti (all the time)’

- *Si* doesn’t intervene in the checking of Accusative because it is merged in the specifier of *v*.



The DO is assigned Accusative. *Si* gets Nominative and the external θ -role.

6. Conclusions

ISCs with and with no V-O agreement are semantically different: ISCs with V-O agreement encode accomplishments, while ISCs with no V-O agreement encode activities. Provided that different *Aktionsarten* are encoded in different syntactic structures, ISCs with V-O agreement project an inner aspectual head E_2 , in the specifier of which impersonal *si* is merged. From this position, *si* performs an intervention effect in Accusative assignment. Such an intervention does not take place in ISCs with no V-O agreement, which do not encode telicity and do not present the E_2 projection.

References

- Belletti, Adriana (1982): ‘Morphological’ passive and pro-drop: the impersonal construction in Italian’, *Journal of Linguistic Research* (2), 1–34.
- Burzio, Luigi (1986): *Italian Syntax*. Studies in Natural Language and Linguistic Theory, Kluwer.
- Chen, D. (1995): ‘UTAH: Chinese Psych Verbs and Beyond’, paper presented at the Sixth North American Conference on Chinese Linguistics, USC, Los Angeles.

- Chierchia, Gennaro (1995): The Variability of Impersonal Subjects. *In*: E. Bach, E. Jelinek, A. Kratzer & B. H. Partee, eds, *Quantification in Natural Languages*. Kluwer Academic Publishers, pp. 107–143.
- Chierchia, Gennaro (2000): ‘Indefinite Pronouns’, ms, University of Milan.
- Chomsky, Noam (1999): Derivation by Phase. Ms., MIT.
- Cinque, Guglielmo (1988): ‘On *Si* Constructions and the Theory of *Arb*’, *Linguistic Inquiry* **19**, 521–582.
- D’Alessandro, Roberta (2003): Impersonal *si* constructions. Agreement and interpretation. PhD thesis, University of Stuttgart.
- D’Alessandro, Roberta & Artemis Alexiadou (2003): ‘Inclusive and exclusive impersonal pronouns: a feature-geometrical analysis’, paper presented at the XIX IGG, Generative Grammar Meeting, University of Urbino.
- Dobrovie-Sorin, Carmen (1996): Syntactic Configurations and Reference: *se/si* in Romance. *In*: K. Zagona, ed., *Grammatical Theory and Romance Languages*. John Benjamins, Amsterdam/Philadelphia, pp. 73–86.
- Dobrovie-Sorin, Carmen (1998): ‘Impersonal *se* constructions in Romance and the Passivization of Unergatives’, *Linguistic Inquiry* **29**, 399–437.
- Dobrovie-Sorin, Carmen (1999): ‘*Se-si* Type Anaphors’, ms, SynCom, UIL-OTS Utrecht.
- Dowty, David (1979): *Word Meaning and Montague Grammar*. Reidel, Dordrecht.
- Iatridou, Sabine, Elena Anagnostopoulou & Roumyana Izvorski (2003): Observations about the form and meaning of the Perfect. *In*: A. Alexiadou, M. Rathert & A. von Stechow, eds, *Perfect Explorations*. Vol. 2 of *Interface Exporations*, Mouton de Gruyter, Berlin, New York, pp. 153–205.
- Kempchinsky, Paula (2000): Aspect Projections and Predicate Type. *In*: H. C. et al., ed., *Hispanic Linguistics at the Turn of the Millenium*. Cascadilla, Somerville.
- Manzini, M. Rita & Leonardo Savoia (2001): The Syntax of Object Clitics: *si* in Italian Dialects. *In*: G. Cinque & G. Salvi, eds, *Current Studies in Italian Syntax. Essays to Honour Lorenzo Renzi*. North Holland, pp. 234–264.
- Manzini, Maria Rita (1986): On Italian *si*. *In*: H. Borer, ed., *Syntax and Semantics: The Syntax of Pronominal Clitics*. Vol. 19, Academic Press, New York, pp. 241–262.

- McGinnis, Martha (1997): Reflexive external and Lethal Ambiguity. *In:* E. Curtis, J. Lyle & G. Webster, eds, *Proceedings of WCCFL 16*. CSLI Publications, Stanford.
- McGinnis, Martha (1999): 'Reflexive clitics and the specifiers of *vP*', MIT working Papers in Linguistics 35.
- Raposo, Eduardo & Juan Uriagereka (1990): Object Agreement in the Impersonal *-se* Passive Construction in European Portuguese. *In:* K. D. et al., ed., *Grammatical Relations: A Cross-Theoretical View*. SLA, Stanford, pp. 387–399.
- Sigurðsson, Halldór A. (2003): Icelandic non-nominative subjects. *In:* P. Bhaskararao & K. Subbarao, eds, *Non-nominative subjects*. John Benjamins, Amsterdam.
- Smith, Carlota (2003): *Modes of Discourse*. Cambridge University Press, Cambridge.
- Travis, Lisa (1994): Event Phrase and a theory of functional categories. *In:* P. Koskinen, ed., *Proceedings of the CANadian Linguistic Association Meeting*. Toronto, pp. 559–570.
- Travis, Lisa (n.d.): *Inner aspect (working title)*, publisher = Kluwer, year = in prep., address = Dordrecht, . .
- Vendler, Zeno (1967): *Linguistics and Philosophy*. Cornell University Press, Ithaca, NY.
- Zagona, Karen (1996): Compositionality of Aspect: Evidence from Spanish Aspectual Se. *In:* C. Parodi, C. Quicoli, M. Saltarelli & M. L. Zubizarreta, eds, *Aspects of Romance Linguistics*. Georgetown University Press, Washington D.C.