

Pseudo Incorporation in Romance at the syntax-semantics interface

M. Teresa Espinal

Teresa.Espinal@uab.cat

<http://filcat.uab.cat/clt/>

Financial support

- Spanish MINECO, FFI2011-23356
- Fundació ICREA
- Generalitat de Catalunya, 2009SGR-1079

Pseudo Incorporation

- Semantic PI has been proposed as a compositional process applicable to certain types of nominal expressions (not only nouns) that form a semantic unit, with the V they occur with, and function as predicate / event modifiers (Dayal 2003, 2011).
- Modification / restriction (Carlson 2006)

(1) Inc-V: $\lambda P \lambda y \lambda e [P-V(e) \ \& \ Ag(e) = y]$ (Dayal 2011)

Pseudo Incorporation



- Semantic PI contrasts with the canonical operation of Functional Application.
- $F(x)$.
- x = internal syntactic argument that saturates an argument position of the predicate.
- Argument saturation.

Pseudo Incorporation



- Hindi PI.
- It involves NPs, rather than Ns.
- It functions as a predicate modifier.
- The target of PI is specified for Number.
Number neutrality arises as a consequence of interaction with aspectual operators.
- *Discourse transparency / opacity* is sensitive to plurality and aspectual information.

The data

(2) PENINSULAR SPANISH

- a. **Necesitar** *notario*.
need notary
'To need a notary.'
- b. **Tener** *calefacción*.
have heating
'To have a heating system.'
- c. **Llevar** *reloj de cuarzo*.
wear watch of quartz
'To wear a quartz watch.'

The data

(3) MEXICAN SPANISH

- a. *Correr/le.*
run.le
'To perform running.'
- b. *Mover/le.*
move.le
'To perform moving.'
- c. *Limpiar/le.*
clean.le
'To perform cleaning.'

Outline

- Focus on:

Q1. What sort of syntactic constraints apply to nominal expressions that participate in PI in Romance (Spa and Cat)?

- Morphosyntactic defectiveness

Q2. Why defective nominals (Ns, NPs, clitics) can be interpreted as pred. / event modifiers?

- Non-canonical arguments

Hypotheses

- *Morphosyntactic defectiveness* of nouns and clitics (but not semantic proto-typicality of predicates) is a necessary condition in Romance in order to identify formally those nominal expressions that are to be interpreted as predicate modifiers, rather than as semantic arguments.

Hypotheses

- Nominals in (2): *Encontrar [taxi]*
- ✓ Defective nominal expressions.
- ✓ No Num.
- ✓ No D.
- ✓ Syntactic arguments of monadic syntactic structures.
- ✓ Non-semantic arguments: not interpreted as themes (affected objects), do not refer to entities, do not allow discourse reference (only property-type anaphora), have narrow scope.

Hypotheses



- Clitics in (3): *Salirle* ‘to perform the action of leaving’.
- ✓ Defective variant of the canonical dative singular third person clitic *le* ‘him.dat’.
- ✓ No Case, Person, Number, Gender.
- ✓ Head of a defective HAppl functional projection (Pylkkänen 2002, Cuervo 2003).
- ✓ They are neither syntactic nor semantic arguments.

Defective bare nominals in Romance

- Ns (or NPs) productively allowed in object position of a restricted class of incorporating predicates (i.e. HAVE-predicates) (cf. Borthen 2003, Dobrovie-Sorin et al. 2006).
- Fully defective Ns that occur as syntactic objects, but are semantic modifiers of the internal thematic participant of the V, which in its turn is interpreted as a predicate of events (cf. Parsons 1995).

(4) [_V V N]

(5) (Situation: Describing a candidate for a tenure track position)

a. *Este candidato tiene libro.*

this candidate has book

‘This candidate has published (one or more books).’

b. *Este candidato tiene libros.*

this candidate has books

‘This candidate has several books.’

Defective bare nominals in Romance

- In correlation with their formal defectiveness, these nominals are neither referential expressions, similar to strong DPs, nor indefinite expressions, similar to bare plurals. They do not refer to individual objects (type $\langle e^0 \rangle$) and are not semantic arguments.
- They are licensed as property denoting expressions, **properties of kinds** (type $\langle e^k, t \rangle$), that have narrow scope, are number neutral, and can only combine with classifying expressions (Esp & McN 2007b, Espinal 2010).
- These properties are combined with the verbs they are objects of by a process of composition that intersects the property denoted by the N with the one expressed by the verbal predicate.

Pseudo incorporation for bare nominals in Romance

- Lexical rule of theme suppression which applies only to HAVE-predicates + condition on use that takes into account its potential characterizing nature.
- A semantic composition operation that accounts for the fact that the **property denoted by the noun** is finally interpreted as an **event modifier**.

$$(6) \llbracket [{}_{V}V_{HAVE} N] \rrbracket = \lambda e[V(e) \wedge N(\theta(e))] \quad (\text{Esp \& McN 2011})$$

- Arguments: the BN does not trigger discourse reference, does not induce telicity, and is scopally inert. The whole $[{}_{V}V N]$ forms a complex predicate that denotes a characterizing property of the external argument in a specific context of use.

Defective *le* in Mexican Spanish

- Lexical affix, different from the regular DATIVE clitic, that selects for intransitive roots or intransitivized verbal bases.
- Lexical rule of Theme suppression.
- Productive class of predicates.

- (7) a. *¡Estornúdale!*
sneeze.le
'Perform sneezing!'
- b. *Esta vez sí le salimos temprano.*
this time yes le left soon.DIM
'This time we certainly performed the action of leaving soon.'
- c. *¿Le cierras? Por favor.*
le close please
'Could you perform closing? Please.'

Defective *le* in Mexican Spanish

- *Le* is the head of a defective HAppl projection: (i) it takes only a complement identified with the whole VP, (ii) it does not relate with an external argument participant (a full dative DP); and (iii) it co-occurs with verbal bases that lack a direct object.

(8)a. *Le_i apretó a todos los botones_{*i} y descompuso la lavadora.*
le pressed to all the buttons and damaged the washing.machine
'(S)he performed the action of pressing, with regard to all the buttons, and damaged the washing-machine.'

b. *Le apretó (*todos los botones) y descompuso la lavadora*
le pressed all the buttons.ACC and damaged the washing.machine
(*a mi mamá).
to my mom.DAT

- As a defective item *le* has neither a referential interpretation (i.e., lack of reference to a participant in the clause) nor an argument status.

Defective *le* in Mexican Spanish



- Semantically, *le* encodes an intensive meaning. The external subject is involved in performing an **intensive activity** (i.e. the performance of the action).
- *Le* modifies the selected event by classifying it as an **Action** (Nav & Esp 2012). The whole modified event may intersectively combine with an optional *locus* property associated with an informational coda.

(9) (Situation: The speaker is supposed to have cleaned the shoes, and says:)

a. *Limpié los zapatos y quedaron bien limpios.*
 cleaned the shoes and remained well clean
 'I cleaned the shoes and left them completely clean.'

b. *Le limpié a los zapatos.*
 le cleaned to the shoes
 'I performed cleaning with regard to the shoes.'

c. *#Le limpié a los zapatos y quedaron bien limpios.*
 le cleaned to the shoes and remained well clean

Semantic denotation of *le*

1. It imposes some **selecting requirements**.
 - it restricts the class of event schemas of the verb it combines with to activities and dynamic predicates.
 - Dynamic predicates are mereological complexes that encode a correlation between durative events (subevents) and gradable scales (subscales) (cf. Beavers 2004, 2008).

(10) *Lexical constraint on V*

Let $\alpha \in (CO(e) \wedge CO(s))$,

then α is a dynamic predicate, with a durative reading and a gradable reading, iff

CO(e): $e = e' \oplus e'' \oplus e'''$ (durative event)



CO(s): $s = s' \oplus s'' \oplus s'''$ (gradable scale)

Pseudo incorporation for *le-* *predicates*

2. It conveys an **intensive meaning**.

- Semantically, *le*-predicates entail an intensive activity with regard to the event denoted by the verbal base *le* can combine with.
- This meaning is the result of a process of event modification triggered by the affix that entails an actionalization of the event.
- *Le* selects for predicative events and adds the condition that the event must be interpreted as an Action.

$$(11) \llbracket [_{LeP} \textit{le} V_{ACT/DYN}] = \lambda e[\mathbf{V}(e) \wedge \mathbf{Action}(e)]$$

Further data

- (12) a. *Mirarse* *al* *espejo.*
look.refl at.the mirror
'To look at oneself in the mirror.'
- b. *Pasarse* *el* *peine.*
run.refl the comb
'To run a comb (through one's hair).'
- c. *Lavar* *los* *platos.*
wash the dishes
'To wash the dishes.'

Weak definites

Q3. Do they show morphosyntactic defectiveness?

- ✓ yes, in spite of their definiteness and in spite of overt morphophonological number

Q4. Do they saturate the predicate (as expected if they were to have kind reference)?

- ✓ no, they are property denoting expressions

Grammatical differences between WD and definite *k*

(12)a. *Mirarse al espejo.*

look.refl.at.the mirror

‘To look at oneself in the mirror.’

b. *Pasarse el peine.*

run.refl the comb

‘To run a comb (through one’s hair).’

c. *Lavar los platos.*

wash the dishes

‘To wash the dishes.’

(13)a. *El dodo era endémico de la Isla Mauricio.*

the dodo was endemic of the island Mauritius

‘The dodo was endemic from the Mauritius Island.’

b. *El oro tiene el número atómico 79.*

the gold has the number atomic 79

WD vs. Definite kinds

<p>Built on Number: sg or pl. Morphosyntactically defective <i>Mirarse al espejo. / Lavar los platos.</i></p>	<p>Have no Number (Borik & Espinal 2012) <i>El dodó... / El oro...</i></p>
<p>Inter/intra linguistic variation on def.art. Syntactically expletive <i>Ir a la escuela (S) / Anar a escola (C)</i> <i>Cotizar en la bolsa / Cotizar en bolsa</i></p>	<p>Obligatory presence of the def. article <i>*Dodó era una ave endémica de la Isla Mauricio.</i></p>
<p>The meaning of D is not maximality <i>Limpicar los zapatos</i> ≠ clean the set of all shoes relevant in the discourse domain</p>	<p>The meaning of D is maximality <i>El colibrí es abundante en Costa Rica.</i></p>
<p>Restriction on N: Ns that allow an stereotypical usage (A & Z 2010) Lexically restricted</p>	<p>Restriction on D Grammatically restricted</p>
<p>S-level predicates <i>Mirar, pasar, lavar, leer, escuchar,</i> etc.</p>	<p>K- and i-level predicates <i>Ser endémico/abundante/raro, tener un núm. atómico,</i> etc.</p>
<p>Mainly objects of Vs and Ps, internal subjects of unaccusatives</p>	<p>Mainly subjects, only occasionally objects</p>

WD vs. Definite kinds ●●

DPs are either claimed to have non-unique ref. (C et al. 2006), or refer to abstract objects (A & Z 2010)

DPs have ordinary atomic reference

- Pronominalization is only possible by means of regular 3rd person ACC clitic pr. *el/lo*), but the clitic is not directly anaphoric to the WD (14a), rather it has an antecedent that is accommodated by the hearer into the common ground (14b).

(14) SPA / Cat

- a. *Desde que Facebook_j salió a la bolsa_i*
 since that Facebook go.out to the stock.exchange
 pro_{#i/j} *se derrumbó.*
 pro CL collapsed
- b. *Toca ara el piano que després vindran a afinar-lo.*
 play now the piano that then come.3pl.FUT to tune.it

Semantic similarities between WD and BNs

WD can be scoped over (C et al. 2006)

Todos los estudiantes leyeron el periódico.

BNs have narrow scope: they are sem. weak

Quiere comprar coche

WD can only combine with classifying expressions (A & Z 2010)

*Voy a consultar la agenda electrónica / *sencilla.*

BNs can only combine with classifying expressions

*Tiene pareja estable / *enferma.*

WD allow enriched meanings (A & Z 2010)

Ir a la escuela → for educational purposes
Cotizar en la bolsa → to invest

BNs allow enriched meanings

Llevar anillo → to be married
Tener libro → to have published
Ser pallaso → to behave like a clown

WD share properties with indefinites (C et al. 2006), and they are number neutral in spite of overt morphophonological number

Lavar los platos

BNs share properties with indefinites (more close to bare plurals than to singular indefinites), and they are number neutral

Tener libro

Pseudo incorporation for WD

- Syntactic args are not semantic args → argument suppression rule.
- This rule is a lexical rule that has to account also for the stereotypical meaning (encyclopaedic knowledge) (Zwarts 2010).

(15) Input: $\lambda P \lambda y \lambda e [V(e) \wedge \theta(e)=y \wedge U(y,P)]$

Output: $\lambda P \lambda e [V(e) \wedge U(\theta(e),P)]$

- where V stands for V or Pr ; P = domain of nominal meanings,
- in the input y instantiates a stereotypical usage of a property P (this part of the rule triggers argument suppression),
- in the output $\theta(e)$ instantiates that stereotypical usage of P .²⁶

Pseudo incorporation for WD

- Restrictiveness (Carlson 2003, 2006): non-referential arguments modify the V/P's denotation and create a more specific event-type by intersection.

(16) If $\llbracket V \rrbracket = \lambda e[V(e)]$ and θ is an implicit role function defined for V that instantiates a stereotypical usage, and $\llbracket N \rrbracket = \lambda x^k[P(x^k)]$, then $\llbracket [{}_V V + (D)N] \rrbracket = \lambda e[V(e) \wedge \mathbf{P}(\theta(e))]$

Summary

	V + N	<i>Le</i> + V	V/P + (D)N
Morphosyntactic defectiveness	✓	✓	✓
Lack of reference of the N / affix	✓	✓	✓
Intransitive predicates	✓	✓	✓
Restrictions on incorporating verbs	✓ HAVE-predicates	✓ Activities and dynamic predicates	✓ Predicates that have associated a U function
Event modification	✓ N($\theta(e)$)	✓ Action(e)	✓ P($\theta(e)$)

Conclusions

- BNs, *le*, and WDs in the three constructions discussed in this presentation:
 - are morphosyntactically defective, and
 - are not canonical arguments.
- Their meaning is intersectively composed with the one corresponding to the V. Event modification.
- Complex predicate formation by Pseudo Incorporation.

Selected references

- Aguilar-Guevara, A. & J. Zwarts. (2010). Weak definites and reference to kinds. In *Proceedings of SALT 20*, 179-196.
- Carlson, G. (2006). The meaningful bounds of incorporation. In S. Vogeleer and L. Tasmowski (eds.), *Non-Definiteness and Plurality*. Amsterdam: Benjamins. *Linguistics Today*, 35-50.
- Carlson G., R. Sussman, N. Klein & M. Tanenhaus. (2006). Weak definite NPs. In C. Davis, A.R. Deal and Y. Zabbal (eds.). *Proceedings of NELS 36*. UMass/Amherst: GLSA/Chicago.
- Dayal, V. (2011). Hindi pseudo incorporation. *NLLT* 29, 123-167.
- Dobrovie-Sorin, C., T. Bleam & M.T. Espinal (2006). Bare nouns, number and types of incorporation. In S. Vogeleer & L. Tasmowski (eds.), *Non-Definiteness and Plurality*. Amsterdam: John Benjamins, 51-79.
- Espinal, M.T. (2010). Bare nominals in Catalan and Spanish. Their structure and meaning. *Lingua*, 120.4, 984-1009.
- Espinal, M.T. & L. McNally. (2011). Bare nominals and incorporating verbs in Spanish and Catalan. *Journal of Linguistics* 47, 87-128.
- Navarro, Í. & M.T. Espinal. (2012). *Le*-predicates and event modification in Mexican Spanish. *Lingua* 122, 409-431.
- Zwarts, J. (2010). Weak definites and the lexical semantics of nouns. Ms. Utrecht University.