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Verbal plurality in the Romance languages

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ORE entry - Verbal plurality in Romance

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Verbal plurality is commonly defined as morphological means of marking event plurality on verbs. This definition of verbal plurality does not yield a linguistically natural class for several reasons. Firstly, many verbal markers of discrete event multiplicities also allow durative, intensive and attenuative, that do not rely on discrete event multiplicities. Secondly, discrete event multiplicities fall into different classes. Additive markers in particular have to be treated as a separate type of event plurality as they include presupposed and asserted events in the event plurality. Drawing on data from Catalan, French, Italian, Portuguese and Spanish, the present chapter discusses verbal plurality expressed by derivational verb formation and aspectual periphrases.

1 Introduction

The present chapter examines VERBAL PLURALITY in Romance, defined as morphological means of marking event plurality on verbs, focusing on derivational verbal morphology and verbal periphrases.¹

In the literature, event plurality is often understood as a multiplicity of discrete events of a common type, in analogy to nominal plurals of count nouns that express a multiplicity of discrete individuals of a common type, illustrated here by the definition in Jespersen (1924).

- (1) If the plural of *one walk* or *one action* is *walks, actions*, the plural idea of the verb must be *to undertake several walks, to perform more than one action*. (Jespersen, 1924, 210)

Upon closer examination, however, this notion of *event plurality* does not correspond to a linguistically natural class, and consequently a definition of verbal plurality markers in terms of event plurality does not yield a homogeneous class either. Section 2 examines the definition of verbal plurality in detail, showing that the term is used to cover a range of heterogeneous phenomena. On the one hand, cross-linguistically, morphological means that mark event pluralities routinely allow other readings meanings that do not involve discrete multiplicities of events, including durative, intensive and attenuative readings (section 2.2). On the other hand, the decomposition of complex events into parts does not yield a semantically uniform decomposition as the distinction between EVENT-INTERNAL and EVENT-EXTERNAL plurality shows (Cusic, 1981, 61) (section 2.3).

Sections 3 - 5 examine different verbal plurality markers found in Romance. Section 3 examines additive verbal markers in Catalan, Italian and Spanish such as Fr. *relire*, It. *rilegger* "reread" and Sp. *volver a +V* "to V again", summarising the arguments that additive markers have to be treated as a separate type of event plurality since the event plurality involves both presupposed and asserted events. Section 4 reviews work on lexical verbs with evaluative morphology such as Fr. *chanter/chantonner* "to sing/ to hum" and It. *saltare/saltellare* "to jump/ to hop" that display readings involving event-multiplicity. Section 5 summarises the work on aspectual periphrases expressing different types of event plurality in Romance, focusing on the distinction between grammatical aspect and lexical aspect.

¹In the literature, verbal markers of event plurality are also called PLURACTIONAL markers. While the term *pluractional* was originally coined for verbs containing a marker that indicates plurality of action or event (Newman, 1980, 2012), the current usage of the term PLURACTIONAL has been extended beyond verbs to adverbial phrases Fr. *page par page* "page by page" (Beck and Stechow, 2007) or adnominal modifiers *the occasional sailor strolled by* (Zimmermann, 2000). In what follows, the narrower term *verbal plurality* is used.

2 Types of verbal plurality

The present section addresses the two basic questions concerning event plurality (see Cusic 1981, 64):

- (2) a. Q1: In what senses may events be said to be plural?
- b. Q2: What is the relation between event plurality and the familiar notions of number developed for nouns and noun phrases?

Section 2.1 examines the definition of event plurality as a multiplicity of discrete events.

A definition of event plurality in terms of multiple discrete events is problematic in at least two respects. First, many verbal markers of event plurality systematically have non-discrete readings such as continuative and intensive readings in addition to event multiplicity readings (section 2.2). Second, even markers that describe scenarios with multiple discrete events are not semantically uniform: The discernible sub-parts of complex events can differ in their linguistic identifiability, notably with respect to their ability to be distributed over participants, locations, or points in time (Cusic's distinction between EVENT-INTERNAL and EVENT-EXTERNAL plurality, section 2.3).

Section 2.1 briefly compares event plurality with the notions of plurality familiar from the nominal domain.

2.1 Discrete event plurality

Event plurality is generally understood as a multiplicity of discrete events of a common type, in analogy to nominal plurals of count nouns as e.g. Jespersen's definition (1)).

Expressions that describe discrete event-pluralities therefore have to specify how the requirements of two competing conditions are to be met:

- (3) a. Similarity condition:
 the single sub-events of a discrete event-plurality are sufficiently **similar** to be count as events of a common type
- b. Distinctness condition:
 the single sub-events of a discrete event-plurality are sufficiently **distinct** to count as different events (event identification).

Identifying single events is notoriously difficult since linguistic expressions often describe events which can have complex internal phases:²

- (4) a. organise a party
- b. prepare a cake

²For philosophical difficulties in identifying even events that seem simplex events see e.g. Davidson (1969).

c. travel to India

In the linguistic literature, events are taken to correspond to entities that satisfy event descriptions. Under this view, the examples in (4) describe single events. Given a common event-description, the **distinctness condition** for a plurality of discrete events is generally implemented as variation along different linguistically relevant dimensions: time, locations or a plural count argument.

- (5)
- a. An event description of a single event:
John broke a stick in two.
 - b. Events varying in time:
John broke a stick into small pieces (more than one event affecting one argument)
 - c. Events varying in time and over a plural argument:
John repeatedly broke sticks in two (more than one event affecting a plurality of arguments)
 - d. Events varying over locations:
John looked all over the place for his glasses.
 - e. Events varying over arguments and locations:
The parking attendants parked the cars in different places. (can be distributed in time, but need not be)

Variation along different dimensions can combine: e.g. repeated action on one argument (5)-b and distribution over a plural argument (5)-c can combine as in (6)-a, and distribution over locations can combine with iteration of the event-plurality as in (6)-b.

- (6)
- a. John repeatedly broke a stick into small pieces.
 - b. John repeatedly looked all over the place for his glasses.

When events are identified by distribution over arguments, the description of the argument may influence the applicability of a distributive expression, even if both event-descriptions describe the same event as in (7).

- (7) Context: a book with 12 chapters
- a. X read **half the book** (*one by one)
 - b. X read **6 chapters** (^{ok} one by one)
(can be viewed as 6 events identified by distinct objects).

Event plurality is therefore a notion associated with the event-description, not with the type of event as such. Expressions of event plurality vary with respect to the **similarity conditions** they impose on the sub-events of the event plurality, notably with respect to distribution of the event-plurality over plural arguments, times or locations (see section

2.3 for discussion).

The similarity conditions between sub-events associated with an event-plurality marker may show complex interactions with the syntactic type of the arguments as shown in the literature on verbal plurality (Laca 2006, Wood 2007, 213-215).

The examples discussed in this section concern discrete event pluralities with distribution of the sub-events over moments in time, locations or individuals making up a plural argument. However, as shown in section 2.2, reference to discrete event multiplicity does not carve out a homogeneous class of verbal markers, as many verbal markers that have event plurality as one of their readings also allow other non-discrete readings.

2.2 The semantic field of verbal plurality markers

As is well-documented in the literature, cross-linguistically markers of verbal plurality routinely also allow readings that clearly go beyond discrete event plurality (Dressler 1968, Newman 1980, Cusic 1981, 74).

Based on the range of readings observed for markers across languages, Dressler (1968) identifies four semantic domains of verbal plurality: (i) iterative, (ii) durative, (iii) distributive, and (iv) intensive, each with a range of attested meanings.

(8) Semantic domains of verbal plurality Dressler (1968, 62ff)

a. **iterative** mode of action

the DISCONTINUATIVE (irregular repetition with stressed pauses), the REPETITIVE (rather frequent repetition without stressed pauses), the DUPLICATIVE (repeated action performed either by the same or different participants), the REVERSATIVE ("there and back" motion - with verbs of motion), the FREQUENTATIVE (frequent regular repetition), the CONATIVE (repetition of attempts at performing an action), the ALTERNATIVE (repetition of oppositely directed actions)

b. **durative** mode of action

the USITATIVE (repetition as an ability, inclination or habit), the DURATIVE (prolonged action), the CONTINUATIVE (continuation of a previously started action)

c. **distributive** mode of action

the SUBJECT DISTRIBUTIVE (each of many subjects acts separately, actions being performed either simultaneously or not), the OBJECT DISTRIBUTIVE (actions performed separately with each of many objects, either simultaneously or not), the DISPERSIVE (the action takes place in different points of space simultaneously), the DIVERSATIVE (each of many subjects acts in a separate direction), the AMBULATIVE (the action successively affects many points of space)

d. **intensive** mode of action

the INTENSIVE proper (intensified action), the ATTENUATIVE (relaxed action), the ACCELERATIVE (quick action), the EXAGGERATIVE (excessive action), the PEJORATIVE (negatively assessed action)

In this classification, the modes expressing discrete multiplicity of events are iterative and distributive modes of action. However, many markers have iterative event multiplicity readings alongside other non-discrete readings showing that these markers are not discrete event plurality markers as such but have event multiplicity readings under certain conditions (Dressler 1968, Newman 1980).³

The Spanish additive periphrasis *volver a* "return" + Infinitive exemplifies duplicative, reversative and alternative readings ((10), see section 3 for more discussion), the French evaluative affixation with *-iller* combines repetitive and attenuative semantics ((11), see section 4) and the Spanish incremental periphrasis *ir* "go" +Gerund, shows distributive readings (12)-a as well as continuative readings *refir-empeorando*-b (Laca, 2006) (see section 5).

- (10) a. the **duplicative** (repeated action performed either by the same or different participants)

Volvió a escribir una carta. (Sp)
return.PFV.PST A write a letter
S/he wrote another letter. (duplicative)

- b. the **reversative** (backward/home motion - with verbs of motion)

Volvió a subir. (Sp)
return.PFV.PST A go-up
S/he went back up.

- c. the **alternative** (repetition of oppositely directed actions)

Volvió a abrir la puerta. (Sp)
return.PFV.PST A open the door.

³This view is taken up in detail in Cusic (1981). To analyse the wide range of plural meanings observed for verbal plurality markers Cusic (1981, 77) proposes to categorize the meanings using the following 4 parameters:

- (9) a. the PHASE/ EVENT / OCCASION PARAMETER (see below, section on event-internal vs event-external plural)
b. a RELATIVE MEASURE PARAMETER (taking increase and decrease into account, as well as types of number: small, large, small definite count vs large indefinite count)
c. a CONNECTEDNESS PARAMETER for relating event plurality to the mass/ count distinction
d. a DISTRIBUTIVE PARAMETER, for relating plurality to temporal and spatial extension and to number in associated noun phrases

S/he opened the door again (that had been closed before). (alternative, oppositely directed action)

- (11) Fr. *mordiller* 'to nibble' vs. Fr. *mordre* 'to bite'
- (12) a. Los invitados fueron saludando al dueño de casa.
The guests goPFV.PST greeting to-the host (Sp)
'The guests successively greeted the host.' (Laca, 2006, ex. 12c)
- b. La situación iba empeorando. (Sp)
The situation go.IMPFV.PST.3SG worsening
'The situation was getting worse.' (Laca, 2006, ex. 1b)

In the literature, the event multiplicity effects observed in many languages with imperfective grammatical aspect are not treated as event plurality marking. The large typological surveys narrow the definition of event plurality markers to morphemes that derive complex **lexical** aspect or *Aktionsarten* (Dressler 1968, 51, §19, Cusic 1981, Xrakovskij 1997, 7-8), realized either as derivational morphemes or as verbal periphrases.

Furthermore the iterative readings of event plurality markers can be extensional, referring to actual pluralities of events (13)-a, or intensional, including a habitual or dispositional component (13)-b.

- (13) a. **Anda** lloviendo por Bogotá. (Sp)
goes raining around B.
It is raining on and off around Bogotá. (iterative **extensional**)
- b. **Vive** lloviendo en Bogotá. (Sp, Bogotá)
lives raining in B.
It keeps raining in Bogotá all the time. (iterative **intensional**)
(Amaral, 2013b, 109, ex 12)

The availability of durative and iterative readings with event plurality markers resembles effects found in the combination of imperfectives with predicates belonging to different lexical aspect classes, as well as habitual/gnomic readings comparable to the distinction between simple imperfective and gnomic/habitual imperfective (Bertinetto and Lenci, 2012):

- (14) a. Alicia llegaba tarde. (Sp)
A. arrived.IMPFV.PST.3SG late
Alicia used to arrive late. (habitual imperfective) (achievement)
- b. Alicia cantaba.
A. sang.IMPFV.PST.3SG
Alicia was singing. / Alicia used to sing. (simple/ habitual imperfective) (activity)

These parallels between iterative event multiplicity markers and imperfective grammatical aspect marking often make it difficult to determine if a linguistic form marking temporally distributed events should be analysed as an imperfective grammatical aspect marker or as an event plurality marker (e.g. iterative lexical aspect). In the literature on verbal plurality markers, grammatical aspect markers such as imperfective verb forms in Romance are generally not treated as event plurality markers. Section 5 comes back to the distinction between grammatical aspect and lexical aspect in more detail, presenting studies that compare the progressive periphrasis *estar* "be.loc" +Gerund with other periphrases in Spanish.

2.3 Event-internal and event-external plurality

The contrast between **event-internal** and **event-external** plurality introduced by Cusic (1981, 61) bears on the similarity conditions associated with the sub-parts of complex events. Markers of **event-internal plurality** are markers requiring a high degree of homogeneity internal to the complex event, notably requiring shared arguments, location and time (see Henderson (2017) and references cited there for detailed discussion). Markers of **event-external plurality**, on the other hand, impose a diversity condition on the parts of the complex event that requires them to be distributable over moments in time, locations or plural count arguments.

Cusic (1981, 61) distinguishes three levels of plurality for events: **phases**, **events** and **occasions**. Phases of complex events cannot be accessed individually but form parts of lexically repetitive events described for example by semelfactives like *nibble*, *flutter*, *blink*. Occasions refer to a level where events are clearly distinct due to temporal disjointness: the events in question are distributed over different times (15)-a. Events making up a complex event need not be distributed over occasions (15)-b, but events can be individualised and are accessible, e.g. to adverbial modification by *two times* in (15)-b. In contrast with events, *phases* are subparts of a complex event that have to be confined to a single event on a single occasion. Unlike sub-events of a complex event, the phases of a complex event are not available for adverbial modification (16).

- (15) The salesman rang the doorbell twice.
- a. On two separate occasions he rang the bell once.
 - b. On one occasion he rang the bell two times.
(Cusic, 1981, 61)
- (16) The bird fluttered its wings twice.
- a. On one occasion the bird fluttered its wings two times.
 - b. Not: the fluttering event had two phases.

Based on the distinction between phases, events and occasions, Cusic (1981, 67) pro-

poses a distinction between **event-internal** and **event-external plurality**.⁴

- (17) Cusic (1981, 67)
- a. Plurality is **internal to an event** if a **single** event on a single occasion consists of internal phases.
 - b. Plurality is **external to an event** if a single bounded event (internally plural or not) is repeated (on a single occasion or on several occasions).

Event-internal plurality corresponds to **repetitive action** for which units of action are conceived of as confined to a single occasion and to a single event on that occasion, illustrated in English by semelfactive verbs *flutter*, *wiggle*, *tickle* Cusic (1981, 78). In contrast, event-external plurality corresponds to repeated action with units of action that are potentially distributable, though not necessarily distributed, over multiple occasions (Cusic, 1981, 79).

2.4 Plurality in the verbal and nominal domain

In the nominal domain, **plurality** is used for two distinct concepts. The semantic notion of plurality concerns a referent including multiple individuals (18)-a, while the morphosyntactic notion of plurality concerns marking by a specific morphology indicating plurality (18)-b (see Corbett 2000; Acquaviva 2017).

- (18) a. Sp. arbusto-s "bush-pl", equipo "team"
 b. Syrian Arabic *beet* /*beet-een* /*byuut* "house.SG / DUAL / PL)"

For the nominal domain, linguistic studies of number generally consider morphosyntactic marking of number by different types of number morphology on the noun, coordination or modification by numerals (*five houses*) (see Corbett 2000; Acquaviva 2017)

However, interpretations involving semantic plurality - i.e. a multiplicity of individuals - also arise in other contexts such as modifiers expressing alterity (19)-a and quantity and measure expressions combined with count nouns .

- (19) a. Sp. otro árbol "another tree", un árbol diferente "a different tree"
 b. Sp. un montón de libros "a lot of books", varios libros "several books"

A definition of verbal plurality in terms of discrete sub-events marked by verbal morphology corresponds to the *semantic* notion of plurality in the nominal domain: an event plurality arises when multiple discrete events can be identified. Analyses of different

⁴This corresponds to the distinction between **multiplicative** and **iterative** aspect in the terminology of Xrakovskij (1997, 27).

event plurality markers draw analogies with different means of obtaining nominal multiplicity including bare plurals (Yu (2003) for Chechen pluractional verbs), group nouns (Laca (2006) for Spanish aspectual periphrases, Henderson (2017) for Kaqchikel Maya) and additive expressions Fr. *relire* "reread" (see section 3).⁵

The parallel for verbal plurality marking in the nominal domain is not to be found at the level of inflectional count plural marking like Sp. *casa-s* "house-s" but more generally in the fact that expressions involving multiplicities such as additive expressions (*reread/ another book*) and degree/ quantity expressions (*read a lot/ a lot of books*) exist in both domains.

3 Mixed event pluralities: Additive markers

The classification proposed by Dressler (8) is representative of work on event plurality in that it includes readings exemplified in (20) in the class of iterative readings:

- (20) a. Il a relu le livre. (Fr.)
He reread the book.
- b. Volvió a cantar. (Sp)
return.PFV.PST.3SG A sing.INF

The present section summarises the arguments that these readings, termed ADDITIVE READINGS, should be treated separately from iteratives and frequentatives as they have a semantic profile that clearly sets them apart.

Verbal plurality markers typically do not allow exact cardinality expressions to count the number of events of the repetition (21) (cf. Laca (2006) and references therein); in contrast, additive markers combining with discrete event descriptions allow modification by adverbials specifying exact cardinalities of repetitions, including most strikingly adverbial phrases specifying cardinality one Sp. *una sola vez* "one time only" Fr. *une fois* "one time" (22).

- (21) a. **Anda** lloviendo por Bogotá (*dos veces/ *una sola vez). (Sp)
goes raining around B. two times one only time
It is raining on and off around Bogotá (*twice/*once).
- b. **Vive** lloviendo en Bogotá (*dos veces/ *una sola vez). (Sp, Bogotá)
lives raining in B. two times one only time
It keeps raining in Bogotá (*twice/ *once). (Amaral, 2013b, adapted from

⁵There are further arguments that cardinality expressed in the event domain is necessarily vague and that **exact** cardinality in the event domain needs nominal classifier expressions such as Sp. *veces*, It. *volte*, Fr. *fois* "times" (Doetjes, 2008).

109, ex 12)

- (22) a. Volvió a cantar **una sola vez**. (Sp)
 return A sing one only time
 He sang again one time only.
- b. J'ai relu le livre **une fois** / deux fois. (Fr)
 1sg=have.1sg reread det book one time / two times
 I reread the book once / twice.

The fact that adverbial phrases like Fr. *une fois* "one time" are possible with additive markers supports the conclusion in Tovina and Donazzan (2008) in their study of additive adverbs It. *ancora*. Fr. *encore* and Mandarin *zai* that additive markers do not assert a plurality of events. The interpretation of additive markers involves **mixed pluralities** of one (or more) presupposed and one (or more) asserted events.

- (23) **Volvió** a cantar una sola vez. (Sp)
 returnPFV.PST.3SG A sing one only time
 presupposed: an event e, sing(e), agent(x)
 asserted: an event e, sing(e), agent(x)

As pointed out by Gavarrò and Laca (2002, 2702) for Catalan *tornar a+* infinitive, the presupposed event need not be identical to the asserted event, exemplified by (24) where the two events have different subjects. As shown by Tovina and Donazzan (2008), additive markers may differ widely with respect to the degree of similarity they require between presupposed and asserted events.

- (24) El pare li ho havia demanat, i ara **tornava** a
 DET father DAT.3SG ACC.3SG had asked and now return A
 demanar-li-ho la seva mare. (Cat)
 demand-DAT.3SG-ACC3SG DET POSS.3SG mother
 The father had asked him and now his own mother asked him again.
 (Gavarrò and Laca, 2002, 2702,ex.121a).

Among the Romance languages, Spanish, Catalan, Italian and Portuguese have additive verbal periphrases: Sp. *volver a +inf*, Cat. *tornar a + inf*, It. *tornare a + inf*, Port. *voltar a/ tornar a + inf* (often discussed under the label *repetitive periphrases* or *iterative periphrases*, Sp. Gómez Torrego 1999, Cat. Gavarrò and Laca 2002, 2701, It. Giacalone Ramat 2001; Donazzan 2008, Port. Almeida 1980; Barroso 1994; Bertucci 2011, Raposo 2013, 1272-73; for a study of the diachronic development of the Sp., Cat. and It. periphrases see Rosemeyer 2018).

- (25) a. **Voltou** a chover. (Port)
 return A rain

It rained again. (Raposo, 2013, 1273, ex 84c)

- b. Pavarotti **tornò** a cantare dopo la malattia. (It)
 Pavarotti sang again after his illness. [Engl. translation added, PCH] (Don-
 azzan, 2008, 41,ex 2.42)

Another common means of expressing additivity are the cognates of the Latin verbal prefix *re-* found across all of Romance with different degrees of productivity (Fr. Meinicke (1904); Amiot and Stosic (2002), It. Iacobini (2004, 129,154-157), Sp. Martín García (1998); Serrano Dolader (1999), Cat. Cabré (2002), Port. Rio-Torto et al. (2013, 319-320), Rom. Croitor (2013, 605)).

- (26) a. It. *riattaccare* "reattack", *rieleggere* "reelect" (Iacobini, 2004, 155)
 b. Fr. *réélire* "reelect", *reproposer* "propose again", *renaître* "be reborn"
 c. Sp. *reelegir* "reelect", *reafirmar* "reaffirm", *reeditar* "publish again", *renacer* "be reborn"
 d. Port. *reafirmar* "reaffirm", *renacer* "be reborn"
 e. Rom. *reciti* "read again", *rescrie* "write again" citet[605]croitor13)

Independently of their realization as prefixes or verbal periphrases, additive verbal markers may have restitutive readings in addition to repetitive readings (see Olbertz 1998, 365-370 for Sp. *volver a*+INF, Amiot and Stosic (2002) and references there for French *re-*). Restitutive readings do not involve a plurality of events of the same type but an event that leads to a return to an original state ((27-b)/(28-b)).

(27) Spanish *volver a*+infinitive

- a. Repetitive readings
 (i) Volvió a reirse. Volvió a toser.
 return.PFV.PST.3SG A LAUGH.INF.REFL return.PFV.PST.3SG A cough.INF
 S/he laughed again. / He coughed again.
 (ii) Volvió a escribir una carta.
 return.PFV.PST.3SG a write a letter
 He wrote a letter again (he wrote another letter).
- b. Restitutive readings
 (i) Movement verbs:
 Subió al techo y **volvió a bajar**.
 go.up.PFV.PST to-the roof and return.PFV.PST A come.down.INF
 S/he went onto the roof and came down again. (restitution of location)
 (ii) bi-phasal resultative verbs
 La luz se apagó y después de un minuto **se**
 the light REFL went.out and later of one minute REFL

volvió a encender.

return.PFV.PST.3SG A light.up.INF

The light went out and a minute later it came on again.

- (iii) Compró una casa pero la volvió a vender.
 bought.PFV.PST a house.FS but CL.ACC.FS return.PFV.PST A sell
 S/he bought a house but s/he sold it again.

(28) French verbal prefix *re-*

a. Repetitive

- (i) Jean a **relu** le livre. (Fr.)
 J. has reread the book
 J. reread the book.
- (ii) Jean a été **réopéré**.
 J. has been re-operated
 Jean was operated again (lit. "reoperated").

b. Restitutive readings

- (i) Jean est monté à l'étage et il est **redescendu**.
 J. aux.3SG gone-up to the-floor and he aux.3SG RE-come.down
 J. went up and came down again.
 (= state of being back down)
- (ii) Jean a pu **racheter** la maison familiale.
 J. has could RE-buy the house family.ADJ
 J. was able to buy the family house back. (lit "re-buy")
 (= state of owning the house again)
- (iii) Jean est arrivé à midi mais il est **ressorti/ reparti**.
 J. aux.3SG arrived at midday but he aux.3SG RE-gone.out/ RE-left
 J arrived at midday but he went out again/ left again.

The repetitive and restitutive readings do not necessarily have the same distribution for all additive markers. For example, the French verbal prefix *re-* has a range of restitutive readings with verbs of movement (Amiot and Stosic, 2002) while the parallel examples in Spanish are not possible with a prefix *re-* but expressed using the periphrasis *volver a+inf* (cf. (28-b)-i vs. (27-b)-i).

The data reviewed in this section show that the interpretation of additive verbal plurality markers involves a mixed plurality of events including a presupposed event and an asserted event. The presuppositional component of additive markers makes them semantically clearly different from expressions of simple iteration. While the presupposed event has to be similar to the asserted event, the exact relationship between the asserted and the presupposed event are complex and depend on the specific additive

marker as the discussion of repetitive and restitutive readings shows.⁶ Additive verbal plurality markers display the same range of meanings observed for adverbs like Fr. *encore*, It. *ancora* "again", including repetitive and restitutive readings. In the same way that additive adverbs Fr. *encore*, It. *ancora* are not treated on a par with iterative or frequency adverbials, additive verbal plural markers should be kept apart from verbal plurality markers expressing iteration and frequency.

4 Evaluative verbal suffixes and verbal plurality

As shown in (8), verbal plurality markers cover a wide range of meanings including iteration and intensity. In French and Italian evaluative verbal morphology has semantic effects combining iteration and attenuation (Bertinetto 2004, 470 for Italian, Tovina and Kihm 2008 for French and Italian, Amiot and Stosic 2014 for French). There is a range of evaluative suffixes involved (for Italian see Bertinetto 2004, 467-71).

(29) French (Tovina and Kihm, 2008, 15)

evaluative V		simple V	
chantonner	'to hum'	chanter	'to sing'
machouiller	'to munch'	mâcher	'to chew'
mordiller	'to nibble'	mordre	'to bite'
pleurnicher	'to wimper'	pleurer	'to cry'

(30) Italian (Tovina and Kihm, 2008, 16)

evaluative V		simple V	
canticchiare	'to sing to oneself'	cantare	'to sing'
tocchignare	'to touch repeatedly, lightly'	toccare	'to touch'
mordicchiare	'to nibble'	mordere	'to bite'
saltellare	'to hop'	saltare	'to jump'
tremolare	'to tremble'	tremare	'to shudder'

Doublets of verbs with different evaluative forms are attested for French (Tovina and Kihm 2008, Amiot and Stosic 2014).

- (31) a. trainasser / trainailler 'to dawdle (over something) (French)
 b. baisoter/ baisouiller 'to give some little kisses',

⁶I am not aware of any detailed studies for the restrictions on the presuppositional event for verbal plurality markers. However, the problem of the restrictions on the presupposed event are discussed in detail in the study of additive adverbs in French, Italian and Chinese by Tovina and Donazzan (2008) and in the study of the adnominal additive marker *od* in Modern Hebrew and (*some*) *more* in English by Greenberg (2012).

- c. dormasser/dormichonner/dormitailler/dormoter 'to sleep lightly / for a short period of time';
- d. pleuviner/ pleuvioter/ pleuvoter/ pleuvasser 'to drizzle' (Amiot and Stosic, 2014, 18)

For French and Italian Tovena and Kihm (2008) argue against a synchronic derivational analysis of these verb formations. They point out that both languages have verbs showing an ending associated with pluractional meaning that cannot be paired with a simple verb (Tovena and Kihm, 2008, 19):

- (32) Verbs without a corresponding basic verb
- a. Fr. *barbouiller* "to daub", *pianoter* "to play around on the piano"
 - b. It. *sonnecchiare*

Furthermore, if the pluractional verbs with evaluative endings are analysed as a derivational process, this would constitute the only synchronic suffixal verb-to-verb derivation in Romance (Tovena and Kihm, 2008, 19).

Tovena and Kihm (2008, 20) analyse verbs with the evaluative endings as lexical remnants of historically productive processes. The sub-parts of the stem are still recognisable and associated with the meaning of attenuation and repetitive action, but no longer available as separate morphemes, similar to the *-ble* formative in *hobble*, *nibble*, *babble* in English. Following Dressler (1990), Tovena and Kihm (2008) propose to analyse the endings as submorphs.

The event plurality expressed by these verbs is event-internal: The parts of the complex event cannot be distributed over plural arguments or occasions (Tovena and Kihm, 2008). As Tovena and Kihm (2008, 22) point out, in (33) each biscuit has to be eaten in little bites - it is not possible to have little bites distributed over the plural argument (corresponding to a scenario in which each biscuit is bitten once). Furthermore the complex event denoted by the pluractional verbs requires temporal proximity of the phases making up the event (Tovena and Kihm, 2008, 23), as evidenced by the impossibility to count the phases of the complex event with adverbial expressions ((34)a) in a way comparable to activities (34)b.

- (33) It. Daniele ha mangiucchiato i biscotti.
Daniel nibbled the biscuits (Tovena and Kihm, 2008, 22, ex 9a)
- (34) a. It. Alla riunione, ha mordicchiato **due volte** la matita.
During the meeting, s/he nibbled the pencil twice.
- b. It. Ha corso **due volte** questa settimana.
S/he ran twice this week. (Tovena and Kihm, 2008, 23, ex 11a/b)

According to Tovena and Kihm (2008), pluractional verbs with evaluative endings in

Italian and French are underived verbs with submorphs that are associated with event-internal plurality, i.e. an event structure composed of phases that have to be temporally close and do not allow distribution over plural arguments, time or locations.

5 Verbal periphrases, event plurality and grammatical aspect

As shown in section 2.2, many markers of event plurality have durative or intensive readings in addition to multiple event readings. Often, the readings correlate with the telicity of the embedded predicate, with atelic degree achievements giving rise to durative readings (35)-a while telic achievements with plural arguments are interpreted as iterations (35)-b.

- (35) a. La situación iba empeorando. (Sp)
the situation go.PAST.IMPFV.3SG worsen.GER
The situation was getting worse gradually. (durative worsening event)
- b. Los invitados iban llegando. (Sp)
the guests go.PRS.3PL arrive.GER
The guests kept arriving. (multiple arriving events)

Discrete event plurality readings with punctual predicates are also observed with imperfective grammatical aspect. In Spanish, for example, combining imperfective past with achievements gives rise to iterated readings (Mendikoetxea, 1999, 1618). The imperfective forms *abre/abría* ‘opens/opened. IMPFV’ are used with an iterative interpretation (36)-a, except for the narrative present and a similar use of the imperfective past, which allows punctual readings (36)-b (see Mendikoetxea 1999, 1618).

- (36) a. *Abría* *la puerta*. (Sp)
opened.IMPFV the door
S/he would /used to open the door (on several occasions).
Not "She was opening the door on one occasion".
- b. En ese momento el portero abre/ *abría* *la puerta*.
in this moment the porter opens/ opened.IMPFV the door
‘At this moment, the porter opens/was opening the door.’
(Mendikoetxea, 1999, 1618)

Many expressions of event plurality resemble imperfective aspect markers in at least two respects: (i) they can have interactions with the lexical aspect of the complement similar to (36), and (ii) they allow habitual and episodic uses. The study of event plurality markers therefore faces the recurrent question how event plurality markers can be dis-

tinguished from imperfective aspect.

In Romance languages that have a rich array of verbal periphrases (see ORE Encyclopaedia entries Passive Periphrases, and Temporal, aspectual and modal periphrases), the question arises which periphrases should be analysed as grammatical aspect (imperfective) (37)-a and which periphrases modify the aktionsart/ lexical aspect of the event description in a way comparable to iterative and distributive derivational verbal morphology (37)-b.

- (37) a. Imperfective grammatical aspect:
il sautait 'he jumped (imperfective)'
 b. Lexical iterative derivation:
il sautille 'he jumps several times, in small repeated jumps'

The following sections discuss work on verbal periphrases in Romance that provides diagnostics that distinguish verbal periphrases expressing *grammatical* aspect from verbal periphrases modifying the *lexical* aspect of the eventuality denoted by the verb.⁷ Section 5.1 summarises work on motion verb periphrases with frequentative and incremental interpretation while section 5.2 presents a study on a habitual periphrasis with the verb *vivir* "to live".

5.1 Motion verb periphrases in Romance

Romance languages have a wide range of verbal periphrases (Squartini 1998, Sp. Olbertz 1998; Gómez Torrego 1999; Yllera 1999, Cat. Gavarrò and Laca 2002, Port. Barroso 1994).

Spanish and Portuguese distinguish between two periphrases with a verb of directed motion *ir* "go" and a verb of undirected motion *andar* "walk", respectively as in (38), whereas the other Romance languages have a single motion-verb periphrasis as Cat. *anar* "walk/go" (39) and It. *andare* "walk/ go" (40) (Laca, 2006):

- (38) a. **Anda** molestando a la gente. (Sp)
 walk.PRS.3SG disturbing to the people
 'S/he is giving people trouble.'
 b. La situación **iba** empeorando.
 the situation go.IMPFV worsening
 'The situation was getting worse.' (Laca, 2006, ex 1a/b)
- (39) a. Té ordre d'**anar** molestant la gent. (Cat)
 has order of.go.INF disturbing the people
 'S/he has orders to keep giving people trouble.'

⁷For a proposal that grammatical aspect and lexical aspect modification can combine see the analysis of Cabredo Hofherr et al. (2010) for the Present Perfect in North-Eastern Brazilian Portuguese.

- b. La situació **anava** empitjorant progressivament.
 the situation go.IMPV.PST.3SG worsening progressively
 ‘The situation was gradually getting worse.’ (Laca, 2006, ex 1c/d)
- (40) a. Cosí non **vado** scocciando la gente. (It)
 so not go.PRS.1SG disturbing the people
 ‘This way I’m not giving people any trouble.’ (from Squartini 1998: 217)
- b. La situazione **andava** peggiorando.
 the situation go.IMPV.PST.3SG worsening
 ‘The situation was getting worse.’ (from Squartini 1998: 211) (Laca, 2006, ex 1e/f)

The interpretation of these motion verb periphrases requires complex events. For Spanish, Laca (2006) points out that both *ir* and *andar*+Gerund are incompatible with expressions that preclude the subdivision of the event such as *in one go*:

- (41) a. María **fué** / **anda** leyendo La Guerra y la Paz
 María goPFV.PST / walk.PRS.3SG reading The War and the Peace
 (***de un tirón**).
 (***of a pull**).
 ‘María gradually read / is reading War and Peace (*in one sitting).’
- b. ***Iremos** amortizando la deuda **en un único pago**.
 go.FUT.1PL paying.up the debt **in a single payment**
 *‘We will gradually pay up our debt in one single payment’ (Laca, 2006, ex 6c/d)

For Cat., Gavarrò and Laca (2002) stress that the periphrasis Cat. *anar*+gerundi imposes more than one interval in the development of the situation as evidenced by the fact that it is incompatible with punctual temporal expressions.

- (42) a. */? **Jus quan va arribar**, anà caient la fosca. Cat.
 just when AUX.3SG. arrive.INF go.PRS.3SG fall.GER the dark
 Just when s/he arrived the dark was falling #here and there.
- b. */? **En aquell moment precís**, anava assolint un alt grau
 in that moment precise walk.PST.IMPV.3SG get.GER a high degree
 de popularitat.
 of popularity
 #At that precise moment, he was attaining a high degree of popularity.
 Gavarrò and Laca (2002, 2691: ex 82a/b)

Based on work in Laca (2002, 2004), Laca (2006) argues that *estar* +Gerund is an expression of grammatical aspect contrasting with *ir/ andar* +Gerund that are expressions that modify the Aktionsart/lexical aspect of the embedded predicate. The empirical ar-

guments for this analysis are drawn from three types of evidence (Laca, 2006): (i) the **ordering restrictions** wrt to other periphrases, (ii) **selectional restrictions** on the complement and (iii) **semantic differences**.

Ordering restrictions As Laca (2006) shows, while *estar* +Gerund cannot be preceded by other eventuality modification periphrases (43), *andar* / *ir* +Gerund allow embedding, for instance, under an aspectualizer like *empezar* ‘begin’ or under the additive periphrasis *volver a* + Inf (44):⁸

- (43) a. El avión empezaba a ***estar** perdiendo altura. (Sp)
 the plane begin.IMPFV.PST.3SG to ***LOC-be** losing height
 ‘The plane was beginning to lose altitude gradually.’
 b. Volvió a ***estar** diciendo mentiras.)
 returned.PFV.PST.3SG to ***LOC-be** telling lies
 ‘S/he started telling lies again.’ (Laca, 2006, from ex 2a/b)
- (44) a. El avión empezaba a **ir** perdiendo altura. (Sp)
 the plane begin.IMPFV.PST.3SG to go losing height
 ‘The plane was beginning to lose altitude gradually.’
 b. Volvió a **andar** diciendo mentiras.
 returned.PFV.PST.3SG to walk telling lies
 ‘S/he started telling lies again.’ (Laca, 2006, from ex 2a/b)

Selectional restrictions Laca (2006) further observes, that *estar* +Gerund can combine with almost any type of verb, while *andar* / *ir* + Gerund are subject to more specific selectional restrictions: *andar*+Gerund and *andar/ir*+Gerund both reject states (45)-a and punctual achievements (45)-b, while *andar*+Gerund is incompatible with degree achievements (47) and *ir*+Gerund is incompatible with activities (48).⁹

- (46) a. **Estaba/ ??iba/ ??andaba** siendo víctima de una alucinación.
 LOC.be.IMPF/ ??go.IMPF/ ??walk.IMPF being victim of a hallucination
 (Sp)

‘(S)he was suffering a hallucination.’ (state)

⁸See Laca (2002, 2005) for a discussion of the distinction between grammatical aspect periphrases and event modification periphrases for a range of other common Romance periphrases.

⁹Notice that *ir* +Gerund becomes acceptable with activities when the context makes gradual increase explicit

- (45) En este caso, el agua no se **va acumulando** y simplemente se **va utilizando** poco a poco a medida que **va lloviendo**. (attested)
 in that case the water doesn’t keep accumulating and simply is used bit by bit to the same extent that it is raining <https://lamurallagrupomargal.blogspot.com/>

- b. **Estás/** ??**vas/** ??**andas** cometiendo el peor error de
 LOC.be.PR.2S/ ??go.PR.2S/ ??walk.PR.2S committing the worst mistake of
 tu vida.
 your life
 ‘You are committing the worst mistake of your life.’
 (punctual achievement) (Laca, 2006, ex 3a/b)
- (47) El río **estaba/** **iba/** ??**andaba** creciendo. (Spanish)
 The river LOC.be.IMPF/ go.IMPF/ ??walk.IMPF growing
 ‘The river was rising [more and more / ??on and off].’ (degree achievement)
 (Laca, 2006, ex 3c)
- (48) a. María **estaba/** ??**iba** / **andaba** trabajando.
 María LOC.be.IMPF/ ??go.IMPF / walk.IMPF working
 ‘Maria was working.’ / ‘Maria was working here and there/ on and off’ (Laca,
 2006, ex 3d)
- b. **estaba/** ??**iba** / **andaba** lloviendo.
 LOC.be.IMPF/ ??go.IMPF / walk.IMPF rainGER
 It was raining here and there/ on and off. (activities)

Semantic differences For her analysis, Laca (2006) assumes a framework that draws a distinction between grammatical aspect and modification of lexical aspect (*eventuality modification*) following Smith (1991). Laca (2002, 2004) argues that Romance aspectual periphrases distribute over at least two different levels of structure in the syntax (49): (i) a higher, ‘functional’ level at which grammatical aspect (in the sense of Smith 1991) is expressed and (ii) a lower, ‘lexical’ level, at which the temporal structure associated with the lexical aspect of the basic predicate is modified or further determined.

- (49) [Temporal Location [AspTR [[[AspEM *] Eventuality Description]]]
 TR = time-relational, EM = eventuality modification (Laca, 2004, 88, ex 2)

Laca (2006) analyses *estar* +Gerund as a grammatical progressive aspect.¹⁰ In contrast, the semantic effects of *andar/ir* +Gerund cannot be adequately captured by an analysis as a grammatical aspect as the periphrases impose additional conditions on the temporal structure of the complex eventualities. Laca (2006) observes that *andar* +Gerund adds a frequentative temporal structure comparable to semelfactive verbs such as *knock on the door for some time*, while *ir* +Gerund has a temporal structure resembling durative readings of degree achievements such as *lengthen, ripen* (Laca, 2006). Building on this insight, she analyses the *andar/ir* +Gerund periphrases as modifiers of the lexical aspect

¹⁰Laca 2006 adopts a time-relational analysis of grammatical aspect following Klein (1994). According to this analysis the progressive relates the running time of the event EvT with an interval of visibility AssT (Laca, 2006), requiring that the AssT interval be properly contained inside the EvT (the temporal trace of the event).

of the embedded predicate. More specifically, *andar* +Gerund is analysed as a frequentative lexical aspectual operator *FREQ* and *andar/ir* +Gerund as an incremental lexical aspectual operator *INCR*, adapting a proposal in Van Geenhoven (2004).

FREQ and *INCR* both modify the lexical aspect of the embedded verb and impose the existence of multiple sub-parts of the temporal trace of the event during which the predicate described by the verb holds. The two operators differ with respect to structure required of these sub-parts of the temporal trace: the *FREQ* operator requires that there be gaps between the parts of the complex event in which the V-predicate does not hold, while the *INCR* operator imposes increase or decrease in time along a dimension that is contextually provided.

As shown in (41)/(42), *andar/ir*+Gerund denote complex events. However, as Laca (2006) notes, unlike other plurals, the sub-parts of the event provided by *andar/ir* +Gerund do not license internal readings of *mismo* "same". The examples (50)-a/b only have an external reading for *mismo* "same": the missing argument of *mismo* has to be retrieved from the context.

- (50) a. Juan fue calentando la misma sopa. (Sp)
 Juan goPFV.PST.3SG heating.up the same soup
 'Juan gradually heated up the same soup.' same soup = same as some soup
 salient in the context
- b. María anda leyendo el mismo libro.
 Maria walk.PRS.3SG reading the same book.
 'Maria has been reading the same book [on and off].'
 same book = same as a book salient in the context (Laca, 2006, ex 30a/b)

In this respect *andar/ir* +Gerund contrasts with other periphrases such as *seguir* +Gerund and *volver a* +Infinitive that do provide an event plurality that licenses internal readings of *mismo* "same":

- (51) a. **Sigue** trabajando en la **misma** empresa. (Sp)
 continues workGER in the same company
 He still works in the same company.
- b. **Volvió** a cantar la **misma** canción.
 return a sing.INF the same song
 He sang the same song again.

Laca (2006, sect. 4.2) analyses the contrast between (50) on the one hand and (51) on the other as a difference in the type of event plurality contributed by the periphrasis: licensing of internal readings of *mismo* "same" requires a sum of events (the semantic denotation associated with nominal plurals as in *duck-s*), while *andar/ir* +Gerund denotes a group of events, for which the individual members constituting the group are only accessible indirectly, comparable to collective nouns like *family* in the semantic

analysis of groups proposed in Landman (1989a,b).

In summary, the analysis in Laca (2006) argues that *estar* +Gerund is a grammatical aspect periphrasis comparable to the English *be V-ing* progressive that occupies a higher position in the syntactic structure, while *andar* +Gerund and *ir* +Gerund are modifiers of the lexical aspect of the embedded verb: they occupy a position closer to the VP, show selectional restrictions on their complements and modify the lexical aspect of the embedded verb.

5.2 Habitual periphrases: Sp. *vivir* +Gerund/Port. *viver*+Gerund

Amaral (2013b,a) examines the Br.Port. *viver* + Gerund periphrasis and the Sp. *vivir* 'live' +Gerund periphrasis found in Bogotá Spanish (but also in other varieties of Latin American Spanish). In their periphrastic use Br.Port. *viver* / Sp. *vivir* +Gerund no longer impose the selectional restrictions characteristic of the main verb *vivir* 'live': as illustrated in (52) the periphrastic Br.Port. *viver*/Sp.*vivir* allow inanimate subjects.

- (52) a. **Vive** haciendo frío. (Sp)
 live-IMPF-3SG do-GER cold
 It is cold all the time. (Amaral, 2013b, 109, ex 13)
- b. Minha ventoinha vivia fazendo barulho. (Br.Port.)
 my fan live-IMPF-3SG do-GER noise
 'My fan made noise all the time.' (Amaral, 2013a, 270, ex 3)

Building on Laca's (2004, 2006) analysis of periphrases with motion verbs, Amaral (2013b,a) shows that the Br.Port. *viver* / Sp. *vivir* 'live' + Gerund periphrasis does not mark progressive grammatical aspect, but should rather be analysed as an expression that modify the lexical aspect of the base predicate.

The Br.Port. *viver* / Sp. *vivir* +Gerund clearly contrast with the progressive *estar* +Gerund periphrases is examples like (53): the progressive Br.Port. *estar* / Sp. *estar* +Gerund can be used to describe an ongoing episodic event, while *vivir* +Gerund cannot be used in episodic contexts (Amaral, 2013b).

- (53) a. Cuando Ana llegó a casa, Pepe **estaba**/***vivía** mirando la tele. (Sp)
 'When Ana arrived home, Pepe was/*vivía watch.GER TV.' (Sp)
 (Amaral, 2013b, 111, ex 17)
- b. Quando eu entrei, Pedro **estava**/***vivia** comendo uma maçã. (Br.Port)
 'When I came in, Pedro was /*viver eat.GERan apple'. (Amaral, 2013b, 111, ex 17)

The interpretation of *vivir* +Gerund requires a large number of repeated events and the

periphrasis is incompatible with expressions of low frequency (Amaral, 2013b, 111):

- (54) En Bogotá **vive** lloviendo todo el tiempo/?pocas veces/?de vez en cuando. (Sp)
 ‘In Bogotá it keeps raining all the time/?few times/?from time to time.’
 (Amaral, 2013b, 112, ex 18)

Amaral (2013b, 112) further observes that like other pluractional markers, *vivir* +Gerund is incompatible with expressions of exact cardinality.

- (55) ?En Bogotá **vive** lloviendo diez veces. (Sp)
 ‘?In Bogotá it keeps raining ten times’. (Amaral, 2013b, 112, ex 19)

However, notice that a large number of indefinite repetitions is not enough to license *vivir*+Gerund: the periphrasis does not combine cardinalised adverbial phrases expressing large indefinite number like *muchas veces* "many times". Due to its habitual meaning component, *vivir* +Gerund requires expressions of an *unbounded* large number of events like *todo el tiempo* "all the time".

- (56) ?En Bogotá vive lloviendo muchas veces. (Sp)
 ‘?In Bogotá it keeps raining many times’.

The repetitions denoted by *vivir* +Gerund have to be distributed in time (Amaral, 2013b, 112), in addition, distribution over plural arguments or locations is possible, but distribution over arguments or locations without temporal distribution is not sufficient.

In addition to habitual iteration, the *vivir* +Gerund periphrasis has a negative evaluative component. This component in the interpretation of *vivir* +Gerund bears on the evaluation of the frequency of the event-type – not the event as such –, indicating that "the frequency of the event described by the verb in the gerund is evaluated by the speaker as higher than expected or sufficient" (Amaral, 2013b, 113). Amaral points out that this negative evaluative flavour is plausibly related to pragmatic enrichment processes that arise with nominal and verbal expressions of large and uncountable number that are enriched to mean "excessive quantity" Amaral (2013b, 119).

6 Conclusion

Verbal plurality markers as studied in the literature do not form a homogenous class. In particular, the domain of event plurality is not parallel to plurality as found in nominal inflectional plurals of count nouns as in It. *donna/donne* "woman/women".

In Romance, verbal plurality phenomena are found with additive verbal prefixes and periphrases, evaluative morphology and with frequentative, incremental and habitual verbal periphrases.

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