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Lucia M. Tovenà and Alain Kihm
Université Paris VII, CNRS

**EVENT INTERNAL PLURACTIONAL VERBS
IN SOME ROMANCE LANGUAGES**

ABSTRACT

This paper analyses Italian verbs such as *mordicchiare* and French verbs such as *chantonner* as pluractional verbs. Morphologically, these forms are the result of a pseudo-derivational process and cannot be cut up into two morphs, /mord/ + /ikkj/ for Italian and similarly for French, each with its own, independent contribution. The pseudo suffix is attributed submorph status, a solution that captures the fact that /ikkj/ in *mordicchiare* and similar submorphs point to two operations of semantic decomposition. One decomposition step operates at the level of the event, and signals the presence of a plurality of phases, another step operates on a participant to the event, and captures its partial affectedness. The output of the decomposition varies depending on the lexical entry.

KEY WORDS

event internal pluractionality, Romance languages, evaluative verbs, derivational morphology.

«And he met a Lion. And he asked the Lion to tell him a story. And the Lion said “yes”, it would. And, while the Lion was telling him the story, it nibbled some of his head off» «Don’t say “nibbled”!» Bruno entreated. «Only little things nibble[...]» «Well, then, it “nubbled”», said Sylvie.

Lewis Carroll, *Sylvie and Bruno Concluded*

Event plurality or pluractionality, a fairly common phenomenon across languages, has recently been submitted to systematic investigation. By pluractionality one refers to the explicit indication that the event denoted by some verb occurs or occurred or will occur not once, but several times within a certain time span. The English verb *cough*, in its non-semelfactive reading meaning a sequence of coughs, provides an example of verb indicating a repeated action. However, the semelfactive reading is expressed by exactly the same verbal form. For the purpose of this paper, the oft-cited English example *nibble* is more relevant, which means a sequence of biting sort-of-events, each of which is somewhat less (in intensity, duration, accomplishment, and so forth) than the singular event denoted by *bite*. Such a conjunction of repetition and diminution is a regular component of the meaning of certain pluractional verbs. Another accompanying property is distributivity, meaning that the event must involve several actors and/or patients. This is clearly not the case of *nibble* (cf. *The mouse nibbled the piece of cheese*), but it may be true of, say, *scatter*, necessarily implying a plurality of scattered things. ‘Explicit indication’ is an ambiguous phrase. What is explicit in *nibble*? Just the fact that it is a distinct lexical item altogether from *bite*, but both verbs are nevertheless linked together by a very specific and unshakable semantic relation, as if there was an overt derivational relation between them. Such a relation is actually observed in numerous languages: pluractional verbs are (apparently and more or less productively) derived from simple verbs by affixation: cf. the *-va* suffix in Karok, e.g. *pasnapi’šri-h-va* ‘to glue down (several)’ vs. *pasnáp-iš(rih)* ‘to glue down (one)’ (Mithun 1988, quoting Bright); or by some kind of reduplication as in Old Egyptian *wn-wn* ‘to go back and forth’ vs. *wn* ‘to go’ or *dbn-bn* ‘to turn on oneself’ vs. *dbn* ‘to go around’ (see Bendjaballah & Reintges 2007). In Hungarian it is the preverb that reduplicates, e.g. *A gyerek fel-fel ébredt* ‘the child woke up repeatedly’.

We won’t go so far afield in the present article, satisfying ourselves with two Romance languages that happen to be the authors’ respective mother tongues, namely French (Fr) and Italian (It). In both these languages one indeed finds a sizeable group of verbs that share the properties sketched above for English (En) *nibble*. Examples are Fr *mordiller* and It *mordicchiare*, both meaning *to nibble*. On the semantic side, they show the characteristic conjunction of successive repetition with diminution. On the morphological

side many of them seem to be derivationally related to simple verbs, *mordre* and *mordere* ‘to bite’ in the present case, through a variety of suffixes. Many others, however, cannot be paired in this way, although they show the same suffixes. As argued in section 3, these two features, multiplicity of suffixes and frequent absence of associated simplexes, suggest that verbs of this sort, although marginally productive, are not actual derivations. Rather, the pluractionally interpreted verbs of French and Italian are lexically related with actual or virtual (i.e. nonexistent but conceivable) simple verbs sharing the same root, but not the particular phonological ending. The latter triggers the pluractional meaning. As far as this meaning is concerned, we will show in section 4 that the plurality feature applies not at the level of the event, but at the level of the inner phases of the event. Phase multiplication within an unextended event is what seems to produce, we will suggest, the diminution effect through a compensation process.

Application of pluralisation to phases rather than to the event, in turn, seems to obtain inasmuch as pluractionality in French and Italian as well as in English is expressed by **words**. It is indeed noteworthy that the difference between Modern English and French-Italian is mainly a formal one: in English nothing in the outward form – except perhaps some measure of sound symbolism – tells apart pluractional verbs such as *nibble* or *flutter* from their nonpluractional counterparts *bite* and *fly*. In French and Italian, on the other hand, there is a formal connection between *mordre/mordere* and *mordiller/mordicchiare*. Yet, as already pointed to, the semantic relationship between *mordre/mordere* and *mordiller/mordicchiare* is the same as that between *bite* and *nibble*, so that *nibble* is just as much inherently pluractional as are its French and Italian equivalents.¹ What these items have in common is that they are words, simple words in the case of *nibble*, with perhaps some inner structure in the case of *mordiller/mordicchiare*. The conclusion we might be tempted to draw but won’t be able to substantiate, then, is that pluractionality expressed in the word only accesses the level of the phase, whereas phenomena taking place at levels higher than words access the two higher levels, events and occasions (see below), and possibly phases as well. At least, so much seems to be true in English, French, and Italian.

The foregoing delineates the scope of the present article. In particular, we don’t intend to go beyond the level of the word. Pluractionalizing devices such as adverbs (e.g., *again and again*, *repeatedly*) or syntactic constructions (e.g., *to go on V-ing*) will thus be given no consideration. Before entering the heart of the matter, however, it seems necessary to give the reader some background in pluractionality theory. For this the classic work remains Cusic (1981), whose views we expound in section 2.

1. Pluractionality according to Cusic

Cusic classifies pluractional meanings according to four parameters:

- 1- the event ratio (phase / event / occasion)
- 2- the relative measure parameter
- 3- the connectedness parameter
- 4- the distribution parameter

The first parameter is directly relevant for us and will be discussed in some detail below. However, some aspects of readings included in the others are also of interest for us. First, the relative measure parameter includes augmentative readings whereby the amount of activity increases. In the case of *nibble*, the number of ‘bites’ is increased but the augmenting is not of the same type, we will argue, because of what we call the compensation effect. Next, the connectedness parameter fixes the degree of continuity between repeated actions, among other things. In the case of *nibble*, the sequence of ‘bites’ is connected, since ten little bites in ten days do not count as making up one instance of nibbling. One can consider the action of nibbling as being a complex entity, but, for instance, the question of whether its units can be assigned temporal loci is linked to the status of the units as defined by the first parameter. In short, in appraising the meaning of *nibble*, one constantly goes back to the aspects dealt with by the event ratio parameter. Finally, the distribution parameter deals with the relation between event and multiple participants. Under the idea that distributivity is a form of plurality (Landman 2000), endorsed in this paper, we interpret parameters 2-4 as specifying forms of distribution. The case of the fourth parameter is self evident. As the discussion in this paper will make clear, many cases concerned by the second parameter may be reanalysed as involving distribution over a single entity, which is thereby fragmented. Finally, the third parameter tries to capture pluractionality through distribution over the event itself. The relative distance among events is relevant in computing the closure over a set of intervals, which, in its turn, substantiates the perception of a plurality.

1.1. Phase/event/occasion

Cusic identifies four conceptual levels relevant for the event ratio parameter, namely phases, events, occasions and history. The last level belongs to the discourse domain and is not elaborated upon. The second and third levels belong to the sentential domain, while the first and the second belong to the word domain. The event level thus stands at the juncture of words and sentences.

Let us consider events first, as the event level turns out to be the base one, the others being somewhat dependent on it. All eventualities are events in Cusic’s

terms. No clear criterion is provided to delimit ‘single events’. Second, Cusic distinguishes the event and the occasion on which the event is said to occur (Cusic p.65). However, the distinction is not as simple as that and occasions are not (or not just) the result of associating time reference to an event. For Cusic verbal plurality includes the multiplicity of actions, events, occurrences and occasions (and more). Occurrences do not correspond just to occasions, they may concern repeated events. As far as we can see, occasions are temporal conceptual constructions built on top of events types plus tensing, i.e. they are particular ways of viewing occurrences. Languages may allow different ratios of events to occasions. For instance, in (1) there is a repeated occurrence of the event of shouting and, presumably, there is one occasion. Sentence (2) specifies a time of occurrence and counts as a clearer example where repetition is construed as differently specified with respect to occasions. There are many events occurring on a single occasion. Finally, one of the readings of (3) is that there are many occasions with one event to each occasion (Cusic, ex.14-15 p.65).

- (1) The boy shouted again and again.
- (2) The boy shouted again and again on Thursday.
- (3) Again and again the boy shouted on Thursday.

Repetition is not only in time, since events may be simultaneous. For occasions, however, the possibility of having simultaneous but distinct instantiations does not occur for a single event type.

Phases are defined as event internal units by Cusic. They do not occur as such, only the event they constitute occurs, and they are not necessarily of the same nature as the whole event. The choice of the term ‘phase’ may be a little unfortunate because Cusic is concerned with bounded constituents for building pluralities, not with the internal structure of classes of eventualities. However, phases may seem relevant from a lexical-semantic viewpoint, for instance, since *nibble* has *little biting*-phases and is an activity verb, whereas *bite* is semelfactive. Thus, the phases at hand are not to be equated with those relevant from the point of view of lexical aspect, in events that are intrinsically structured. For instance, achievements include preparatory phases, and *reach the summit* requires a *climbing* (usually). Similarly, unaccusative verbs imply a resultative phase, so the action of arriving results in someone being here, the process plus the state being both expressed by the verb. These phases occupy a specific position in the event. Instead, although Cusic does not say it, phases relevant for plurality cannot be individually located and if they are repeated, temporal order is not visible. Repeated phases are homogeneous in the sense that they are of the same nature and that no structure internal to them is visible. Discreteness is required for delimiting phases and, in this sense, it is not compatible with event homogeneity.

1.2. The internal vs external plurality distinction

Event level repetition is rarely distinguished from occasion repetition by formal marking on the verb. Thus, Cusic reorganises his original three levels in two, i.e. event external and event internal pluralities.

Event external plurality results from distribution of an action in time – e.g. frequentative and habitual readings – and over participants – e.g. distributive readings of NPs. It is a sentence level phenomenon – even for incorporation – and it involves a multiplication of occurrences. Presumably, semelfactive verbs like *knock* constitute a special case. They are predicates of events that may include subevents of the same nature. Hence, the predicate applies to the whole and to the parts and the parts can be single events. They introduce a cycle in the hierarchical structure. If one views them as events, the activity reading can be analysed as a case of external plurality that exceptionally takes place at word level within the root and results in more than one event in one occasion. If one views them as parts, the reading can be analysed as a case of internal plurality. In this way one makes sense of the intuition that *He knocked on the door* may faithfully describe a single event in which three individual knocks were given, but it is still an exceptional case because no pluralizing device can be seen at work.

Event internal plurality is a form of repetition within the boundary of an event. In this sense, it manifests itself as a multiplication of phases, as in the case of *nibble*. As already noticed, nibbling is a repetition of little bitings, but not all repetitions of phases involve somewhat ‘small’ phases. For instance, Houser, Kataoka, & Toosarvandani (2006) give *Pauma-wüñü-heggwi* ‘It rains off and on’, where *-heggwi* is the pluractional suffix, as an example of internal plural verb in Northern Paiute, but they do not specify that the intermittent episodes are short. Next, according to Cusic, the progressive aspect is also a case of internal plurality insofar as the event remains atomic, i.e. there is just one occurrence, but the number of what Cusic calls middle phases, i.e. excluding inception and ending, is pluralised and affects the duration. We do not share this view but will not discuss aspect issues in the present paper, so we do not dwell on the matter. See, however, our remark in the conclusion.

In sum, Cusic starts from a hierarchical structure with three main levels. Every event is composed of at least one phase and every phase belongs to at most one event. Analogously, every occasion is composed of at least one event and every event belongs to at most one occasion. Pluralisation is possible at all levels, and at any level ‘plural’ indicates more than one isomorphic bounded unit of that level (p.69). Pluralities of events or occasions are both event external.

We now turn to an examination of the data in French and Italian, first in their morphological properties and then in their semantic properties.

2. Morphological properties of pluractional verbs in French and Italian

2.1. Data

Morphologically marked pluractional verbs have been profusely reported for ‘exotic’ languages, where three morphological devices have been observed: full reduplication as in Niuean (Haji-Abdolhosseini, Massam, & Oda 2002); affixation, including moraic affixation or partial reduplication as in Niuean and ‘real’ affixation as in Karok (Mithun 1988); apophony, including vowel alternation as in Chechen (Yu 2001) and consonant gemination as in Northern Paiute (Houser, Kataoka, & Toosarvandani 2006).

Apophony as a morphological, meaning-carrying device is clearly absent in French and Italian. So is partial reduplication, at least in the verbal domain. Full reduplication, on the other hand, is easily shown not to pertain to morphology in these languages. For instance, Fr *Il a couru, couru... jusqu’à épuisement* ‘He ran, ran... until he was exhausted’ cannot be considered a case of morphological reduplication like Niuean *kalokalo* ‘to keep on making a plopping sound’ (cf. *kalō* ‘to make a plopping sound’), but it is a syntactic construction. Proof of it is that (i) more instances of *couru* can be added *ad libitum* (within practical limits); (ii) we can insert *et* ‘and’ without changing the meaning significantly (*Il a couru et couru et couru...*). As pointed out above, this article is not concerned with syntax. This leaves only affixation as a possible device. Indeed, as already mentioned, French and Italian include many verbs with pluractional meanings as well as specific endings. The following lists do not aim at exhaustiveness, but they are bulky enough that they may give a fair idea of the richness of this lexical class.

In French we find verbs paired with ‘simple’ verbs having the same meanings except for the pluractional-diminutive nuance, as well as no actual simple verb standing next to the (apparently) derived verb:

V-PL	Simple V	V-PL	No simple V
<i>chantonner</i> ‘to hum’	<i>chanter</i> ‘to sing’	<i>barbouiller</i> ‘to daub’	<i>barber</i> ‘to bore’
<i>crachouiller</i> ~ <i>crachoter</i>	<i>cracher</i> ‘to spit’	<i>bavasser</i> ‘to chat idly’	<i>baver</i> ‘to slobber’, but <i>bavard</i> ‘talkative’
<i>glandouiller</i>	<i>glander</i> ‘to loaf (slang)’	<i>bidouiller</i> ‘to fix unprofessionally’	<i>*bider</i>
<i>gratouiller</i>	<i>gratter</i> ‘to itch’	<i>boursicoter</i> ‘to play the Stock Exchange in a petty way’	<i>*bourser</i> , but <i>la Bourse</i> ‘the Stock Exchange’
<i>mâchouiller</i> ‘to munch’	<i>mâcher</i> ‘to chew’	<i>grappiller</i> ‘to glean’	<i>*grapper</i> , but <i>grappe</i> ‘bunch of grapes’
<i>mordiller</i> ‘to nibble’	<i>mordre</i> ‘to bite’	<i>bafouiller</i> ‘to stammer’	<i>*bafer</i> , <i>bafouille</i> ‘letter’ (slang)

V-PL	Simple V	V-PL	No simple V
<i>pendiller ~ pendouiller</i>	<i>pendre</i> 'to hang'	<i>cafouiller</i> 'to miss repeatedly'	* <i>cafer</i>
<i>pleurnicher</i> 'to wimper'	<i>pleurer</i> 'to cry'	<i>gribouiller</i> 'to scribble'	* <i>griber</i>
<i>rêvasser</i> 'to muse'	<i>rêver</i> 'to dream'	<i>marmonner</i> 'to mumble'	* <i>marmer</i>
<i>sautiller</i> 'to hop'	<i>sauter</i> 'to jump'	<i>peloter</i> 'to paw about'	<i>peler</i> 'to peel'; <i>pelote</i> 'yarn'
<i>souffloter</i>	<i>souffler</i> 'to blow'		
<i>suçoter</i>	<i>sucer</i> 'to suck'		

Italian counterparts for these two groups appear in the following table:

V-PL	Simple V	V-PL	No simple V
<i>canticchiare</i> 'to sing to oneself'	<i>cantare</i> 'to sing'	<i>balbettare</i> 'to stammer'	* <i>balbare</i> , but <i>balbo</i> 'stammerer'
<i>dormicchiare</i> 'to slumber'	<i>dormire</i> 'to sleep'	<i>pencolare</i> 'to stagger'	
<i>fischiettare</i>	<i>fischiare</i> 'to whistle'	<i>sforacchiare</i> 'to make holes'	<i>sforare</i> 'to fall short of an appointment'
<i>foracchiare</i> 'to make holes'	<i>forare</i> 'to pierce'	<i>sonnecchiare</i> 'to slumber'	* <i>sonnare</i> , but <i>sonno</i> 'sleep'
<i>fumacchiare</i>	<i>fumare</i> 'to smoke'	<i>sorseggiare</i> 'to sip'	* <i>sorsare</i> , but <i>sorso</i> 'draught'
<i>gironzolare</i>	<i>girare</i> 'to turn'		
<i>lavoricchiare</i>	<i>lavorare</i> 'to work'	<i>sprimacciare</i> 'to shake'	* <i>sprimare</i>
<i>leggiucchiare</i>	<i>leggere</i> 'to read'	<i>volteggiare</i> 'to fly about'	<i>voltare</i> 'to turn'
<i>mangiucchiare</i>	<i>mangiare</i> 'to eat'		
<i>mordicchiare</i> 'to nibble'	<i>mordere</i> 'to bite'		
<i>penzolare</i>	<i>pendere</i> 'to hang'		
<i>piagnucolare</i> 'to whimper'	<i>piangere</i> 'to cry'		
<i>punzecchiare</i>	<i>pungere</i> 'to prick'		
<i>ridacchiare</i> 'to snear'	<i>ridere</i> 'to laugh'		
<i>rubacchiare</i>	<i>rubare</i> 'to steal'		
<i>saltellare</i> 'to hop'	<i>saltare</i> 'to jump'		

V-PL	Simple V	V-PL	No simple V
<i>sparacchiare</i>	<i>sparare</i> ‘to shoot’		
<i>sputacchiare</i>	<i>sputare</i> ‘to spit’		
<i>stiracchiarsi</i>	<i>stirarsi</i> ‘to stretch’		
<i>tocchignare</i>	<i>toccare</i> ‘to touch’		
<i>tossicchiare</i>	<i>tossire</i> ‘to cough’		
<i>tremolare</i>	<i>tremare</i> ‘to shudder’		

2.2. Reasons against a derivational analysis

All these verbs are morphologically characterized by the presence of special phonological strings between the root and the inflectional endings. Together with the roots, these sequences build what may be defined as stems or extended stems when there is a simple verb to compare with. For instance, Fr (elle) *chantonne* and It *canticchia*, both meaning ‘she hums’, may be given the following morphological representations (see Kihm 2006 for an account of the formalism):

(4) ${}_W \Sigma \mathfrak{R} \text{ šât}$, on , {I, PRES, INDIC, 3SG} French (elle) *chantonne*

(5) ${}_W \Sigma \mathfrak{R} \text{ kant}$, ikkj , {I, PRES, INDIC, 3SG} Italian *canticchia*

Fr *chantonne* and It *canticchia* are word-forms (W) consisting in a stem (Σ) that comprises a root ($\mathfrak{R}$), respectively /šât/ and /kant/, and the phonological strings /on/ and /ikkj/. The stems are followed by an inflectional feature set including conjugation class (I), tense (Present), mood (Indicative), and the agreement features 3rd person singular. The cumulative exponents of the set are /ə/ (e muet) in French, /a/ in Italian. Deleting the strings /on/ and /ikkj/ from (4) and (5) would return us well-formed representations for the simple verb forms (elle) *chante* and *canta*, both meaning ‘she sings’. Note that in *chante* and *canta*, the root is coextensive with the stem.²

French shows at least nine of those phonological strings, as we have cautiously named them so far. Only the latter is moderately productive (see Corbin 1987; Roché 2002, to appear). In Italian, we find at least fourteen.

Phonological string	French example	Phonological string	Italian example
/aj/	<i>tirailler</i>	/akkj/	<i>fumacchiare</i>
/as/	<i>rêvasser</i>	/ač/	<i>sprimacciare</i>
/et/	<i>voleter</i>	/dzol/	<i>penzolare</i>
/ij/	<i>mordiller</i>	/edž/	<i>sorseggiare</i>
/ikot/	<i>tournicoter</i>	/ekkj/	<i>punzecchiare</i>
/niš/	<i>pleurnicher</i>	/ell/	<i>saltellare</i>
/on/	<i>chantonner</i>	/ett/	<i>fischiettare</i>
/ot/	<i>vivoter</i>	/ikkj/	<i>canticchiare</i>
/uj/	<i>mâchouiller</i>	/iñ/	<i>tocchignare</i>
		/ukol/	<i>piagnucolare</i>
		/ol/	<i>tremolare</i>
		/ondzol/	<i>gironzolare</i>
		/ukkj/	<i>leggiucchiare</i>
		/uts/	<i>tagliuzzare</i>

What are these elements and what detains us from regarding them as derivational suffixes? Nonproductivity of most (not all) of them cannot be the reason, since many derivational suffixes aren't productive, e.g. En *-th* in *depth*, *width*, etc. Nor can we invoke the fact that a verb's root may be different when the ending is present and when it is not, e.g. It *piagnucolare* 'to whimper' with /pjañ/ as a root vs. *piangere* 'to cry' with /pjang/ as as root. This is a common property of derivational formatives as shown by En *destruction* vs. to *destroy* or *depth* vs. *deep*.

The fact that some verbs appear with two different endings without any meaning difference (e.g., Fr *mâchouiller* and *mâchonner*) isn't unheard of in derivational morphology (cf. Fr *nettoyage* and *nettoiment*, both meaning 'cleaning'). However, the usual state of affairs is for one form to 'block' all other possible forms, as with En *arrival* blocking **arrivation* (see Aronoff

1994). Alternate endings are rare in our class of verbs, but they are not entirely exceptional, at least in French, so this gives us our first reason to doubt the derivational character of the formation.

The first serious reason for doubt, however, is the massive presence of verbs like Fr *barbouiller* or It *sonnecchiare*, which include the special endings and the pluractional meaning, but cannot be paired with simple verbs lacking the endings and sharing the same basic meanings. Isolated pseudo-derivations are not an out and out rarity: for instance, *sloth* does not relate to *slow* any longer, and there isn't any English verb at the source of *tuition*. But the usual and reasonable conclusion is precisely that *sloth* and *tuition* are **not** derived words similar to *depth* and *intuition* in Modern English despite their ending in something that looks exactly like the suffixes *-th* and *-ion* of the latter forms. In other words, in *sloth* and *tuition* the final segments belong to the root as they do in *moth* and *carrion*.³ Why, then, not extend this reasoning to *barbouiller* and *sonnecchiare*, considering them simple verbs like, say, *mouiller* 'to wet' and *specchiare* 'to reflect in a mirror'.⁴ There would be something awkward, however, in such a conclusion. Can we rightfully view /uj/ and /(e)kkj/ as parts of the root in *barbouiller* and *sonnecchiare*, but as derivational suffixes in *mâchouiller* and *canticchiare* just because of the existence of *mâcher* and *cantare* and despite the fact that all these verbs share a common and specific shade of meaning clearly related to the ending's presence? We would have no such qualms if verbs like *barbouiller* and *sonnecchiare* formed a tiny bunch like *sloth* and *tuition*. But they are many, perhaps as many as their paired counterparts. Since they cannot be considered derivations in any event, shouldn't we conclude, given the obvious formal and semantic kinship of both groups, paired and unpaired, that the paired verbs are not derivations either despite appearances?

This leads us to what is probably the main reason for not considering /ij/, /akkj/, etc. derivational suffixes, namely the very formal exuberance of the class as compared with the relative semantic uniformity of its members. Not only are the endings numerous, but no explanation can be found – and none probably should be sought – for the presence of this rather than that one in a given verb: why Fr *mâchouiller* (not **machiller*) next to *sautiller* (not **sautouiller*), It *canticchiare* (not **cantellare*) next to *saltellare* (not **salticchiare*)?⁵ The answer, if there is one, lies hidden in the innumerable folds of the language's history, from which we cannot hope to ever be able to dig it out. The use of this or that derivational suffix, in contrast, say of *-th* in *depth* as compared with *-ity* in *rapidity*, can often be accounted for, historically and/or semantically.

A weaker, but still significant reason is that, were they derivational formatives, these elements would realize the only **suffixal**, verb-to-verb derivation in the Romance languages generally, where deverbal verbs are

eminently prefixal (cf. Fr *dénouer* ‘untie’ vs. *nouer* ‘tie’, It *fraintendere* ‘to misapprehend’ vs. *intendere* ‘to apprehend’, to take examples where there is a clear meaning relation between simple and derived verbs).⁶

It is also noteworthy that all our verbs, in French as well as in Italian, belong to the 1st conjugation class (respectively *-er* and *-are*), whereas the corresponding nonpluractional verbs, when they exist, may belong to any class: cf. Fr *vivre* / *vivoter*, It *dormire* / *dormicchiare*. Conjugation class is a feature of the simple stem (prefixation doesn’t modify it). This strongly suggests that /vivot/ and /dormikkj/ are indeed simple stems, and there is a rule in the grammars of French and Italian stating that all stems ending with such phonological strings and endowed with pluractional meaning belong to the 1st conjugation class (the regular or default class).⁷

A final (admittedly weak) argument supporting the simple stem assumption is the already mentioned fact that pluractional verbs in English always consist in distinct lexemes with respect to the nonpluractional verbs they are semantically paired with: cf. *bite* / *nibble*, *fly* / *flutter*, *sleep* / *slumber*, etc. If there is a formal relation between the two verbs in each pair, it has to be looked for at what is sometimes called the ‘submorphemic’ level: notice, for instance, the identical onsets /fl/ and /sl/. We might be tempted, then, to consider /ij/, /ikkj/, and so forth as submorphemic elements as well.

2.3. Proposed morphological analysis

We shall consider, therefore, that *mordiller*, *mordicchiare*, and the like are not actually derived from their simple counterparts (e.g., *mordre*, *mordere*), but they are autonomous word-forms realizing simple stems. A redundancy rule of some sort will then tell you that whenever there are two verbs A and B such that A’s stem ends in /-ij-/ , /-ikkj-/ , etc. and B’s stem is identical to A’s without the endings, both verbs mean the same, with an added pluractional shade of meaning for the verb showing one of the endings. Since they are part of a simple stem, these endings do not have the status of morphemes. Yet, they are distinguished parts of the simple stem with a specific semantic contribution, what many authors call submorphs or submorphemes (see Dressler 1990; Ronneberger-Sibold 2000).

Submorphemic status is what allows the redundancy rule to extend to unpaired verbs like Fr *barbouiller* and It *sonnecchiare*. Notice that in all such verbs a pseudo or virtual ‘simpler’ stem may be isolated, here /barb/ and /sonn/, in contradistinction to verbs like *rouiller* ‘to rust’ or *invecchiare* ‘to get old’. Subtracting the endings in these verbs (and discounting the prefix in the Italian example) would leave us with lone consonants, /r/ and /v/, not possible candidates even for pseudo stems in our languages. This certainly contributes

to enhancing the distinctiveness of the endings when they have submorphemic status and the verbs that include them correspondingly acquire pluractional meaning. The question now is: What exactly is this meaning? We turn to it next.

3. Semantic properties of pluractional verbs in French and Italian

Internal plurality, in Italian and French, looks like it is a specific form of redistribution within the boundary of an event. The action described by a verb of this type does not have a duration that differs from that of the ‘simple’ verb. Rather, the distribution takes the form of a change in the structure of the event and manifests itself as a division over a large number of phases coupled by what looks like a compensatory operation that ensures that the event remains maximally connected.

The content of this section is a first stab at the phenomenon, in line with Landman’s (2000) idea that distributivity is a form of plurality. We take events as the base level, and occasions and phases as concerning super- or sub- structure respectively. In this way, we try to reconcile the notion of plural formation as a uniform iterative operation with the insight conveyed with Cusic’s hierarchical structure. Note that what is said in the following applies to French and Italian, but we do not expect these languages to be unique.

3.1. Cusic revisited

Lasersohn (1995) takes up Cusic’s analysis of pluractional markers and offers a formalisation. He assumes that both internal and external event plural types denote sets of events and flattens the distinction between these two types of pluralities into a single treatment. For a given verb *V*, the meaning of the combination of *V* and a pluractional marker (PA) that adds universal quantification over events, is a pluractional form as in (6), where *X* ranges over sets of events, *card* is the cardinality function and the value of *n* is pragmatically determined but never less than 2. (Lasersohn, p.256)

$$(6) \quad V\text{-PA}(X) \Leftrightarrow \forall e \in X[P(e)] \ \& \ \text{card}(X) \geq n$$

The property of events *P* differs for internal and external pluractionals. In event external pluractionals each event is of the type denoted by the verb, thus *P*=*V*. In event internal pluractionals, *P* is defined case by case in the lexical entries of the verbs and *V* is the type of the plurality.

Then Lasersohn adds a clause requiring non overlap in either time, space or participants in order to distinguish different readings expressed by different distributive morphemes, cf. (7) (Lasersohn, p.256). It is the identity of function *f*, as a temporal or spatio-temporal trace function or a thematic

role, that determines whether the distributivity is temporal, spatio-temporal or participant based. Disjunction warrants and rests on boundedness, a basic ingredient in plurality.

$$(7) \quad V\text{-PA}(X) \Leftrightarrow \forall e \, e' \in X [P(e) \& f(e) \text{ O } f(e')] \& \text{card}(X) \geq n$$

In Lasersohn's account, the insight that Cusic has expressed in his hierarchical structure gets lost. One must give up either the distinction between event and phase or the result that event-internal plurality produces single events, and plural is the same at all levels. Assuming the same structure for pluralities of events and of phases, Lasersohn cannot predict differences with respect to thematic roles. Event external pluralities may involve plural and single participants. Like internally complex single events, internally plural events require argument identity across phases. For instance, running cannot be made up by strides acted by different people and be a single event. Analogously, a single nibbling cannot include little bitings by different people. Lasersohn's solution consists in allowing thematic relations θ to hold between groups of events X and their participants g , as in (8) (Lasersohn, p. 257), where U is the universe of discourse of the model.

$$(8) \quad \theta(X)(g) \Leftrightarrow g = \{x \in U \mid \exists e \in X \, \theta(e)(x)\}$$

However, this does not explain why constraints on thematic relations differ for pluralities of events or of phases. There is no easily accessible collective reading of plural arguments for the *nibble* type of verbs under discussion, but external and internal plurals. Consider (9).

(9)	a	Daniele ha mangiucchiato i biscotti.	It
		Daniel nibbled the biscuits.	
	b	Luisa ha tagliuzzato le mele.	It
		Louise chopped the apples.	

Example (9a) means that Daniel ate each biscuit in little bitings. The sentence cannot describe felicitously the situation where there was a little heap of very small biscuits and Daniel ate it all by swallowing them one after the other. Nibbling half of them and eating the other half with one bite each is also not possible. Notice that Daniel does not have to eat any entire biscuit in total. Similarly, in (9b), one or two cuts per apple won't do even if there are many apples, hence many cuts in total.

The dependency of phases with respect to the event they belong to shows in the special treatment of thematic relations but also in temporal matters. Another wrong prediction of Lasersohn's proposal concerns the accessibility of individual phases. Phases differs from events in that they cannot be ordered in time, nor is it possible to check that the intervals they occur in are disjoint. Running time is defined by the trace function at the level

of the event and provides the interval within which phases take place with no a priori positioning. The little bitings making up a nibbling take place one after the other only for pragmatic reasons, because each of them is done by the same mouth, not because there is an external constraint that prevents their running times to overlap. The temporal trace function that Lasersohn substitutes for f in (7) is meant to ban overlaps for events and phases alike, but a clear counterexample is provided by the Italian sentence in (10).

- (10) Il colpo di fucile ha bucherellato l'otre. It
The gunshot made several little holes in the water skin.

Next, little bitings cannot be too wide apart and yet constitute one and the same nibbling event, instead they require a temporal proximity which is not accounted for by (7). The fact that events can be counted but not phases is further evidence against their equal treatment. Example (11a) means only that there were two events of nibbling, not two phases in one event, like with other activity verbs (11b). The ban is not just against numerical quantification (11c), cf. Yu (2001) on Chechen.

- (11) a Alla riunione, ha mordicchiato due volte la matita. It
During the meeting, s/he nibbled the pencil twice.
b Ha corso due volte questa settimana It
S/he run twice this week
c Ha mordicchiato molte volte la matita. It
S/he often nibbled the pencil.

3.2. Plural, phases and thematic roles

Pluractionality defined as a case of plurality in the domain of events translates as sum formation. The use of these structures associates no order, be it temporal or spatial, within the output. Lack of order is a strong intuition about event internal plural verbs grounded in the French and Italian data, discussed in the previous section. The order cannot be expressed by these verbs, it is not relevant. This type of event is not just a single complex event, it is also a temporally unextended one. Event internal plurality does not find its source in argument plurality either, in these languages. For instance, the subject is strictly unmodified by event plurality as such, i.e. all the subevents/phases have the same agent. We must keep this case of pluractionality separated from the distributivity and cumulativity cases.

Phases are dependent units. They do not exist independently from the event they belong to. We assume that their dependent status manifests itself primarily in the way one defines the relation between the participants at the level of the event and the entities involved in its phases. In an internally plural event, phases are numerous and are independent from any plurality expressed

One could argue that we can no longer show when there is a plurality of phases, because phases cannot be delimited. But we put forth the lack of semelfactive reading for pluractional *It tossicchiare* vs. semelfactive simple *tossire* 'cough' as a criterion for establishing the presence of a plurality.

Another consequence of the phases' dependent status, directly relevant for pluralisation, concerns the effects of pluralising them. Modifiers such as *rapidly*, *reluctantly* may alter dimensions such as ratio, energy, location of the event described by a sentence. Although phases can constitute dimensions along which events are 'modified' – i.e. events with phases may be compared with 'similar' events with longer/shorter phases, faster/slower phases, etc. (see tables in section 3.1) – their modification so conceived differs from plain adverbial modification of events insofar as it comes with a compensatory modification within the canonical whole. In a word, it is not just a matter of V-ing faster, smaller, etc., but of realising this increase at the expenses of one/more other dimensions. Pure modification of one dimension is done via adverbs. Modification with a dependent compensation is done via pluractionality. For instance, *tagliuzzare* requires more cuts and each of them smaller than the cut usually produced with one 'canonical' cutting; *ridacchiare* and *ricaner* require more little laughs and in a lower key than plain *ridere* and *rire*; *piagnucolare* and *pleurnicher* require more shortish moanings and of milder intensity; *dormicchiare* and *somnoler* require more episodes of sleep and waking up, where sleep is not deep and waking up is not very active (the curb flattens and the crossings with the line dividing sleep and waking are multiplied); *leggiucchiare* requires giving and diverting attention to a text more times and each time with less commitment than if reading normally, and the span of attention giving may also be shorter (the values of the three dimensions of frequency, intensity and duration are affected). In a word, pluractional morphology seems to signify an increase of the number of phases in an interval kept constant, and a consequent decrease of something else, for instance length, intensity, etc. We need to consider a canonical dimension of an event, and evaluate the increase along one dimension as counterbalanced by a decrease along another dimension. This compensation effect is due to the fact that it is the phase that is modified, not the event, hence at the level of the event the change must have been counterbalanced and in this respect it is not visible. Furthermore, the fact that we must be able to provide some sort of canonical measure could explain the empirical fact that we find only activity verbs, no statives, among pluractional verbs in Romance.

Intuitively appealing as it might be, the notion of 'canonical event' is still far from obvious. We propose to derive the constant we need from the instantiation of an argument, in general the patient, and correlate the multiplication of phases with the contraction of the parts of this constant that are affected.

3.4. Proposed semantic analysis

The pluractional submorpheme encodes two operations of decomposition, i) the event is equated with a plurality of phases and ii) at least one participant is decomposed into parts, and the phases are sort of subevents affecting parts of such a participant. The claim we make is that phases are the manifestation that the threshold of resolution for perception that allows a grouping into a single event has been crossed. The threshold corresponds to the point from where the description is no longer valid.

First, the action described by the verb is decomposed into a group of lexically defined actions, so that for a pluractional verb V, the (provisional) equivalence in (14) holds.

$$(14) \quad \lambda e[V(e) \Leftrightarrow \exists e'(e = \uparrow *P(e'))]$$

Event e , in the denotation of V , is equivalent to the event groupification ($\uparrow$) of the sum of events in the denotation of $*P$. For example, for *mordicchiare* this gives $V = \text{MORDICCHIARE}$ and $*P = * \text{MORDEREPart}$, i.e. the sum of little bitings. This sets up the equivalence between *MORDICCHIARE* and several *MORDEREPart*. Using the equivalence instead of applying the up arrow and the star to V spare us the problem of making phases unduly accessible at discourse level. At discourse level, there is a single event.

Then we tackle the diminution side of the meaning. We assume that *MORDEREPart* is equivalent to an action of biting performed on a part only of the patient. However, V is a singular predicate and takes atomic arguments. A second decomposition is operated, which is to say that one of the thematic arguments of $*P$, instantiated by the atomic individual instantiating the corresponding thematic argument of V , is fragmented into the sum of its parts, which means that the corresponding thematic role of each phase which is P is instantiated by only a part of the atom argument of V . We take it that this second decomposition must also be specified in the equivalence. This is not just a normal case of application of the $\downarrow$ operator, because $\downarrow$ applied to an atom returns an atom. In (12), the pencil is viewed as an atom, but the nibbling affects it part by part. Furthermore, $*P$ does not necessarily distribute all over the entity and parts may overlap, i.e. it is a cover and not a partition on the entity. For instance, in *Luisa canticchia la marsigliese* ‘Louise sings the Marseillaise to herself’, it may be the case that bits from the same half of the song are repeated and the other half is not sang. The blocks of the cover are introduced into the event type of the verb by the role relating to the decomposed participant. Individuals are their own subgroup, thus using a plain cover role would not give us the expected result. A grind operation that associates the domain of mass with the domain of atoms is required. A mass

cover role based on patient makes it possible to have a sum of events of *MORDEREPart* of bits of pencil by Daniel all together making up a pencil in (12). The entry for *mordicchiare* is presented in (15), where *g* is the grind operation, $\sqcup$ the sum and *AT* a set of atoms.

- (15) $\lambda x \lambda y \lambda e [(\text{MORDICCHIARE}(e) \ \& \ \text{Ag}(e,y) \ \& \ \text{Pat}(e,x)) \ \<=> \ \exists e'(e = \uparrow * \text{MORDEREPart}(e') \ \& \ * \text{Ag}(e',y) \ \& \ g(x) = \sqcup (\{g(z) | z \in \text{AT}(* \text{Pat}(e'))\}))]$

In words, an event *e* of *mordicchiare* with *y* as agent and *x* as patient is viewed as (is equivalent to) the groupification of the plural event *e'* which involves the same agent *y* and the sum of the parts of the same patient *x*. Connectedness properties follow from the fact that the plurality of phases making up *e'* is the single event *e*. Finally, grinding the patient into possibly overlapping cells means that the entity can no longer measure out the event (Krifka 1998), therefore the change from telic *mangiare la mela* 'eat the apple' into atelic *mangiucciare la mela* 'peck at the apple' is also expected.

4. Conclusions

Phases are the manifestation of a sort of change of resolution – perceiving a single event in its parts – that requires the use of a different V-type of description. This new view of event internal plurality casts some light on why pluractionality resembles aspectual modification at times, and makes sense of the fact that it may exploit the same morphological tools in a language, e.g. reduplication. Bridging morphology and semantics of the Italian and French pluractional verbs, the possibility of comparing two V-types of description makes sense of the intuitive appeal of a derivational analysis without obscuring its problematic aspects. The end meaning of these verbs relates an event property to a multiple manifestation of a phase property, but is not truly derivational because neither property necessarily preexists to the final form, which cannot therefore be cut up into two actual morphemes, say /mord/ and /ij/ or /ikkj/ in *mordiller*, *mordicchiare*, each with its own, independent contribution. Submorphemic status captures the fact that /ij/ and /ikkj/ point to the two operations of semantic decomposition and make different contributions defined lexical entry by lexical entry. Their presence flags the crossing of a threshold of resolution for perception of a single entity.

NOTES

1. This position must be qualified if one adopts a diachronic perspective. The OED gives *-er*, e.g. *flutter*, and *-le*, e.g. *wiggle*, as old iterative suffixes, cited from Cusic.
2. To be precise, we define the root as the part of the form which expresses its general lexical meaning. The stem is what inflectional morphemes attach to.
3. A competing option is to assume that *-th* and *-ion* in *sloth* and *tuition* are the usual derivational suffixes, but the bases /slo/ and /tuit/ to which they attach do not exist outside of these collocations. In fact, they are pure products of the decision to analyse *-th* and *-ion* as suffixes. The gain does not strike the eye. For an insightful discussion of such conundrums, see Carstairs-McCarthy (2005).
4. *Specchiare* is simple **as a verb**, even though it may be derived from the noun *specchio* 'mirror'.
5. Native speakers usually have sharp judgements about what is a good form and what isn't.
6. That is to say, we have to assume an effective relation, whatever it is, between *nouer* and *dénouer*, whereas none probably exists beyond etymology between French *prendre* 'to take' and *comprendre* 'to understand', or Italian *mettere* 'to put' and *dimettere* 'to let go'.
7. The semantic specification is necessary in order to exclude verbs like Fr *rôtir* 'to roast' or It *leggere* 'to read' from the scope of the rule.

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RÉSUMÉ

Dans cet article, on analyse les verbes italiens du type de *mordicchiare* ‘mordiller’ et les verbes français du type de *chantonner* comme des verbes pluriactionnels. Du point de vue morphologique, ces formes résultent d’un processus pseudo-dérivationnel, car elles ne se laissent pas segmenter en deux morphes, p.ex. /mord/ et /ikkj/ en italien et de même en français, qui contribueraient indépendamment à la signification de l’ensemble. Le pseudo-suffixe se voit donc attribuer le statut d’infra-morphe (*submorph*). Cette solution permet de rendre compte du fait que la terminaison /ikkj/ de *mordicchiare* – et autres du même genre – signale deux opérations de décomposition sémantique. L’une se fait au niveau de l’événement et indique la présence d’une pluralité de phases. L’autre s’applique à un participant de l’événement, dont elle indique qu’il en est partiellement affecté. Le résultat de la décomposition varie selon l’entrée lexicale en cause.