1 INTRODUCTION

In this paper, I discuss some issues concerning the formation of verbs like those in (1) that show peculiarities are in their form, because of what looks like evaluative suffixation, and in their meaning, because the event they describe is seen as internally repeated.

(1) a. Sta mangiucchiando la mela
    S/he is eating (at) the apple
b. Trotterella contento
    He is scampering about happily
c. Ha macchiettato lo sfondo
    S/he dotted the backdrop

Are these derived verb forms and/or is it evaluative suffixation? Positive answers to these questions raise at least two issues, namely how to relate number information with the meanings of evaluative suffixes and how to control the composition. My starting point is the double hypothesis that verbs as in (1) do contain instances of diminutive morphology (see Grandi 2008 and references therein), and that these elements mark pluractionality of the event-internal type (Tovena 2008). I will revise my previous claim (Tovena and Kihm 2008) that these forms contain affix-like components that are submorphs, by providing arguments in favour of an analysis as evaluative affixes for Italian. What said may extend to other Romance languages.

The structure of the paper is as follows. In section 2, I present key notions of the phenomenon of pluractionality and summarise the analysis I adopt. The effect of regularisation across categories discussed in section 3 offers an argument based on form in favour of a unified morphological analysis of the suffixes used to form pluractional verbs and suffixes used in nominal derivation. The cross-categorial availability of two semantic operations is an argument based on meaning. Section 4 looks at ways of including the working of evaluative suffixes in a broader system. Section 5 concludes the paper.

2 PLURACTIONALITY

The term ‘plurality’ encompasses various notions of pluralness or multiplicity including distributiveness and repetition. ‘Puractionality’ (Dressler 1968, Newman 1980, Cusic 1981) is the morphological expression of number inherent to the verb, different from number agreement. The intended plural meaning indicates that the type of event in the

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1 Verbs are mainly derived by prefixation in Italian.
denotation of the verb is multiply instantiated in some way, because either it holds at several points in time, it takes place in several locations, or it holds of several participants or several parts of one participant. Cusic has proposed that verbal plurality concerns several conceptual levels and has defined a hierarchical arrangement of bounded units in three levels of structure, namely ‘occasions’, ‘events’, and ‘phases’. Pluralisation is possible at each level, indicating “more than one isomorphic bounded unit of that level” (Cusic 1981: 69). He then reorganises the levels into two main types of pluralities. The first type, called ‘event-external plurality’, is a plurality constituted by events or occasions. Time, locations or participants can be seen as the key in a form of distribution where the event predicate would work as the share. The classic formal definition of pluractional verbs (Lasersohn 1995), recalled in (2), is suited for this type.

(2) \[ V-PA(X) \Leftrightarrow \forall e e' \in X[P(e) \& \neg f(e) o f(e')] \& \text{card}(X) \geq n \]

In event-external pluractionals, according to (2), the combination of a verb \( V \) and a pluractional marker \( PA \) denotes in a domain of sets of events, and each event is of the type denoted by the verb, thus \( P=V \) is assumed. Events do not overlap and the identity of function \( f \), as a temporal or spatio-temporal trace function or a thematic role, determines whether distributivity is temporal, spatio-temporal or participant based. Finally, \( \text{card} \) is the cardinality function.

The second type is ‘event-internal plurality’, which is a form of repetition within the boundary of one event. Phases are the relevant units, and distribution takes place over the cells of a cover\(^2\) applied to a participant. A situation described by a verb of this type is presented as modified with respect to a canonical one, which can be viewed as setting the standard, see Tovena 2009 on non-canonical events. The duration of the eating in (1)a is not shortened w.r.t. (3), nor is the apple shrunk. The diminutive modification concerns the property describing the event, and more specifically the way the direct object is used to instantiate the thematic role that helps measuring the progression of the event.

(3) Sta mangiando la mela
   S/he is eating the apple

The argument that stands in the patient relation with the event, i.e. the apple in (1)a, is instantiated 'by instalments' that are proper parts and are not referentially accessible, and this produces diminution and multiplication. In other words, little parts of the apple undergo the eating, and the semantic effect is double insofar as the event is fragmented into multiple subevents each with a reduced patient. The sum of the subevents is not equivalent to an event canonically realised. The formal definition of event-internal pluractionals proposed by Tovena and Kihm 2008 for \( \text{tagliuzzare} \) (cut into several small pieces), is recalled in (4).

(4) \[ \lambda x \lambda y \lambda e [(\text{TAGLIUZZARE}(e) \& \text{Ag}(e,y) \& \text{Pat}(e,x)) \iff \exists e' (*\text{TAGLIUZZAREPart}(e') \& e = \uparrow e' \& *\text{Ag}(e',y) \& *\text{Pat}(e',x))] \]

\(^2\) A cover \( C \) of a set \( S \) is a set of subsets of \( S \)—the cells of \( C \)—such that every member of \( S \) belongs to some cell and the empty set is not in \( C \). A partition is a cover consisting of disjoint cells.
The first line in (4) matches the regular case of transitive verbs, and the second line specifies the internal structure of the event. In prose, the event e with agent y and patient x is equivalent to the groupification of a plurality of phases e’, which is obtained via Link’s (1983) star operator ‘*’ and is given an explicit status at event level through groupification, marked by Landman’s (2000) operator ‘↑’. The agent relation holds between e’ and the same individual who is the agent of e. The same is true for the patient relation, except that it is a mass role (Landman 2000) that applies a cover to the individual instantiating its argument, hereby introducing the source for proper plurality. The cells of the cover must be proper parts. Starring the predicate is just a way to say that it denotes in a singular and plural domain, not a way to eliminate single phase events from the domain.

Fragmentation into anonymous instalments makes it impossible to define a homomorphism between the temporal progression of the event and a scale representing a property of the object in the patient relation and corresponding to a measurable dimension like the volume of the apple in (1)a.

In short, in this approach, the diminutive suffix acts as pluractional marker and its contribution is represented as a form of semantic double decomposition. The event described by a pluractional verb is a single event with single participants that i) is decomposed into a plurality of phases, i.e. the event is locally fragmented into a plurality, and ii) at least one of its participants is decomposed into parts, and phases reflect the application of the predicate to the parts of the participant demoted to a sum.

Affixation is one of the morphosyntactic tools languages possess to express different semantic types of repetition of (sub)events. Invoking evaluative suffixes makes less surprising the variety of forms found among event-internal pluractional verbs in Italian and more generally in Romance languages. Italian is a good testing case because of its large collection of productive evaluative suffixes, e.g. -in, -ett, -ell, -uzz.

3 ON THE INTERPRETATION OF EVALUATIVE SUFFIXES

In this section, I strengthen the case for the hypothesis that pluractional verbs formation involves evaluative morphology. First, I present an effect of normalization that generalises across categories. It concerns conjugation for verbs and inflection class for nouns. Next, dimensions that have been invoked to classify the meaning contribution of evaluative suffixes are recalled. Finally, I discuss two semantic operations that help us to control the differences in meaning.

3.1 A morphological regularity

All pluractional verbs in Italian belong to the first conjugation class, that works as default. The corresponding non-pluractional forms, when they exist, may belong to any class, see Table 1.

<table>
<thead>
<tr>
<th>conjugation</th>
<th>simplex form</th>
<th>conjugation</th>
<th>pluractional form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>salt-are (jump)</td>
<td>1</td>
<td>saltell-are</td>
</tr>
<tr>
<td>2</td>
<td>piov-ere (rain)</td>
<td>1</td>
<td>pioviggin-are</td>
</tr>
<tr>
<td>3</td>
<td>toss-ire (cough)</td>
<td>1</td>
<td>toccicchi-are</td>
</tr>
</tbody>
</table>

Table 1: Simplex and pluractional verb forms in Italian
This uniformity is the verbal corresponding of the normalization of inflection class that evaluative morphology brings about with nouns. Italian has three main inflectional classes for nouns, numbered 1 to 3 in table 2. Nouns with evaluative suffixes inflect all according to the most stable class, here number 1, cf. Merlini Barbaresi 2004 among others.

<table>
<thead>
<tr>
<th>gender</th>
<th>inflection class</th>
<th>simplex form</th>
<th>inflection class</th>
<th>derived form</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>singular</td>
<td>plural</td>
<td>singular</td>
<td>plural</td>
</tr>
<tr>
<td>masc. fem.</td>
<td>1</td>
<td>libr-o (book) favol-a (fairy tale)</td>
<td>libr-i favol-e</td>
<td>librin-o (small book) favolett-a (small fairy tale)</td>
</tr>
<tr>
<td>masc. fem.</td>
<td>2</td>
<td>poet-a (poet) al-a (wing)</td>
<td>poet-i al-a</td>
<td>poetin-o (little poet) alucci-a (small wing)</td>
</tr>
<tr>
<td>masc. fem.</td>
<td>3</td>
<td>dolor-e (pain) nav-e (ship)</td>
<td>dolor-i nav-i</td>
<td>dolorett-o (little pain) navicell-a (little ship)</td>
</tr>
</tbody>
</table>

Table 2: Simplex and derived noun forms and their inflexion classes in Italian

It can be hypothesized that the same holds for French, but that the effect is obscured by the reduced size and limited productivity of evaluative suffixation, and the debatable existence of inflectional classes in its nominal domain. Yet, pluractional verbs all belong to the first conjugation whatever (the conjugation of) the base, and there are traces that a diminutive suffix can induce regularization effects on nouns. Suffixes such as -on or -in always indicate the grammatical masculine gender for nouns that do not denote entities with semantic gender, a situation that is otherwise rare in French nominal morphology. For instance, non-derived nouns whose form ends by -on can be masculine, e.g. patron (chief), or feminin, e.g. maison (house), but if -on is the diminutive affix, then the form has masculine grammatical gender, e.g. chaton (kitten) < chat.3

The same type of normalisation seems at work also in Spanish, language where the system of nominal inflexion exhibits similarities with both Italian and French systems, having singular nouns ending by vowels that express number and gender, e.g. sufijo (suffix) is masculin and morfología (morphology) is feminin; as well as nouns ending by consonant for which gender cannot be predicted on the basis of the form, e.g. feminin señal (signal) and masculin pedal (pedal). In all these cases, nouns with diminutive affixes end by a vowel that helps to predict grammatical gender, e.g. masculin diminutive form is pedalito and feminine diminutive form is señalita. As for verbs, all verbs derived by evaluative suffixation belong to the first conjugation, whatever is the conjugation of the simplex form, e.g. chupar (suck) > chupetear, comer (eat) > comiscar, dormir (sleep) > dormitar, see Rifón 1998. More work remains to be done to check the extent of this effect of normalisation across Romance languages.

3.2 Features of meaning

The meaning of event-internal plural verbs includes diminutive and multiplicative components, e.g. Italian tagliuzzare (cut [*one/many] small pieces) vs tagliare (cut),

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3 Thanks to Nicola Lampitelli for bringing this fact to my attention
**tossicchiare** (give many small cough) vs **tossire** (cough). The multiplicative component does not show up in nominal forms, e.g. Italian *filuzzo* (one [single */multiple] thin thread), and *filuzzi* (several [single/*multiple] thin threads). This prompts the questions of what is the relation between the two meaning components, whether the suffix can contribute them both and, if so, why just in verbal derivation.

Mel’čuk 1994 has argued that evaluative suffixes can be used to express modification along two dimensions. One is called ‘mesurativité’ and is defined as concerning the size of an object. The other is called ‘évaluativité’ and is defined as a “catégorie dont les éléments spécifient si le locuteur approuve/ désapprouve le fait en question ou ses participants” (category whose members specify whether the speaker has a positive or negative attitude towards the fact or its participants) (Mel’čuk 1994:164). This gives us a quantitative vs. qualitative divide. The fine description of the meanings of diminutives requires a broader range of cases, but does not question this main bipartition, see Dressler and Merlina 1994, Jurafsky 1996, among others.

Next, the multiplicative effect mentioned above is often treated as an iteration value that is available with verb bases. Taken as such, this value does not fit easily in the organisation just recalled, because quantitative modification affects a property of a referent, not the amount of entities that are referred to. As we have seen, the puzzle is explained away in the approach to pluractionality that I adopt, because the multiplicative meaning component arises from the specific use of the suffix in building verb forms to describe modified events. Multiplicity of local values for an argument position comes from the indistinguishability of the parts, and results in disrupting the correlation with the progression of the event. There is no iteration at event level.

Finally, diminutive suffixes are known to induce a ‘mass to count’ conversion, and gender modification in many cases, see (5). Strictly speaking, these are changes in subcategorial properties of the base, not categorial changes. This conversion takes place within the measure dimension, since measure helps to output finite quantities. It can be interpreted as a step favouring the identification of the referent prior to the modification of the value of a gradable property that is predicated of it. This is relevant for nouns.

(5) a. Italian: pane – panino (bread/roll)  
    b. Dutch: brot – brotje (bread/roll)  
    c. German: Wein – Weinchen (wine/serve of wine)

Quantitative and qualitative modifications are both amenable to repositioning a value on the scale of a gradable property. But there is also a different type of modification that amounts to redefining the referent and to which I turn next.

### 3.3 Two operations on meaning

Diminutive suffixes exhibit a double behaviour in the nominal domain. My hypothesis is that two distinct semantic operations can take place when attaching evaluative suffixes. First, diminutives may say something about the referent of the NP by restricting the property predicated of it, e.g. in Italian an entity that is a *librino* is a *libro* (book) and is small, i.e. the derived form denotes in a subset of the original denotation domain. In this case, suffixation is associated to the operation of domain restriction typical of intersective modifiers. Second, diminutives may help to form a new property whose denotation can be an altogether different set of entities, e.g. the denotation of It. *fiorino* (florin) is a set of coins and is not a set of little flowers. In this
case, suffixation should be associated with a semantic operation of domain change. The historical link between the two words is a different, albeit important, issue. It concerns the reason why a language has used a given base to create a new word, here *fiore* (flower) to create the name of a coin, not the possibility itself.

The first behaviour is strictly category preserving. The second one may be interpreted as a lexicalised derivative step. It is worth underscoring that it does not always satisfy the property of category preservation. An example is provided by a class of nouns derived from verbs that seem specialised in the expression of proto-agents in the vein of Dowty 1991, since we find in it names of traditionally called low prestige professions, e.g. *imbianchino* (house painter) < *imbiancare* (paint), *strillone* (newspaper seller who shouts headlines) < *strillare* (shout), and names of small instruments, e.g. *accendino* (lighter) < *accendere* (light), more examples in Lo Duca 2004, Merlini Barbaresi 2004.

The same double behaviour w.r.t. the semantic operations involved, and category changing potential, is to be found with verbs. First, diminutives can work as modifiers of one feature of the description of a situation. For instance, the question *Do you speak English?* could be answered by using adverbial modification to describe one’s limited ability, e.g. *lo parlo un po’* (a bit), or suffixation in colloquial Italian, e.g. *lo parlicchio* (I speak-ish English)\(^4\). This modification concerns one dimension of the description, whose measure is lowered, whereas we will see shortly that pluridimensional modification is the proper of internal pluractionality. It is not lexicalised and concerns deverbal verbs only, hence it is category preserving. It also does not have the aspectual impact observed in pluractionals. Pluractionals exemplify the second case, where diminutives help to define a new property of events. A feature that is proper to this case, and sets it apart from adverbial modification, is that it concerns at least two dimensions, namely an increase in frequency, i.e. the multiplication of subevents that correspond to Cusic's phases, and a diminution along a different dimension (at least one). Typical cases are a decrease in the portion of the entity affected, the amount of will or energy required, the output obtained… In the literature on aspect, it is assumed that the properties of the direct object NP may affect the aspectual properties of the VP. In event-internal pluractionality, this means that the object is viewed as fragmented and can no longer ‘measure out’ the event, in Krifka’s 1998 terminology among others. The verb category of the output is the crucial part of the derivation process, while the base can be an idealised form, existent or not, and verbal or not, e.g. what said for deverbal *mangiucchiare* applies for non-deverbal *sprimacciare* (fluff up). However, deverbal cases anchor the extension by analogy, which works under the hypothesis that there is a canonical way of performing an action that is being modified.

### 4 ON THE NATURE/WORKING OF EVALUATIVE SUFFIXES

The effect of regularisation of the form, discussed in subsection 3.1, could be approached also by claiming that evaluative suffixes came along with inflectional information, as proposed by Rifón 1998. This is a specific question that I leave for future work. A more general question is behind the issue of how to control the use of the two semantic operations discussed in subsection 3.3. This is connected to the longstanding debate on the position of evaluative morphology in the inflectional vs

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\(^4\) Augmentative suffixes also show up in this group, as shown by this example.

\(^5\) Thanks to Nicola Grandi for this example.
derivational partition of morphology in two systems, and to the question of whether morphology operations should take place in syntax and how, currently under discussion in the Chomskian minimalist trend of the generative tradition. I take up these issues in turn. Preservation of the category looks as the stumbling block of evaluative morphology.

4.1 A classification of morphological processes

Evaluative morphology does not fit nicely in the inflectional vs derivational partition, according to several scholars. Scalise 1984 and Bauer 2004, among others, have underscored difficulties in its characterisation, and Scalise has explicitly excluded it from the derivational system. Stump 1993, on the contrary, has argued against granting it special status. I will not summarise the debate, but just point out that generally authors agree on the property of category preserving of evaluative affixation.

Extending to formants of pluractional verbs the status of evaluative suffixes potentially adds complexity of the task of classifying diminutives, because pluractional verbs can but need not change the syntactic category of the base, see (6).

(6) a. mordicchiare < mordere$\varepsilon$ (bite)
   b. punteggiare < punto$_N$ (dot)

In Aronoff's (1976) theory of word formation, a presupposed condition, which goes under the name of Unitary Base Hypothesis, is that the syntactic-semantic specification of the base of every word formation rule is always unambiguous. This means that there may be affixation rules that attach an affix to the class of ‘verbs’, even just ‘transitive verbs’, or, for instance, to the class of ‘nouns’, even just ‘concrete noun’, but rules that attach an affix to both the class of verbs and the class of nouns, with further restrictions or not, are ruled out.

Diachronic facts provide a partial fix, although the situation is not homogeneous. First, verbalisation is subsequent to a step of evaluative modification for some denominal verbs, e.g. Italian sonnicchiare (drowse) comes from Latin somniculus (light/short sleep), which is a diminutive of somnus (sleep). Second, verbalisation and modification are two synchronous steps in other cases, e.g. macchiettare (dot). Third, a step of evaluative modification may have been posited post facto in a move that aims at creating morphological coherence in a class of verbs defined on other grounds, e.g. French pianoter (hit on something with the tips of the fingers like a pianist does) < piano plus epenthetic /t/, or duveter (cover with many small feathers of strands of hair) < duvet (down). It is interesting to remark that this reanalysis has taken place from the early stages of the life of these words.

‘Lexicalisation’ is an answer that gets around the need of applying a rule and in general of the need of having two semantic operations in synchrony. It does not work in diachrony and gets tangled with the issue of productivity. It could be assumed that the derivation behind event-internal pluractional verbs is not productive at the level of the speakers of the language, and it is of diachronic type in this sense. It is the language that produces these cases during its evolution. Thus, event-internal pluractional verbs would be used because they exist in the lexicon available to speakers, not because speakers

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6 However, his paradigm-based morphological theory pays reduced attention to evaluative morphology.
7 A related debate concerns the order of attachment of derivational vs. inflectional material, which I won’t deal with.
actively construct them by using roots and derivational morphology rules. Productive derivation at the level of the speakers would be limited to suffixation that semantically modifies a single dimension in an event description, and it would be synchronic derivation. It is difficult to evaluate the degree of productivity of modification at speakers level, as it primarily concerns oral language. But this line of reasoning offers no explanation for how language level productivity comes about. Productivity for pluractional verbs is currently reduced but still active, according to the data provided by Grandi 2008.

4.2 The syntax-morphology interface

Diminutives would belong to both systems according to recent proposals within the minimalist program, where the morphology-syntax interface has changed and word formation takes place in syntax.

Two recent proposals exploit structural differences to capture interpretive differences of evaluative suffixes. Steriopolo 2008 classifies evaluative suffixes in Russian into two semantic types that recall the qualitative vs. quantitative distinction of section 3.2, namely suffixes that express attitude or size, and she matches them with different syntactic types. Attitude suffixes are syntactic heads, they determine formal properties such as syntactic category, grammatical gender and inflectional class. They can attach to category-free roots and to categories (n/a/v), i.e. low and high in the tree. Inflectional class changes in the nominal domain are taken as evidence. Size suffixes are modifiers and do not determine formal properties. They can only attach to a noun category. In a similar vein, De Belder et al. 2009 have proposed that diminutive morphology is split between a derivational (word-formation) part that belongs to the portion of the tree below the functional projection that provides the syntactic category, and a size modification part that belongs to inflectional morphology and applies high in the tree. The presence of different exponents/strategies for the two parts in one language is taken to provide evidence in support of this partition. Data come from the nominal domain. For instance, Modern Hebrew uses templatic reduplication for the derivational part, e.g. xazir (pig), xazarzir (piglet), and concatenation of -on for the inflectional part, e.g. xazir (pig), xaziron (small pig). Note, however, that the use of different morphological strategies by a language does not necessarily match a difference that can be ascribed to the inflectional vs. derivational opposition. For instance, Italian can use word reduplication and affixation for degree modification of colour adjectives, e.g. nero nero (pitch black) and azzurrino (light blue). Indeed, the two strategies can be combined, as illustrated by the adverb solo soletto (alone).

Both proposals deal with nouns. Positing low and high attachment sites in morphosyntactic trees is a way to accommodate the double use of evaluative suffixes for marking respectively an operation of (potential) change of the denotation domain of a term, or one of simple restriction of such domain. The operation of domain change may induce what is traditionally called a violation of the property of category preservation, it would be available to low attachment cases and could correspond to the formation of complex roots reminiscent of lexicalised cases. Domain restriction is executed on a domain already determined, and takes place after categorisation, i.e. at high attachment sites.

However, stipulating that such semantic operations can be executed on root denotations may devoid of its purpose the choice of working with roots. Meaning is denotation, and the nature of the domain of denotation of a term is defined with its
syntactic category. At this stage of the research, it is not clear what it means to have an operation that changes the domain of denotation at a point in the derivation where the nature of such a domain has not yet been defined. As far as I can see, the question is not just how to test the proposal put forth in subsection 3.3, but more generally how to specify what is the shape of the semantic content of roots. When working at subcategorial level, the traditional types $e, t$ and their combinations, are not supported.

5 CONCLUDING REMARKS

In this paper, I have provided morphological and semantic evidence for characterising as evaluative the suffixes occurring in event internal pluractional verbs. On the one hand, they bring about an effect of regularisation of the inflectional behaviour of the output forms that generalises across categories. On the contrary, the multiplicative meaning component observed in the verbs arises from the use of diminutive morphology in building verb forms that describe modified events, hence it does not generalise to nouns. On the other hand, evaluative morphology can both participate in the definition of the lexical semantic content of a word and in its modification. The need of distinguishing two semantic operations associated with the same suffixes is also cross-categorially established. These two options could be expressed as two operations of domain change and domain restriction, executed at different points in the derivation and having different consequences with respect to the traditional property of category preservation. This presupposes that the semantic types of the domains in question are always known/definable, but, at this stage, this is far from obvious when dealing with roots.


Merlini Barbaresi L., 2004, *Alterazione*, In M.Grossmann/F.Rainer (Eds.), *La formazione delle parole in italiano*, Tübingen, Niemeyer, 264-292


