

Pluralities of events: semelfactives and a case of ‘single event’ nominalisation

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1 Introduction

Verbs like *bastonare* in Italian describe events of hitting where the action is performed with an instrument (1). They admit two interpretations. One reading is illustrated in (1a), where the sentence can be used felicitously in a context where Gianni gave only one blow with a stick to the pot. We call this reading the *semel* interpretation of the predicate. The predicate may also be interpreted as denoting instances of activity, as sentence (1b) is true if Gianni beat the puppet with a stick, i.e. hit it repeatedly. We call this reading the *processive* interpretation of the predicate.¹

- (1) a. Gianni ha bastonato la pignatta ed è caduta una pioggia di
Gianni has hit the pot and is fallen a rain of
monete
coins
Gianni hit the pot and coins fell down everywhere
- b. Gianni ha bastonato il pupazzo che si era ribellato
Gianni has beaten the puppet that CL was rebelled

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Gianni beat the puppet who had rebelled

One blow is a quantum denoted by semelfactive *bastonare*. Blows in a series denoted by processive *bastonare* are identical, for all practical purposes. It is a matter of debate whether one reading is derived from the other, i.e. whether the processive reading is a pluralisation of singular blows. The issue is made more complex by the fact that in Romance, as in English, the verbal form conveying the two readings is the same. And yet, there seems to be more than mere pluralisation in the case of the processive reading. The presence of an expression that can convey information on ‘why’ an ‘action’ has been performed seems to ease the interpretation of the verb as describing a single action. For example, the modifier *who had rebelled* in (1b), enhances the accessibility of the processive reading for *bastonare*. In this paper, we contribute to the discussion by examining a type of nominalisation in Italian that, we claim, denote singular instances of events and receive an interpretation that deserves to studies in comparison with the reading of semelfactive verbs.

The starting point is the observation that ‘delimitedness’ of events can be understood as determined by aspectual or lexical information. The events denoted by semelfactive predicates in their *semel* reading are described as being delimited in Italian, and more generally in Romance languages, but the nature of this discreteness cannot be captured in terms of telicity. However, a speaker can also use other linguistic means to make reference to single circumscribed occurrences of event. A number of Romance languages have *nomina vicis* forms for this purpose. Single instances of contingently delimited events are expressed by event nouns formed with the suffix *-ata/-ada* (see Gaeta, 2000; Aliquot-Suengas and Macchi, 2003; Scher, 2004; Acquaviva, 2005, among others), that contribute a type of delimitation that is better described as aspectual boundedness. In the remainder of this section, we will clarify some semantic differences and similarities in the type of delimited events referred to by *nomina vicis* and by semelfactive predicates in Italian, which justify, in our view, the approach taken in this paper.

1.1 Semelfactives and *ata*-nominalisations

In Romance languages, *semel* predicates are a class of verbs denoting singular occurrences of events, which are also systematically coupled with atelic activity predicates, see *bussare* ‘knock’ in (2).

- (2) Mario ha bussato alla porta. (= un colpo/diversi colpi)
Mario knocked at the door. (= one knock/ several knocks)

The semelfactive verb *tossire* ‘cough’ (3), when modified by *time* adverbials, denotes the exact number of single coughs by Gianni (3a). Durative modifiers (3b) enhance its processive interpretation.

- (3) Gianni ha tossito
Gianni has coughed
Gianni coughed
- a. ...una volta, e il colpo di tosse ci ha svegliato
...one time, and the strike of cough CL.2PL has awoke
...once, and the cough wake us up.
- b. ...per cinque minuti
for five minutes
for five minutes

There is no agreement in the literature on whether semelfactives are an aspectual class (Smith, 1991) or not (Dowty, 1979). In some languages, for example in the Slavic group, morphology marks forms that do not belong to a unique aspectual class.² Since we discuss here a Romance language, we follow Smith (1991) and consider semelfactive predicates to be an aspectual class, whose defining criteria are nevertheless still a matter of debate.

There are two important issues that are at the heart of the debate on semelfactive verbs. The first is their aspectual characterisation. Smith (1991) characterises semelfactives as denoting non-durative, non-telic dynamic events. These events are delimited without culmination and change, which means that, contrary to achievements and accomplishments predicates, semelfactives do not have a well defined endpoint, do not imply the presence of a resultant state, nor a transition point to a potential resultant state. This type of delimitedness is not properly explained in Smith’s theory of lexical aspect, since semelfactives are neither properly atelic nor strictly telic. Alternative solutions are offered by Rothstein (2008), who characterises the events denoted by semelfactives as naturally atomic individuals (hence telic events) that can be construed into sums, and by Tovena (2010b), according to whom the events described by semelfactive verbs are characterised by cycles of parts. The execution of at least one full cycle makes possible the realisation of the event as a minimal instance—not necessarily unstructured and with no standard beginning.

²For a more detailed discussion on the origins of semelfactivity in Slavic and other languages, see Nessel (2013). Nessel shows that the property of instantaneousness characterises the oldest instances of semelfactive verbs in Russian too, although it is no longer a requirement nowadays.

Here we will mention one piece of empirical evidence pointing towards the delimiteness but not telicity of the events denoted by semelfactive verbs. Semelfactive predicates in their semel reading do not seem to be coercible in the way predicates denoting instantaneous telic events are. Recall that change-of-state predicates like achievements can be coerced into denoting an activity that is understood as the so-called ‘preparatory phase’ of the event, for instance when they are modified by imperfective aspect, cf. the achievement *arrivare* ‘arrive’ modified by the progressive periphrasis in (4).

- (4) Mario stava arrivando in stazione (quando ha bucato la ruota)
Mario was about to arrive at the train station (when he punctured the tyre)

However, we have mentioned above that semel predicates do not denote a change of state (Smith, 1991), contrary to achievements. Accordingly, the progressive cannot coerce the predicate in the same way, see the example (5). *Bussare* is interpreted as an ongoing activity, and the proposition expressed by (5) is true in the standard conditions for progressive, namely in a situation where Gianni had already started knocking at the door before being interrupted, i.e. he had already given at least one knock when I opened the door. The sentence with the progressive entails a sentence with the perfect as per Vendler’s test. The continuation in parentheses can be interpreted as providing a description of an event subsequent to the door opening. What is not available is an interpretation where it is taken to provide a different characterisation of the preparatory phase of an arguably telic event of knocking.

- (5) Mario stava bussando quando ho aperto la porta (#e ha mutato il colpo in un saluto)
Mario was knocking when I opened the door, (#and turned the knock into a hand waving)

Romance languages distinguish the progressive interpretation from the inceptive one, and only the inceptive periphrasis can focus on the preparatory phase of the event (6a), as it is the case also for uncontroversial activity predicates (6b). In both cases in (6), the continuation in parentheses is interpreted as providing a different description of the same act.

- (6) a. Mario stava per bussare quando ho aperto la porta (e ha mutato il colpo in un saluto)
Mario was about to knock when I opened the door (then he turned the knocking into a hand waving)

- b. Mario stava per parlare quando ho aperto la porta (e ha fatto finta di sbadigliare)
Mario was about to speak when I opened the door (and he pretended to be yawning)

The second issue discussed in the literature, on which we focus more specifically in this paper, is how to represent the systematic ambiguity of semelfactive predicates. Is one of the two readings of (1) and (3) derived from the other? Rothstein (2008) describes semelfactive verbs as homophonous with atelic activity predicates, but is not explicit about the conditions under which the cumulative summative operation that justifies this systematic relation can apply. In the proposal put forth by Tovena (2010b), the processive reading corresponds to instances where the cycle characterising the event is executed more than once. The notion of cycle allows us to carve out units of event without assuming the presence of a termination point or atomicity.

The contribution of lexical and grammatical aspect to delimitation of events and their exact characterisation as singular units is still unsettled also for *ata*-nominalisations in Italian (see Ippolito (1999); Gaeta (2000); Acquaviva (2005) and section 2 below). On the one hand, there is a clear empirical difference between *ata*-nominalisations and semelfactive verbs in their *semel* use. The events denoted by *ata*-nominalisations are not intrinsically instantaneous or nearly-instantaneous. In fact, the bounded event in (8) can be short or have a certain duration (7). This property makes Tovena (2014) claim, contra Gaeta (2000), that the denotation of *ata*-nouns as *nomina vicis* (see section 2.2) must be kept distinct from that of semelfactive predicates.

- (7) Ha fatto una nuotata di diverse ore
has done a swim-ATA of several hours
He went for a swim lasting several hours

However, there are also similarities, because both Italian *ata*-nominalisations and semelfactives have entities that count as singular units in their domain and in both cases it is not clear how to characterise these units. In the case of *ata*-nouns, boundedness is not inherited by the lexical class of the base verb, still lexical restrictions govern the well-formedness of the nominalisations. In this paper we aim at contributing to these issues by comparing predicates that exhibit semelfactive and processive readings to *ata*-nominalisations built on these verbs, in order to discuss the semantics of these lexical items and, in a broader perspective, to shed a new light on the notion of plurality and unity of events.

1.2 Organisation

In section 2 we introduce *ata*-nominalisations, by focussing on their interpretation as nominals that denote singular events, i. e. their *nomen vicis* interpretation. We look more specifically at the aspectual constraints that trim the set of verbal bases entering the derivation of *ata*-nominalisations, and we compare them to the constraints that govern derivations from nominal bases. Next we consider derivations where the base for the nominalisation can be an instrumental semelfactive verb and also the noun that denotes the relevant instrument. In section 3, we cash in on this distinction and show that these constraints are best accounted for adopting the hypothesis that these event nominals are construed following two distinct derivation patterns. This analysis leads us to conclude that instrument semelfactives, in their processive reading, are instances of activity predicates, which belong to a distinct aspectual type and cannot be considered as the mere pluralisation of semel events.

2 *ata*-nominalisations and delimited events

2.1 Origin of the form

Nominalisations ending in *-ata* (hence ATA-nouns) are derived from nominal and verbal bases.³ Deverbal nominalisations can be analysed diachronically as the nominalisations obtained by adding the feminine ending *-a* to the past participle form (Ippolito, 1999). Evidence for this claim comes from the nominalisations of irregular participial forms (such as *corsa* from *correre*, whose irregular past participle form is *corso*), or from the nominalisations of verbs of the 3rd class, whose thematic vowel is *-i-* and whose nominalising suffix would then be more precisely *-ita* (such as *dormita*, from *dormire* – *dormito*).

Under this view, the diachronic origin of the suffix *-ata* would explain the aspectual properties of *ata*-nouns, since the perfective feature of the participial

³Since in this paper we are interested in event nouns, we will not consider derivations whose output are NPs that do not denote in the event domain, namely the patterns in (i) – (iii) below.

(i) *cucchiaio* (spoon) – *cucchiata* – the quantity of *x* carried by N

(ii) *notte* (night) – *nottata* – the time span covered by N

(iii) *peperone* (pepper) – *peperonata* – food obtained by grinding/smashing N

Also, we do not specifically discuss the case where the output denotes an act of prototypical behaviour (e.g. *ragazzo*, boy – *ragazzata*, childish act). For a broader survey see e.g. Gatti and Togni (1991); Acquaviva (2005); von Heusinger (2002) and references therein.

suffix would contribute the bounded event interpretation and the tokenisation effect of the nominalising suffix . It is however an open question whether the *-ata* participial ending has gained autonomy and has then become an independent suffix with its own semantic content (Scalise, 1984; Acquaviva, 2005). There are at least two arguments pointing towards this conclusion. Synchronically, the suffix can attach also to nominal bases, and in this case as well the output is a name of event. We will introduce these cases in section 2.2. Next, as noted by Tovena (2014), past participle formation is not sensitive to the aspectual class of the base verb in the way *ata*-nominalisations are. The sensitivity of the nominalisation to the properties of the base will be the object of section 2.3, where we will look at the output of the nominalisation of different types of atelic predicates. It will appear that the aspectual properties of the base constrain the productivity of the nominalisation. These facts then leads us to assume, at least for the purposes of this paper, that *ata* has become synchronically an independent derivational suffix with specific properties.

2.2 Delimited events and the reading *nomen vicis*

There is no agreement on the definition of the semantic class of *nomen vicis* in the literature. We will use this term to characterise event nouns that are specialised for a token interpretation. Romance nominalisations derived with the suffix *-ata/-ada* are *nomen vicis* forms precisely in this sense, as they they specifically denote singular events in a count domain, see the example in (8), where *nuotata* refers to a specific event of swimming.

- (8) Gianni ha fatto una nuotata
 Gianni has done a swim-ATA
 Gianni had a swim

We can provide a characterisation of the reading *nomen vicis* at least in negative terms, by saying that they do not admit non-token, i.e. generic interpretations. This fact was already noted by Gaeta (2000), and is exemplified by the unacceptability of generic statements where *ata*-nominalisations are headed by definite singular DPs, cf. (9). The unfelicity of these sentences can be understood as a sign that it is not possible to reinterpret the nominalisation as the kind. Generic interpretation of noun phrases in combination with individual predicates have been analysed as involving realisations of a kind (Carlson, 1977), therefore kinds are the maximal sum of individuals in the denotation of the noun with respect to a

particular world. Such a reinterpretation of the maximal sum into an individual which is a kind does not seem possible for a *nomen vicis* item.

- (9) *La nuotata rilassa i muscoli.
the swim-ATA relaxes the muscles

Let us point out, for the alert reader, that there are apparent counterexamples to this generalisation. We will discuss here one case brought to our attention by a reviewer, who notes that the nominalisation *ammucchiata*, which he sees as derived from *ammucchiare*, ‘lump together’, admits a generic reading (10).

- (10) L’ammucchiata è passata di moda.
the-ammucchiata is passed of fashion
Orgies are out of fashion

However, the counterexample is apparent rather than a real one, since, as the English translation makes clear, the generic reading of the DP is not obtained by simple type shifting of the corresponding event noun, but has to be interpreted as undergoing some semantic enrichment. The act of lumping here refers specifically to a gathering of people and denotes a type of sexual practice. Under a less specific interpretation, the same event noun is unfelicitous, also in a token interpretation (11a). More generally, the generic reading of other non-semantically-enriched event nouns is unfelicitous, even when they denote widely accepted social practices as in (11b).

- (11) a. #Ho fatto un’ammucchiata di roba vecchia da buttare.
have made a-ammucchiata of old stuff to throw
(I lumped together old stuff to be thrown away)
b. ??La sciata a Cortina è passata di moda.
the sciata in Cortina is passed of fashion
Skiing in Cortina is out of fashion

Second, reinterpretation of the maximal sum into an individual which is a kind requires plural marking (12), which is not the general case for nouns in Italian, be they event nouns or not (13).

- (12) Le camminate fanno bene alla salute.
the walk-ATA-PLU do good to-the health
hiking is good for one’s health

- (13) a. Il nuoto rilassa i muscoli.
 the swim relaxes the muscles
 swimming relaxes the muscles
- b. La scollatura vertiginosa è di moda.
 the neckline vertiginous is fashionable
 A plunging neckline is fashionable

A third specific feature of *ata*-nouns as *nomina vicis* is the fact that the delimitedness of the events in their denotation is an intrinsic property of these nominalisations and cannot be explained by assuming that it is inherited from the *Aktionsart* of the verbal base. Rather, the delimitedness of *nomen vicis* is aspectual boundedness. The event is presented as bounded, even if the verb on which the deverbal nominalisation is built is atelic, as for instance in the case of *nuotare* ‘swim’ in example (8). More to the point, *ata*-nominalisations do not support the construction of cumulative events, cf. (14) (Tovena, 2014). This property distinguishes *nomina vicis* from instances of activities, whose inherent cumulativity follows from their aspectual characterisation as atelic predicates (Dowty, 1979).

- (14) If I made a *nuotata* from 9am to 10am and I made a *nuotata* from 10am to 11am, it does not follow that I made a *nuotata* from 9am to 11am

Finally, *ata*-nominalisations can yield event nouns also in the absence of a verbal base, and the denoted event has the same aspectual properties. Indeed, *ata*-nouns can be formed on non-verbal bases, cf. (15) and (16) for which putative base verbs $^{\circ}$ *ombrellare*⁴ and $^{\circ}$ *padellare* are not attested (Scalise, 1984; Acquaviva, 2005; Scher, 2004, a.o.).

- (15) Mario ha dato un’ombrellata a Luca.
 Mario has given a-umbrella-ATA to Luca
 Mario hit Luca once with an umbrella
- (16) Gianni ha dato una padellata in testa a Luca.
 Gianni has given a pan-ATA on head to Luca
 Gianni hit Luca on the head with a frying pan

The forms built on a nominal base have a *nomen vicis* interpretation. They denote singular events of hitting with an instrument, and the bases characterise

⁴We use the sign $^{\circ}$ to mark non-existent forms.

the instruments. Indeed, when we consider *ata*-nominalisations built on a nominal base that allows an instrument interpretation, only the semel reading appears to be accessible, cf. (17) vs. (23) above.⁵

- (17) Gianni ha dato un'ombrellata a Luca.
Gianni gave a umbrella-ATA to Luca
a. *OK* un colpo (a blow)
b. #diversi colpi (several blows)

In other words, *ombrellata* cannot be interpreted as an instance of the activity of beating with an umbrella for a delimited stretch of time, but can only be understood as referring to an event of hitting something only once with this instrument.

Since we are interested here in comparing *ata*-nouns and semelfactive verbs, which are ambiguous between a singular vs. plural reading, in the remainder of this section we will focus on nominalisations built on verbal bases, which may exhibit the same ambiguity. This observation concerning nominal bases for which there is no corresponding verbal form, and which do not admit processive interpretation, will nevertheless be useful for our argument, and we come back to it in section 3.

2.3 Verbal bases and aspectual constraints

The productivity of nominalisations built on verbal bases is constrained by the aspectual properties of the base verb insofar as only atelic dynamic predicates can be the verbal base of *ata*-nominalisations. Statives and accomplishments are excluded, and achievements must be coerced into extended events to be acceptable (Gaeta, 2000; Tovenà, 2014), compare (8) and (18).

- (18) a. *Gianni ha fatto un'arrivata
Gianni has done an-arrive-ATA
b. *Gianni ha fatto una costruita della casa
Gianni has done a build-ATA of-the house

As for the contrast between (18a) and (19a), note that in (19a), the modification of the N suggests that the achievement predicate *entrare* 'enter' is interpreted as a complex event; the entering of Gianni possibly included the subsequent cheering, head-turning and hand-clapping. In (19b), the unmodified predicate is rescued as

⁵See footnote 3 for other examples of *ata*-nominalisations built on nominal bases, which we will not discuss in this paper.

a process in virtue of the subject denoting an individual who has spatial extension, allowing the event to be stretched over an extended temporal interval.⁶

- (19) a. Gianni ha fatto un'entrata trionfale
Gianni has done an-enter-ATA triumphant
Gianni made a triumphant entry
- b. L'entrata #di Gianni/ del treno in stazione
the-enter-ATA of Gianni/of the train in station
The entering #of Gianni/of the train into the train station

Next, transitive predicates such as *mangiare* 'eat', can be nominalised *via* the *-ata* suffix only if their internal complement is interpreted non-referentially, as in (20b). Recall that there is a well known connection between telicity of the predicate and the presence of quantised themes, in particular for accomplishments. The notion of incremental themes has been used precisely to refer to the dependence between quantitative information in nominals and (a)telicity in events. The accomplishment in (20a) is then acceptable only when 'detelicised', as in (20b), by

⁶Again, some potential counterexamples, correctly pointed out by one of the reviewers, deserve some discussion. The nominalisations of *entrata* and *uscita* are acceptable in sentences such as (i) below, where the NP either does not denote properly in the event domain (cf. *entrata* as way-in in (i a)) and therefore are not relevant for our argument, or it acquires, in its event interpretation, the 'extended event' reading observed for (19). This is indeed the interpretation (i b), where *entrata* could be uttered by an actor referring to the opening of his performance in entering the stage, and it is thus implicitly understood as a more complex event with a certain duration.

- (i) Ho sbagliato l'entrata.
have mistaken the-entrata
a. I took the wrong entrance/way in.
b. I missed the entrance.

Next, the same reviewer questions the ban on telic predicates pointing out the case of the nominalisation *rimpatriata*, which, he argues, derives from the verb *rimpatriare* 'come/go back to the homeland', itself denoting a telic event. While it is plausible to admit such a derivation, it appears that synchronically *rimpatriata* only has a specialised interpretation, denoting more generally a gathering of old acquaintances, cf. (iii). This is confirmed by a corpus search, and also by the judgments of native speakers, who consistently reject sentences such as (iv), where the 'back to homeland' reading is enhanced.

- (iii) Ho fatto una rimpatriata in pizzeria con gli amici. (www)
have made a rimpatriata in pizza-restaurant with the friends
I met with my old friends to have a pizza together.
- (iv) #Ho fatto una rimpatriata a Natale per rifare il passaporto.
have made a rimpatriata at Christmas to renew the passport
(I went back home at Christmas for the passport renewal)

the bare noun complement of the preposition in the PP *di funghi* ‘of mushrooms’ (Donazzan and Gritti, 2013).

- (20) a. *Gianni ha fatto una mangiata dei funghi.
Gianni has done an eat-ATA of-the mushrooms
- b. Gianni ha fatto una mangiata di funghi.
Gianni has done an eat-ATA of mushrooms
Gianni had a mushroom treat.

The ban on definiteness is to be interpreted specifically in aspectual terms, therefore objects that do not measure out the event can be definite (Tovena, 2014), see the change of state predicate *pulire* (clean) in (21), which is independently ambiguous between a telic and atelic interpretation (Hay et al., 1999; Kearns, 2007).

- (21) Ha dato una pulita alla stanza
had given a clean-ATA to-the room
S/he cleaned the room a bit

The ban on telic readings could be put into use when it comes to explaining the interpretation of *ata*-nouns built on semelfactive verbs. When the base is a semelfactive verb, such as *tossire* ‘cough’ (22)⁷ or *bussare* ‘knock’ (23), the nominalisation denotes a delimited instance of an activity, that is, it selects the processive interpretation.

- (22) Mario ha fatto una tossita (www)
Mario has made a cough-ATA
Mario coughed/gave a coughing

The semel reading (a) is hardly accessible in (23).

- (23) Gianni ha dato una bussata al finestrino per vedere se
Gianni has given a knock-ATA to-the window to see if
tutto andava bene
everything was ok
Gianni gave a knocking at the window to see if everything was ok
a. ??un colpo (a knock)

⁷The degree of acceptability of the nominalisation *tossita* varies across speakers. Note also that the form *-ita* corresponds here to the participial form of verbs of the 3rd class, cf. subsection 2.1.

- b. *OK* diversi colpi (several knocks)

From the point of view of the aspectual constraint that governs the productivity of *ata*-nominalisations, the data in (22) and (23) are expected, because the predicate is interpreted as properly atelic only in the activity reading.

Another case where *ata*-nominalisations seem to inherit their homogeneous internal structure from the base is provided by internal pluractional predicates (Tovena, 2010a). In the nominalisation of activities such as *saltellare* ‘leap about, gambol’, the event denoted by the nominal is a single event made up by a plurality of Cusic’s (1981) phases, which are subevents that are not accessible to counting and distributive effects, see (24).

- (24) a. Gianni è sceso a valle facendo una saltellata giù
 Gianni has descended to valley doing a gambol-ATA down
 per il ghiaione.
 across the scree
 Gianni reached the valley gambolling down the scree
- b. #Alla quinta saltellata si è storto una caviglia.
 At-the fifth leap he sprained his ankle

The empirical situation discussed so far can be summarised as follows. All verbs that admit *ata*-nominalisations describe events with some duration. In the case of deverbal *ata*-nominalisations built on activity verbs, the events denoted by the nominalisations and their verbal bases are of the same nature, in the sense that they express similar event descriptions *modulo* the addition of boundedness. *Ata*-nominalisations built on pluractional or semelfactive predicates yield instances of internally pluractional activities. Finally, in the case of denominal forms mentioned in section 2.2, *ata*-nominalisations display semel readings and the type of the events is a ‘hitting with an instrument’ where the bases characterise the instruments.

2.4 The case of instrument semelfactives

The observation that denominal *ata*-nominalisations only have semel readings seems at first to be contradicted by nominalisations such as *bastonata* in (25) that supports two readings, and in this respect is similar to what we saw in (1) for the verb.

- (25) Gianni ha dato una bastonata al fantoccio.
Gianni has given a stick-ATA to-the puppet

The semel reading of *bastonata*, whereby there is a semi-istantaneous single event of hitting with an instrument, is made more perspicuous by the context described in (26), and the processive reading, where the event can be described as an instance of beating with a stick, is illustrated by (27).

- (26) Mario ha dato una bastonata al fantoccio, e il colpo ha
Mario has given a stick-ATA to-the puppet, and the blow has
tranciato di netto la gamba
cut clean the leg

Mario hit the puppet with a stick, and the blow cut the leg clean off

- (27) Mario ha dato una bastonata al fantoccio, ma dopo qualche colpo
Mario has given a stick-ATA to-the puppet, but after some blows
il bastone si è rotto
the stick CL is broken

Mario hit the puppet with a stick but after a few blows the stick broke

The peculiarity of nominalisations like *bastonata*, however, is not just that they exhibit semel and processive readings, but also that two bases can be envisaged. Each option by itself is in agreement with what said for either denominal or deverbal *ata*-nominalisations, and the two taken together would enable us to get the full coverage. The reading as instance of activity would be paired with *ata*-nominalisations built on verbal bases, e.g. the verb *bastonare* in (1), and the semel reading would pertain to *ata*-nominalisations built on nominal bases, in this case the noun *bastone* ‘stick’.

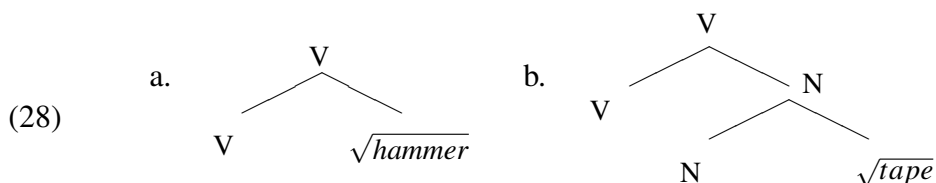
In the next section, we explore the possibility of assuming a double base, and try to be more precise on how much can be built on such a distinction. The discussion will lead us to examine why is it the case that *ombrellata*, for which a verbal base °*ombrellare* cannot be posited, cannot be interpreted as an instance of the activity of beating with an umbrella.

3 Bases and readings

3.1 The double derivation hypothesis

In the following, we explore the hypothesis of expressing the opposition between nominal and verbal bases as a distinction in the derivation of the event noun. The distinction between nominal and verbal base should be put in the broader perspective of distinguishing between creating words from roots and creating words from existing words. We will consider this hypothesis by looking in particular at the prediction that it makes with respect to the interpretation of the derived noun.

Arad (2003), in her paper on verbs in modern Hebrew, ascribes to Marantz (2000) the idea of bringing into Distributed Morphology the traditional distinction between creating words from roots and creating words from existing words and applies it to a language that typologically would have only a root-based system. The root vs. word distinction, in the technical sense of these terms, is used in Distributed Morphology to reproduce the distinction between lexical/derivational formation and syntactic/inflectional formation. Formation from roots is ‘lower’ and may exhibit idiosyncrasies. This is the domain where the interpretation of the combination of root and word-creating head can be multiple, i.e. polysemy is more easily found, and is least predictable. The range of interpretations for word-derived forms is tightly related to the meaning of the words from which they are derived. ‘Noun-derived verbs are shown here to depend in their interpretation on the noun from which they are derived, while root-derived verbs may take on multiple, semantically various interpretations.’ (Arad, 2003, p.740). The structure Arad proposes for a verb derived from a root such as *hammer* is reproduced in (28a), and the structure for a verb derived from a noun such as *tape* is reproduced in (28b).



The distinction is useful to deal with the difference in the formation of *ata-*nominalisations. Before we discuss the nominalisation, however, we can look at each of the possible bases, and take the case of *bastone* ‘stick’ and *bastonare* ‘beat with a stick’ mentioned in 2.4 as an example.

Suppose Italian has a root like ‘baston’. Roots that merge with verb category heads can create verbs with a variety of meanings, in the sense that there is some room for the way in which the root can contribute to the overall meaning. For example, the verb *bastonare* means to beat, typically but not exclusively with a stick. Any other long, rigid and rather slender object could be used as an instrument to perform the action described by the verb, e.g. an umbrella or a branch (29).

- (29) Gianni ha bastonato l’asino con un ramo.
Gianni beat the donkey with a branch.

On the other hand, any other action performed with a stick could not be called *bastonare*, e.g. propping up something, pocking or pushing it (30).

- (30) #Gianni ha bastonato la palla per farla avanzare.
(Intended: Gianni pushed the ball with a stick to make it go forward)

As we can see, the verb defines the ‘quality’ of the action more rigidly than the nature of the instrument used to perform it. As noted by Kiparsky (1982) for similar verbs of English, the root is merely the most typical instrument used for the activity. In his terms, the tool, e.g. the hammer in the verb *hammer* is whatever is intended to be used for the purpose of striking with a flat surface of a solid object.

Next, the same root may enter the derivation of the noun *bastone*. Roots that merge with noun category heads can create nouns with a potentially equally large variety of meanings (not so for the nominalisations built on them). For example, *bastone* means a wood stick with some thickness and some length, not a twig nor a heavy club, and it is not associated with a specific function, e.g. it can be used to reach something far, for pocking or hitting.

3.2 Instrument presuppositions

Arad (2003) exploits Kiparsky’s observation in her discussion of denominal verbs. Her proposal has been taken up by Scher (2004) to tackle a similar case of instrument presuppositions for *ada*-nominalisations in Brazilian Portuguese.

Scher (2006) opts in favour of low verbisation for (31a), where *esfaqueada* is derived from *esfaquear* ‘stab’ and not from the noun *faca* ‘knife’, and low nominalisation for (31b), where *parafusada* is derived from the noun *parafuso* ‘screw’. The unfelicity of sentence (31b) provides support for the hypothesis of a nominalisation built on a nominalised root because the screw must be interpreted

as the instrument used to perform the event. Asserting the use of an instrument of a different type leads to a contradictory interpretation.

- (31) a. O João deu uma esfaqueada no ladrão com um punhal velho
João stabbed the thief with an old dagger.
b. #O João deu uma parafusada no pé da mesa com um prego
#João screwed the leg of the table with a spike

Instrument presuppositions are found in *ata*-nominalisations in Italian too, as shown by (32a vs. b).

- (32) a. #Daniele ha dato un'ombrellata all'asino col bastone
Daniele has given a-umbrella-ATA to-the-donkey with-the stick
b. Daniele ha dato una bastonata all'asino con l'ombrello
Daniele has given a stick-ATA to-the-donkey with the-umbrella
Daniele beat the donkey with the umbrella

Let's play along with a distributed morphology analysis of *ata*-nominalisations, and suppose that the two derivations may be envisaged for the same output form in (32b). In effect, *bastonata* can be formed via low verbalisation of the root as well as by low nominalisation.

3.3 Derivation, aspect and non-existing verbs

The hypothesis of double derivation, we propose, can be put to further use, to explain the aspectual difference of the two readings illustrated in (26) and (27) with *bastonata*. The data in (27) support the option of verbalisation of the root. When the verbal projection categorises the root, the meaning component of this constituent is close to the meaning of the verb for the relevant part. *Bastonata* in its processive reading is the nominalisation of a predicate that is required to be atelic. As a consequence, it gets the 'beating' interpretation.

Coversely, the data in (26) provide support for a nominalisation built on a nominalised root. The interpretation is analogous to that recorded for denominal *ombrellata*. When the root nominalises, we have to assume that there is still a verbal projection inside the structure of the nominalisation, in agreement with the tenets of Distributed Morphology and together with Scher (2004), and that it is the nominalising suffix *-ata* itself that introduces such an abstract projection contributing dynamic meaning. The verbal projection takes in the semantics of

the categorised noun. This yields an abstract event predicate characterising events of using the object as an instrument, which corresponds to the semel reading.

The hypothesis of positing an abstract verb is not new to the literature on *ata*-nominalisations. Samek-Lodovici (1999, 2003) had proposed that there always is a verb formation step in the syntactic derivation of *ata*-nominalisations. In his view, this step need not correspond to positing an actual word. However, Gaeta (2000) has objected to always having a verb formation step and argued that putative verbs such as $^{\circ}$ *ombrellare* are cases of back-formation at best. Consider, for example, the case of *bottigliata* ‘blow with a bottle’ in (33).

- (33) a. Colpito con una bottigliata in faccia, 40enne finisce in ospedale ...
(www)
Hit with a bottle on the face, 40-year-old end at the hospital
- b. Ha raccontato che tre persone l'avrebbero aggredita con una bottigliata in testa prima di rapinarla (www)
She said that three people had hit her with a bottle on the head and then mugged her

Italian has no verb $^{\circ}$ *bottigliare* that can qualify for being the base of *bottigliata*.⁸ From the morphological point of view, the verb form $^{\circ}$ *bottigliare* looks plausible. Its semantics, however, can be understood (if ever) as ‘giving blows with a bottle’, which means that it is interpretable only via a sort of back-formation process from the *ata*-nominalisation. Note also that back-formation may provide an explanation for the possible interpretation assigned to $^{\circ}$ *bottigliare*, but it may be the presence of verbs such as *bastonare* that is a plausible source of the pattern ‘blow given with x’ used for such an interpretation.

We do not wish to make strong commitments on the necessity of an abstract verb in the derivation. Positing a verb projection, however, has the advantage of providing us with a locus for an event template corresponding to a systematic component of meaning which could be expressed, for instance, in the form of a bundle of features.

Within this frame, it is also possible to venture a hypothesis about the way in which the pattern *hitting with N*, which is predictably associated to these nominalisations, arise. As noted also by von Heusinger (2002), the productivity of *ata*-nominalisations is sensitive to the semantics of the base noun and restrictions

⁸There is a verb *imbottigliare* that means to put into bottles, where the action must be a filling and the bottles are containers, but such a verb may be analysed as resulting from parasynthesis and not prefixation.

can be explained by referring to its lexical type. The event reading is licensed by the possibility of interpreting the noun as an instrument.

Moreover, we observe that in denominal *ata*-nominalisations denoting events of hitting, the potential referents of the base N support a limited number of proto-agent inferences (Dowty, 1991), having only the ability of causally affecting something and the possibility of moving with respect to a patient. The *hitting with N* reading would arise as a way to actualize the role of instrument of the base in an event, because the contact corresponds to the point where the entity becomes instrument, and it does not match with a *telos* that might otherwise induce a change of state. The nominalisation characterises events of contact which are of short duration and, being also non strictly telic, are in fact comparable, in their conceptual structure, to the events denoted by semelfactive predicates (Smith, 1991).

3.4 Plurality

The hypothesis of a derivational ambiguity characterises the *semel* vs. *processive* interpretive difference as an *aspectual* distinction. The point in common between the two forms is their being derived from the same root. There is no other direct connection between the nominalisations, hence their readings are independent. The instance of activity in (27) is not the (morphologically unmarked) pluralisation of a singular event in (26).

Examining the opposition between plural and singular events, however, points to a possible weakening of the explicative power of the interface model we have assumed so far. First, let's note that denominal and deverbal *ata*-nominalisations can occur in the plural, in which case they denote collections of events, see (34).

- (34) a. Daniele ha dato delle ombrellate
Daniele has given some umbrella-ATA.PL
Daniele gave some blows with the umbrella
- b. Daniele ha dato delle bastonate
Daniele has given some stick-ATA.PL
- i. Daniele gave some blows with a stick (plural of *semel*)
ii. Daniele beated (somebody) several times

The interpretation of potentially deverbal *ata*-nominalisations as plural instances of activities (34b.ii) is dispreferred with respect to the reading of a plurality of *semel* events (34b.i) in this case. However, anticumulativity, which is

a property of *nomina vicis*, means no reanalysis of these pluralities into singular superevents of the activity type.

Now, we note that not only reanalysis of a plurality of event nouns into an activity is not possible, but the processive reading of semelfactives is further constrained by the role of the participants in the event. It appears then that the distribution of *ata*-nominalisations is not explained in a fully satisfactory way in a model that eschews argument structure by representing syntactic relations in the lexicon. We seem to need some information on the semantic role of the participants in the event.

As a first approximation, we may say that in cases where the nominalisation receives a processive reading, such as (25), the predicate requires an animated subject, who performs the event in an active way. The same restriction applies also to activity verbs of hitting with an instrument. The activity reading of the verb *frustare* ‘whip’ is not available with an inanimate agent (35a), which nevertheless can be involved in a plurality of events expressed by the plural of the nominalised form *frustata*, denoting a collection of single whip strokes (35b).

- (35) a. #Il cavo si è rotto e ha frustato il muro fino al mattino
The cable broke and lashed the wall until dawn
- b. Il cavo si è rotto e ha dato delle frustate contro
the cable CL has broken and has given some whip-ATA.PL against
il muro fino al mattino
the wall until at-the morning
The cable broke and stroke lashes against the wall until dawn

Upon a closer look, what counts for the acceptability of the sentence is the possibility for the subject to satisfy proto-agentive entailments (Dowty, 1991) in a more fine-grained way. Animacy is only one of the proto-agentive features. More specifically, the agent must also be *sentient*, i.e. she must be aware of her participation in the whole event. Sentience is a property of animate entities, but it is not necessarily entailed by animacy. If the subject is animate but not sentient, only the semel reading remains accessible, cf. (36) where sentience is suspended by a subject-oriented adverbial.

- (36) Mario ha dato una bastonata a Luca senza accorgersene (#ma dopo
Mario has given a stick-ATA to Luca without notice (but after
qualche colpo il bastone s'è rotto)
some blow the stick CL-has broken

Mario hit Luca with a stick without noticing (#but after a few blows the stick broke)

Sentience characterises the participant's consciousness of the unfolding of the event. We take the necessity of sentience for the felicity of (36) to reveal us that a more general principle is at work here, one concerning the perspective under which the event is described. The perspective adopted for the description of an entity has been shown to be relevant for lexical semantics, and has been evoked in particular to account for the mass-count or singular-plural distinction in the denotation of nouns. A plural collection considered under a specific perspective can be seen as a whole, i.e. as an entity of a different sort. In the case of object-level entities, perspectives have been described by means of intensional principles (Simons, 1987; Meirav, 2003). Instrument semelfactive verbs such as *frustare* 'whip' in (35a), may be seen as denoting plural collections of events, and as such denote events with a potentially complex internal structure. In this case, we would like to suggest that the agent's commitment in performing a complex event is precisely part of the intensional principle that enforces the perspective of taking a plurality of events of hitting as a unitary event *of a different type*. If we accept this view on enforcing perspectives, it is possible to integrate in the general picture the observation, that we made about example (1b) at the very beginning, about the role that the expression of the agent's intention, or what may count as a reason in her/his eye, has in enhancing the processive reading of the predicate.

Despite their being perceptually accessible, the single subevents of semelfactives cannot be considered fully referential, nor countable individuals. Such a multiplicity of subevents does not count as a plurality. In this sense, instrument semelfactives are interpreted as *bona fide* activities, and nominalised semelfactives behave as well like intrinsically pluractional predicates of events, that is, as eventualities of a specific aspectual type.

4 Concluding remarks

In this paper, we discuss the semantics of semelfactive predicates by looking at *ata*-nominalisations built on instrument semelfactive verbs in Italian. Our aim in considering this type of nominalisations is twofold. First, we wish to cast new light on the issue of what counts as a singular unit in the domain of semelfactives by comparing these units with the units in the denotation of *nomina vicis*. Our second goal is to apply this line of exploration also to the issue of the double reading - semel and processive - of semelfactives in Italian.

Ata-nominalisations are *nomina vicis* whose domain of denotation is composed of particularised events. Discretisation comes from aspectual boundedness, but the interpretation of the denoted events is also partly sensitive to the lexical properties of the base. On the basis of their interpretation, the group of *ata*-nominalisations has been split into three subgroups: those denoting an instance of activity, e.g. *nuotata*, those with a semel reading, e.g. *ombrellata* and those that have mixed properties, e.g. *bastonata*, where we find our instrument semelfactives. We have then provided double support for this separate third subgroup. First, the semel interpretation is not simply an entailment from the activity one, for the latter is missing in nominalisations derived from nouns. Second, the activity reading is not simply the pluralisation of the semel one, since it correlates with other differences, that is, the presence of constraints on the instrument used to perform the event and strong entailments concerning the thematic realization of the external argument. We used the non-reducibility of this opposition to support the claim that semelfactives, in their processive reading, are not seen as the pluralisation of a single event, but have to be considered as *bona fide* activity predicates.

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