

Verbal morphology, nominal aspect

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1 Introduction

- Deverbal nominalisations ending by *-ata* in Italian, e.g. *sciata* (descent on ski), *mangiata* (eating), are **event nouns**, that is, nominal forms that denote in the event domain.
- An important characteristics of these forms is that they refer to specific events and resist generic interpretations (Gaeta, 2000), a behaviour that is not shared with nominalisations in general (1a) vs. (1b). They are *nomina vicis* (Tovena and Donazzan, 2015).
 - (1) a. #La letta/#una letta è un'attività solitaria.
The read-ATA/ a read-ATA is a private activity
 - b. La lettura è un'attività solitaria.
The read-URA is a activity private
'Reading is a private activity'
- Singularisation within the suffix: gender and perfectivity
 - These event nouns are deverbal nominalisations where an inflectional form possibly is at the origin of the word-formation pattern, the feminine form of the (Latin) past participle, but the diachronic process of re/grammaticalization is not yet entirely understood.
 - The pattern is viewed as the result of a reanalysis of the form that is associated with a change of semantic function (Meyer-Lübke, 1890; Rohlf, 1969)
 - The pattern is due to the fact that the form took up the functions of another Latin suffix (Collin, 1918).
 - According to recent proposals, the singularisation of the events could come from the derivational morpheme, and in particular from:
 - feminine gender
(Acquaviva, 2005) recalls the fact that feminine form can be morphologically more marked and be used for singulative meaning in several languages from different families.
 - perfectivity
(Ippolito, 1999), (Gaeta, 2000) and (Tovena, 2014) underscore that traditional contributions of perfective aspect are the possibility of viewing events as complete (making endpoints visible) and of focussing on the event, not on its result state.

- In previous work (Tovena and Donazzan, 2015; Donazzan and Tovena, t.a.), we represented the aspectual and referential constraints as two pieces of information contributed by the entry of the suffix *-ata*.
 - (i) a piece of aspectual information, in the form of an aspectual condition on the event;
 - (ii) a constraint on individuation of single instances of events, represented as a thematic trace of the external argument of the eventive base.

$$(2) \quad \lambda\text{Root } \lambda e [\text{Root}(e) \wedge \text{INITIATOR}(e)=x \wedge \text{DELIMIT}(e)]$$

- The suffix combines with Root, which is a non-categorised root, and yields a predicate of events
- DELIMIT ensures boundedness of event *e*, and INITIATOR its agent dependency.
- The free individual variable *x* can be identified by virtue of there being a unique event, and of the unicity of the agent.

Representation (2) transposes characteristics of a participial form to a noun suffix.

- In this talk, we pursue our exploration of a constructionist approach, and elaborate on the thematic and aspectual constraints, under the assumption that
 - nouns can denote events without necessarily being deverbal
 - roots have some event information. The relevant roots have interpretations as predicates of events. We might refer to them as verbal roots and as lexical bases, without implying that they have verbal syntactic category.

Plan of the talk

§2 is about inner and outer aspect of the events in the denotation of *ata* nouns

§3 is about the participants in the events in the denotation

§4 concludes the talk

2 Aspectual constraints

2.1 Inner aspect: Aspectual constraints on the eventive base

- The aspectual constraints that concerns the lexical base on which *ata*-nouns are construed can be described as a constraint of **dynamicity** [+dynamic], **durativity** [+duration] and **atelicity** [–telic].

- (3)
 - a. *amare* love, *credere* believe, *conoscere* know states
una amata, #una creduta, #una conosciuta
 - b. *raggiungere* reach, *vincere* win, *riconoscere* recognize achievements
#una raggiunta, #una vinta, #una riconosciuta
 - c. *costruire una casa* build a house, *mangiare la pizza* eat the pizza, *scrivere un libro* write a book accomplishments
#una costruita della casa, #una mangiata della pizza, #una scritta del libro
 - d. *nuotare* swim, *correre* run, *dormire* sleep activities
una nuotata, una corsa, una dormita

- Together, these two features license only **activity predicates** as possible lexical base, cf. (3d).

2.2 Forms of coercion

The roots used for building *ata* nominalisations are not just those of activities. Attributing durative, atelic and dynamic features to the event in the course of the nominalisation would result in what is traditionally called aspectual coercion. Aspectual coercion is not confined to verbs.

- Roots for predicates of **accomplishments** are detelicised. No quantized definite incremental themes are allowed.
- Roots for predicates of **semelfactives** only get processive readings (Donazzan and Tovena, 2015). Arguably, this is no coercion. Not all semelfactives predicates will do.

(4) Ha fatto una lunga tossita che sembrava quasi che soffocasse
He coughed for a long time and it looked as if he was stifling

- Roots for predicates of **achievements** are durativised, which defocusses telicity too. That is, coercion does not take the form of a slow-motion reading, nor does it focus on a preparatory phase.

Two components are modified by coercion:

- the event becomes durative
- the location is not a point where a transition takes place, but an extended space where the process unfolds.

(5) 'standard' coercion focussing on the preparatory phase

- a. sto arrivando
I am coming (but I am still on my way to there)
- b. # arrivata (arrival), # esplosa (explosion)

(6) 'standard' coercion focussing on the resultant state

- a. siamo partiti per un mese
we left for a month
- b. # partita (leaving)

There may still be a resultant state, but it is not longer clearly identifiable as distinct. In particular, it does not identify a transition point as in the inchoative reading. For instance, in change of location verbs such as *entrare*, the 'being inside' state holds all along.

(7) 'event expansion' coercion

- Luisa fa un'entrata (nella stanza) />(*dalla porta) molto commentata
Louise's enter-ATA (the room) /(*the door) is highly noticed

Duration of the event may exploit the extent of the participant

- (8) a. l'entrata del treno in stazione
the train entering the station
b. # l'entrata del punto nella sfera d'azione del magnete
The point entering the zone of influence of the magnets

- Not all **activity** predicates will do.

2.3 Outer aspect within the nominalisation

Perfective grammatical aspect

- Grammatical aspect specifies the relation between topic time and event time
- The semantic contribution of grammatical perfective aspect: existential closure of the event and creation of a predicate of intervals (9).

$$(9) \quad \lambda P \lambda t \exists e [P(e) \wedge \tau(e) \subseteq t]$$

- P in (9) is the predicate of events, t is the temporal variable that is instantiated by contextual information
- Tense specifies the relation of topic time to utterance time. There is no tense inside the nominalisation

Perfective aspect in the nominalisation

- Assuming that it originates in past participle morphology, *-ata* has specialised in becoming a nominalising suffix, and nowadays contributes the operation that actualise the discretisation of the domain of a potential event predicate.
→ it is a derivational suffix with aspectual content.
- Past participle formation in Italian is not sensitive to aspectual classes in the way we see for *ata* nominals (Tovena, 2014), thus the derivation should be kept distinct from inflectional suffixation in some way, contra (Ippolito, 1999).
- In a constructivist approach to nominalisation, the suffix *-ata* closes a derivational phase. Issues that we have to consider:
 - existential status of the initiator, see below
 - existential status of the event
 - no temporal contextual information is going to be available. By definition, the variable t in (9) would not be instantiated.
- Tovena (2015) has assumed that the semantic content of perfectivity is reshaped. The suffix expresses a perfectivity condition that is independent from temporal information by comparing the temporal trace of the event with a minimal instantiation.

She has proposed that the suffix *-ata* combines with a verbal root and works like an event predicate modifier that measures the event using contextual information (Tovena, 2015), see the entry in (10). In words, it is a modifier of event predicates that measures a P event by applying a function μ to the temporal trace of the event, and requiring the measure to be superior or equal to the minimal duration of events of type P.

$$(10) \quad \lambda P \lambda e [P(e) \wedge \text{INITIATOR}(e)=x \wedge \mu(\tau(e))=d \wedge d \geq \text{Min}(\mu(\tau(e)))]$$

- The perfective content is captured by i) assuming a contextually determined measure function μ , which is a variable over measure functions for times such as hours or minutes, and ii) applying it to the temporal trace of the event, i.e. $\tau(e)$. The image is assigned to variable d.

- Being like a measure function, the suffix is sortally restricted to apply to roots of processive predicates, which are homogeneous. But unlike standard durative adverbials, e.g. *for*-phrases, it does not specify a duration value.
- The predicate of events P instantiated by the root of a verb is restricted to denoting in a homogeneous domain. A homogeneous dynamic predicate (activity) can be divided down to minimal intervals (Dowty, 1979) and preserve its nature. The duration of the minimal interval is in most cases underspecified and depends on the particular predicate, but via $\text{Min}(\mu(\tau(e)))$, the minimal duration of an event of type P gets related to the actionality restrictions in the input and to restrictions related to world knowledge.
- Notice that the events referred to via *-ata* nominals do not have to be short and can vary in duration. This fact is captured by specifying that the value of *d* is superior or equal to the relevant minimal duration.
- Delimiting an event is a temporal issue, independent from the internal structure of the event. The presence of an initiator in the entry of the suffix licenses the implicit measuring as ‘arbitrary perfection’ of the event without outer aspect projection.

2.4 Aspect of the nominalisation

- the event is delimited, no telicity
- the measure delimits the event in the absence of a topic time
- whatever aspectual operation is executed inside the nominalisation, it is closed off by the boundary of the phase (PIC)
- merge under a light verb means that the aspectual properties of the nominalisation become part of the inner aspect contribution to the complex predicate

3 Event participants

- The nominalisation is obtained by suffixing a root with the derivational suffix *-ata*
- We assume that the base is a-categorial—a Root. It is lexically specified for denoting in the event domain, but it does not contribute structure for the projection of arguments (12).

(11) $[_{DP} \text{una} [_{NP} \text{-ata} [_{RootP} \sqrt{\text{mang}}]]]$

(12) $[[\text{mang}]] = \lambda e [\sqrt{\text{EAT}}(e)]$

- By representing a root as in (12), we assume that roots do have some lexical content, and that interpretive constraints following from lexical specification play a role before PF/LF, cf. Harley (2014) for relevant discussion.
- In this sense, we can suppose that, albeit being devoid of argument structure, the nominalisation imposes some constraints on the participants of the event.

3.1 Initiator of the event

The existence of the *initiator* of the event seems to be at least presupposed by a Root denoting a dynamic event.

- The initiator can license a purposive clause

(13) Durante una nuotata per levarsi di dosso rabbia e cattivi pensieri, Montalbano si imbatte in un cadavere [...] (www)

During a swim-ATA to wash off anger and bad thoughts, Montalbano comes across a corpse.

(14) Questa è una bellissima giornata che inizia con una piacevole camminata per abituarsi all'altitudine. (www)

This is a wonderful day that starts with a pleasant walk-ATA to get used to altitude

(15) Quella scivolata per destabilizzare Rossi gli è costata la squalifica. (www)

That slide-ATA for unbalancing Rossi costed him a disqualification.

- Evidence for a trace of the conceptual semantic role of an initiator comes from comparison with other causative constructions construed with a light-verb in Italian, such as (16), the Italian version of so-called *faire-par* (FP) causatives (Kayne, 1975).

(16) Mario ha fatto bere il vino (da Gianni).

Mario had the wine drunk (by Gianni).

- The embedded infinitive in Romance FP causatives has been analysed as a passivised clause. Following this analysis, it is expected that the suppression of the subject (the causee) occurs in syntax, and that the causee can be interpreted in an arbitrary way.

- The sentence in (17), where the causee is not expressed through a *by*-phrase, is naturally understood as meaning that Mario had someone else drinking the wine. The causee cannot be Mario itself.

(17) Mario ha fatto bere il vino.

Mario had the wine drunk.

- In *-ata*-nouns, the initiator can be expressed by a PP when the event noun is used in argumental position (18).

(18) Quanto ci è costata la bevuta di Gianni!

How much did it cost us the drink-ATA by Gianni!

- However, the initiator of the *-ata*-event is interpreted in a non-arbitrary way in complex predicate constructions headed by the light-verb *fare*. Namely, the initiator of the drinking event in (19) is necessarily coidentified with the subject of the light verb, cf. also (Alba-Salas, 2004).

(19) Mario ha fatto una bevuta (*di Gianni).

Mario had a drink-ATA (*by Gianni)

- We captured this constraint of coidentification by assuming that the nominalisation itself imposes a constraint on one of the participants of the event it denotes. The participant that has the semantic role of initiator of the dynamic event is semantically active, albeit syntactically absent.
- This semantic constraint is relevant also when the nominal is used in argumental position of a full predicate, or under a light verb. It motivates the identification of the initiator with the agentive subject of the light-verb, and drives the interpretation of the construction as expressing a complex causative construction, cf. (20) below.

3.2 Undergoer of the event

The realisation of a potential *undergoer* is also submitted to constraints.

- *-ata* event nouns denote necessarily atelic events. The telicity constraint can be interpreted as following from:
 - a structural constraint on the introduction of an internal argument;
 - a semantic selectional constraint for atelic and dynamic events.
- Structural constraints could explain in principle why telic intransitive events can enter *-ata*-nominalisation, provided they are interpreted as dynamic and extended events, cf. *entrare* ‘enter’, cf. section 2.2.
- However, the semantic constraint seems to override somehow the structural one.
 - The event denoted by the root can have a participant acting semantically as an undergoer. The undergoer however can never be understood as an incremental theme.
Potentially telic event are de-telicised by expressing the undergoer with a indefinite bare noun, cf. (20) vs. (21).

(20) Gianni ha fatto una bevuta di vino.
Gianni has a drink-ATA of wine

(21) Gianni ha fatto una bevuta *del vino.
Gianni has a drink-ATA of-the wine
 - More generally, the nominalisation cannot denote events that necessarily imply an (incremental) theme, such as *break*-type verbs, cf. (22) -(24).

(22) *Mario ha fatto una spaccata (di bicchieri).
Mario made a break-ATA of glasses

(23) *Mario ha fatto una bruciata (di giornali).
Mario made a burn-ATA of newspapers

(24) *Mario ha fatto una spalancata (di finestre)
Mario made a open-ATA of windows

Summing up, events in the denotation of *ata* nouns always have initiators. They may have undergoers, provided they do not measure out the event.

4 Concluding remarks

- In this talk, we have analysed *-ata* event nouns as simple event nouns, with no argument structure. Yet, they are endowed with the capacity of:
 - characterising the event, which is dynamic, durative and bounded, and
 - affecting the full expression of such a characterisation when inserted in argumental position, and under a light verb, cf. indefinite non quantized participants.
- The *-ata* suffix, that by hypothesis is participial and carries grammatical aspect information, impacts on the Aktionsart of the noun, often believed to be inherited from the base/root.
- We have provided a detailed examination of the aspectual and eventive conditions associated with *-ata* event nouns, and put forth a proposal for their formal representation.
- Our study of *-ata* nouns raises challenging questions for the framework of Distributive Morphology, concerning if and how semantics participates in constructing event nouns.

References

- Acquaviva, P. (2005). I significati delle nominalizzazioni in *-ATA* e i loro correlati morfologici. In M. Grossmann and A. Thornton (Eds.), *37 congresso della Società di linguistica italiana: La formazione delle parole*, pp. 7–29.
- Alba-Salas, J. (2004). Fare light verb constructions and Italian causatives: Understanding the differences. *Rivista di Linguistica* 16(2), 283–323.
- Collin, C. S. R. (1918). *Etude sur le développement de sens du suffixe -ata (it. -ata, prov., esp., port. -ada, fr. -ée, -ade) dans les langues romanes, spécialement au point de vue du français*. Lund: Lindstedts Universitets Bokhandel.
- Donazzan, M. and L. M. Tovena (2015). Pluralities of events: semelfactives and a case of ‘single event’ nominalisation. In S. Perpiñán (Ed.), *Romance Languages and Linguistic Theory LSRL 44*. John Benjamins.
- Donazzan, M. and L. M. Tovena (t.a.). Dispositions in event nouns. Decomposing the agentivity constraints in a light-verb construction. In F. Martin, M. Piteroff & T. Pross (Ed.), *Morphological, syntactic and semantic aspect of dispositions*. SinSpec Series of SFB732, University of Stuttgart.
- Dowty, D. R. (1979). *Word meaning and Montague grammar*. Dordrecht: Reidel.
- Gaeta, L. (2000). On the interaction between morphology and semantics: The Italian suffix *-ata*. *Acta Linguistica Hungarica* 47(1-4), 205–229.
- Harley, H. (2014). On the identity of roots. *Theoretical Linguistics* 40(3/4): 225 – 276
- Ippolito, M. M. (1999). On the past participle morphology in Italian. *MIT Working Papers in Linguistics* (33), 111–137.
- Kayne, R. (1975). *Syntaxe du français. Le cycle transformationnel*. Paris: Seuil.
- Meyer-Lübke, W. (1890). *Grammatik der romanischen Sprachen*. Leipzig.
- Rohlf, G. (1969). *Grammatica storica della lingua italiana e dei suoi dialetti: Sintassi e formazione delle parole*, Volume 3. Torino: Einaudi.
- Tovena, L. M. (2014). Aspect and *-ata* event nouns in Italian. Handout of the talk delivered at ‘ConSole XXII’, Lisbon.
- Tovena, L. M. (2015). Constraints on the arguments of an event noun with delimited duration. Paper presented at ‘48th Annual Meeting of the Societas Linguistica Europaea’ Leiden NL, 2-5 Sept.
- Tovena, L. M. and M. Donazzan (2015). Event structure in nominalisations: more on the *nomen vicis* interpretation. Handout ‘6th Workshop on nominalisations JeNom6’, Verona June 30-July 1.

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