The profile of event delimitation: An introduction

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1. The notion of event delimitation

Events are largely accepted as linguistic individuals across theories and frames, although the ways in which they are defined and identified in linguistics and in philosophy is still under debate. In philosophical tradition, events have been derived from distinct primitive concepts, such as time and space, and causal relations. When approaching events as objects in grammar, two main philosophical views have made their way in linguistic theory. Vendler's (1967) influential paper proposed a line of analysis in lexical semantics that describes verbal predicates in terms of temporal intervals. Event types are related to predicates belonging to different aspectual classes, which are defined based on properties such as temporal duration and termination. On a different perspective, and over the same years, Davidson proposed a program for capturing entailments between action sentences based on the reification of events. Further developments along this tradition promote formal models that integrate the temporal dimension of events into a rich and articulated structure.

This special issue is devoted to the discussion of different strategies used by languages to provide events with a form of delimitation, in order to make them individualised entities that are cognitively and linguistically accessible. As a consequence of the different conceptualisations of events that underlie formal models, the linguistic literature has not tackled event delimitation as one issue; rather it has dealt with it in studies that appeal to various notions. On the one hand, typological studies have offered extensive surveys of data concerning phenomena that may be interpreted as contributing to the function of delimiting events, as part of the research on tense-aspect-modality (TAM). These constructions are mainly characterised by morphosyntactic criteria, such as, for example, the use of markers for case, the detection of valence alternation within the verb phrase and the sentence, the opposition between arguments and non-argumental constituents, and the formation of complex predicates. On the other

hand, in a more theoretically oriented perspective, the notions of aspect - intended as the lexical property of actionality or as a grammatical feature of the verb - and of temporal information have been given a central place in research among the semantic domains in which event identification and delimitation are defined. Natural endpoints are evoked when defining telicity and when trying to work out forms of atomicity that conceptually seem clear but which are difficult to capture in formal representations. Perfectivity imposes temporal boundaries on the event, and specific markers can enforce, semantically or pragmatically, temporal gaps that contribute to delimit single occurrences. Formal implementations therefore tend to consider temporal and aspectual delimitation as the key notions for event delimitation, and propose to capture perfectivity and telicity *via* functional operators that take as an argument the temporal trace of the event.

From the work presented in this volume, it appears that languages often use a combination of devices in order to delimit and individuate events. Often, delimitation is the product of applying different strategies whereby the grammatical tools of a language are used to express and define aspectual and temporal structure or relations among participants. In particular, three main strategies have emerged. Event delimitation may result from specific morphological and functional marking that has the effect of modifying what looks like the canonical temporal and aspectual structure of the predicate, yielding forms that express distributed or iterated action. Next, events can be delimited by identifying the entities that participate in them and by specifying their respective involvement in them. Specifically, participants can be mentioned, omitted or introduced with differing roles. Boundaries can be transferred to the events from these arguments and satellites, in which case forms of delimitation are provided by thematic arguments, measure phrases, classifier phrases and cognates of the verb. Additionally, nominalisation can also be seen as a type of device for creating individuals. Event nouns can denote bounded occurrences that can be referred to in isolation, or they can enter predicative constructions or be used as cognates of the verb. The integration of event nouns into complex predicative structures is another example of a morphological or syntactic device available across languages that can be used to convey event delimitation, but which has a different main purpose, for example packaging information into a single lexical or conceptual complex as in co-verb and serial verb constructions.

The notion of event delimitation which is the leading theme of this volume is therefore intended as a conceptual semantic umbrella

covering phenomena that have been studied from different perspectives. This notion enables us to connect among them well developed linguistic traditions that will benefit from resolutely joining forces, and can provide us with the key for reading the different syntactic and morphological manifestations by which events are delimited and identified. In the following section, we will briefly present concepts that are debated in the literature and that can be invoked when discussing event delimitation, along with some related grammatical devices and empirical phenomena. It will appear, we hope, that the complex picture emerging from this yet incomplete overview calls for, and the same time justifies, an encompassing notion that may be of use for the purposes of both theoretical discussion and language description.

2. Concepts and linguistic devices

2.1 Aspect and temporal information

2.1.1 Telicity and perfectivity

A wealth of in-depth work in syntax and semantics has tackled aspect by looking at the two notions of telicity and perfectivity (Dahl 2000). Telicity is generally understood in two ways. It can be intended as a property of linguistic expressions referring to events that have an inherent endpoint or culmination, or tend toward a goal or a result, in which case it is strongly related to the notion of internal temporal structure of the event and is compatible with the idea of lexical aspect. It can also be seen as a property of events that are measured. In this case, the endpoints are not given a particular status, and telicity is rather the property of a complex form or a phrase. In empirical terms, telicity can be attributed to verbal stems and/or to verbs taken together with particles or with their lexically or structurally associated argument structure. In a formal perspective, it has been expressed in temporal terms within the Vendlerian tradition, or by exploiting mereological structures and individual-event homomorphisms - cf. Mourelatos (1978), Bach (1986), Krifka (1987, 1992, 1998), Filip (1999) i.a. – or by making reference to the internal structure of the event – for instance by decomposing events into conceptual components, e.g. Dowty (1979), Travis (2000) and Ramchand (2008). At the interface with syntax, (a)telicity is typically defined with respect to a syntactic structure involving a functional projection above the VP. Perfectivity is another well-established notion relevant for discussing delimitation. (Im)perfectivity is a matter of viewpoint projected on the

event, and as such it is independent from the intrinsic properties of the event, strictly speaking. This generates delimitedness by making the endpoints accessible, i.e. by expressing the relation between the boundaries of the event and temporal information. In empirical terms, perfective aspect is often expressed by inflexional morphology, e.g. verbal inflexion, and derivational morphology, e.g. aspectual prefixes, and is syntactically represented as the domain of higher aspect.

While there is general agreement on the necessity of distinguishing the notions of telicity and perfectivity, linguistic expressions can be at the boundary between the two notions. A case in point is the controversial class of semelfactive verbs, whose prototypical examples, i.e. verbs like English *knock* or *jump*, are characterised by the possibility of denoting either single, punctual occurrences (*make one jump*) or events extended in time (*jump for five minutes*). There is no agreement in the literature on whether semelfactives are an aspectual class (Smith 1991) or not (Dowty 1979). Smith (1991) gives a first characterisation of semelfactives by endowing them with specific aspectual properties. According to Smith, semelfactives denote events delimited without culmination and change. This aspectual characterisation is not without problems. Firstly, this form of delimitedness is not explained in Smith's theory of lexical aspect, since semelfactives are neither properly atelic nor strictly telic. Next, Smith's characterization is probably too large; the same aspectual properties identifying the core class of semelfactives - namely, the fact that these predicates do not involve a resulting state as part of their semantic content - can be invoked to characterise a larger group, e.g. that of "punctual verbs" (Dini & Bertinetto 1995), to which predicates such as *meet* and *happen* also belong. 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 (2010a), according to whom the events described by semelfactive verbs are characterised by cycles of parts executed once or several times. Different theoretical solutions lead to attributing a different status to semelfactives, and the examination of distinct aspectual and morphological systems can also contribute insights to the debate. In Germanic and Romance languages, Smith's semelfactive verbs are generally undistinguishable, from a morphological point of view, from activity predicates, and therefore can be identified and distinguished from activities on an aspectual basis (Donazzan & Tovena, 2016). If semelfactives are intended as a subclass of punctual verbs, however, their characterization is not aspectual. The homophony of semelfactives and activities (Rothstein 2008) is rather explained

as an interpretive ambiguity (i.e. durative/non-durative), proper to punctual predicates that do not imply an irreversible change of state (Dini & Bertinetto 1995). In languages that display a richer, non-inflexional aspectual morphology, for example Russian in the Slavic group, the semel interpretation is marked by a singulative affix on forms that do not belong to a unique aspectual class. In this case as well, however, there seems to be a conceptual basis related to lexical aspect underlying the productivity of these forms. Nesset (2013) shows that the property of instantaneousness characterises the oldest instances of semelfactive verbs in Russian too, although nowadays this is no longer a requirement.

More generally, in Slavic languages the distinction between lexical aspect and telicity on one side and perfectivity on the opposite side is not so clear-cut. Take the case of prefixation, which is one of the most common derivational processes used to derive perfective forms across Slavic languages. Verb prefixes such as the so-called delimitative prefix *po-* predictively form grammaticaly perfective verbs, by modifying the predicate in terms of measurement but also by inducing lexical modifications that affect other dimensions of the verb semantics. Next, as shown by Filip (2003), so-called 'perfective' verbal prefixes can be applied to perfective verbs, deriving new perfective verbs, and thus violating the intuitive principle that events can be delimited only once (formulated by Tenny (1994) as the 'Single Delimiting Constraint'). Additionally, multiple prefixes can be stacked on one verb.

2.1.2 Tense forms

Temporal information helps to locate an event and can also contribute to its delimitation by setting up a relation with other events or with reference points. Some languages have morphemes or verbal markers that have the capacity to mark distinctions finer than the opposition between past and future relations, and express degrees of temporal remoteness from the deictic centre, typically the time of speech. These devices appear to be specialised for expressing a form of discontinuity between an event or a state of affairs, typically located in the past, and a subsequent time. For instance, enriched past tense forms such as sur-composed tenses in French trigger pragmatic inferences of discontinuity that can be described as aspectual boundedness. A variety of implications may be associated with these devices. For instance, the event or state of affairs that takes place at a certain subsequent time is perceived as distinct from the past event or state of affairs that precedes it and that implicitly gets delimited. It is also

possible that the cessation of the past event is perceived as being early compared to expectations, or else that the event did not bring the expected result. The interpretation available often depends on the aspect of the verbal form. The characterisation of the phenomenon is not unique and there is no agreement on whether these implicatures are of a semantic or pragmatic nature. Manifestations of this phenomenon exist across languages and aspectual classes. Plungian & van der Auwera (2006) have proposed 'discontinuous past marking' as a new type of past tense marking, with a meaning like 'past and not present' or 'past with no present relevance'. These enriched past tense forms (at least some of them) may contain a deictic component and are based on intervals delineated on natural cyclic divisions and the human life cycle (Botne 2012). Furthermore, they may be optional. Thus, they may not serve as evidence that a language's tense system can diverge from the familiar three-way (or less) distinction that comprises past, present and future, by exhibiting more distinctions that can help to delimit events. Moreover, discontinuity in time of an event or a state of affairs can be expressed by means other than temporal marking, for example by aspectual prefixes or adverbs, e.g. see aspectual perfective experiential *guo* in Chinese, cf. (Lin, 2007), (Wu, 2008) and references therein, and double past *-ess ess* in Korean (Kim, 1975). Indeed, *-ess ess* has been analysed as a discontinuous past, or perfective aspect, or a marking that triggers a 'cessation implicature' according to which no state of the kind described currently holds. One may wonder if the same phenomenon is behind these manifestations.

2.1.3 Verbal morphology and aspectual constructions

Next to specialised tense markers and aspectual morphemes, languages can use different morphological and syntactic devices to shape the aspectual structure of a predicate in order to single out instances of events. The individuation of distinct events in the denotation of a predicate gives as an output an entity that can be described as a plural collection of events, and for this reason, devices of event delimitation are sometimes described as forms of pluralisation of the predicate.

The literature on event plurality or pluractionality is growing fast since the early contributions by Dressler (1968), Newman (1980) and Cusic (1981), among many others. On the theoretical side, plurality in the domain of events has been treated as part of aspect or as a phenomenon related to quantification. In its grammatical dimension, it has been described either, in a narrow sense, as pertaining to the morphosyntactic make-up of the verb (verbal plurality, cf. Lasersohn

(1995)), or as a more general empirical phenomenon that concerns different layers in the aspectual domain, see the contributions collected in Tovena (2008) and Cabredo-Hofherr & Laca (2012). Theoretical and descriptive choices often interact in multiple ways.

With regards to verbal plurality, as attested by the descriptive and formal literature, plural effects are obtained by distributing events on different dimensions, i.e. on the event participants, or spatial locations, or on the temporal axis; cf. the formalisation in terms of non-overlap condition on theta-roles, spatial and temporal traces by Lasersohn (1995) and Champollion (2016). Specialisation for one or more of these options often corresponds to distinct semantic interpretations for the distributive effect, with the result that pluralisation is related either to quantification or to aspectual modification. Verbal plurality can be expressed for example by specialised pluractional markers (Van Geenhoven 2004).

Next to dedicated morphology, languages can also make use of reduplication (Moravcsik 1978; Inkelas & Zoll 2005), or to verbal affixes that are not specialised for TAM, such as evaluative morphology (Tovena 2010b, 2014). The aspectual, numerical and intensity information contributed by these forms of marking cannot always be separated. In languages that make use of it, reduplication is often a productive process which applies across categories, to adjectives, adverbs and verbs (see Gil 1988 for Georgian), but also to nouns and numerals (Donazzan & Müller 2015). Within the verbal domain, reduplication can be related to aspectual notions in more than one way. Languages may use different forms of reduplication to distinguish event plurality from situations closer to the aspectual notion of imperfectivity, e.g. in Squamish the CVC reduplicant is a plural marker and the CV reduplicant is an aspectual marker that marks the progressive (Bar-el 2008). In other languages, different forms of verbal reduplication can be related to the *Aktionsarten* of the reduplicated verbs. In Mandarin Chinese, an isolating language, full reduplication can be applied to bi-morphemic verbal predicates and can be of two types. AABB reduplication of bi-morphemic verbs yields constructions such as *tōumō* 'pilfer' → *tōu-tōu-mō-mō* (lit. steal-steal-touch-touch) 'do things furtively, covertly'; in this case, the effect of reduplication can be described as 'intensive' plurality (Dressler 1968; Cusic 1981). ABAB reduplication yields constructions such as *kàn → kàn kàn* (lit. look-look), 'have a look' and *xiūxi → xiūxi-xiūxi* (lit. rest-rest), 'rest for a while'. This kind of verbal reduplication in Mandarin is often said to express so-called 'delimitative' or 'tentative' aspect (Chao 1968; Li & Thompson 1981; Tsao 2004). As argued by Arcodia,

Basciano & Melloni (2015), however, the semantic effect is linked to the morphological form in more than one way. While in AABB reduplication the input is conditioned only by morphological factors, ABAB reduplication is rather essentially constrained by the Aktionsart of the base verb, since it only applies to dynamic and atelic predicates.

Finally, pluralisation of events can take the form of a specific interpretation of some complex aspectual forms in the verbal paradigm. Consider the Present Perfect in different varieties of Portuguese, discussed by Cabredo Hofherr, Laca & Carvalho (2010) and Amaral & Howe (2012), which differs from other *have*-perfects in typologically related languages in that it requires "that a plurality of events be distributed evenly over an interval" (Amaral & Howe 2012: 29). Periphrastic aspectual forms in Romance are another example of complex aspectual constructions that are at the boundary between event plurality and aspectual delimitation. Periphrastic forms in Romance are composed by one of a restricted class of motion verbs followed by a gerundive (cf. Italian *andare/venire* + Gerundive, or Spanish *ir* + Gerundive). These constructions have been described as grammatical devices that convey the progression or the iteration of an event within a temporal interval (Bertinetto, 1998; Laca, 2004, 2006), and are at the border between grammatical and lexical aspect.

2.2 Canonical and non-canonical complementation

In a formal semantic framework based on a compositional approach to meaning, assuming cumulative verb denotation (Krifka 1987, 1992) means to assume that information on delimitation comes from aspect or from aspectually relevant arguments and complements. Internal arguments, mainly definite themes, are known to have aspectual impact on telicity, cf. the idea that some themes measure out events (Dowty 1991; Tenny 1994; Krifka 1998). The relation between the verb and its arguments can be modelled by exploiting constraints on the mereological structure, as in the formal implementation by Krifka (1989, 1992, 1998), and can surface as differences in case assignment (Kiparsky 1998). Therefore, constructions that may be interpreted as carrying the function of delimiting events, where the use of valency and case play a prominent role, can also be studied against the backdrop of argument structure.

Consider, for instance, the different grammatical constructions that contribute to event delimitation by affecting the argumental structure of the verb and/or on its complements. In addition to proper arguments of the verb, which have been extensively discussed in the literature, two more specific cases deserve discussion. First, the issue

of aspectual delimitation is often raised in the analysis of structures of verb-noun incorporation, whereby "a syntactic complement of the verb can be realised as an element within the verb itself" (Matthews, 1997). In the most prototypical case, the noun is taken to be the verb internal argument; at the level of the verb phrase, incorporation of the internal argument yields a change in the arity of a transitive verb. Considering more specifically this semantic effect, the definition of noun incorporation has then moved from a strict morphological and/or syntactic phenomenon (Mithun, 1984, 1986; Baker, 1988) to a broader concept, which comprises cases where the incorporation of arguments is expressed by reduction of functional structure above the noun phrase, cf. Massam's (2001) notion of *pseudo-incorporation* and the lively discussion on the semantics of verb phrases with bare, non-referential complements across languages, cf. Van Geenhoven (1995); McNally (1995); Dayal (2004), among others.

Next to non-referential NPs, another type of 'quasi-argumental' constituents are measure phrases that provide information about the duration of an activity or the length of a path, or semi-lexical words that express single delimited occurrences of the event denoted by the verbal predicate. These non-canonical complements have been classified in various ways across languages, depending on the criteria adopted. Their status as lexical or functional elements, and their relation to the verbal predicate as complements or modifiers, is often still under debate. A possible example is that of post-verbal measure phrases in Sinitic languages (Zhang, 2016). Aspectual modifiers such as durative phrases and iterative expressions are denoted in Sinitic languages by non-prepositional phrases. Given their constrained distribution in post-verbal position and their complementary distribution with respect to most nominal internal arguments, these non-prepositional phrases have been considered as syntactic complements of the verb rather than adverbial adjuncts (Huang 1982). In some cases, post-verbal aspectual modifiers appear to be lexically related to the verb, a fact that has led some researchers to characterise them as Cognate Objects (Chao 1968; Hong 1999). In other cases, they seem to be fully grammaticalised and are described as belonging to a grammatical class distinct from bound morphemes and from nominal predicates. Under this perspective, they have been gathered in some works in the dedicated category of Verbal Classifiers (Shao 1996; Lam & Vinet 2005; Donazzan 2012; Zhang 2013). Similar forms of non-argumental objects are conflated under the descriptive label of Cognate Objects in various other languages; see Al Zahre (2003) for Syrian Arabic, Mittwoch (1998) for Hebrew and English, and

Pereltsvaig (1999) for Russian, among others. In these languages, delimitation is not the only function that Cognate Objects may have, as they may also be used to modify the quality of the event in terms of manner or intensity.

2.3 Nominalisation of events

The nominalisation of a verbal predicate can also be seen as a way to make the events that it denotes countable and discretised, providing at the same time a way to make direct reference to them. The literature on nominalisations is broad and deep, and in this brief overview we cannot do justice to all the issues and proposals that have been discussed through the years. See, among many others, Alexiadou, Haegeman & Stavrou (2007) for a recent broad monograph. Limiting our discussion to the function of delimiting events, we will discuss here event nouns that enter forms of complex predication and denote *nomina vicis* (names of a time), that is, names of single occurrences of events.

The term *nomen vicis,* or its counterparts, is used in traditional Semitic linguistics to refer to forms with morphologically minimal templatic structure, such as the *ism-l-marra* (name of a time) discussed by Al Zahre (2003). Across languages, *nomina vicis* can be identified as a class on the basis of a common semantic interpretation, if not of a shared morphological form. One type of event noun that can be included in this class is represented by nominals that appear as a type of conversion form from verbs, without apparent derivational morphology, and are used in light verb constructions to refer to single occurrences of an activity. Examples are nouns such as *walk* in the English construction *take a walk*, discussed by e.g. Wierzbicka (1982); Mittwoch (1998). In other cases, *nomina vicis* are superficially complex, and display derivational suffixes of inflexional origin (cf. Tovena & Donazzan (2015); Donazzan & Tovena (2015); Ferret, Soare & Villoing (2010) for Romance languages).

The case of *nomina vicis* raises two main questions. Firstly, notice that these forms may be seen as strategies of event delimitation, whose interpretation is similar to that conveyed by ABAB verb reduplication in Sinitic languages. It is not clear, however, how to characterise the contribution of aspectual information (whether morphologically expressed or not), and how to represent it formally in the nominal domain.

Secondly, these nominalisations are often used in complex predicates composed of verbal and nominal material, as in the English example proposed above. Complex predicates are formed by two or

more elements that enter into a relationship of co-predication, each contributing thematic/semantic roles to a monoclausal structure (Butt 1995, 2014). In this perspective, it is important to clarify how to characterise the argument structure potentially inherited by the nominal, and how to compose it with the argument structure of the verb. For instance, in the nominalisation construed with the *–ata* suffix in Italian (Gaeta 2002; Acquaviva 2005) the form is specialised and carries the event delimiting power also in isolation. Occurrences used in a complex predicate appear to be more constrained in terms of its nominal properties such as pluralisation and determination.

Complex predicates composed of a verbal predicate and an event nominal should be distinguished, in this perspective, from complex verb construction constituted by two or more verbal components, such as serial verb constructions and coverb constructions. These constructions also describe what is conceptualised as one integrated event. Rather than delimiting aspectual occurrences, however, serial verbs are often described as having the function of 'packaging' into one verbal complex (Aikhenvald & Dixon 2006) the conceptual representation of one complex event, which semantically may be composed of a series of sub-events (but see e.g. Schultze-Berndt (2015) for a more articulated description of the verb classes entering complex verb constructions).

3. Contributions to this volume

This special issue features a selection of the articles presented at the workshop *The profile of event delimitation* held in Naples as part of the 49th Annual Meeting of the Societas Linguistica Europaea in August-September 2016. It also includes invited essays which report work carried out within the project *Délimitation et identification des événements* (http://utilisateurs.linguist.univ-paris-diderot.fr/~tovena/ delimitingEventsTUL.html) supported by the *Fédération Typologie et Universaux Linguistiques: données et modèles* FR2559 of the CNRS.

The collection of studies presented in this volume highlights the fact that the converging function of individuating events and delimiting single occurrences is performed using strategies which may vary across languages. This volume is therefore a step towards developing a semantically grounded notion of event delimitation that can serve two purposes. Firstly, it contributes a working hypothesis for gaining insight on a collection of linguistic expressions and morpho-phonosyntactic devices that may otherwise seem motley. In this sense, it

is a semantic umbrella notion and can serve as a tool for typologists in their analyses and generalisations. Secondly, it aims to render the principle of event individuation behind notions assumed in the theoretical linguistic literature more precise by taking into account a range of empirical data and phenomena that go beyond the space usually covered.

The articles deal with specific grammatical constructions and morphological devices that make up the profile of event delimitation, as they have been outlined in the preceding section. In spite of their differences in methodology and concerning theoretical assumptions, they share the general goal of discussing a range of constructions which are not traditionally subsumed under aspectual modification and which can be described as concurring to delimit and identify events. The contributions explore constructions and devices comparatively, in Romance (Italian, French, Romanian), Slavic (Russian), Niger-Congo (Gujjolaay Eegimaa, Soninke-West Mande) and Sinitic languages (Mandarin Chinese), offering a typologically rich and diverse picture.

Pseudo-arguments with event delimitation power are at the centre of the article presented by Denis Creissels, which deals with the status of non-thematic objects in Soninke, a variety of the Soninke-Bozo sub-branch of the Western Mande language family spoken in North-West Africa. Soninke is remarkable in its strict adherence to a rigid constituent order for verbal predication. The position between the subject and the verb is unambiguously marked as object position in Soninké via overt predicative markers, that is, grammatical words that express grammaticalised TAM distinctions and polarity, and also participate in transitivity marking. Another characteristic of Soninke is that valency changes are strictly encoded morphosyntactically, by e.g. the antipassive and anticausative morphemes or by object incorporation. Within this highly grammaticalised system of encoding the distinction between transitive and intransitive predication, Creissels observes that the object position may also be occupied by a small number of elements that appear to be "atypical objects", i.e. noun phrases that do not always represent a participant, yet nevertheless are encoded in the same way as typical event participants. The presence of such constituents does not modify the argument structure of the verb, yielding formally transitive constructions where the semantically patientive argument is left unexpressed, or triggering object incorporation. Atypical objects include measure phrases that provide information about the duration of an activity and the length of a path. A third case is that of the general expression *hó* (thing), that

can complement otherwise strictly intransitive verbs, in which case it is interpreted as expressing intensity of the activity, or can enter in the construction of transitive verbs with an oblique patientive argument, expressing quantification over this argument. The relation of delimitation and quantification between these non-canonical object phrases and the event described by the verb could be a key to explain the atypical transitivisation marking displayed by some intransitive verbs, which show a different ending in their transitive construction with a duration phrase in object function.

A different type of valency marking is discussed by Serge Sagna in his paper on morphological alternations in Gujjiolaay Eegimaa, an Atlantic language of the Niger-Congo phylum also known as Banjal, spoken in Southern Senegal. Sagna's paper explores the strategies used to express event singularity on non-finite verbs in Gujjolaay Eegimaa, and discusses in particular a case where singulativity is expressed by a morphological marker. In Eegimaa, many non-finite verbs terms allow alternations between two prefixes, the prefix *e-* and other prefixes such as *ba-* and *ga-*. The claim defended by the author is that the alternations between the prefixes reflect strategies of event delimitation. The prefix *e-* is used as a marker of individuation and, as a result, it is preferred in clauses where the verb is followed by definite singular objects, and which can be described by features associated with higher transitivity (Hopper & Thompson 1980), such as telicity, specificity and affectedness. Conversely, prefixes like *ba-* and *ga-* are preferred in clauses with indefinite and plural objects, where atelicity, non-individuation, non-specificity and non-affectedness are expressed. As shown by Sagna, such contrasts surface as different degrees of affectedness and telicity when the verb is followed by different types of noun phrases, which can be related to their delimitating function with respect to their referential properties. This distinction is even more apparent in objectless clauses, where prefixation with *e-* triggers the interpretation of context-dependent object deletion, whereas *ba-* and *ga-* may be used to characterise a de-transitivised interpretation of a transitive verb, where the referent of the missing object is non-specific and the non-finite verb describes a general activity.

Lucia M. Tovena and Marta Donazzan study the *nomina vicis* reading of deverbal nominalisations obtained by the *-ata* suffix in Italian, paying special attention to aspectual issues and argument properties. They analyse these nominalisations as simple event nouns that have no argument structure, and yet are endowed with the capacity to characterise the event, which is dynamic, durative and

bounded, and of affecting the full expression of such a characterisation when inserted in argumental position with a full verb, e.g. *la nuotata lo ha stancato* (the swim-ATA made him tired), and under a light verb, e.g. *ha fatto una nuotata* ((s)he made a swim-ATA). For instance, they observe that participants with roles that potentially measure out the event see their potentiality defused by being instantiated by indefinite non quantized nominals. They also propose that the suffix -*ata*, that by hypothesis has participial origin and carries grammatical aspect information, impacts on the Aktionsart of the noun. A detailed examination of the aspectual and eventive conditions associated with event nouns ending in -*ata* has motivated the proposal that the semantic constraint on potential external arguments carried by the suffix, supports the eventive only and referential only reading of the nominal.

The contribution by Elena Soare proposes a comparison of deverbal nominalisations based on the past participle in Italian, French and Romanian. The Italian nouns ending in -*ata* discussed by Tovena and Donazzan are compared to Romanian participial nominalisations, which come in two types: the eventive supine nominalisation, e.g. *băut* (drinking) and the feminine participial nominalisation *băută* (drinking (party)), of which only the latter can be a *nomen vicis*. Building on Alexiadou et al. (2010) and Iordăchioaia & Soare (2008), Soare assumes that the aspectual information inherent to Romanian participial nominalisations does not have a grammatical dimension realised by the presence of functional layers inherited from the base verb. Rather, in the feminine participial nominalisation, the participial morphology acts only at the level of boundedness, shifting the [-bounded] value of the verbal stem to a [+bounded] value; the argumental and aspectual properties on the noun are thus only "semantically induced". The comparison of Italian, French and Romanian shows that event nouns can come in different forms. There are nominalisations in which a grammatical event is instantiated, and is built by the functional layers corresponding to participial morphology (as in the Romanian supine). Then, there are nominalisations in which the nominal only has inner-aspectual properties and does not instantiate a grammatical event, but only a conceptual one (e.g. the Italian -*ata* nouns). Soare claims that the participial morphology becomes a derivational suffix in the latter case, as shown by the fact that it bears feminine gender.

Richard Huyghe, Lucie Barque, Pauline Haas and Delphine Tribout add more pieces to the puzzle of event nouns by contributing a discussion of the semantics of underived event nouns in French.

Underived event nouns are morphologically simple nouns that denote events, such as *crime* (crime), *procès* (trial), *émeute* (riot), and *séisme* (earthquake). The aim of this study is to compare the properties of these nouns with those of deverbal event nouns in the language, in order to determine how event denotation is generated without a verbal source, and what properties are shared by the two groups. The authors address more specifically the issue of the argument structure and aspectual properties of underived event nouns. As for argument structure, they show that these nouns form a heterogeneous class, composed by nouns that combine with participant denoting complements introduced by *de* (of) and therefore assign a role to the participants of the event (e.g. *grève* (strike)*, crime*), and nouns that do not, and therefore denote "pure" events occurring autonomously (cf. *séisme*). Besides complement structure and role-assigning properties, the diversity of underived event nouns also shows in their event structure and Aktionsart properties. The authors show that these nouns are very similar to deverbal event nouns as far as lexical aspect is concerned, and conclude that lexical aspect is a matter of semantic rather than of grammatical categories. Specifically, lexical aspect is not primarily a property of verbs. A lexical item may have aspectual features as long as it denotes eventualities, and some features of event delimitation depend upon the nominal description of events.

Also focussing on aspectual delimitation, Basciano and Melloni discuss the status of the reduplicant in verbal reduplication in Mandarin Chinese. Mandarin makes productive use of verb reduplication to express so-called "delimitative" or "tentative" aspect (Chao 1968), which conveys the meaning of doing something "a little bit/for a while" (Li & Thompson 1981, 29). Regarding morphology, Basciano and Melloni provide evidence that the reduplicated verb is not a structural unit, and that verb reduplication should be considered a syntactic phenomenon. They propose an analysis by which the reduplicant structurally originates as the complement of the verbal head, and interpretively acts as a bounded temporal path that delimits the unbounded event expressed by the base verb. In a sense, the reduplicant behaves as an 'atypical object' (see Creissels, this volume), and more specifically a measure phrase with nominal features. The analysis rests upon the high degree of categorial ambiguity displayed by Chinese lexical items and is also grounded on historical cues, which seem to suggest that in previous stages of the language the reduplicant had noun-like features. Casting their analysis in a decompositional framework at the interface with semantics (Ramchand 2008),

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Basciano and Melloni thus analyse the reduplicant as the path of a process verb, which occupies a dedicated syntactic position in the complex structure of vP, i.e. it is the complement of the Process head.

Finally, in her contribution, Hana Filip tackles the question of the tension between a uniform semantic analysis of perfectivity and the great variation among languages in how they semantically delimit their perfective forms. The aim of Filip's proposal is to provide a unified analysis of the perfective operator that integrates the various concepts evoked in the literature, such as 'culmination', defined through a well-defined event terminus and an outcome of a new state, or 'quantisation' (Krifka 1989) and 'punctuality', and similar notions based on indivisibility of events in the denotation of perfective verbs/constructions. While these notions have proved valuable in describing typologically unrelated languages, they are viewed as being in some way inconsistent (e.g. the extended temporal dimension entailed by the notion of culmination contrasts with the intuition of a punctual event), and they are claimed to be irreducible to a single semantic feature or property that can encompass all cases. Building on her previous work (Filip 2008; Filip & Rothstein 2006), Filip then proposes to encode perfectivity in a maximizing operator, which can be viewed as the supremum of a set in the domain of eventualities, which is structured as a join semi-lattice ordered by a part-of relation (Link 1983) and a stage-of relation (Landman 2008). Maximalisation leads to bounded events, but it does not specify the nature of their boundaries. The observed cross-linguistic variation is then to be explained in terms of a system of constraints that languages have in their grammars for the purpose of the individuation of events. An advantage of this approach to perfectivity, which fits in the general discussion of event delimitation, is that perfective delimitation is viewed as the manifestation of a basic cognitive ability, that is, the ability to individuate entities as discrete units by applying some criterion of measurement, which may be ultimately decided on the basis of grammatical devices and lexical information.

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