1. Introduction

In this paper we examine the semantic and syntactic properties of event nominal-infinitives in Spanish, as illustrated in (1):

(1) Le molestaba [aquel (continuo) masticar chicle de los niños].
    it bothered him that continual chew(inf) gum of the kids

Traditionally, this construction of Spanish grammar has been studied in relation to the infinitives appearing in the paradigm in (2) ((2a) being similar to (1)):

(2) a. Le disgustaba [el lamentar (tedioso) de sus hijos].
    it displeased him the complain-inf (boring) of his children
b. [El lamentarse (tanto) el marido] implica que está dispuesto a comprar.
    the complain(inf) so much the husband implies that he is willing to buy
c. [Esos lamentos] son poco agradables.
    those complaints are not-really pleasant

Regarding the examples in (2), analyses of Romance nominalizations headed by infinitives (Salvi 1983 for Italian; Plan 1982, Bosque 1989 and Yoon and Bonet-Farran 1991 for Spanish, among others) have concentrated on the categorial nature of the three syntactic classes of nominal infinitives above. Thus (2a) has been considered a VP-infinitive, as opposed to (2b), an S-infinitive, and to (2c), a truly
N-infinitive. Accordingly, underlying configurations have been suggested in which nominal and verbal domains co-occur, though great variety is observed in both analyses and representations. The morphological as opposed to the syntactic origin of such configurations has been another point of debate (de Miguel 1996, in the line of Piccallo 1991 for Catalan). Only recently have there been attempts to relate the syntax of nominal infinitives to their lexical-syntactic interpretation (Zucchi 1993) or to their thematic constraints (Hazout 1994). Moreover, it is also only recently that we have the technical and conceptual means to construct a viable theory of the syntax-semantics of this class of ambiguous elements.

The lexical semantics of the construction—and the role it plays in the interface between the lexicon and the syntax-morphology—is the axis of our discussion in this work, where constructions similar to that in (1) will be analyzed in comparison with other structures projecting events, namely action nominals (see (3a) below). Thus, the theoretical assumptions underlying our analysis will also be substantially different from those used in the approaches mentioned before, which have concentrated on syntactic and morphological differences among the infinitival constructions illustrated in (2).

Structures projecting events, in general, can be grouped in different ways depending on the analysis of the internal temporal structure of the situation described by the predicate. In fact, events can be complete or incomplete, habitual or iterative or limited and punctual, among other possibilities. In this, a crucial difference can be observed between event infinitives and action nominals. In (1) and (2a), for example, the event is viewed in its developing, while the action nominal in (3a) below describes an event which is temporally delimited. Evidence for this interpretation is that with action nominals, it is possible to add a temporal adverb fixing the time (ayer in (3a)); furthermore, an adjective, if present, must be interpreted as descriptive attributive (tediosa in (3a)), and not as manner predicative, as it is the case in the event infinitive construction in (2a). The comparison between constructions like (1) (also (2a)) and (3a) will be the core of our discussion in this paper (section 2). As a matter of punctual clarification, recall that these two constructions are to be distinguished from the nominal structure in (3b), whose status is tenent of Chomsky's equivalent to that of the noun-infinitive in (2c) in the sense that they both represent the result of the event.

(3) a. Le disgustaba [la lamentación (*tediosa) de sus hijos ayer].
   it displeased him the complaining (boring) of his children yesterday
b. Le disgustaban [los lamentos de sus hijos].
   it displeased him the complaints of his children

As for the theoretical assumptions underlying the syntactic analysis of constructions with event infinitives, the account developed in section 3 follows the basic tenets of Chomsky's (1995) Minimalist Program. Such an account is based on the hypothesis that these infinitives project NPs with a strong interpretable event feature, as part of the morphological specification of the infinitive head. This (inherent) feature needs to be checked off, and as such it requires the projection of functional categories with a matching event feature, through the operation Merge, over the lexical domain of the NP infinitive. The analysis thus outlined allows us to offer a new perspective on the old issue of supposedly "neutral" categories, which was used to account for why these constructions appear to exhibit both the verbal and nominal properties. The structure in (4) is a schematic representation of the analysis which is developed in section 3 (see also section 4 for consequences of the analysis).

(4) [dp [cp] [fp [f [ +e> ] [n [ [los niños] [masticar-[<e> chicle]]]]]]]

Crucially, structures like (4) contain, in addition to the event (<>e>) of the infinitive head and F, an event argument, whose existence accounts for the syntax-semantics relation. In line with a long tradition starting with Davidson (1967), we argue that events can be both singular terms referring to entities and variables to be quantified over in sentences. We propose that the readings associated to event-infinitives (namely, a concrete-existential or a habitual-manner reading, carefully analyzed in section 2) are due to the linking of an event argument (in <>e>); this argument can be bound either by a existential quantifier appearing in Tense or by a generic quantifier higher than the existential one. Moreover, the fact that these infinitives can incorporate the bare N internal argument explains why they are always interpreted as process events as opposed to the temporally delimited eventive reading characteristic of action nominals. The main advantage of our approach is that the analysis goes from lexical semantics (with the event feature as part of the lexical content of these heads and an event argument as part of the lexical inventory) to morphology and syntax (where the <>e> feature enters checking operations), thus in line with current proposals which focus on interface relations for grammatical analysis.

2. Meaning constraints on event infinitives

2.1. On certain semantic properties

2.1.1. Event infinitives versus action nominals

One of the reasons why existing proposals about eventive infinitives may appear both imprecise and difficult to evaluate is that the data are not always clearly presented and contextualized. In fact, infinitives such as those in (5a), (5b) and (5c) below can be considered either factive-sentential or eventive NPs if we simply take into consideration the fact that the agent may project either in the nominative or the genitive Case.

(5) a. [Aquel tutearse (de) Juan y Pedro] sorprendió a todos.
   that address(mf)-each-other-as-tú of Juan and Pedro surprised everyone
b. [Con tanto gritar (de) los chiquillos] era imposible entenderse.
   with so much shout(mf) (of) kids it was impossible to understand each other
c. [El dilatar comparecencias (de) el gobierno] puede acarrear consecuencias molestas.  
the delay(inf) appearances (of) the government may bring annoying consequences

In front of them, (6a) and (6b) must be taken to be “result” nominals (see Grimshaw 1990) if we assume as diagnostic properties either the fact that the infinitive is in the plural —(6a)— or the fact that it is lexicalized and is used as a noun describing an object which (however abstract) can be measured —(6b). However, (6c) is again ambiguous between a “result” reading (the song that Juana has composed or sung) and an eventive reading (the way Juana sings):

In trying to clarify the nature of the data, we will apply the traditional label of “event infinitive” to the constructions in which the infinitive is preceded by any of the determiners (an article, a demonstrative or a possessive) and may be followed by a bare complement N with a partitive (Laca 1990) or indefinite generic (Longobardi 1994) interpretation; the Agent, Experiencer or Theme, which would be the subject in the corresponding finite sentence, appears in the genitive Case. This is illustrated by the structure under (7), which partly reproduces (1) and (4), for convenience:

Le molestaba [aquell continuo masticar (*el) chicle de los niños].
it bothered him that continual chewing(inf) gum of the kids

An intuitive way of approaching the semantics of this construction is to say that it describes events which are unbounded activities while non-infinitive nominalizations (sometimes called action or ‘event/process nominals’ (cf. Picallo 1991) report events which are bounded activities. In other words, event infinitives express either concrete or habitual non-limited activities (this is the reason why the habitual suffix -ear appears often with these constituents). They contrast in this sense with regular ac-

(6) a. [Los andares de esa modelo] resultan muy chocantes.
the way of walking of that model is very shocking
b. [El poder de la clase dominante] es inmeasurable.
the power of the dominant class is immeasurable
c. [El cantar de Juana]...
the song/sing(inf) of Juana

In fact, an argument]-adjunct in Grimshaw’s (1990) approach.

There are, then, two readings for the nominals describing events. In the case of event infinitives, the event is “a sequence of identical (sub)-eventualities” (a “process”, in Pustejovsky’s 1989 terminology). When the event repeats itself the habitual meaning is obtained; when the event is unique, and it has occurred at a given time or place, the reading is existential —we will come back to this double interpretation. In the second main reading —that of action nominal— an event is described in which the causation is distinct from the activity it initiates, or from the final state reached through the activation of the initial state (a “transition” in Pustejovsky’s terms). It is reasonable to think that each reading corresponds to a different structure; we will come back to this issue.

The fact that activity predicates (in Vendler’s classification) mainly occur in cases like (8a), while accomplishments and achievements are possible in the group illustrated in (8b), is then merely a consequence of the fact that one group expresses a sequence of homogeneous (sub)-eventualities and the other denotes a branching, maybe hierarchical, relation between different states of the same eventuality. In fact, in the event described by infinitives the Agent is always implicit (Spitzer 1950: 19) and it acts in all the subevents or, in the habitual reading, in each repetition of the event. In deverbal nominalizations the Agent, if present, is only an adjunct7 and the object (in the genitive Case) is a manifestation of an independent-resultant state. Compare the two cases in (9):

(9) a. El besar (*los) santos de mi abuela me llamaba la atención.
the kiss(inf) saints of my grandmother struck me
b. El beso de la virgen (por los peregrinos) es un ritual imprescindible.
the kiss of the saints (for the pilgrims) is an indispensable ritual

Since the event infinitive correlates with a process and not a transition, typical transition verbs (verbs of “constructive accomplishments”—(10a)—or verbs of

(5) The activities mentioned by the infinitives can be diverse: oral activities: chollar, gritar, hablar, susurrar, pufear, porfar, replicar, trinar, etc; corporal activities: nadar, saltarse, escalar, saltar, saltar, ir, hacerse, etc; motor activities: correr, correr, andar, pasar, saltar, ir, etc; quiet activities: dormir, besar, sonar, respirar, ver, etc.
(6) In fact, an argument]–adjunct in Grimshaw’s (1990) approach.
"transmission" —(10b)— are totally impossible in the construction we are considering. As can be expected by now, achievement verbs (which only describe a resultant state, without agency) are also precluded (10c):

(10) a. *Observé el pintar un cuadro de Pedro.
    (I) observed the paint(inf) a painting of Pedro
    b. *Me disgusta el dar de María.
        I dislike the give(inf) of María
    c. *Nos maravilló el reconocer del enfermo.
        it impressed us the recognize(inf) of the patient

In a very tentative way, and ignoring technical details which, although important, are not relevant to the development of the main points of this paper, we can formulate a conjecture as to one of the crucial differences between the two subclasses of nominals. We could think that, in the case in which the event contains an independent state, this state projects as a DP in an A-position, theta-governed by the DO position, a “bare” N, is not a referential element (it simply refers to a type or subtype) and this could be the reason why it does not project a syntactic category and it is only part of the head of XP (we will come back in 3. to the nature and internal structure of this XP):

(11) a. Event infinitives
    +------------------+
    | XP           |
    +------------------+
    ^                   
    |     masticar chicle     |
    |                    |
    +------------------+

b. Action nominals
    +------------------+
    | XP           |
    +------------------+
    ^                   
    |     masticado |
    |                    |
    +------------------+
    ^                   
    |     (de) los chicles     |
    |                    |
    +------------------+

This tentative claim implies, as is usually assumed, that lexical semantics plays a role in the syntactic behavior of lexical heads. It implies also that lexical semantics is not only a function of the verbal predicate but of the “interaction of the semantics of the verb with semantic information from the complement itself” (Pustejovsky 1995: 12). In fact, following Pustejovsky (1995: 63-64), we may distinguish among true arguments (syntactically realized parameters of a lexical item), default arguments (parameters which are not necessarily realized syntactically) and shadow arguments (parameters which are semantically incorporated into the lexical item and which are expressed only when they are in a “subtyping” relation to the shadow argument). It appears that event infinitives by themselves make only reference to the initial event (differing from action nominals which project a complex event structure). As a consequence of this event structure, when they convey events which alternatively may have a resulting state, they always carry the argument projecting this state as a shadow argument. Namely, they incorporate expressions referring to “types” (like masticar chicle) or subsets of material (oír santos). This would be the reason why only bare N’s appear in the complement context of event infinitives; this would explain also why these infinitives usually (but not always) are ‘intransitive’ predicates.

2.1.2. Lexical-semantic contexts of occurrence

Event infinitives appear only in s-selected positions: direct objects of transitive verbs —(12a)—, subjects of unaccusative (including psychological) verbs —(12b)—, or complements to adjectival predicates of certain well determined classes —(12c):

(12) a. [Escuché / olí] el rezongar de tu madre.
    (I)-heard the grumble(inf) of your mother
b. El trinar de los pájaros al amanecer {me conmovía cada vez más / se prolongaba hasta las siete}.
    the warble(inf) of the birds at dawn touched me more and more / went on until seven
c. Hubiera sido imaginable un lento derivar del catalanismo hacia la oposición. (El País, 29-xii-94: 11)
    it would have been imaginable a slow drift(inf) of catalanism towards the opposition

These infinitives are, thus, complements to matrix verbs belonging to the class of “narrow containers” (in Vendler’s 1967 terms).7

More precisely, the infinitive NP is either a complement of a verb of perception, giving rise to a perceptual report (Zwarts 1992, and the references therein) —see ‘hear’, escuchar / oír ‘hear’, observar ‘observe’, imitar ‘imitate’, sentir ‘feel’, etc.— or of a predicate of duration —prolongarse ‘to last’, ser lento ‘to be slow’, frecuente ‘frequent’, rápido ‘quick’, gradual ‘gradual’, prolongado ‘lasting’, continuo ‘continuous’, constante ‘constant’— (see, respectively, (12a) and (12b) above). As illustrated by the examples in (13), some factive verbs, namely, the subclass which is “emotive” or “evaluative”8 (divertir ‘amuse’, sorprender ‘surprise’, gustar ‘please / like’, ser agradable ‘be pleasant’, ser horrible ‘be horrible’), can also s-select the infinitive (see (12b) and (12c) above, as well as (13)):

(13) a. Se divirtieron con el regocijar del comprador.
    (they) were amused by the bargain(inf) of the buyer

(7) According to Vendler “narrow containers matrix predicates” select events, actions and processes, while “loose containers” select facts as well as events (1967: 5). In other words, nominals hosted by narrow containers can only be interpreted as events or processes (they are “perfect nominals”), loose containers allow a variety of readings for the nominals, which are then “imperfect nominals”. In this sense, containers “discriminate quite sharply among nominals, and, in fact, may be more informative than the grammatical shape of the nominal itself” (1967: 132). This view on the licensing of nominals is the one which informs our approach. Regarding examples of each class of “containers”, narrow ones are illustrated immediately in the main text, loose ones are possible, useful, necessary, likely, probably, certain, true, etc. (1967: 134) as well as predicates like mantener, decir, etc. remember.

(8) Kitajski & Kiparsky say that “[a]cross the distinction of factivity there cuts orthogonally another semantic distinction, which we term emotivity. Emotive complements are those to which the subject expresses emotional or evaluative reaction. The class of predicates taking emotive complements includes the verbs of emotion of classical grammar... but is larger... and include in general all predicates which express the subjective value of a proposition rather than knowledge about it or its truth” (Kitajski & Kiparsky 1971: 363).
It is important to notice that these event infinitives are, so to say, specialized in
the event reading, they cannot refer to “tensed events”, namely to facts or propositions
as shown by the fact that they cannot be ‘mentioned’ or ‘denied’ (see (14a)) and do not accept paraphrases with fact, as the one in (14c), which should be
contrasted with (14d):

(14) a. *(Mencionó / negó) el subir de los precios.  
(he/she) {mentioned/denied} the rise of the prices  

b. Le sorprendió el subir de los precios.  
(it) surprises him/her the rise of prices  

c. *El subir de los precios es un hecho importante del último semestre.  
the rise of prices is an important fact of last semester  

d. El subir de los precios es un acontecimiento importante del último semestre.  
the rise of prices is an important event of last semester  

In contrast with them, action nominals have both event and fact readings de-
pending on the meaning of the predicate selecting them:

(15) a. *(Mencionó / negó) la subida de los precios.  
(factive reading)  
(he) {mentioned/denied} price rising  

b. Le sorprendió la subida de los precios.  
(event reading)  
(it) surprised him price rising  

c. La subida de los precios es un hecho importante del último semestre.  
price rising is an important fact of last semester  

d. La subida de los precios es un acontecimiento importante del último semestre.  
price rising is an important event of last semester  

Coming back to the exact semantic nature of event infinitives, other studies of
this construction (Falk 1969) have mentioned the “manner” reading characteristic of
this construction. We would like to note that this manner interpretation —according
to which el andar de María is interpreted as la manera de andar de María ‘the way Mary
walks’— is only found when the matrix predicate is an emotional factive one (Varela
1977), in Kiparsky & Kiparsky’s extended sense of (emotional) factivity.10 Observe
the contrast between the sentences in (16): in (16a) the infinitive is concrete —it
refers to an eventuality while occurring—, whereas in (16b) the same circumstance is
interpreted as the way the event usually develops:

(16) a. *{Escuché / escucho / oigo} (cada mañana) {el susurrar de los
bosques / el perorar de mi vecina / el bostezar de mi hija / el
regatear del marido / un / el teclear de dedos}.  
(I-heard/hear/heard every morning) the rustle of the forests / the
spout of my neighbour / the yawn of my daughter / the
bargain of the husband / the/a tap of fingers  

b. {Me molestó / molestaba / molesta} {el susurrar de los bosques
/el perorar de mi vecina / el bostezar de mi hija / el (desconfiado)
regatear del marido / (un) / el teclear de dedos}.  
it bothered / bothers me the rustle of the forests / the
spout of my neighbour / the yawn of my daughter / the
distrustful bargain of the husband / the/a tap of fingers  

We have, in summary, a double paradigm for eventive infinitives: perceptual
report predicates associated to an existential reading of the infinitival-NP, and matrix
factive psych-verbs that trigger the manner reading of the infinitive. It is in the context
of the manner reading where we most commonly find aspectual adjectives leading to
the habitual reading of the action —e.g. constante, frecuente, continuo, incesante, prolongado
or inexistente—. Now, when the habit al reading is superimposed over the manner one,
concomitantly tense/aspectual restrictions appear on the matrix verb:

(17) a. *{Preocupa /*preocupó) {el constante susurrar de los
bosques / el frecuente perorar de mi vecina / el incesante bostezar de mi hija / el
teclear de dedos}.  
it worries / worries me the constant rustle of the forests / the
frequent spout of my neighbour / the incessant yawn of my daughter / the
tap of fingers  

Parallel to the temporal restriction, the manner / habitual infinitive governed by
an emotive predicate cannot be introduced by an indefinite determiner, see (18a)
which contrasts with the perceptual report under (18b):

(18) a. *Un mirar de la mujer/mujeres es agradable.  
a glance of the woman/women is pleasant  

b. El/ un lejano aullar de lobos le ]lett,aba entre sueños.  
the/a distant howl of wolves came to him in (his) dreams  

It should be noted that the mere occurrence of aspectual adjectives does not
establish a categoric distinction between “manner” and “existential” readings since
these adjectives are also compatible with perceptual report structures leading to the
existential interpretation of the eventive infinitive:

(19) a. Veo cada mañana el prolongado ascender del sol.  
I see every morning the slow rise of the sun  

b. Se oyen a lo lejos el continuo ladrar de los perros.  
one can hear, in the distance, the continuous bark of the dogs  

(9) Cf. Vendler 1967 and more recently Zucchi 1993 for this important distinction.  
(10) See footnote 8 above. In this view factivity implies evaluation of both with condition and the subjective
reaction (in front) of an event. Individual level predicates such as ser lento, monotono, dulce ‘to be slow, monotonous,
sweet’ (El sonar de los campanas era triste ‘the ring of the bells was sad’, El zumbir de las abejas es monotono ‘The
buzz of bees is monotonous’, similar to our (13b)) are then emotional factive predicates. We owe the
eamples above to one of our referees.

(11) We owe the examples and the previous observation to one of our referees.
Now, it is important to note that, in examples like the preceding ones, the aspectual adjectives determine an iterative reading of the nominal, not a habitual one. More specifically, the nominals in (19) refer to a set of occurrences of an act, activity or event over the same single occasion or situation. They contrast in this sense with the cases in (16b) and (17) where the adjectives, together with the nominals, describe an event occurring in a certain manner on different occasions. In other words, although both, iterative activities and habits, involve repetitions, iterative events refer only to one occasion while habits make reference to multiple occasions as well as to multiple events.

2.2. Existential and habitual binding

To account for this intriguing set of properties we will assert that in the sentences with a concrete or existential infinitive —(16a) or (18b), for instance—there is an existential quantifier that binds the event variable in the infinitival DP. Let us assume, following Kratzer (1989), that only stage-level predicates, but not individual-level predicates, have an event argument and that the event argument of the verb corresponds to a variable over events in a semantic representation where the VP/DP is the predicate applying to this variable.12 We will also assume that the semantics of T(ense) includes two components: a temporal predicate that locates the referential event expressed by the VP/DP is the predicate applying to this variable.12 We will also assume that the semantics of T(ense) includes two components: a temporal predicate that locates the referential event expressed by the infinitival DP. In this frame, the referential event expressed by the existential infinitive will be the result of the existential quantification over the event variable in the infinitive, as represented in (20):

\[
(20) \quad \lambda_{\epsilon} [\lambda_{T} [\lambda_{\text{VP/DP}} \cdots \text{Ve} \cdots]]
\]

It is important to observe that verbs selecting this subclass of eventive infinitives (verbs of perception and certain duration verbs) are themselves individual-level predicates.13 Due to their intrinsic nature, they do not have an e-argument. It is for this reason that the operator variable relation is established with the referential e-argument in the infinitive, also under the scope of the quantifier in T in the main clause.14, 15 This analysis extends to non-infinitive eventive nominalization like those in (15b) and (15d) (recall also: La decadencia del imperio romano comenzó en el siglo I A.C. 'Roman Empire's decay started in the first century B.C., Me deleitó con la actuación de Berganza 'I was delighted by Berganza's performance'). We also claim that action nominals with a factive reading, like (15a), (15c) and similar ones, do not project an event argument.

In the other subclass of manner infinitives ((16b) or (17), for instance) a habitual operator (sometimes explicit: frecuente, incesante, etc.)16 binds the event in the infinitive. From the presence of this habitual operator, the manner reading could perhaps be derived. As a matter of fact, the manner of an action can be traced back to its being habitual if we assume, in line with Zwart's, that habituality "is a shift from a set of events or processes to a generic state" (1992: 136). Comrie (1976: 27-28) also claims that a "feature that is common to all habituals... is that they describe a situation that is characteristic of an extended period of time". The manner reading, then, would not be an implication but an implication of the "habitual" interpretation.

It is difficult to derive from our analysis the impossibility of an indefinite determiner such as un 'a' (recall (16)) with this type of infinitive, given that infinites can be also bound by the habitual operator (Un perro siempre acompaña 'A dog is always company'). However, an important parallelism can be observed. In fact, verbs inducing the existential reading of the infinitives (mirar, observar, escuchar, oir, ser lento / frecuente) are verbs which create referentially opaque contexts. In the context of these verbs, NP's introduced by the indefinite are usually ambiguous as to their specificity —(¿Qué hace?, —Oigo una canción —What are you doing?, —I'm listening to a song' [this 'song' can be any song or a certain song]). On the contrary, psych-emotive verbs inducing the habitual reading of event infinitives (me perturba, encanta, molesta) are predicates which force the specific reading of a noun. For this reason, they do not usually allow indefinite NP's —(¿Qué te pasa?, —Me molesta una canción vs. Me molesta esta canción —What's wrong?, —A song bothers me vs. This song bothers me). It could be the case that the same fact that disallows indefinites with current nouns will also play a role in precluding their use with event infinitives. The absence of indefinites would then be a matter of specificity not of habituality.

Still in need of clarification is the status of the habitual operator with regard to the existential infinitive in T. As we have noted, verbs selecting this class of infinitives are terms denoting psychological states of emotion (anger, pleasure, distress). Diesing has observed that such predicates "seem to be stage-level in that they describe transitory states" (1992: 42).17 Now, if we adopt this view of psychological
state predicates we will have to say that the existential quantifier in T binds the event variable in the psychological verb. In this context, existential closure will not apply to the governed infinitive as is the case when the matrix verb is an individual level predicate (namely, when the predicate is one of perception). Furthermore, if we assume, à la Diesing, that the generic quantifier is higher than the existential one, we will need to claim that, at LF, the infinitive moves covertly in order to be locally bound by the habitual operator, perhaps by adjoining to it. Alternatively, we could think that this habitual operator is a VP or an S operator which is part of the projection of the emotive psych-verbs which govern manner infinitives.

Summarizing, in this section we have shown that the class of event infinitives contrasts sharply with that of deverbal nominals from the semantic point of view. In action nominals, a complete process is denoted and the linking of the result of a "transition" is the main feature of the construction; eventive infinitives denote "processes" in the course of their development. Moreover, while eventive infinitives are selected only by predicates which evaluate subjective reaction or report perception and duration, action nominals can also be selected by predicates which evaluate truth condition. After this characterization, we have set apart the contexts in which event infinitives appear, and we have found two subtypes of them: those which express an existential or concrete event and those which refer to a habitual activity. We derive this distinction from the relation between the semantic class of the matrix verb and the way the quantificational binding of the event argument, present in the stage-level infinitive predicate, takes place.

3. A functional event-head and the syntax of nominal infinitives

3.1. The feature content of event infinitives and its syntactic implications

The aim of this section is to put forward a proposal concerning the syntax of event infinitives within the framework of the Minimalist Program. Our basic intuition is that certain aspects of the syntax of this construction can be traced back to the lexical semantics of the infinitival element. As expected, independently needed syntactic principles crucially contribute to the final form of event infinitive structures.

Our hypothesis is that constructions with event infinitives are basically projections of a nominal infinitival head, i.e. NP's formed by Merge (following Chomsky 1995). A bare noun may incorporate into the infinitive head in the case of event infinitives derived from transitive verbs, thus forming a complex predicate (see (11a)). Following the restrictive theory of syntactic projection from the lexicon proposed by Baker 1988 and Chomsky 1993, 1994/1995, among others, we will assume, first, that the bare noun in the internal or complement domain of the lexical infinitive —biché 'chewing gum' in (1) and (4)— is structurally licensed through incorporation to the sister head, thus building a complex phrase. This incorporation which takes place in the overt syntax is a process similar to the one forming deverbal synthetic compounds where "a word in first sister position" (Roepers & Siegel 1978: First sister principle) is incorporated into the verb (cf. also Masullo 1996). This incorporation, which obviously takes place only when the infinitive is lexically a transitive verb, is the way for "event-processes" projecting into the syntax (see 4.2. below for further clarification).

The feature content of nominal infinitives is unlike that of other nouns in that one of the features associated with the inflectional morphology is an event feature which is strong and interpretable. Being strong, this feature will have to be checked off before spell out. The existence of this [e] feature, which must obligatorily enter a checking operation as part of the morphological specification of the nominal infinitive, requires minimally the projection within the functional domain over the NP of a functional head with an equivalent [e] feature against which that of the nominal can be checked. For the purposes of exposition, we will call this functional head F1, since it is not necessary at this moment to be precise about the exact content of this head (but see 3.1.1). Once F1 has been introduced into the structure (through Merge), this projection will "expand" in two ways: (i) the (complex) lexical N adjoins to this F1 to check off its strong [e] feature which then undergoes deletion; (ii) an ε-argument —the variable to be bound by the existential or habitual quantifier— merges now into the Spec of the phrase headed by the functional head and it is licensed through Spec-head agreement with the functional head.18 Assuming Chomsky's (1995: 281) claim that "features of the target are always -Interpretable" and that features may be deleted (checked but visible at LF) and/or erased (checked but invisible at LF) depending on whether they are +Interpretable (deleted, but not erased) or -Interpretable (deleted, and possibly, i.e. parametrically, erased), it is possible within the Minimalist Program to provide an account for why a feature may enter two checking operations. Our hypothesis is that the [e] feature of F1, though -Interpretable, undergoes deletion, but not erasure, after adjunction of the nominal infinitive head for checking purposes and, thus, is able to check the [e] feature of the ε argument which has been introduced through Merge in the position of Spec of FP1.19 The whole process is represented in (21).

(18) Perhaps, in a merely stipulative way, we are assuming that the numerator contains an ε argument in the same way as it also carries empty categories. To the extent that this argument is equivalent to space-temporal arguments (locative subjects and similar elements), our assumption may be considered tenable.

(19) This idea was suggested to us by Amaya Mendikoetxea.
A remaining question is how genitive Case is assigned to los niños, the subject of the infinitive in (21). One possibility is to think that this DP moves at LF to a designated functional projection where this Case, is checked off. We can postulate also that genitive Case, being an inherent Case, is checked straightforwardly with the selecting head.

There are various questions which need to be answered in order to make this general proposal more tenable. An important first one is which is the status of the infinitive marker or, more strictly, what is the relation of our proposal with previous convincing analyses claiming that the infinitive marker is a syntactic nominal affix through the first two questions.

3.1.1. Until recently, a standard idea (Chomsky 1970) was that certain lexical items appear in the lexicon with a neutral categorial specification. In analyzing nominals and nominalizations, Piccallo 1991 asserts “that some lexical elements may be considered to enter in the lexicon with fixed selectional features, but are neutral with respect to the categorial features [+/-N],[+/-V]. Categorial features will then be assigned by morphological rules. Implementing this hypothesis, in current terms, we propose that the label NP is assigned in the syntax by applying head adjunction in the lower cycle…” (1991: 298). In the spirit of Chomsky 1970 and Piccallo’s 1991 idea that categorial features are assigned morphologically, but with a different implementation, we claim now that in the projection of this type of nominals there is no VP or any other “neutral category” at any moment (the idea of neutral categories does not appear to be compatible with regular minimalist assumptions about categorial information), only a lexical N infinitive with its DP “subject”—sometimes, also with its incorporated complement. This lexical element, as an intrinsic property of the inflectional nature of the infinitive, carries an event-feature and nominal features such as reference and case. These features, as we have said, induce merging of functional heads in the checking domain of this nominal. What underlies our proposal then is the idea that what is in fact “category neutral” is the event feature, since it can occur both as part of the morphological specification of a N or a V. We believe this assumption not to be a mere stipulation but simply an empirical fact; as stated by Davidson: “Events correspond to singular terms... and are [also] quantified over in sentences...; facts correspond to whole sentences” (1967/1980: 135). To be more explicit, the event feature is an intrinsic feature similar, perhaps, to count/-count and it differs from categorial and Case features.

3.1.2. As to the exact nature of FP1, in a recent interesting proposal, De Miguel 1996 claims this functional phrase to be an Aspect Phrase whose head is specified as [-perfective]. It appears to us, though, that Aspect, if it can actually be considered as a functional head, is a candidate to be a head over a verbal lexical domain and not over a nominal one. Since the lexical aspect (the Aktionart) is deeply related to the temporal internal structure of events—which is “measured out” (Tenny 1987, Jackendoff 1996) by the internal argument, and by certain adverbials and other elements which contribute to the composition of telicity—Aspect appears to be a verbal feature. So we prefer to leave this matter open here.

3.2. A further movement

It appears, finally, that the N infinitive adjoined to F1 has to move itself to check other features, e.g. Case features; observe (23). In order to achieve this, it will move to an FP2 intermediate between DP and FP1. If the reason for movement were Case checking, this FP, would be a KP similar to that proposed by Giusti 1992; another possibility would be to consider FP2 as an Agreement Phrase in which certain agreement features of adjectives are checked against those of the N. In any of the two alternatives, the head N adjoins to the (empty) head of the FP2. It is relevant to note, though, that the Spec of this FP may be occupied by an adjectival. This supposition is in line with the usual view on adjectives according to which they generate in the Spec of different functional projections within DP (Cinque 1992, Bosque & Piccallo 1994, among others); we will come back to these issues in section 4.

An empirically obvious reason for this mechanics is that the adjective always precedes the infinitive when occurring with the bare noun, (22a), while the subject always follows the complex predicate, (22b):

(22) a. El continuo prestar discos de María.
   the continual lend(inf) records of María

b. *El continuo de María prestar discos.
   the continual lend(inf) of María records

(23) is a complete representation of the proposed derivation:
In the following section, the proposal will be more precisely articulated and we will explore the predictions made by the preceding analysis.

4. Adjectives, incorporation, negation and accusative clitics in event infinitives. Some consequences of our proposal

4.1. Adjectives and predicatives

4.1.1. Manner adjectives

We have said that modifying adjectives always precede the infinitive. This observation needs to be qualified. First of all, not all kinds of adjectives can precede an infinitive. Furthermore, adjectives do follow the infinitive under certain conditions. We will discuss these two points.

Leaving aside the various kinds of adjectives whose occurrence in this construction is precluded by semantic reasons (namely, qualifying and certain relational adjectives which modify only concrete entities: blue or electric, for instance: the blue / electric oven — *the blue / electric invasion), we would expect to find certain thematic relational adjectives (Bosque & Picallo 1994) like Italian and many adverbial adjectives, which also occur as modifiers of eventive nominalizations. (24) illustrates modification of event nominal by these various subclasses of adjectives: (24a) is a relational adjective linking the external argument of the nominal (Giorgi & Longobardi 1991), (24b) and (24c) — both examples taken from Crisma 1993 — are, respectively a speaker-oriented and a subject-oriented adjective:

(24) a. the Italian invasion
b. la evidente provocazione di Gianni (= it is evident that Gianni is provoking somebody)
the evident provocation of Gianni
c. L'intelligente rinuncia di Gianni (a candidarsi alle elezioni).
the intelligent refusal of Gianni to run for the elections

None of the three kinds of adjectives appear with event infinitives:

(25) a. *Me dejó perpleja el {provocar / reaccionar} italiano.
(bf Me dejó perpleja la {provocación / reacción} italiana).
it astonished me the provoke(inf) / react(inf) Italian
b. *El {evidente / lógico} regatear del cliente no nos sorprendió.
(cf. El evident / logical bargain(inf) of the customer
we were not surprised at the evident / logical bargain(inf) of the customer

c. *Fue muy prolongado el inteligente deslizarse de María hacia el otro grupo. (cf. Fue muy prolongado el inteligente deslizamiento de María hacia el otro grupo).
it was very long lasting the intelligent slip(inf) of M. to the other group

In fact, the generalization that we would like to capture is given under (26):

(26) a. Only manner adjectives co-occur with eventive infinitives.
b. When an adjective follows the infinitive, it is a predicative AP.

(26a) follows from our proposal. Since the morphological features of this NP are not exactly the same as those carried by NP's headed by nouns referring to entities, we do not expect all the Agr(eement) heads usually intervening between DP and NP to merge in this case. Furthermore, if we follow Cincique's 1993 and Crisma's 1993 hypothesis about the paralellism between adverbs and adjectives, and claim that adjectives are generated in the Spec of functional categories in an order such as the one in (27) (from Crisma 1993), we can infer why in (25) there is no place for subject-oriented or speaker-oriented adjectives.

(27) [lP / [lP2 [subject/speaker o.] [lPi [manner] [NP [ext.arg]]]]]

In fact, if current hypotheses about parallelism between DP and IP are correct, the grammaticality of (24) may derive from the fact that deverbal nominals correlate semantically with whole sentences (they are propositional and/or factive, and they have Tense as shown by their acceptance of temporal adverbial adjuncts: Me sorprendió la caída del dólar ayer 'It surprised me the falling of the dollar yesterday' and for this reason they project a set of functional categories different from the ones projected by eventive infinitives, which are neither propositional nor factive (as we expect to have proved): they are only event denoting. In the same line of reasoning,
it is interesting to observe that action nominals which accept both manner and speaker/subject oriented adjectives do not ever accept both kinds at the same time (cf. (28a) an eventive nominalization and (28b) a factive nominal), although a speaker oriented and a subject oriented can cooccur (cf. (28c)):

(28) a. El (*seguro) lento regreso de los exiliados a su tierra comenzará mañana.
the (sure) slow return of the exiles to their native-country will start tomorrow
b. Negó el probable (*continuo) regreso de los exiliados a su tierra.
(he/she) denied the probably (continuous) return of the exiles to their native-country
c. El evidente seguro regreso de los exiliados a su tierra conmovería a las almas sensibles.
the evident sure return of the exiles to their native-country will move sensitive souls

This suggests that FP2 (which can have an AP in the Spec position, see (23)) hosts one of the morphological features distinguishing event nominalizations (either infinitives or derived nominals) from factive nominalizations whatever this difference turns out to be.

Concerning the non occurrence of ethnic and similar adjectives, we can conjecture that the ethnic adjective cannot be linked because the Spec position of the infinitive affix is occupied by the external e-argument.

4.1.2. Predicative APs

Even though the adjectives which are compatible with event infinitives are manner adjectives, these infinitives, unlike sentential ones, do not co-occur with manner adverbs:

(29) a. El golpear María reiteradamente la puerta indica que ha sucedido algo.
the knock(inf) M. repeatedly the door indicates that something has happened
b. *Me llamó la atención el bostezar reiteradamente de María.
it struck me the yawn(inf) repeatedly of María

This indicates first that infinitives do not have the syntactic properties of VP's (they do not have the functional verbal agreement projections to which adverbs are adjoined or merged) and, second, that they are syntactic NP's. However, incorporation of an adjective to the infinitive head can proceed in the same way as incorporation of a noun, namely, they can make a complex N incorporating a predicative A since the adjective following N is a subcategorized predicative A. The first piece of evidence in favor of this idea comes from the fact that the set of adjectives preceding N is larger than the ones that follow it. In (30a) and (30b) the asymmetry between the two sets of adjectives is illustrated; (30c) shows that in certain cases only postponed adjectives are allowed. This is due to the fact that the meaning of the adjective is only compatible with a strong manner interpretation:

(30) a. El (constante) trepidar (constante) de la lluvia me sorprende.
the constant shake(inf) of the rain surprises me
b. El (odioso) rechinar (*odioso) de la máquina duró toda la noche.
the annoying clank(inf) of the machine lasted all night
c. El (*decidido) hablar (decidido) de la profesora nos dejaba perplejos / El (?pausado) formar (pausado) de los veloces trenes...
the determined talk(inf) of the professor astonished us / The slow line-up(inf) of the fast trains

Our second piece of evidence is more intricate. In the literature on Romance languages, a subclass of secondary predicates has been attested which does not fit exactly into any of the standard groups of depictive and resultative predicative AP's. We refer to the elements termed "advectives" by Napoli 1975, as exemplified in (31):

(31) a. Giovanna parla chiaro. / María habla claro.
Giovanna speaks clear / María speaks clear
b. La presidenta habló lento.
the president spoke slow

This set of adjectives, which can also be manner ones, behave as secondary predicates (more exactly, as depictive subject-oriented secondary predicates [DSOSP]): they are stage-level adjectives and semantically they describe the state in which the subject is throughout the development of the verbal action. However, they have to be set apart from DSOSP because they have different formal properties: they do not agree with their subjects. In Spanish, they are invariably singular and they appear in the unmarked gender form. In addition, it is crucial for our proposal to observe that, in contrast with regular depictive SOSP, they are not compatible with direct objects:

(32) a. La soprano cantó el lied apasionada.
the soprano sang the lied fervent
b. La soprano cantó claro. / *La soprano cantó el aria claro.
the soprano sang clear / The soprano sang the aria clear

This contrast strongly suggests that advectives occupy the syntactic place of the DO and, similarly, they are also incorporated into the verb. Similar properties are...
exhibited by the adjectives following the infinitives in the construction considered. (33b) shows that the adjective cannot be interpolated between the verb and the DO and cannot follow them either. (34) has this subcategorized constituent in a right-dislocated position, to which it has been moved:

(33) a. Me disgustó el continuo beber vino de Juan.
   it displeased me the continual drink(inf) wine of Juan
b. Me disgustó *el beber continuo vino / *el beber continuo vino / el beber continuo de Juan.
   it displeased me the drink(inf) wine continual / the drink(inf) wine continual / the drink(inf) continual of J.

(34) Un doble reír, caído y cansado, expresó desde el suelo el femenino
   a double laugh(inf), fallen and tired, expressed from the floor the feminine surrender

4.2. Indefinite genericity and the unclear existence of VP-infinite NP's

As we mentioned earlier, usually only bare (plural or singular) direct object NP's are found in this construction:

(35) a. El reiterado construir carreteras del gobierno llevó al deterioro de
   the stubborn build(inf) roads of the government led to deterioration of certain zones
b. Admiro su continuo tomar / beber leche para prevenir la
   I admire her continual drink(inf) milk to prevent osteoporosis
   osteoporosis (vs *Admiro su constante beber leche...)

As opposed to English, Spanish bare plurals are never generic NP's. However, they share with most English bare objects the property of not being bound by a universal quantifier and having narrow scope.21 In other words, Spanish bare objects refer to a kind but they cannot refer to a stable group of representatives of a given

21 As opposed to English, Spanish bare plurals are never generic NP's. However, they share with most English bare objects the property of not being bound by a universal quantifier and having narrow scope. In other words, Spanish bare objects refer to a kind but they cannot refer to a stable group of representatives of a given

species. In tensed sentences, however, bare objects, even though not referring to particular individuals can receive an existential interpretation. According to Longobardi 1994 this existential interpretation is assigned, by default, by an empty D(eterminer) operator which ranges over kind-referring common nouns. What is the syntactic and semantic status of the bare N's underlined in constructions such as those in (35)?

We have claimed that the internal N arguments in event infinitive constructions are licensed through incorporation to the infinitive head. Now, such an incorporation is possible due to the intransitive semantics of common nouns (a part, indeed, of the semantics of bare plurals). Not being designators of particular individuals, these N's can incorporate precisely because they are not referential DP's. Rather, they are kind-referring N expressions not bound by the operator which would be instantiated by the definite determiner (Longobardi 1994) when the N in question occurs in a governed syntactic environment. As mere denotational expressions, these bare N's modify the event described by the infinitive which thus becomes unbounded.22

We are also claiming, as a consequence, that event infinitive constructions are truly nominal and thus do not appear in the structure within the domain of functional verbal projections. Interesting evidence which confirms this last proposal comes from the behavior of clitics. Accusative clitics are unacceptable with these infinitives, while reflexive or inherent clitics do occur with them:

(36) a. *Tu decirme me sorprende. (vs. El decirlo tú me sorprende.)
   your say(inf) it surprises me
b. Tu continuo desdecéntevete indigna.
   your continual retract(int) yourself makes me mad
c. Ese tutearte continuo e inesperado de ellos dos me parece sospechoso.
   that address(inf) each other as 'tú' continual and unexpected of them two seems suspicious to me

These facts are consistent with our approach. These clitics (like the se clitics in verbal projections, which are generated within the VP (cfr. Raposo & Uriagereka 1996)) may incorporate to the infinitive in the lexicon and are projected in the syntax as part of the NP. Accusative clitics —which are supposed to head a

22 It is interesting to note that event infinitives do not license control structures:

(i) Oíamos el cantar de las sirenas (*para atraer a Ulises).
   we were listening the sing(inf) of the mermaids (to attract Ulises)
   This property opposes them, again, to eventive action nominals where control is possible:
   (ii) La demolición del puente por el gobierno (para ganar votos)
   the demolition of the bridge by the government (to obtain more votes)
   El canto de las sirenas (para atraer a Ulises) era emocionante
   the song of the mermaids (to attract Ulises) was emotional
   El cantar de las sirenas (para atraer a Ulises) era emocionante
   the song of the mermaids (to attract Ulises) was moving

Given that only arguments can be controllers, this contrast suggests a central difference between the two structures concerning the syntactic projection of their respective argument structure. However, we will leave this matter open here.
functional verbal projection, perhaps the AGROP—do not become a part of the infinitive predicate.

Another consequence of this proposal is that it implies that VP-infinitival NP's simply do not exist in Spanish. Following the classical analyses for English gerundive nominals, Zucchi analyzes as VP-infinitival NP's such Italian constructions as those in (37):

(37) a. Gianni apprezza il tuo eseguire la sonata.
   Gianni appreciates the your perform(inf) the sonata
b. ...il suo continuo partire improvvisamente...
   ...the bis continual leave(inf) suddenly
   [apud Zucchi 1993: 255 and 232, respectively]

We believe that similar constructions are not found in Spanish and that in all of the cases where either an adverbial or a definite DO, or both, occur inside an infinitive construction a nominative subject can also be recovered within the same syntactic environment.

In a parallel way, we believe that, in certain cases in which the genitive complement of an apparently ambiguous infinitive appears to be a candidate for interpretation as a DO, we are actually dealing with a lexically derived subject:

(38) el hundir de costillas, el rebanar de miembros, el trinchar de entrañas...
   el distribuir del botín. (Mujica Láinez)
   the oppress(inf) of ribs, the slice off(inf) of limbs, the carve(inf) of entrails...the distribute(mf) of the booty

Positive evidence for this suggestion comes from the fact that only verbs entering into the causative-inchoative alternation appear in structures similar to (38).

In addition, lexical inchoatives (namely, verbs which are lexically ambiguous between the two interpretations) when appearing in this construction accept only the reading in which the genitive is the subject:

(39) el hervir de la leche, el crecer de las plantas, el caer de la lluvia.
   the boil(inf) of the milk, the grow(inf) of the plants, the fall(inf) of the rain

4.3. Negation

Eventive non-finite nominals differ both from action nominals and propositional/factive infinitives in disallowing sentential negation and focus operators like sólo. Compare (40a) to (40b), an action nominal:

(40) a. *Escuchaba el no / solo cantar de María.
   he/she-listened to the not/only sing(inf) of María
b. La no / sola injerencia en asuntos externos es (de)asesorable.
   the no/only interference in business external is (in)advisable

Negation and focus operators are normal in sentential factive infinitives (observe (41)):

(41) Con sólo reír (ellos) los expulsan de clase.
   with just laugh(inf) (they) they are expelled from the classroom

In so far as negation and focus operators project higher than TP in a sentential complex, (40a) and (41) suggest a categorical distinction between both classes of nominal infinitive constructions. What remains to be determined is whether the nonfinite clausal structure in (40b) is an IP or a CP. We will leave this question open in this work.

In sections 3 and 4, we have discussed the syntax of eventive infinitives. We have shown that the structures in which they occur are formed by incorporation of the complement into the infinitive nominal head, and the introduction (through Merge) of a functional event head against which the interpretable strong feature of the infinitive is checked off. It is on this event head where an event argument gets licensed through Spec-head agreement. This syntactic analysis relies crucially on a minimalist approach to the computational system deriving natural language sentences. Our account makes clear, we think, that the problematic question of the supposedly ambiguous categorial status of certain constructions is just apparent. In fact, if we assume that the set of morphological features carried by so called categorial nouns are not identical in all cases, we can dispense with the debate on the head categories intervening in the formation of this construction and we will also explain deep properties of this construction as well as its relation to other similar categories, for instance, event/process nominalizations. Concerning the empirical import of our account, we have provided crucial properties distinguishing eventive infinitives from action nominals. The analysis we have proposed leads to the suggestion that—at least within the parametric choices for Spanish grammar—there is no basis for a formal distinction between a VP-infinitival NP and an N-infinitival NP. Our account implies, finally, that the syntax of infinitives is driven by their semantics, their nominal condition being linked to the fact that they project an event.

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