RESEARCH

Lexical aspect and number variation in French Complex Event Nominals

Marie Laurence Knittel

Université de Lorraine & CNRS, Nancy, FR
marie-laurence.knittel@univ-lorraine.fr

In this work, we examine the factors allowing or disallowing French Complex Event Nominals (CENs, i.e. deverbal nominals displaying argument and aspectual structures, Grimshaw 1990) to occur in the plural when denoting a plurality of events. Our claim is that French CENs can occur in the plural in such cases (Meinschaefer 2005; Roodenburg 2006; Sleeman & Brito 2010), and thus behave as count nouns. However, a restricted subclass does not exhibit number variation, similarly to other non-count nouns.

To account for the distribution of nominal plurality, we rely on lexical aspect. We show that the CENs that do not admit pluralization are strictly atelic: they nominalize strictly stative verbs or push-verbs (Verkuyl 1993). Conversely, CENs derived from any other aspectual verb class can appear in the plural, even when they nominalize atelic VPs, provided these also have a telic use. This leads to a restatement of the role of boundedness previously invoked to account for the relationship between verbal (a)telicity and nominal [±count] distinction (Bach 1976; Mourelatos 1978; Krifka 1989), that linked the [±count] property of the derived event nominal to the actual (a)telicity of the VP.

Since the distribution of plural just described is proper to CENs, which have an internal verbal structure, we suggest that it deserves a syntactic analysis. Our hypothesis is that [−count] CENs derive from verbs that are deprived of AspQP (Borer 1993; 2005). This results in turn in the absence of ClP and NumP in the nominal layers. The absence of ClP accounts for the fact that [−count] CENs do not behave as regular mass nouns.

Keywords: nominalization; pluractionality; mass/count; lexical aspect; telicity; French

1 Introduction

In this work, we examine the possibility for French Complex Event Nominals (henceforth CENs, Grimshaw 1990) to occur in the plural when denoting a plurality of events. CENs are deverbal nominals displaying an internal verbal structure, thus maintaining the argument and aspectual structures of the verb they nominalize.

In French, pluractionality, that is, plurality of events (Lasersohn 1995; Van Geenhoven 2004; Laca 2006), can be marked in two manners for CENs. The first consists in using a frequency adjective, which can be coupled with a non-plural nominal form (1a); the second relies on the use of a plural nominal, as in (1b).

(1)   a.   la   rénovation {fréquente / régulière / annuelle} de l' appartement
              The renovation {frequent / regular   / annual}   of the flat
              par Max
              by   Max
              'the {frequent/regular/annual} renovation of the flat by Max'
    b.   les   rénovation-s de l' appartement par Max
              the.PL renovation-PL of the flat   by   Max
              'the renovations of the flat by Max'

In (1a), nominal pluractionality is conveyed in a similar manner as verbal pluractionality, by the means of a frequency adjective (1a) or adverbial (2), whereas it is expressed by regular nominal plural in (1b), contrasting with a singular form (3) in the same manner as other count nouns (4).

(2)   Max renove   {souvent / fréquemment / régulièrement} l' appartement.
        Max renovates {often   / frequently   / regularly}   the flat
        'Max {often/frequently/regularly} renovates the flat.'

(3)   la   rénovation de l' appartement par Max
        the renovation of the flat   by   Max
        'the renovation of the flat by Max'

(4)   le   livre / les   livre-s
        the book   the.PL book-PL
        'the book/books'

We will first show that, contra Grimshaw (1990) for English, French CENs can generally occur in the plural when denoting multiple events (see Meinschaefer 2005; Roodenburg 2006; Sleeman & Brito 2010; Knittel 2011; 2016a for similar observations). However, a restricted subclass of CENs systematically rejects pluralization. In such cases, pluractionality has to be expressed by frequency adjectives (1a).

To account for this split behavior, we will first consider the hypothesis (Bach 1976; Mourelatos 1978; Krifka 1989) that only telic ENs produce [+count] nominalizations, which consequently occur in the plural. As we will show however, the distribution of nominal plural in CENs is only partly constrained by lexical aspect; some atelic CENs indeed admit pluralization, provided their base verb exhibits a telic counterpart. Conversely, CENs derived from stative verbs or push-verbs, that have no telic uses, never occur in the plural.

This article is organized as follows. In Section 2 we describe the syntactic properties of CENs in French, paying particular attention to the possible expression of nominal pluractionality, and we show that CENs that cannot occur in the plural qualify as [–count] nouns. In Section 3, we examine the conditions underlying CEN pluralization. We show that count CENs can result from the nominalization of atelic VPs, whether activities (3.2.1.) or states (3.2.2.), provided these also have a telic counterpart. Conversely, plural cannot occur if the base is strictly atelic, which is the case of pure states and push-verbs (Verkuyl 1993). This leads a restatement of the relationship between verbal (a)telicity and nominal [±count] distinction. In Section 4, we provide a syntactic analysis accounting for the properties of the various classes of CENs under examination, showing that the presence of AspQP (Borer 1993; 2005) in the structure of the base verb results in the merging of ClP and NumP in the nominal layers of the corresponding CEN. We also discuss the peculiarity of French [–count] CENs, that do not behave as regular mass nouns, and hypothesize that they lack ClassP, contrary to other [–count] nouns in French. Our conclusion is provided in Section 5.

2 Pluractionality in Complex Event Nominals
2.1 The syntactic properties of CENs

CENs are deverbal nominals describing events, that are morphologically built by suffixation or conversion from verbal bases. According to Grimshaw (1990), they inherit both their argument structure and aspectual structure from their base verbs, due to the presence of internal verbal layers (Alexiadou 2001; 2011; Harley 2009; Alexiadou et al. 2010a; b; Borer 2013; Roy & Soare 2013 among others). These properties distinguish them from Simple Event Nominals[1] (henceforth SEN), which describe events

---

[1] "Simple Event Nominals" and "Complex Event Nominals" are respectively called "Conceptual Event Nominals" and "Grammatical Event Nominals" by Roy & Soare (2013), and "Result Nominals" are

Table 1: Distinctive properties of CENs.[2]

	CEN	Simple Event Nominals	Result Nominals
Argument Structure	+	–	–
- Obligatory internal argument	+	–	–
- Agentive/Manner modifiers	+	–	–
- by-phrases expressing the external argument	+	–	–
- purpose infinitive clauses	+	–	–
Aspectual structure	+	–	–
- *in/for* temporal PPs	+	–	–
- frequency adjectives	+ [+Nsg]	+ [+Npl]	–

at a conceptual level only and are deprived of internal verbal structure, and from Result Nominals (henceforth RN) which, although formally similar, do not describe events.

As the major syntactic properties distinguishing CENs from other classes of deverbal nominals (see in particular Grimshaw 1990; Alexiadou 2001; 2011; Borer 2013 among others) are presented in Table (1).

As can be seen from Table (1), CENs are derived from transitive verbs. More specifically their bases are verbs with at least a DP complement,[3] that surfaces in French either as an obligatory *de*-PP (5a) or as the corresponding possessive determiner (5b); the external argument is optional and, when realized, appears as a *par*-PP. In the absence of internal argument, deverbal nominals are not CENs; consequently, the expression of the external argument by a *par*-PP is impossible (5c).[4] In such cases, the nominal qualifies either a Simple Event Nominal or as a Result nominal.

(5)   a.   la   réparation [de la   voiture] ([par le   garagiste]) ([pour aller à
            the repair   [of the car]   [by the mechanics] [to   go   to
            Lyon])
            Lyon]
            'the repair [of the car] ([by the mechanics]) ([in order to go to Lyon])'

        b.   sa   réparation ([par le   garagiste])
            its   repair   [by the mechanics]
            'its repair ([by the mechanics])'

        c.   la   réparation *[par le   garagiste]
            the repair   *[by the mechanics]
            'the repair *[by the mechanics]'

---

labelled "Referential Nominals" by Alexiadou (2001) and subsequent works. We maintain Grimshaw's terminology here.

[2] Some of the properties of CENs presented in Table 1 rely on the properties of the base verbs. For example, the presence of agentive modifiers is restricted to nominalizations of verbs with agentive subjects.

[3] As we will see in Section 4, the restrictions on the nature of the complement, and on its presence, arise from the fact that Direct Objects merge under the event projection vP, and also play a crucial role with respect to telicity.

[4] Apart from cases of ellipsis, where the internal argument can be recovered from the context:

(i)   J'ai réparé la voiture moi-même. La réparation par le garagiste aurait coûté trop cher.
       'I repaired the car myself. The repair by the mechanics would have been too expensive.'

The presence of an aspectual structure allows CENs to combine with temporal PPs introduced by *en* ('in') or *pendant* ('for'), similarly to the corresponding verbs.

(6)   a.   la   réparation de la   voiture (par le   garagiste) en deux heures
              the   repair   of the car   (by the mechanics) in two   hours
              'the repair of the car (by the mechanics) in two hours'

    cf. b.   Le mécanicien a   réparé   la   voiture en deux heures.
              the mechanics has repaired the car   in two   hours
              'The mechanics repaired the car in two hours.'

(7)   a.   l'utilisation du   photocopieur (par les élèves) pendant 30 minutes
              the use   of-the copy machine (by the pupils) for   30 minutes
              'the use of the copy machine (by the pupils) for 30 minutes'

        b.   Les élèves ont   utilisé le   photocopieur pendant 30 minutes.
              the pupils have used   the copy machine for   30 minutes
              'The pupils used the copy machine for 30 minutes.'

Finally, according to Grimshaw, CENs reject pluralization, contrary to both SENs and RNs. However, as we have seen in (1), this is not the case in French. Examples (8) show that frequency adjectives can appear with singular and plural CENs in French (Roodenburg 2006; Alexiadou et al. 2010a; b).

(8)   {la/les}   rénovation(s) {fréquente(s) / régulière(s) / annuelle(s)}
        {the.SG/the.PL} renovation(.PL) {frequent(.PL) / regular(.PL) / annual(.PL)}
        de l'appartement par Max
        of the flat   by Max
        'the {frequent/regular/annual} {renovation/renovations} of the flat by Max'

By contrast, the examples in (9) illustrate the behavior of SENs. As can be seen from (a–b), their external argument cannot be expressed by a *par* PPs. Similarly, duration PPs are preferably introduced by *de* instead of *pendant*. The contrast in (c–d) shows that pluractionality is not conveyed by a singular nominal form.

(9)   a.   le   voyage (à Paris) {*par / de} Max
              the trip   (to Paris) {*by / of} Max
              'the trip to Paris {*by/of} Max' (i.e. Max's trip to Paris)

        b.   le   voyage (à Paris) {??pendant / de} deux heures
              the trip   (to Paris) {??for   / of} two hours
              'the trip to Paris {??for/of} two hours' (i.e. the two hours trip to Paris)

        c. ??le voyage fréquent[5]
           (lit.: 'the frequent trip')

    vs: d.   les voyages fréquents
           'the frequent trips'

---

[5] *le voyage fréquent* can be found on Google (25 results), mostly in translations from other languages into French. The very few acceptable examples are systematically generic sentences, cf.:

    (i)   Avec une jeune femme, le voyage fréquent serait possible, sinon facile.
          'With a young woman, the frequent trip would be possible, even easy'.

As for RNs, they do not combine with frequency or duration markers. In (10b), the modifier *en papier* 'paper', which forces a concrete, non-eventive interpretation of *décoration* 'decoration', prevents the presence of temporal and frequency modifiers, which are possible when *décoration* is an eventive nominal (9a). As can be seen from (9b), RNs do appear in the plural.

(10) a. la   décoration de la   maison par Max chaque année
          the   decoration of the house by Max every year
          'the decoration of the house by Max every year'

      b. {une/des}   décoration(s)   en papier (*{fréquente(s) / chaque
          {a/INDEF.PL.ART} decoration(.PL) in paper (*{frequent(.PL) / every
          année / pendant deux heures / en deux heures})
          year / for   two hours / in two   hours})

Finally, the examples in (11–14) show that CENs can derive from VPs belonging to all aspectual classes, and maintain the aspectual properties of the corresponding VPs (see also Alexiadou et al. 2010a; b for similar observations on various languages). Such a phenomenon is expected, due to the Aspect Preservation Hypothesis (Fábregas & Marín 2012), that states that the aspectual properties of a complex nominalization are inherited from the aspectual properties of the verbal base.

(11) a. Alice {possède   / *est en train de posséder} (*lentement) un ordinateur.
          Alice {possesses / *is possessing}   (*slowly)   a   computer
          [State]
          'Alice {possesses/*is possessing} a computer (*slowly).'

      b. La   possession (*lente) d'un ordinateur par Alice (*a eu lieu   ce
          the possession (*slow) of a computer   by Alice (*took place this
          matin.)
          morning)
          'The (*slow) possession of a computer by Alice (*took place this morning.)'

(12) a. Les élèves ont   utilisé le   photocopieur {pendant / *en} 30 mn.
          the pupils have used   the copy machine {for   / *in} 30 mn
          [Activity]
          'The pupils used the copy machine {for/*in} 30 mn.'

      b. l'utilisation du   photocopieur (par les élèves) {pendant / *en}
          the use   of.the copy machine (by   the pupils) {for   / *in}
          30 mn
          30 mn
          'the use of the copy machine (by the pupils) {for/*in} 30 mn'

(13) a. Max a   rénové   l'appartement {en / ≠ pendant} 2 semaines.
          Max has renovated the flat   {in / ≠ for}   2 weeks
          [Accomplishement]
          'Max renovated the flat {in/≠ for} 2 weeks.'

      b. la   rénovation de l'appartement (par Max) {en / ≠ pendant}
          the renovation of the flat   (by Max) {in / ≠ for}
          2 semaines
          2 weeks
          'the renovation of the flat (by Max) {in/≠ for} 2 weeks'

(14)   a.   La   commission   a   validé   le   résultat en   (= au bout de) 10 mn.
              the commission   has   validated the result   in   (= after)   10 mn
              [Achievement]
              'The commission validated the result in (= after) 10 mn.'

        b.   la   validation du   résultat (par la   commission) en (= au bout de)
              the validation of.the result   (by   the commission) in (= after)
              10 mn
              10 mn
              'the validation of the result (by the commission) in (= after) 10 mn'

In (11), the stative aspect of the verb *posséder* 'to own' is shown by its incompatibility with both the French progressive *en train de* and the dynamic adverb *lentement* 'slowly' (Márin & McNally 2011; Fábregas & Marín 2012); moreover, if the eventuality described in sentence (11a) is considered true for a given interval, it is construed as lasting without interruption, even at the smallest subinterval. This property, known as the subinterval property (Dowty 1979) and typical of states, also holds if the eventuality is described by the corresponding CEN (11b): if one owns a computer for a certain period of time, the situation is not perceived as interrupted at any moment. Finally, the CEN headed by *possession* cannot occur as the subject of *take place*, which is also typical of stative ENs.

   To measure the duration of the event, the activity verb *utiliser* 'to use' in (12) admits a temporal PP introduced by *pendant* 'for', but not by *en* 'in', and the corresponding nominal *utilisation* 'use' behaves similarly. The reverse holds for *rénover* 'to renovate' and the corresponding nominal *rénovation* 'renovation', both accomplishments. In such a case, only *en* can be used to measure the duration of the event up to its telos.[6] Finally, with *valider* 'to validate' and *validation* 'validation', the temporal PP *en 10 mn* 'in 10 mn' means 'after 10 mn', as expected for achievements.

2.2 The expression of pluractionality in French CENs

As shown above in examples (1) and (8), pluractionality can be expressed in French CENs by frequency adjectives (1a), plural marking (1b) or a combination of both (8). This confirms the observation (see Meinschaefer 2005; Roodenburg 2006; Sleeman & Brito 2010; Knittel 2011; 2016a) that plural CENs can be found in French, among other languages, and contradicts Grimshaw's (1990) observation that CENs never occur in the plural.

   However, not all French CENs behave alike. As can be seen from (15), some reject pluralization:

(15)   a.   L'   expression (fréquente) de ses sentiments (par le   patient) est
              the expression (frequent)   of his feelings   (by   the patient) is
              recommandée.
              desirable.
              'The frequent expression of his feelings (by the patient) is desirable.'

        b.   *Les   expressions   de leurs sentiments (par les   patients) sont
              The.PL expression.PL of their   feelings   (by   the patients) are
              recommandées.
              desirable

---

[6] As for *pendant*, it measures only a subpart of the event that does not include the telos. This is what we symbolize using ≠.

In such a case, pluractionality can only be conveyed by the means of a frequency adjective combined with a non-plural form. Interestingly, it is precisely the English version of this example that is provided by Grimshaw to illustrate her point:

(16)   Grimshaw (1990: 7)

   a.   The {expression/*expressions} of one's feelings {is/*are} desirable.

   b.   The frequent expression of one's feelings is desirable.

The CEN *expression* contrasts with *renovation* (1,8), as well as e.g. *invasion* 'invasion', *bombardement* 'bombing' and *lavage* 'washing', as shown in (17):

(17)   a.   [L'abbaye]   renforce   le   site   après   les   invasions   de
             [the abbey] strengthens the place after   the.PL invasion.PL of
             l' Angleterre par Robert l°   d'Ecosse   entre   1316 et   1322.[7]
             the England by Robert the First of Scotland between 1316 and 1322.
             '[The abbey] strengthens the place after the invasions of England by Robert
             the First of Scotland between 1316 and 1322.'

       b.   Charles Brasseur subit   les   bombardements de Paris par les
             Charles Brasseur endured   the.PL   bombing.PL   of Paris by   the
             Allemands en mars   1918.[8]
             Germans   in March 1918
             'Charles Brasseur endured the bombings of Paris by the Germans in
             March 1918.'

       c.   Les   lavages   (trop fréquents) de la   chemise ont   terni
             The.PL washing.PL (too frequent) of the shirt   have faded
             sa   couleur.
             its color
             Lit.: 'The too frequent washings of the shirt have faded its color.'
             (i.e. 'The shirt's color faded due to too frequent washings.')

We are thus facing two different patterns. On the one hand, CENs such as *expression* cannot combine with plural marking even when referring to several events. On the other hand, *rénovation* 'renovation', *invasion* 'invasion', *bombardement* 'bombing' can occur both in the singular and in the plural. In the next section, we show that this variation relies on the [±count] properties of CENs.

2.3 The [± count] properties of CENs

The availability of plural marking is a distinctive property of count nouns, which also combine with the indefinite articles $un(e)_{SG}$ and des_{PL}, numerals and *plusieurs* 'several' (18a), contrary to mass nouns. The latter reject plural marking, numerals and *plusieurs* and, in French, are introduced by the partitive article du_{MASC}/$de\ la_{FEM}$ when indefinite (18b).

(18)   a.   un   livre / {des   / trois / plusieurs} livre-s
             INDEF.SG.ART. book / {INDEF.PL.ART / three / several}   book-PL
             'a book/{—/three/several} books'

       b.   *un$_{SG}$ beurre / *{des$_{PL}$ / trois / plusieurs}
             INDEF.SG.ART. butter / *{INDEF.PL.ART / three / several}
             beurre-s / du   beurre
             butter-PL / PART.ART. butter

---

[7] Example from https://fr.wikipedia.org/wiki/Château_de_Piel.
[8] Example from https://archives.cd08.fr/article.php?laref=1076&titre=charles-brasseur-un-givetois-dans-la-grande-guerre.

As shown in (19), CENs that occur in the plural can also be introduced by the indefinites *une/des*, or *plusieurs* ('several').

(19)   a.   Cette époque commence avec {l'   / une / des   / plusieurs}
           this   period begins   with {the / one / INDEF.PL.ART / several}
           invasion(s)   de l'Europe   par les Barbares
           invasion(.PL) of the Europe by   the Barbarians
           d'Outre-Rhin,   au début   du Vème siècle.[9]
           from the other side of the Rhine at the beginning of   5th century
           'The period begins with {the/an/(several)} invasion(s) of Europe by the
           Barbarians from the other side of the Rhine, at the beginning of 5th century.'

       b.   La   bataille principale se poursuivait, avec {des/   un}
           the battle   major   Refl-continued with {INDEF.PL.ART/ a}
           bombardement(s) de la   ville par les forces   régulières.[10]
           bombing(.PL)   of the city   by   the regular forces
           The major battle was continuing, with {a bombing/bombings} of the city
           by the regular forces.'

       c.   {Une / plusieurs} rénovation(s)   de l'appartement (par le   propriétaire)
           {a   / several}   renovation(.PL) of the flat   (by the owner)
           {a/ont}   été   faite(s) l'an dernier.
           {has/have} been made   last year
           '{A renovation/several renovations} of the flat (by the owner) {has/have}
           been made last year.'

       d.   {Un lavage   trop chaud / des   lavage-s   trop fréquents}
           {a   washing too hot   / INDEF.PL.ART. washing-PL too   frequent}
           des   vêtements en   ternissent les   couleurs.
           of   cloths   of.them fade   the colors
           Lit.: {'Too hot a washing/too frequent washings} of clothes make color fade.'
           'Clothe's colors fade due to {too hot a washing/too frequent washings}.'

Consequently, *invasion, bombardement, rénovation* and *lavage* qualify as count CENs (see Knittel 2011; 2016a).

   Conversely, like plural marking, the use of the indefinite *un(e)* is impossible with the CEN *expression*.

(20)   a.   *Une expression de ses   sentiments est recommandée.
           an   expression of one's feelings   is   desirable.
           (lit.: 'an expression of one's feelings is desirable.')

       b.   {L'   / *une/ *les}   expression(*s)   de ces   sentiments par
           {the.SG / *a/   *the.PL} expression(.*PL) of these feelings   by
           Satsuki et   Yui nous font   palpiter le   coeur![11]
           Satsuki and Yui us   make thrill   the heart
           '{The expression(*s)/*an expression} of these feelings by Satsuki and Yui
           make our hearts thrill!'

---

[9] Example   from   www.fleurustourisme.be/images/OCTFleurus/documents.../anima_huma_31_60.pdf. The replacement of the definite singular article present in the original example by indefinite articles or *plusieurs* does not alter the acceptablity of the sentence.

[10] Example   from   https://www.lorientlejour.com/article/syrie-voiture-piegee-a-homs-4-morts-ong.html. The original example contains the indefinite plural article, that can be replaced by *un* without grammaticality alteration.

[11] Example from http://daheji.free.fr/ichigo100.html.

The same restrictions apply to other CENs, such as *possession* 'belonging', *conduite* 'driving', or *protection* 'protection'.

(21) a. Malgré {la/   *une/ *les}   possession(*s)   d'une voiture par
          despite {the-SG/ *a/   *the.PL} possession(.*PL) of a   car   by
          62 personnes, 25 d'entre elles recourent à de l'aide.[12]
          62 persons   25 among them resort   to PART.ART. help
          '{Despite {the possession(*s)/*a possession} of a car by 62 people, 25 of
          them resort to help.'

      b. {La   / *une / *les}   conduite(*s)   de cet engin   (par un/ce
          {the.SG / *a   / *the.PL} driving(.*PL) of this machine (by a/this
          jeune   conducteur) est risquée.
          young   driver)   is   risky
          '{The driving(*s)/*a driving} of this machine (by a/this young driver)
          is risky.'

      c. {La   / *une / *les}   protection(*s)   des   civils   (par
          {the.SG / *a   / *the.PL} protection(.*PL) of.the civilians (by
          l'armée)   est courante en temps de guerre.
          the army) is   frequent in time   of war
          '{The protection(*s)/*a protection} of the civilians by the army is common
          in wartime.'

The unavailability of *un, des, plusieurs* and numerals in (21), similarly to what was observed for the count noun *beurre* 'butter' in (17b) shows that these nominals qualify as [–count].

   To sum up, pluractionality in French CENs can be conveyed in two manners. First, it can be expressed solely by frequency adjectives, since they combine with non-plural nominals (Meinschaefer 2005). This pattern is available for all CENs, as shown by the examples in (22) and (1), compare with (17).

(22) a. l'   invasion fréquente du pays
          the.SG invasion frequent of.the country
          'the frequent invasion of the country'

      b. le   bombardement répété   de la   ville
          the.SG bombing   repeated of the city
          'the repeated bombing of the city'

      c. la   rénovation régulière de l'appartement
          the.SG renovation regular   of the flat
          'the regular renovation of the flat'

      d. le   lavage   trop fréquent de la   chemise
          the.SG washing too frequent of the shirt
          'the too frequent washing of the shirt'

Second, it can be marked by nominal plural, possibly combined with frequency markers. Yet, as shown by the behavior of *protection* 'protection', *possession* 'possession' and *conduite* 'driving', that cannot occur in the plural, this pattern is more restricted.

   It is worth noting here that [–count] CENs do not behave as regular mass nouns. This is shown by the fact that they cannot be introduced by the partitive article, a question that will be addressed in Section 4.2.2.

---

[12] Example from https://www.wanze.be/...et.../rapport-du-questionnaire-isolement-et-solitude.pdf.

(23) a. *de l'PART.ART. expression de ses sentiments   [comp. (15a)]
          'expression of one's feelings'

      b. *de laPART.ART possession d'une voiture (par 62 personnes) [comp. (21a)]
          'possession of a car (by 62 people)'

      c. *de laPART.ART. conduite du camion (par le chauffeur)   [comp. (21b)]
          'driving of the truck (by the driver)'

      d. *de laPART.ART. protection des civils   [comp. (21c)]
          'protection of the civilians'

These data raise the question of the origins of the [±count] character of CENs. This is examined in the following section.

3 Conditions for pluralization
3.1 Boundedness, [± count] and telicity

The origin of [±count] properties of nouns describing events is a longstanding debate, originating in authors such as Bach (1976) or Mourelatos (1978). A general view is to subsume count and aspectual properties under the more general notion of boundedness. In such a view, count nouns (or singular count nouns, if grammatical features are included, as in Jackendoff 1991), are considered as bounded. In the verbal domain, telic events (Bach 1976; Krifka 1989), perfective events (Mourelatos 1978) or both (Jackendoff 1991) are viewed as bounded. Conversely, plural and mass nouns, as well as atelic events and imperfective viewpoint are characterized as unbounded.

Leaving aside perfectivity (but see Knittel 2016a), we could find a logical correlation between [+count] nouns and [+telic] events: a CEN referring to a telic event should appear as a count noun, and consequently be able to occur in the plural, whereas atelic events should be nominalized as [–count] CENs, a point of view also assumed by Alexiadou et al. (2010a; b). As a consequence, if the above contention is correct, we should expect the partitioning in Table 2.

In the next subsection however, we show that this prediction is not completely borne out.

3.2 Count atelic CENs
3.2.1 Activities

As we have just seen, if the reflex of atelicity in the nominal domain is the [–count] feature, we expect activity CENs to be unable to occur in the plural. However, all French activity nominals do not behave in the same manner.

Similarly to *expression* 'expression' (15b) and *conduite* 'driving' (21b), CENs such as *étude* 'study' (24), *fréquentation* 'attendance' (25) and *pratique* 'practice' (26), all derived from activity verbs, reject plural.

Table 2: Expected correlation between [±count] and [±telic].

	[–bounded]	[+bounded]
Events	[–telic]	[+telic]
CENs	[–count]	[+count]
Aspectual classes	- Activities - States	- Accomplishments - Achievements

(24) a. Les scientifiques ont étudié ce phénomène {*en / pendant}
          the scientists   have studied this phenomenon {*in / for}
          10 ans.
          10 years
          'The scientists studied this phenomenon {*in/for} ten years.'

      b. {l'   / *les} étude(*s)   du   phénomène (par les scientifiques)
          {the.SG / the.PL} study(.*PL) of.the phenomenon (by the scientists)
          {*en / pendant} 10 ans
          {*in / for}   10 years
          'the {study/*studies} of this phenomenon (by scientists) {*in/for} 10 years'

(25) a. Les étudiants ont fréquenté ce bar {*en / pendant} 6 mois.
          the students have attended this bar {*in / for}   6 months
          'The students attended this bar {*in/for} six months.'

      b. {la   / *les} fréquentation(*s) de ce bar (par les étudiants)
          {the.SG / the.PL} attendance(.*PL) of this bar (by the students)
          {*en / pendant} 6 mois
          {*in / for}   6 months
          'the attendance(*s) of this bar (by the students) {*in/for} 6 months'

(26) a. Les élèves ont pratiqué la musique {*en / pendant} un an.
          the pupils have practiced the music   {*in / for}   one year
          'The pupils practiced music {*in/for} one year.'

      b. {la   / *les} pratique(*s) de la musique (par les élèves)
          {the.SG / the.PL} practice(.*PL) of the music   (by the pupils)
          {*en / pendant} un an
          {*in / for}   one year
          'the practice(*s) of music by the pupils{*in/for} one year'

Note that for these nominals, the unacceptability of plural marking relies on their CEN status. As shown in (27), *étude(s), fréquentation(s)* and *pratique(s)* do occur in the plural. However, in such cases, they do not behave as CENs. In (27a, b), the internal argument is absent and the external argument is introduced by *de* instead of *par*, which reveals that these nouns are SENs (see Table (1)). As for *fréquentations* (27c), it refers to (a group of) participants, and has no event reading.

(27) a. Les   études   de Max ont duré 5 ans.
          The.PL study.PL of Max have lasted 5 years
          'Max's studies lasted 5 years.'

      b. Les   pratiques de l'expert   sont fiables.
          The.PL practice.PL of the expert are reliable.PL
          'The expert's practices are reliable.'

      c. Les   fréquentations de Max sont douteuses.
          The.PL attendance.PL of Max are questionable.PL
          'Max's acquaintances are questionable.'

Contrary to the above CENs, *démontage* 'disassembling' (28) and *rénovation* 'renovation' (29), also derived from atelic VPs, behave as count nouns and occur in the plural, even though their atelicity is maintained, as shown by the acceptability of *pendant* PPs.

(28) a. Il   a   démonté   des   meubles {*en / pendant} deux
          he   has disassembled INDEF.PL.ART furniture {*in / for}   two
          heures.
          hours
          'He disassembled furniture {*in/for} two hours.'

      b. {le   / les}   démontage(s)   de meubles (pendant deux
          {the.SG / the.PL} disassembling(.PL) of furniture (for   two
          heures) (par Max).
          hours) (by Max)
          'the disassembling(s) of furniture (for two hours) (by Max)'

(29) a. Les ouvriers ont rénové   des appartements {*en / pendant}
          the workers have renovated INDEF.PL.ART flats {*in / for}
          2 ans.
          2 years
          'The workers renovated flats {*in/for} 2 years.'

      b. {la   / les}   rénovation(s)   d'appartements (pendant 2 ans)   (par
          {the.SG / the.PL} renovation(.PL) of flats   (for   2 years) (by
          les ouvriers)
          the workers)
          'the renovation(s) of flats (for two years) (by the workers)'

The major difference between the CENs in (24–26) on the one hand and those in (28–29) on the other hand lies in the fact that the latter derive from verbs exhibiting telicity alternation according to the properties of their objects. The telic counterparts of (28a) and (29a) are provided in (30), where only *en* PPs can measure the duration of the whole event.

(30) a. Il   a   démonté   l'armoire {en / ≠ pendant} deux heures.
          he   has disassembled the closet {in / ≠ for}   two hours
          'He disassembled the closet {in/≠ for} two hours.'

      b. Les ouvriers ont rénové   deux appartements {en / ≠ pendant}
          the workers have renovated two flats   {in / ≠ for}
          6 mois.
          6 months
          'The workers renovated two flats {in/≠ for} 6 months.'

In (30), telicity is triggered by the presence in object position of count nominals introduced by numerals or definite determiners, that is, objects specified for quantity ([+SQO], Verkuyl 1972). If the objects are indefinite plural, i.e. [-SQO], as in (28–29), the structures are atelic. The same holds with mass objects, as shown in (31–32).

(31) a. Le secrétaire a   rédigé deux lettres {en / *pendant} deux heures.
          the secretary has written two letters {in / *for}   two hours
          'The secretary wrote two letters {in/*for} two hours.'

      b. Le secrétaire a   rédigé du   courrier {*en / pendant} deux
          the secretary has written PART.ART mail   {*in / for}   two
          heures.
          hours
          'The secretary wrote mail {*in/for} two hours.'

    c.   la   rédaction de courrier (par le   secrétaire) {*en / pendant} deux
         the writing   of mail   (by the secretary) {*in / for}   two
         heures.
         hours
         'the writing of mail (by the secretary) {*in/for} two hours.'

    d.   Les   redactions de   courrier (par le   secrétaire) (ont
         the.PL writing.PL of.PART.ART mail   (by the secretary) (take
         lieu   chaque matin.)
         place every   morning)
         Lit.: 'The writings of mail (by the secretary) (take place every morning.)'
         (i.e. 'Mail writing sessions (by the secretary) (take place every morning.)'

(32)   a.   Les bûcherons ont   récolté   500 kilos de bois   {en / *pendant}
         the loggers   have harvested 500 kilos of wood {in / *for}
         un   jour.
         one day
         'The loggers harvested 500 kilos of wood {in/*for} one day.'

    b.   Les bûcherons ont   récolté   du   bois {*en / pendant} deux
         the loggers   have harvested PART.ART wood {*in / for}   two
         jours.
         days
         'The loggers harvested wood {*in/for} two days.'

    c.   la récolte   de bois (par les bûcherons) {*in / pendant} deux
         the harvesting of wood by   the loggers   {*in / for}   two
         jours.
         days
         'the harvesting of wood (by the loggers) {*in/for} two days.'

    d.   les   récoltes   de bois   (par les bûcherons) (ont lieu   en
         the.PL harvesting.PL of wood (by the loggers)   (take place in
         hiver.)
         winter)
         Lit.: 'The harvestings of wood (by the loggers) (take place in the winter.)'
         (i.e. 'Wood harvesting sessions (by the loggers) (take place in the winter.)'

In examples (31d), (32d), as in (28b) and (29b), the use of the plural triggers a semantic shift, labelled "instance reading" in Knittel (2010). In these examples, the CENs denote several temporally disjoint instances of the event, in the same manner as the plural with concrete count nouns forces reference to several distinct objects.

   To sum up, we observe here a striking contrast between the CENs in (24–26) on the one hand and those in (28–29) and (31–32) on the other hand, since only the latter occur in the plural. As we have seen, this contrast is linked to the different properties of the base verbs. In the case of *étude* 'study', *fréquentation* 'attendance' and *pratique* 'practice' (24–26), the base verbs describe only activities. Conversely, *démontage* 'disassembling', *rénovation* 'renovation', *rédaction* 'writing' and *récolte* 'harvesting' (28–29, 31–32) derive from verbs for which the +/– value of telicity relies on the properties of their objects. This telicity alternation is not observed with *étudier, fréquenter* and *pratiquer*. In (24–26), *pendant* PPs show that these verbs are atelic in spite of their [+SQ] object. Consequently, they qualify as push-verb (Verkuyl 1993).

It seems, then, that among CENs nominalizing atelic VPs, only those that are derived from verbs that also have a telic use can pluralize. In other words, it is not the actual telicity of the nominalized VP that has to be taken into account, but rather the availability of a telic counterpart. Observe also that the nominalizing affix has no influence on this phenomenon, contrary to what can be observed in other languages (see Alexiadou et al. 2010a; b).

This hypothesis is confirmed by the behavior of CENs such as *visite* 'visit', *vérification* 'checking' and *aération* 'airing'. These inherit from their base VPs the property of being ambiguous for telicity, as shown in the (a) examples of (33–35), where *en* and *pendant* PPs are both possible.

(33) a. Les touristes ont   visité   la   ville {en / pendant} 2 heures.
          The tourists   have visited the city {in / for}   2 hours
          'The tourists visited the city {in/for} 2 hours.'

     b. {la   / les}   visite(s) de la   ville par les touristes {en /
          {the.SG / the.PL} visit(.PL) of the city by   the tourists {in /
          pendant} 2 heures
          for}   2 hours)
          'the visit(s) of the city by the tourists (in/for 2 hours)'

(34) a. L'inspecteur a   vérifié   l'installation {en / pendant} 2 heures.
          the inspector has checked   the setup   {in / for}   2 hours
          'The inspector has checked the setup {in/for} 2 hours.'

     b. {le   / les}   vérification(s) de l'installation {en / pendant}
          {the.SG / the.PL} checking(.PL)   of the setup   {in / for}
          2 heures
          2 hours
          'the checking(s) of the setup {in/for} 2 hours'

(35) a. Les pompiers ont   ventilé la   cave   {en / pendant} 2 heures.
          the firemen   have aired   the basement {in / for}   2 hours'
          'The firemen aired the basement {in/for} 2 hours.'

     b. {la   / les}   ventilation(s) de la   cave   (par les pompiers)
          {the.SG / the.PL} airing(.PL)   of the basement (by   the firemen)
          {en /   pendant} 2 heures
          {in /   for}   2 hours
          'the airing(s) of the basement (by the firemen) {in/for} 2 hours'

The (b) examples of (33–35) show that the CENs derived from these ambiguous verbs occur in the plural, and thus behave as count nouns. This confirms the hypothesis put forward above, that the plural is available when the predicate can be construed as telic.

As a matter of fact, this behavior contradicts the analysis that links the [+count] value to the actual telicity of the VP, as presented in Table 2. What has to be taken into account to explain the [±count] properties of the above CENs is the possibility for the base verb to be telic. This explains why push-verbs do not produce count CENs. Conversely, if the base can have a telic value, as is the case for the verbs whose telicity alternates along with the [±SQ] feature of their objects (28–32), and for verbs ambiguous for telicity (33–35), count CENs are systematically possible. It seems then, that inherently unbounded (i.e. atelic) verbs can only result in inherently unbounded (i.e. mass) nominals.

Now, apart from activities, states constitute a second class of atelic predicates. We should then expect their behavior to provide a confirmation of the above hypothesis. The properties of stative CENs are examined in the following section.

3.2.2 States

As is the case for activities in (24–26), French exhibits CENs derived from stative verbs that reject pluralization. This is the case for *possession* 'possession', exemplified in (21), and for *détention* 'detention' (36), *ignorance* 'ignorance' (37) and *protection* 'protection' (38). As was the case with *posséder*, the unacceptability of dynamic adverbs and of the French progressive *être en train de* with the verbs *détenir* 'to hold', *ignorer* 'to ignore' and *protéger* 'to protect' guarantees their stative character. Stativity also prevents the use of these CENs (or of a corresponding pronoun) as subject of *avoir lieu* ('to take place'), *arriver* and *se produire* ('to happen') (Maienborn 2003). Finally, the situations described display the subinterval property; they are perceived as holding without interruption between their initial and final boundaries.[13]

(36) a. Les gardiens {détiennent / *sont en train de détenir} les clés
          the guards {hold   / *are holding}   the keys
          (*lentement). *Cela a   lieu la nuit.
          (*slowly)   *this takes place at night
          'The guards (*slowly) hold the keys. *This takes place at night.'

      b. {la   / *les}   (*lente(s)) détention(*s) des   clés par les
          {the.SG / *the.PL} slow   detention(.*PL) of.the keys by   the
          gardiens (*a eu lieu hier.)
          guards   (took   place yesterday)
          'The (*slow) detention of the keys by the guards (*took place yesterday.)'

(37) a. Les politiciens {ignorent / *sont en train d'ignorer} ces   problèmes
          the politicians {ignore   / *are   ignoring} these issues
          (*rapidement). *Cela arrive à   la télé.
          (*quickly)   *this happens on   TV
          'Politicians (*quickly) ignore these issues. *This happens on TV.'

      b. {L'   / *les}   ignorance(*s) (*rapide(s)) de ces   problèmes
          {the.SG / *the.PL} ignorance(.*PL) (*quick)   of. these issues
          par les politiciens (*arrive   à la   télé.)
          by the politicians (*happens at the TV)
          'The (*quick) ignorance of these issues by politicians (*happens on TV.)'

---

[13] Contrary to *ignorer, détenir* and *protéger* admit locative PPs:

(i)   *Les politiciens ignorent ces problèmes à l'Assemblée.
       'Politicians ignore these issues in the parliament.'   [ok if *ignorer*: to disregard]

(ii)   Les gardiens détiennent les clés dans un coffre.
       'The guards hold the keys in a safe.'

(iii) Le mot de passe protège les documents dans l'ordinateur.
       'The password protects the documents in the computer.'

This shows that the distinction between D-states and K-states (Maienborn 2005; 2007) is not relevant here.

(38) a. Un mot de passe {protège / *est en train de protéger}   (*lentement)
          a password   {protects / *is   protecting} (*slowly)
          ces documents. *Cela se produit tous les jours.
          these documents *this happens   every day
          'A password (*slowly) protects these documents. *This happens every day.'

      b. {la/*les}   (*lente(s)) protection(*s) de ces   documents
          {the.SG/*the.PL} (*slow)   protection(.*PL) of. these documents
          par un   mot de passe (*se produit chaque jour.)
          by a password   (*happens   every day)
          'The (*slow) protection of these documents by a password (*happens
          every day.)'

The unavailability of the plural for the above CENs is reminiscent of what we have observed for push-verbs in (24-26). In both cases, this property is linked with the strict atelicity of the predicate.

   Now, if the behavior of stative CENs parallels that of activity CENs, we should expect for CENs derived from verbs that are not strictly stative to occur in the plural. This predication is indeed borne out.

   Consider the verbs *bloquer* 'to block', *fermer* 'to close' and *inonder* 'to flood'. These verbs qualify as inchoative predicates (Kratzer 2000; Arad 2002; Rothmayr 2009; Fábregas & Marín 2012; see also Fradin 2012 for French), that is, predicates ambiguous between a telic and a stative reading with a resultative value. The examples in (39) illustrate the stative value.

(39) a. Les manifestants   {ont bloqué / *ont été en train de bloquer}
          the demonstrators {have blocked / *have been blocking}
          (*progressivement) l'autoroute pendant 2 heures.
          (*progressively)   the highway for   2 hours
          'The demonstrators (*progressively) blocked the highway for 2 hours.'

      b. Le propriétaire {a   fermé / *a   été en train de fermer} le
          the owner   {has closed / *has been closing}   the
          magasin (*petit à   petit) pendant 2 heures.
          shop   little by little for   2 hours
          'The owner closed the shop (*little by little) for 2 hours.'

      c. La rivière {a   inondé / *a été en train d'inonder} (*lentement)
          the river   {has flooded / *has been flooding}   (*slowly)
          la ville pendant 2 jours.
          the city for   2 days
          'The river (*slowly) flooded the city for two days.'

As states, these verbs admit *pendant* PPs, but do not combine with the progressive *en train de* and dynamic adverbs, similarly to examples (36–38). As before, the events described display the strict subinterval property: when denoting states, the blocking of the highway, the closing of the shop and the flooding of the city are perceived as holding without interruption for the duration specified by the *pendant* PP.[14] As observed by Fábregas & Marín (2012), this PP also measures the duration of the state in which the participant denoted by the object remains.

---

[14] Marín & McNally (2011), as well as Fábregas & Marín (2012) provide a variery of tests to distinguish aspectual features of verbs and nouns in Spanish. Unfortunately, these tests do not always apply to French data, or with similar results.

The accomplishment reading of these verbs is illustrated in the examples (40). With this value, dynamic adverbs as well as *en* PPs are fully acceptable. Contrary to (39), such events do not present homogenous reference: here, the blocking of the highway, the closing of the shop and the flooding of the city are perceived as events constituted of heterogeneous internal stages, leading to the resulting state.

(40) a. Les manifestants   ont   bloqué l' autoroute {en 15 minutes / très
          the demonstrators have blocked the highway {in 15 minutes / very
          vite}.
          quickly}
          'The demonstrators blocked the highway {in 15 minutes/very quickly}.'

     b. Le propriétaire a   fermé le   magasin {en 5 minutes / rapidement}.
          the owner   has closed the shop   {in 5 minutes / quickly}
          'The owner closed the shop {in 5 minutes/quickly}.'

     c. La rivière a   inondé la   ville {en 2 heures / lentement}.
          the river has flooded the city {in 2 hours   / slowly}
          'The river flooded the city {in 2 hours/slowly}.'

Let us now consider the CENs *blocage* 'blocking', *fermeture* 'closing', and *inondation* 'flooding'. Like the corresponding verbs, these exhibit either a stative or an accomplishment reading. Following from the behavior of activity CENs provided in the preceding section, we expect the plural to be available with both aspectual values. This prediction is indeed borne out, as shown in examples (41–42).

(41) a. {le   / les}   blocage(s)   (*progressifs) de l'autoroute   par les
          {the.SG / the.PL} blocking(.PL) (*progressive) of the highway by   the
          manifestants   {*en / pendant} 2 heures
          demonstrators {*in / for}   2 hours
          'the (*progressive) blocking(s) of the highway by the demonstrators {*in/for} 2 hours'

     b. {la   / les}   fermeture(s) (*rapides) du   magasin par le
          {the.SG / the.PL} closing(.PL) (*quick)   of.the shop   by   the
          propriétaire {*en / pendant} 2 heures
          owner   {*in / for}   2 hours
          'the (*quick) closing(s) of the shop by the owner {*in/for} two hours'

     c. {l'   / the.PL} inondation(s) (*lentes) de la ville par la rivière
          {the.SG / les}   flooding(.PL) (*slow)   of the city by the river
          {*en / pendant} 2 jours
          {*in / for}   2 days
          'the flooding(s) of the city by the river {*in/for} 2 days'

(42) a. {le   / les}   blocage(s)   progressifs de l'autoroute   par les
          {the.SG / the.PL} blocking(.PL) progressive of the highway by   the
          manifestants   (*pendant 2 heures)
          demonstrators (*for   2 hours)
          'the progressive blocking(s) of the highway by the demonstrators (*for 2 hours)'

     b. {la   / les}   fermeture(s) rapides du   magasin par le
          {the.SG / the.PL} closing(.PL) quick   of.the shop   by   the
          propriétaire (*pendant 2 minutes)
          owner   (*for   2 minutes)
          'the quick closing(s) of the shop by the owner (*for two minutes)'

c. {l'   / les}   lentes inondation(s) de la   ville par la   rivière
    {the.SG / the.PL} slow flooding(.PL) of the city by the river
    (*pendant 2 days)
    (*for   2 days)
    'the slow flooding(s) of the city by the river (*for 2 days)'

In examples (42), dynamic adjectives are possible, and the unavailability of *pendant* PPs ensures that the CENs behave as accomplishments. Conversely, in (41), stativity is guaranteed by the unacceptability of dynamic adverbs, and the *pendant* PPs measures the duration of the state. As expected, the CENs can occur in the plural in both cases, and contrast with the strictly stative CENs in (36–38), for which plural is impossible.

Observe also that the states described in (39) are conceived as reversible. According to Fábregas & Marín (2012), this condition has to be fulfilled for the CENs deriving from inchoatives to exhibit a stative value. The French data presented here confirm this analysis. Note finally that, as was the case for activities, the nominalizing affix has no influence on the (a)telicity of the derived nominal.

3.2.3 Summary

In the above subsections, we have shown that activity and stative CENs exhibit two distinct behaviors. On the one hand, we find CENs that do not pluralize and, consequently, behave only as mass nouns. These are derived from strictly atelic verbs, such as pure states and push-verbs. On the other hand, we have also observed CENs that occur in the plural, thus qualifying as count nouns. In this case, the base verbs can be construed as telic as well as atelic. This is the case for inchoatives, that have an accomplishment reading besides their stative reading, for verbs ambiguous between an activity and an accomplishment value, and for verbs whose telicity relies on the [±SQ] feature of their objects. For these classes, [+count] CENs occur as nominalizations of both telic and atelic VPs, whether states or activities, contrary to what would be expected if the actual telicity of the structure were relevant. Rather, the [±count] character of CENs relies on the properties of the underlying verbal predicates. More precisely, [–count] CENs, for which plural marking is impossible, derive from verbal predicates that have no telic use at all ([-Telic]), whereas CENs appear as [+count] if the telicity of the verb can have a positive value ([±Telic]). In other words, it is the inherently unbounded character of the verbal predicates that is reflected by nominal unboundedness.

Consequently, we summarize the distribution of French plural CENs in Table 3:

In the following section, we show that this issue can be dealt with on syntactic bases.

4 A syntactic analysis of Number properties of French CENs

As was seen in Section 2.1, the aspectual properties of event nominals can be analyzed in two manners, depending on the source of the eventuality they convey. For SENs, eventivity does not rely on an internal verbal structure. In such a case, boundedness has to be understood as a conceptual feature, since it is not linked to the presence of a specific syntactic

Table 3: The distribution of plural CENs.

Events	[-telic]	[±telic]
Aspectual classes	- Push-Verbs - Pure States	- [+SQO] Verbs - Inchoatives Verbs - Ambiguous Verbs
CENs	[-count]	[±count]

structure. In contrast, for nominal containing verbal projections, as is the case with CENs, (a)telicity is due to the presence or absence of some projection responsible for this feature.

In fact, the correlation between atelicity and [–count] properties described above is proper to CENs. As the following examples show, nominals describing atelic SENs, whether states or activities, can—and sometimes must—occur in the plural (see Haas et al. 2008; Heyd & Knittel 2009; Huyghe 2011; Knittel 2016b). Thus, the activity nominal *discussion* 'discussion' occurs in the plural when referring to several events (43). Another case is illustrated by *applaudissements* 'applauses' (44), which is strictly plural, despite its atelic character.[15] As for the stative noun *amour* 'love' (45), it can be used in the singular and in the plural, without any semantic change.

(43) a. Les participants ont discuté   pendant 2 heures chaque matin.
          the participants have discussed for   2 hours   every   morning
          'The participants discussed for 2 hours every morning.'

      b. Les   discussions   entre   les participants ont duré 2 heures
          The.PL discussion.PL between the participants have lasted 2 hours
          chaque matin.
          every   morning
          'The discussions between the participants lasted 2 hours every morning.'

(44) a. Le public   a   applaudi   pendant 5 minutes.
          the audience has applauded for   5 minutes
          'The audience applauded for 5 minutes.'

      b. Les   applaudissements du   public   ont duré   5 minutes.
          The.PL applause.PL   of.the audience have lasted 5 minutes
          'The audience's applauses lasted 5 minutes.'

      c. *L'applaudissement du   public   a   duré   5 minutes.
          the applause   of.the audience has lasted 5 minutes

(45) a. Paul et Marie se sont   aimés pendant 15 ans.
          Paul and Mary REFL.are loved for   15 years
          'Paul and Marie loved each other for 15 years.'

      b. L' amour de Paul et Marie a   duré 15 ans.
          the love of Paul and Marie has lasted 15 years
          'Paul and Mary's love (for each other) lasted 15 years.'

      c. Les   amours de Paul et Marie ont duré 15 ans.
          The.PL love.PL of Paul and Marie have lasted 15 years
          'Paul and Mary's love (for each other) lasted 15 years.'

The difference between SENs and CENs with regards to plural use reveals that the restriction on plural atelic CENs has to be viewed as having a syntactic origin. If it were indeed atelicity, understood as a conceptual feature, that were at stake, we would expect all atelic ENs, disregarding their simple or complex nature, to behave alike, which is not the case. Rather, the distinction between atelic ENs that occur in the plural and those that do not lies in the fact that only the latter have an internal verbal structure. As will be explained below, we indeed consider that CENs, as opposed to SENs, have internal verbal layers, and that their nominal properties are due to the presence of nominal projections dominating the verbal layers.

---

[15] The inherent plurality of *applaudissements* is plausibly due to its intrinsic pluractional value, since it necessarily implies several clapping events. See Knittel (2016b) for a discussion of lexical plural of deverbal nominals.

Consequently, the analysis of the phenomenon under examination has to be twofold. In order to understand where the difference between [+count] and [–count] CENs origins, a syntactic description of strictly atelic verbal structures on the one hand and of verbs exhibiting telicity variation on the other hand is needed. Second, the presence or absence of nominal plurality indicates that CENs are genuine nouns (see Alexiadou et al. 2010a; b for a discussion), whose specific nominal projections have to be examined.

4.1 Verbal layers

As mentioned above, we consider that CENs have internal verbal layers. Their structure is composed by a categorially unspecified root √ (Harley 2009), dominated by vP and VoiceP, as shown in (46).

(46)　　[Voice [v [√]]vP]VoiceP

vP is the projection of eventivity and the locus of the internal argument merging. VoiceP is the projection where the external argument merges (Kratzer 1996; 2000; Husband 2012), and its head can either be [+Agentive] or [–Agentive].

To account for verbal telicity, we adopt the hypothesis of an aspectual projection AspQP merging between vP and VoiceP (see Borer 1993; 2005; Egerland 1998; Travis 2010). The head of this projection encodes a [+bounded] feature, which reacts to the [±SQ] property (see Section 3.2.1.) of the DP merging in its specifier. If the nominal is [+SQ], the [+bounded] feature of AspQ receives a positive value, resulting in [+telic] value. Conversely, if the nominal in Spec,AspQP is [–SQ], the structure is atelic. The presence of this projection accounts for potentially telic VPs, that is, VPs exhibiting telicity alternations. Since push-verbs have no telic reading at all, we consider that AspQP is not projected (but see Borer 2005 for a discussion).

We can now describe the various internal verbal structures of the examples examined in the previous sections.

(47)　　a.　　[Voice$_{Active}$ [v [√]]$_{vP}$]$_{VoiceP}$

　　　　b.　　[Voice$_{Active}$ [AspQ [v [√]]$_{vP}$]$_{AspQP}$]$_{VoiceP}$

　　　　c.　　[Voice$_{Stative}$ [v [√]]$_{vP}$]$_{VoiceP}$

Structure (47a) corresponds to push-verbs (*étudier* 'to study' (24), *fréquenter* 'to attend' (25), *pratiquer* 'to practice' (26)), which have Initiators subjects (Ramchand 2008) and are always atelic, due to the absence of AspQP.

Structure (47b) describes dynamic verbs exhibiting telicity variation, such as verbs reacting to their the properties of their objects (*démonter* 'to disassemble' (28), *rénover* 'to renovate' (29), *rédiger* 'to write' (31), *récolter* 'to harvest' (32)), or aspectually ambiguous (*visiter* 'to visit' (33), *vérifier* 'to check' (34), *aérer* 'to air' (35)). For this last class, we ascribe the potential atelicity of such predicates even in the presence of a [+SQ] object to the fact that the specifier of AspQP is not projected. (47b) is also the structure of inchoative verbs in their accomplishment construal.

Finally, (47c) is the structure of pure states and stative inchoatives. Similarly to push-verbs (49), states (48) are always atelic, irrespective of [±SQ] feature of their objects:

(48)   a.   Les manifestants   ont   bloqué {une route / des   routes}
           the demonstrators have blocked {one road   / INDEF.PL.ART roads}
           pendant 2   heures.
           for   two hours
           'The demonstrators blocked {a road/roads} for two hours.'

       b.   La rivière a   inondé {la ville / des   villes} pendant 2
           the river   has flooded {the city / INDEF.PL.ART cities} for   2
           jours.
           days
           'The river flooded {the city/cities} for 2 days.'

(49)   a.   Les étudiants ont   fréquenté {ce bar / des   bars} pendant
           the students   have attended {this bar / INDEF.PL.ART bars} for
           6 mois.
           6 months
           'The students attended {this bar/bars} for six months.'

       b.   Max a   conduit {son camion / des   camions} pendant
           Max has driven   {his truck   / INDEF.PL.ART trucks}   for
           10 ans.
           10 years
           'Max drove {his truck/trucks} for 10 years.'

The verbal predicates in (48) and (49) share the property of combining only with durative PPs introduced by *pendant* (vs *en*), which measure either the duration of the event with push-verbs (49) or that of the resulting state with stative inchoatives (48). We consider that these classes only differ by the Active/Stative feature of their Voice component. Since telicity is irrelevant for states (Smith 1991), we hypothesize that a Stative VoiceP cannot select AspQP as its complement.

Consequently, and disregarding the Active/Stative feature on VoiceP, we suggest that we are facing two types of verbal structures. The first contains two projections, i.e. vP and VoiceP, and corresponds to strictly atelic verbs. The second also contains AspQP, and corresponds to potentially telic verbal predicates.

We are now able to provide an explanation for the distribution of the [±count] feature in CENs.

Consider first pure states and push-verbs. The corresponding CENs have been analyzed as [–count], since they never occur in the plural (see (24)–(26) for push-verbs and (33)–(35) for states). Conversely, all verbs deriving [+count] CENs contain AspQP in their structure. This is the case for inchoative verbs (41)–(42) and verbs exhibiting telicity alternation (28)–(30). Consequently, the origin of the [±count] distinction, which explains in turn the availability of plural marking, is the presence of this projection at the verbal level, and not the [±SQ] feature of the argument in its specifier, since, as shown above, atelic CENs do occur in the plural if they have a telic counterpart.

In what follows, we examine the nominal layers in CENs in relation with the verbal layers, in particular AspQP.

4.2 Nominal layers
Although they have an internal verbal structure, CENs are genuine nouns. They are nominalized by the means of various affixes (*-age, -ion, -ure,* etc.), which are also responsible

for their Gender properties. Thus *-age* affixation derives masculine nominals, whereas *-ion* and *-ure* introduce feminine Gender. The nominal character of CENs is also guaranteed by the possible use of determiners and adjectives. To account for these properties, we assume that the VoiceP (see (47)) they contain is dominated by the nominalizing projection nP, which in turn enables the presence of DP, where definite determiners merge. Consequently, we consider (50) to be the basic structure of CENs.

(50)   [D [n [Voice]$_{VoiceP}$]$_{nP}$]$_{DP}$

4.2.1 [+count] CENs

Like other [+count] nouns, we assume that [+count] CENs are dominated by a Cl(assifier) P (Borer 2005). Following Picallo (2006), we consider that ClP is obligatory in French for both [+count] and [–count] nouns (see Stark 2016 for a related hypothesis). With count nouns, ClP is dominated in turn by NumP, where the Number (i.e. singular or plural) feature merges.

  As shown in the following examples, [+count] CENs can be used with numerals, which are currently considered as merging under QP (#P in Borer's 2005 framework).

(51)   a.   (les)   deux rénovations   de l'appartement (par les propriétaires)
            the.PL two renovation.PL of the flat   (by   the owners)
            '(the) two renovations of the flat (by the owners)'   [cf. (29)]

       b.   (les)   cinq visites de monuments (par les touristes)   [cf. (33)]
            the.PL five visit.PL of monuments (by   the tourists)
            '(the) five visits of monuments (by the tourists)'

       c.   (les)   deux inondations de la ville (par le   fleuve)   [cf. (41)]
            the.PL two flooding.PL of the city (by   the river)
            '(the) two floodings of the city (by the river)'

   cf. d.   (les)   trois livres
            (the.PL) three books
            'the three books'

The above examples show that [+count] CENs contain a full-fledged functional structure, similarly to [+count] simple nouns, like *livre* 'book' in (51d). We can consequently represent their structure as in (52a). As shown by the comparison with (52b), they only distinguish from underived count nouns by their inner verbal projections.
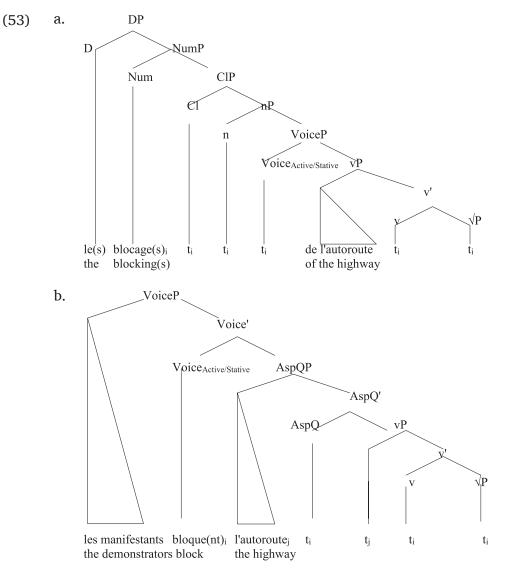
(52)   a.   [D [Q [Num [Cl [n [VoiceP]]$_{ClP}$]$_{NumP}$]$_{QP}$]$_{DP}$ ([+count] CEN)
       b.   [D [Q [Num [Cl [n [√]$_{VP}$]$_{ClP}$]$_{NumP}$]$_{QP}$]$_{DP}$ ([+count] simple N)

Now, a possible analysis would be to consider that, for count CENs, NumP merges if the internal verbal structure contains AspQP. The presence of NumP in the nominal structure would then mirror that of AspQP in the internal verbal structure.

  However, various authors have suggested a different explanation for similar phenomena in other languages. According to Wiltschko (2014) or Travis (1992), inner Aspect (i.e. AspQP) and the [±count] properties are the instantiation of the same feature in different domains, and do not co-occur. Similarly, Alexiadou et al. (2010a; b; 2011) consider that Aspect is not projected in CENs, but accommodated under ClP. Following these analyses, we will consider that ClP/NumP are the instantiations at the nominal level of the verbal projection AspQP. Thus, [+count] CENs derive from verbs

for which telicity can receive a positive value, that is, verbs having AspQP in their inner projections.

Adopting such a point of view, we can now represent a [+count] CEN such as *le/les blocage(e) de l'autoroute* 'the blocking(s) of the highway' (41) as in (53a), and the corresponding VP as in (53b).

(53) a.

```
                      DP
           ┌──────────┴────┐
           D             NumP
           │        ┌──────┴──────┐
                   Num           ClP
                    │       ┌──────┴──────┐
                           Cl            nP
                            │       ┌─────┴──────┐
                            n               VoiceP
                            │         ┌──────────┴────────┐
                              Voice_Active/Stative       vP
                                   ┌──────┴──┐      ┌──────┴──┐
                                                            v'
                                                       ┌────┴────┐
                                                       v        √P

   le(s)   blocage(s)ᵢ   tᵢ    tᵢ    tᵢ   de l'autoroute   tᵢ        tᵢ
   the     blocking(s)                     of the highway
```

b.

```
                      VoiceP
           ┌──────────┴────────┐
                             Voice'
                        ┌───────┴────────┐
                Voice_Active/Stative    AspQP
                                   ┌──────┴──────┐
                                              AspQ'
                                         ┌───────┴────────┐
                                       AspQ              vP
                                        │          ┌──────┴──┐
                                                          v'
                                                     ┌────┴────┐
                                                     v        √P

   les manifestants  bloque(nt)ᵢ  l'autorouteⱼ   tᵢ     tⱼ     tᵢ        tᵢ
   the demonstrators  block       the highway
```

4.2.2 [–count] CENs

Let us now consider the behavior of [–count] CENs. As we mentioned in Section 2.3., when indefinite, these do not behave as regular mass nouns, whose behavior is illustrated in (54).

(54) la   bière / de la   bière / beaucoup de bière / un peu   de
      DEF.ART beer   PART.ART beer / a lot   of beer / a   little of
      bière
      beer
      'the beer; (some) beer; a lot of beer; a little beer'

Apart from definite articles, simple [–count] nouns can be introduced by quantity expressions such as *beaucoup de* 'a lot' or *peu de* 'a little', and the partitive article, which is the indefinite article typical of mass nouns. As can be seen in (55), indefinite mass nouns in argument position cannot be bare in French (Dobrovie-Sorin & Laca 2003), and are necessarily introduced by partitive articles.

(55)   a.   J'ai bu *(de la) bière.
              'I drank beer.'

         b.   *(De la) bière a coulé sur la table.
              '(Some) beer has been spilt on the table.'

To account for the above examples, we consider that Cl hosts the partitive article *de* as a default head. As for *la* and *le*, which constitute the second part of the partitive article (cf. *de le = du pain* '[some] bread'), we analyze them as Gender markers. The obligatory presence of partitive articles with mass nouns arises from the fact that ClP is obligatory for both mass and count nouns in French (see section 4.2.1.). Consequently, we suggest the structure in (56) for simple [–count].

(56)   [de$_{Cl}$ la$_{Fem}$ [n [bière]$_{\sqrt{P}}$]$_{nP}$]$_{ClP}$

Observe now the behavior of [–count] CENs with regards to articles and quantity expressions.

(57)   a.   {la   / *de la   / *un peu de} pratique de la musique (par les
              {the.SG / *PART.ART / *a little}   practice of the music   (by the
              élèves)
              pupils)
              '{the/*some/*a little} practice of music (by the pupils)'

         b.   {la   / *de la   / *beaucoup de} protection de ces   documents
              {the.SG / *PART.ART / *a lot   of} protection of these documents
              (par un mot de passe)
              (by a   password)
              '{the/*some/*a lot of} protection of these documents (by a password)'

         c.   {la   / *de la   / *un peu de} fréquentation de ce   bar (par les
              {the.SG / *PART.ART / *a little}   attendance of this bar (by the
              étudiants)
              students)
              '{the/*some/*a little} attendance of this bar (by the students)'

Interestingly, the behavior of [–count] CENs does not parallel that of [–count] simple nouns. As shown in (57), they cannot be introduced by the partitive article, and do not admit quantity expressions either. As a matter of fact, the definite article is their only possible determiner. If we admit the current analysis that the definite article merges under D, we can suggest the structure in (58), where DP is the only projection dominating nP.

(58)   [D [n [VoiceP]$_{nP}$]$_{DP}$

The unacceptability of quantity expressions with [–count] CENs is readily explained if we consider that the *de* element they contain also merges under Cl (59), like the partitive article.

(59)   [beaucoup$_Q$ [de$_{Cl}$ [bière$_i$ [t$_i$]$_{\sqrt{P}}$]$_{nP}$]$_{ClP}$]$_{QP}$

To sum up, we observe a striking contrast between [+count] and [–count] CENs on the one hand and between [–count] CENs and simple [–count] nominals on the other hand.
   While [+count] CENs exhibit the typical behavior of nominal domains with full-fledged functional structure (DP, QP, NumP, ClP), DP is the only functional projection of [–count]

CENs, which also differ from regular mass nouns by the absence of ClP. This, in turn, prevents the merging of QP.
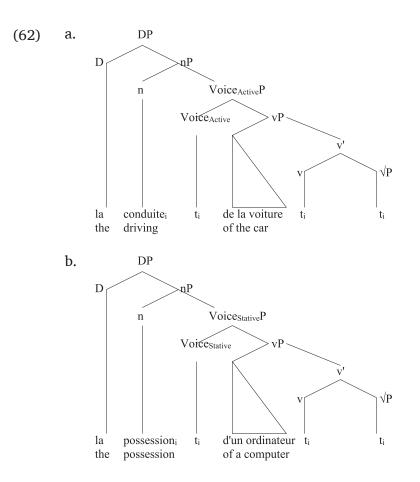
Now, recall that in the previous section, we assumed that for CENs, the [±Telic] feature (see Table 3) is not instantiated as AspQP as is the case with verbs, but only at the nominal level, by ClP, which in turn enables the presence of NumP. Since [–count] CENs nominalize verbal structures that are deprived of AspQP, the absence of ClP is expected from our analysis. Finally, if the lack of ClP in CENs arises from the properties of the verbal structure under nP, we expect SENs to behave differently, due to the absence of verbal layers in their structure (see (53)). This is indeed the case, as shown in (60).

(60)   a.   Il   a   {jardiné   /   patiné / tissé}   {pendant / *en} 2 heures.
              he has {gardened /   skated / weaved} {for   / *in} 2 hours
              'He {gardened/skated/weaved}{for/*in} 2 hours.'

        b.   Il   a   fait   {du   / beaucoup de} {jardinage / patinage /
              he has done {PART.ART / a lot   of} {gardening / skating /
              tissage}.
              weaving}
              'He did {gardening/skating/cooking}/a lot of {gardening/skating/weaving}'.

        c.   *Il   a   fait   {un(e) / plusieurs} {jardinage(s)   / patinage(s) /
              he has done {a   /   several}   {gardening(.PL) / skating(.PL) /
              tissage(s)}.
              weaving(.PL)}

(61)   {la   / de la   / un peu de / beaucoup de} {pratique / protection}
        {the.SG / PART.ART / a   little   / a lot   of} {practice / protection}
        '{the/some/a little/a lot of} {practice/protection}

The examples in (60) show that [–count] SENs derived from atelic verbs, like *jardinage* 'gardening', *patinage* 'skating' and *tissage* 'weaving', do combine with partitive articles and quantity expressions (60b) in the same manner as underived mass nouns (54). The same holds for *protection* 'protection' and *pratique* 'practice' (61), when they appear without complements, i.e. as SENs but not as CENs (57), which is expected from our analysis. Thus, atelic SENs can project ClP, contrary to strictly atelic CENs. This contrast confirms the hypothesis that telicity, if understood as a conceptual feature, has no influence on the [±count] properties of deverbal event nominals, since we find both [+count] (cf. *discussion* 'discussion' in (43)) and [–count] SENs derived from atelic verbs (Haas et al. 2008; Huyghe 2011; Heyd & Knittel 2009)

Under the analysis adopted here (see section 4.2.1.), it is the nominal structure of [±count] CENs that accounts for the potential telicity of the verbal bases. For count CENs, the presence of ClP and NumP are instantiations of the aspectual projection as defined here (i.e. AspQP) in the corresponding verbal structure; for [–count] CENs, their absence reflects that of AspQP in the structure of the base verbs. Since AspQP never merges in nominal structures, the [±Telic] feature it encodes is reflected in the merging of ClP, NumP and possibly QP; conversely, the absence of these projections accounts for the absence of AspQP in the corresponding verbal domain.

We are now able to provide a full analysis of the [–count] CENs examined above. The representation in (62a) presents the structure of CENs derived from push-verbs (21), and that in (62b) corresponds to purely stative CENs (11), which both lack ClP and NumP.

(62) a.

```
              DP
            /    \
         D         nP
        /         /   \
              n      Voice_Active P
                    /        \
             Voice_Active      vP
                              /   \
                                    v'
                                   /  \
                                  v     √P

    la      conduite_i   t_i   de la voiture   t_i      t_i
    the     driving            of the car
```

b.

```
              DP
            /    \
         D         nP
        /         /   \
              n      Voice_Stative P
                    /        \
             Voice_Stative     vP
                              /   \
                                    v'
                                   /  \
                                  v     √P

    la      possession_i  t_i   d'un ordinateur   t_i      t_i
    the     possession          of a computer
```

5 Conclusion

In this paper, we have provided a detailed description of the properties of French CENs with regards to pluralization, and shown that CENs can occur in the plural, and thus behave as [+count] nouns. This is however not the case for those derived from strictly atelic verbs, such as push-verbs and pure states, that are [–count]. In such cases, reference to a plurality of events can only be indicated by the means of frequency expressions. Conversely, even atelic VPs produce [+count] nominals, provided they have a telic counterpart. This is the case for verbs exhibiting telicity alternation depending on the [±SQ] properties of their objects, for verbs ambiguous between a telic and an atelic construal, and for inchoatives, that are either states or accomplishments.

This has led us to restate the hypothesis originating in Bach (1976) and Krifka (1989), that the [±count] feature of Event Nominals reflects the (a)telicity of the corresponding verbs. As we have seen, SENs deriving from atelic bases can be [+count] or [–count]. In such cases, no correlation between telicity and the [±count] feature is observed. As for CENs, the availability of the plural relies on the potential telic value of the corresponding verb. In other words, it is the availability of telicity that is responsible for the [+count] use of CENs.

Since the above correlation between telicity and the [±count] distinction holds only for CENs, that have an internal verbal structure, we have sought its origin in the verbal layers of the corresponding verbs, and shown that it relies on the presence or absence of AspQP. Adopting the idea that this projection never occurs in the structure of CENs (Travis 1992; Alexiadou et al. 2010a; b; 2011; Wiltschko 2014) we have hypothesized that it is the presence or absence of ClP that assumes a similar function for this class of nominals. Thus, when AspQP merges in the structure of the base verb, ClP is present in the corresponding CEN. This, in turn, enables the presence of NumP. Conversely, if AspQP is lacking in the verb, ClP does not merge in the corresponding CEN. Since *de*, common to partitive articles and quantity expressions, merges in Cl, the absence of this projection

accounts for the fact that [–count] CENs do not combine with partitive articles, contrary to simple [–count] nouns, or quantity expressions (QP), contrary to both [–count] nouns and [+count] CENs.

A final question that deserves to be addressed at this point is that of the potential realization of outer aspect in French CENs. It has indeed been shown by Alexiadou et al. (2010a; b), that in various languages, the lack of plurality is associated with imperfectivity, and relies on the absence of nP and/or ClP. Note first that all French CENs include nP, contrary to e.g. Romanian supine nominals. As for the absence of ClP, we have shown that it results from internal atelicity, i.e. the absence of AspQP in the verbal structure.

However, count use is only an option for potentially telic CENs. Recall indeed from examples (1a) and (10b), that pluractionnality can be conveyed by frequency adverbials, coupled with unmarked nouns. As for atelic CENs, this option is the only one possible (15), which suggests that such unmarked nominals are in fact [–count] CENs. As hypothesized in Knittel (2016a), it is precisely the use of [–count] CENs that encodes imperfectivity in French, whereas [+count] CENs are perfective. In such a view, and in line with Alexiadou et al. (2010a; b), outer aspect, that is also available for French CENs, would rely on the presence or absence of ClP, although in particular manner.

Abbreviations

DEF.ART = definite article, INDEF.PL.ART = indefinite plural article, PART.ART = partitive article, PL = plural, SG = singular, REFL = reflexive pronoun

Acknowledgements

Competing Interests

The author has no competing interests to declare.

References

Alexiadou, Artemis. 2001. *Functional structure in nominals. Nominalization and ergativity.* Amsterdam: Benjamins. DOI: https://doi.org/10.1075/la.42

Alexiadou, Artemis. 2011. Statives and nominalizations. *Recherches Linguistiques de Vincennes* 40. 25–52. DOI: https://doi.org/10.4000/rlv.1991

Alexiadou, Artemis, Gianina Iordachioaia & Elena Soare. 2010a. Number/Aspect interactions in the syntax of nominalizations: A distributed Morphology approach. *Journal of Linguistics* 46. 537–574. DOI: https://doi.org/10.1017/S0022226710000058

Alexiadou, Artemis, Gianina Iordachioaia & Elena Soare. 2010b. Syntactic realization of plural in Romance and Germanic nominalizations. In Karlos Arregi, Szuszanna Fagyal, Silvina A. Montrul & Annie Tremblay (eds.), *Romance Linguistics 2008 Interactions in Romance*, 107–24. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/cilt.313.12ale

Alexiadou, Artemis, G. Iordachioaia & F. Schäfer. 2011. Scaling the variation in Romance and Germanic nominalizations. In Petra Sleeman & Harry Peridon (eds.), *The noun phrase in Romance and Germanic*, 25–40. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.171.04ale

Arad, Maya. 2002. Universal features and language-particular morphemes. In Artemis Alexiadou (ed.), *Theoretical approaches to universals*, 15–39. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.49.03ara

Bach, Emmon. 1976. An extension of classical transformational grammar. In Richard Saenz (ed.), *Problems of linguistic metatheory: Proceedings of the 1976 conference at Michigan State University*, 183–224. East Lansing, MI: Michigan State University.

Borer, Hagit. 1993. Derived nominals. Ms, Amherst: University of Massachusetts.

Borer, Hagit. 2005. *Structuring sense*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199263905.001.0001

Borer, Hagit. 2013. *Taking form*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199263936.003.0008

Dobrovie-Sorin, Carmen & Brenda Laca. 2003. Noms sans determinants. In Danièle Godard (ed.), *Les Langues Romanes, Problèmes de la Phrase Simple*, 235–281. Paris: CNRS Editions.

Dowty, David. 1979. *Word meaning and Montague grammar*. Dordrecht: Reidel. DOI: https://doi.org/10.1007/978-94-009-9473-7

Egerland, Verner. 1998. The affectedness constraint and AspP. *Studia Linguistica* 52. 19–47. DOI: https://doi.org/10.1111/1467-9582.00028

Fábregas, Antonio & Rafael Márin. 2012. The role of Aktionsart in deverbal nouns: State nominalizations across languages. *Journal of Linguistics* 48. 35–70. DOI: https://doi.org/10.1017/S0022226711000351

Fradin, Bernard. 2012. Les nominalisations et la lecture 'moyen'. *Lexique* 20. 125–152.

Grimshaw, Jane. 1990. *Argument structure*. Cambridge MA: MIT Press.

Haas, Pauline, Richard Huyghe & Rafael Marín. 2008. Du verbe au nom: calques et décalages aspectuels. In Jacques Durand, Benoît Habert et Bernard Laks (eds.), *Actes du Congrès Mondial de Linguistique Française*, 2051–2065. Paris: Institut de Linguistique Française. DOI: https://doi.org/10.1051/cmlf08108

Harley, Heidi. 2009. The morphology of nominalizations and the syntax of vP. In Anastasia Giannakidou & Monika Rathert (eds.), *Quantification, definiteness and nominalization*, 321–343. Oxford: Oxford University Press.

Heyd, Sophie & Marie Laurence Knittel. 2009. Les noms d'activité parmi les noms abstraits: propriétés aspectuelles, distributionnelles et interprétatives. *Lingvisticæ Investigationes* 31(1). 124–148. DOI: https://doi.org/10.1075/li.32.1.08hey

Husband, E. Matthew. 2012. *On the compositional nature of states*. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.188

Huyghe, Richard. 2011. Atelicity and the mass/count distinction. *Recherches Linguistiques de Vincennes* 40. 101–125. DOI: https://doi.org/10.4000/rlv.1952

Jackendoff, Ray. 1991. Parts and boundaries. *Cognition* 41. 9–45. DOI: https://doi.org/10.1016/0010-0277(91)90031-X

Knittel, Marie Laurence. 2010. Possession vs incorporation in the nominal domain: Evidence from French event nominal dependencies. *The Linguistic Review* 27. 177–230. DOI: https://doi.org/10.1515/tlir.2010.007

Knittel, Marie Laurence. 2011. French event nominals and number inflection. *Recherches Linguistiques de Vincennes* 40. 127–148. DOI: https://doi.org/10.4000/rlv.1970

Knittel, Marie Laurence. 2016a. A propos de l'indéfinitude des noms d'événements complexes. *Journal of French Language Studies* 26. 251–278. DOI: https://doi.org/10.1017/S0959269515000216

Knittel, Marie Laurence. 2016b. Les noms déverbaux: des pluriels lexicaux à la pluri-actionnalité. *Lingvisticae Investigationes* 39. 373–390. DOI: https://doi.org/10.1075/li.39.2.09kni

Kratzer, Angelika. 1996. Severing the external argument from its verb. In Johan Rooryck & Laurie Zaring (eds.), *Phrase structure and the lexicon*, 109–137. Dordrecht: Kluwer. DOI: https://doi.org/10.1007/978-94-015-8617-7_5

Kratzer, Angelika. 2000. Building statives. In Lisa J. Conathan, Jeff Good, Darya Kavitskaya, Alyssa B. Wulf & Alan C. L. Yu (eds.), *Proceedings of the 26th Meeting of the Berkeley Linguistics Society,* 385–99. Berkeley, CA: Berkeley Linguistics Society. DOI: https://doi.org/10.3765/bls.v26i1.1131

Krifka, Manfred. 1989. Nominalreferenz und Zeitkonstitution: Zur Semantik von Massentermen, Pluraltermen und Aktionsarten. Münich: Wilhelm Fink.

Laca, Brenda. 2006. Indefinites, quantifiers and pluractionals: What scope effects tell us about event pluralities. In Liliane Tasmowski & Svetlana Vogeleer (eds.), *Non-definiteness and plurality*, 191–217. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.95.10lac

Lasersohn, Peter. 1995. *Plurality, conjunction and events*. Dordrecht: Kluwer. DOI: https://doi.org/10.1007/978-94-015-8581-1

Marín, Rafael & Louise McNally. 2011. Inchoativity, change of state, and telicity. Evidence from Spanish reflexive psychological predicates. *Natural Language and Linguistic Theory* 48(1). 35–70.

Maienborn, Claudia. 2003. *Die logische Form von Kopula-Sätzen*. Berlin: Akademie-Verlag. DOI: https://doi.org/10.1524/9783050082271

Maienborn, Claudia. 2005. On the limits of the Davidsonian approach: The case of copula sentences. *Theoretical linguistics* 31. 275–316. DOI: https://doi.org/10.1515/thli.2005.31.3.275

Maienborn, Claudia. 2007. On Davidsonian and Kimian states. In Ileana Comorovski & Klaus von Heusinger (eds.), *Existence: Semantics and syntax*, 107–130. Dordrecht: Springer. DOI: https://doi.org/10.1007/978-1-4020-6197-4_4

Meinschaefer, Judith. 2005. Event-oriented adjectives and the semantics of deverbal nouns. In Bernard Fradin (ed.), *Silexicales 3: Actes du colloque de Villeneuve d'Ascq*, 118–125. Villeneuve d'Asq: Presses Universitaires du Septentrion.

Mourelatos, Alexander. 1978. Events, processes and states. *Linguistics and Philosophy* 2. 415–434. DOI: https://doi.org/10.1007/BF00149015

Picallo, Carme. 2006. Some notes on grammatical gender and l-pronouns. In Klaus von Heusinger, Georg A. Kaiser & Elisabeth Stark (eds.), *Proceedings of the workshop Specificity and the evolution/emergence of nominal determination systems in Romance*. Arbeitspapier 119, 107–121. Fachbereich Sprachwissenschaft der Universität Konstanz.

Ramchand, Gillian C. 2008. *Verb meaning and the lexicon: A first phase syntax*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511486319

Rothmayr, Antonia. 2009. *The structure of stative verbs*. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.143

Roodenburg, Jasper. 2006. The role of number within nominal arguments: The case of French pluralized event nominalizations. *Paper presented at the 36th Linguistic Symposium on Romance Languages*, Rutgers University, 31 March–2 April.

Roy Isabelle & Elena Soare. 2013. Event related Nominalizations. In Gianina Iordachioaia, Isabelle Roy & Kaori Takamine (eds.), *Categorization and category change*, 123–152. Cambridge: Cambridge Scholars Publishing.

Sleeman Petra & Ana Maria Brito. 2010. Aspect and argument structure of deverbal nominalizations: A split vP analysis. In Artemis Alexiadou & Monika Rathert (eds.), *Nominalization across languages and frameworks*, 199–217. Berlin: Mouton. DOI: https://doi.org/10.1515/9783110245875.199

Smith, Carlota S.1991. *The parameter of aspect*. Dordrecht: Kluwer. DOI: https://doi.org/10.1007/978-94-015-7911-7

Stark, Elisabeth. 2016. Nominal morphology and semantics — Where's gender (and 'partitive articles') in Gallo-Romance? In Susan Fischer & Mario Navarro (eds.), *Proceedings*

of the VII Nereus Internatinal workshop *"Clitic doubling and other issues of the syntax/ semantics interface in Romance DPs"*, 131–149. Konstanz: Universität Konstanz.

Travis, Lisa DeMena. 1992. Inner Tense with NPs: The position of number. *Paper presented at the Conference of the Canadian Linguistics Association*, University of Toronto.

Travis, Lisa DeMena. 2010. *Inner Aspect: The articulation of VP*. Berlin: Springer Verlag.

van Geenhoven, Veerle. 2004. For-adverbials, frequentative aspect and pluractionality. *Natural Language Semantics* 12. 135–190. DOI: https://doi.org/10.1023/B:NALS.0000031389.36427.af

Verkuyl, Henk J. 1972. *The compositional nature of the aspects*. Dordrecht: Reidel. DOI: https://doi.org/10.1007/978-94-017-2478-4

Verkuyl, Henk J. 1993. *A theory of aspectuality*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511597848

Wiltschko, Martina. 2014. *The universal structure of categories*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9781139833899