# Some issues about the perfect

Josep M. Brucart
Universitat Autònoma de Barcelona
josepmaria.brucart@uab.cat

Teresa M. Xiqués
Escola Oficial d'Idiomes, Barcelona
teresam.xiques@gmail.com

This issue of the *Catalan Journal of Linguistics* was conceived with the idea to study perfect constructions across languages and to pay special attention to perfectivity and its relation to the perfect. The issue aims to explore the relation between telicity/perfectivity and the perfect, some points of contrast between the perfect and (im)perfective markers, temporal readings of the perfect and its different degrees of remoteness, the existence of the aoristic drift, and present tense lengthening in the perfect, among other related topics.

## 1. Perfectivity vs. perfect

Comrie (1976: 16) defines perfectivity as a grammatical aspect category[1] which "refers to an action or situation viewed in its entirety". Similarly, Smith (1991: 301) points out that it is an aspect which "presents events with both initial and final endpoints". These traditional views of perfective aspect can also be explained in terms of containment relations between temporal intervals (Klein 1994, 1995; Demirdache & Uribe-Etxebarria 2000, among others). Under this view, perfective is as an aspectual category in which the reference-time interval contains the event-time interval, whereas imperfective is an aspect in which the event-time contains the reference-time interval, cf. (1a)-(1b).[2]

(1)  a.  Perfective:

$\overset{\text{Event Time}}{[\text{---}///////\text{-----}]}_{\text{Reference Time}}$

b.  Imperfective:

$\overset{\text{Reference Time}}{[\text{---}///////\text{-----}]}_{\text{Event Time}}$

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1.  In the literature, other terms such as 'outer aspect' (Travis 1991; Verkuyl 1993) or 'viewpoint aspect' (Smith 1991) have also been used to refer to the concept of grammatical aspect.
2.  Demirdache & Uribe-Etxebarria (2000) adapt Klein's (1994) term Topic Time and refer to it as Assertion Time, which we take to be equivalent to Reichenbach's (1947) notion of Reference Time in the relevant sense (cf. below in this section).

Grammatical aspect has to be distinguished from lexical aspect.[3] In the literature, it has often been claimed that verbs in the perfective aspect are instantiations of telic events, a misunderstaning dubbed the "Perfective = Telic Confusion" by Bertinetto (2001). According to Bertinetto (2001), among others, grammatical and lexical aspect interact, but they are two independent systems. Verbs in the perfective aspect do not necessarily entail a telic event, while imperfectivity does not always give rise to atelicity. Cipria & Roberts (2000) and Janssen & Borik (2008), who study the semantics of past tenses, also argue that the perfective is undetermined with respect to lexical aspect. Although termination is pragmatically associated with past tenses, it is not logically entailed by them. Cipria & Roberts (2000: 305) base their generalization by providing examples such as (2):

(2) a. Corrió        petróleo por      las cañerías.
      flow-PAST.3SG oil       through  the pipes
      'Oil flowed through the pipes.'

   b. Corrieron      3000 litros de petróleo por      las cañerías.
      flow-PAST.3PL 3000 liters of  oil        through the pipes
      '3000 liters of oil flowed through the pipes.'                          (Spanish)

The perfective is compatible with any type of lexical aspect. In example (2a), the perfective of the activity predicate *correr* 'to flow' and the mass noun phrase *petróleo* 'oil' give rise to an atelic predicate, which has the subinterval property. On the contrary, the perfective with the measure phrase *3000 litros* '3000 liters' in example (2b) displays a telic reading. The proposition does not have the subinterval property, i.e., only some part of the 3000 liters flowed through the pipes during any subinterval of the past time interval.

As for the perfect, it has often been characterized as a grammatical aspect that encodes a relation of precedence between the event time and the reference time (Reichenbach 1947; Comrie 1985; Hornstein 1990; Klein 1992, 1994, among others). This is the main idea advocated by the anteriority theory,[4] whose most representative work is Reichenbach's (1947) study of English tenses. Reichenbach (1947) proposed a model of the verbal tense system based on three points of time: the Speech Time (S), the Event Time (E) and the Reference Time (R) (these temporal variables are no longer defined as points in time, but are rather treated as intervals). This author was the first to introduce a temporal framework in which the (present, past or future) perfect is characterised as a temporal configuration that dissasociates the location of E with respect to R (E < R) , in contrast to simple past tenses, whose R is cotemporal with the E (E,R).

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3. The temporal properties of events are referred as 'lexical aspect' (Comrie 1976), 'aspectual class' (Dowty 1979), 'eventuality type' (Bach 1981, 1986; Parsons 1990), 'Akionsart' (Hinrichs 1985), 'inner aspect' (Travis 1991; Verkuyl 1993) or 'situation aspect' (Smith 1991).
4. Portner (2003) refers to the Anteriority Theory as the 'Indefinite Past theory'.

However, McCoard (1978), Dowty (1979) and Iatridou et al. (2001), who are representative of the Extended Now (or Perfect Time Span) theory,[5] note that the event time may also overlap with the reference time, as in (3), and that the perfect can embed grammatical aspect, as illustrated in (4), taken from Bhatt & Pancheva (2005):

(3)  I have lived in Barcelona since 2000.

(4)  They have been playing since this afternoon.

## 2. The readings of the perfect

The universal,[6] the experiential[7] and the resultative[8] are the three readings that have been traditionally posited in the literature on the perfect (McCawley 1971; Comrie 1976). Examples illustrated in (5) are sentences in the present perfect, but different perfect readings can also be obtained with the past, future and non-finite perfects as well (see Bhatt & Pancheva 2005, for the case of English):

(5)  a.   I have been to Scotland.

    b.   They have always lived in Barcelona.

    c.   I have lost my sunglasses.

The experiential perfect in (5a) denotes that the eventuality of *having been to Scotland* holds at some prior time interval, namely, the sentence asserts that the speaker has the experience of having been to Scotland. Example (5b) has a universal interpretation, in which the eventuality of living holds throughout a time interval that started in the past and continues up to now. The resultative perfect in (5c) describes an event whose result state holds at the utterance time, i.e., the subject's sunglasses are still lost at the utterance time. The literature on the perfect (McCawley 1971; Comrie 1976) has also considered the recent past reading as shown in (6).[9]

(6)  The team has just won the match.

Sentence (6) has a recent past meaning which locates the situation just before the speech time. Considering the examples shown above, it is difficult to give a

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5.   Iatridou et al. (2001) refer to the Extended Now as the 'Perfect Time Span'.
6.   The universal perfect is also called the 'perfect of persistent situations' (Comrie 1976; McCoard 1978), the 'up-to-now reading' (Abush & Rooth 1990), or the 'continuative perfect' (Huddleston & Pullum 2002; Portner 2003).
7.   The experiential reading overlaps with what is called 'existential' (Kiparsky 2002; Portner 2003; Iatridou et al. 2001).
8.   McCawley (1971) refers to the resultative as the 'stative' perfect.
9.   McCawley (1971) dubs this reading the 'hot news perfect'.

unified analysis for these range of readings that are legitimated by the perfect. As for the experiential, resultative and recent past readings, they have been sometimes grouped together under the name of 'existential' readings (McCawley 1971; Mittwoch 1988). Moreover, to complicate matters further, from a typological point of view there is cross-linguistic variation in the use of the perfect between languages and even between languages of the same family, between dialects or regional varieties.

## 2.1. English

Most of the linguistic research on the perfect has stemmed from the main constraints in usage that apply to the English present perfect, the phenomenon known as the *Present Perfect Puzzle* (Klein 1992), which is observed and described in other studies (Comrie 1976; McCoard 1978) and has also been researched later on in Boogart (1999), Kiparsky (2002), Portner (2003), Pancheva & von Stechow (2004) and Rothstein (2008), among others. In contrast to past, future or non-finite perfect sentences, the present perfect in English as in Scandinavian languages is not compatible with past locating temporal adverbials (e.g., *yesterday*, *two hours ago*, *last week/month/year*, etc.), as shown in (7) (from Klein 1992: 525-546) and (8) (from Giorgi & Pianesi 1997: 87):

(7) a. * Chris has left York yesterday.

 b. * Chris has left at six.

(8) * Johan  har        slutat      klockan  fyra.
 Johan  have-PRS.3 SG finish-PTCP o'clock  four
 'Johan finished at four.'                                   (Swedish)

## 2.2. Catalan and Spanish

In languages such as Catalan or a number of varieties of Spanish there is a reading that allows for certain locating time adverbials such as punctual time adverbials. Such a reading is called hodiernal[10] (Curell 1990, 2002, 2003; Curell & Coll 2007; Pérez Saldanya 2002, for the case of Catalan; García Fernández 2000; Brugger 2001; Martínez-Atienza 2006, 2008, 2010; Schaden 2007; Laca 2010; for the case of Spanish).[11] Consider (9a) and (9b) (from Pérez Saldanya 2002: 2593):

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10. From latin *hodiernus* 'from the day of today', derived from *hodie* 'today' (Dahl 1985). According to the *Nueva gramática de la lengua española* (RAE & ASALE 2009), apart from Standard Peninsular Spanish, the hodiernal reading is found in some Spanish varieties of Peru, Bolivia, Paraguay, northeast of Argentina and part of Central America. The hodiernal reading has been also attested in Occitan (Dahl 1985), in the Florentine dialect (Bertinetto 1986: 405) and in seventeenth-century French.
11. In the literature, it has also been called a "bad perfect" (Schaden 2007; Laca 2010).

(9)  a.  *Hem              anat        al              mercat ahir a les        deu
          have-PRS.1PL go-PTCP to.ART.M.SG market yday at ART.F.PL ten

     b.  Hem               anat        al              mercat avui a les        deu.
         have-PRS.1PL    go-PTCP to.ART.M.SG market today at ART.F.PL ten
         'We went to the market at ten.'

                                                                              (Catalan)

In example (9a), the use of the present perfect is not licensed with locating time adverbials that refer to the previous day of the utterance as *ahir* 'yesterday', so the sentence is ungrammatical. By contrast, in (9b), the present perfect describes the eventuality of *going to the market* that takes place on the same day as the utterance, as specified by the locating time adverbial *avui* 'today'.

The distinction between hodiernal and prehodiernal readings is clear-cut in Catalan, in which the periphrastic past tense[12] bars the perfect from assuming perfective past uses. Contrary to Catalan, in European Spanish, there is more variation. Even though examples such as (10) are mostly ruled out in Standard Peninsular Spanish, there are places that can accept them. As pointed out in González & Verkuyl (2017) a sentence like (10) is mainly accepted in Latin American varieties and some regions in Spain (Asturias, Galicia, Leon and the Canary Islands). Moreover, some speakers from Alicante (Schwenter 1994), Madrid (Serrano 1994; DeMello 1994; Kempas 2006), and Seville (DeMello 1994) may accept the present perfect with past time adverbials as witnessed by (11).

(10) *Hoy   llegó              Luisa.
      today  arrive-PAST.3SG  Luisa
      'Luisa arrived today'                         (Standard European Spanish)

(11) *Luisa  ha              llegado       ayer.
      Luisa  have-PRS.3SG  arrive-PTCP yesterday
      'Luisa arrived yesterday.'                    (Standard European Spanish)

Examples such as (11) have been described as instances of the perfective or aorist interpretation of the present perfect (for Spanish, see Schwenter 1994; Serrano 1994; Schwenter & Torres Cacoullos 2008; RAE & ASALE 2009). However, as Squartini & Bertinetto (2016) point out, the 'aoristic drift' (term coined by Squartini & Bertinetto 2000), i.e., the process leading from the resultative perfect to the meaning of past perfective, clearly operates in languages such as French, Romanian and northern Italo-Romance, but this is not the case in Standard European Spanish, Catalan or the Tuscan regional variety of Italian. The process leading to aoristic functions is still dependant on pragmatic and semantic constraints (see Azpiazu 2013, Veiga 2012, Squartini & Bertinetto 2016).[13]

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12. The synthetic past tense form is no longer used in contemporary Catalan.
13. For Squartini & Bertinetto (2016: 945), the crucial fact that shows that the 'aoristic drift' is under way is the compatibility of the present perfect with punctual time adverbials in languages such as

## 2.3. French and German

The incompatibility with past locating time adverbials is not found in other European languages such as French or German, where the compound verbal form is ambiguous between past and perfect interpretations. Consider the following examples:

(12) Marie  est         allée     à  Paris {à six heures/ hier}.
     Marie  be-PRS.3SG go-PTCP to  Paris {at six      /yesterday}
     'Marie went to Paris {at six/yesterday}.'                         (French)

## 3. Perfect vs. (im)perfective

There also exists other points of contrast between the perfect and (im)perfective markers. Let us first consider key contrasts between the present and (im)perfective markers. As widely attested in the literature (Comrie 1976; Dahl 1985; Bybee et al. 1994; Smith 1991; Michaelis 1998), the combination of the perfective aspect with the present tense is infelicitous. This phenomenon has been mostly observed in languages in which tense and aspect are manifested as independent categories such as Slavic languages. In these languages, there are constructions that combine present-tense meaning and imperfective aspect. However, there is no construction that allows for the combination of a present time interpretation and perfective aspect, a puzzle known as the *Present Perfective Paradox* (Malchukov 2009). In Russian, present perfective constructions only allow for a future reading. Consider (13) (example from Malchukov 2009: 19):

(13) a.  On  idet.
         he   go-IMPFV.3SG
         'He goes.'

     b.  On  pri-det.
         he   PFV-go-PRS.3SG
         'He will come.'                                               (Russian)

De Wit (2017) links Malchukov's (2009) observation to another incompatibility problem between the present tense and dynamic events. According to de Wit (2017), in many languages, a present time reading is not available with present-tense constructions that combine with dynamic verbs. For instance, in English, the present tense has a habitual interpretation for almost all types of eventualities, apart from states, see (14).[14]

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Catalan, Standard European Spanish and the Tuscan regional varietiy of Italian (e.g., *Manuel ha salido a las cinco* 'Manuel left (lit. has left) at five' [Spanish]).

14. In English, dynamic events can give rise to a present time reading when it has a performative use or is used as a historical present.

(14) a.  I am at the airport.

b.  I play the piano.

In (14a), the state of *being at the airport* has a present time reading, i.e., it coincides with the moment of speech, whereas in (14b), the event of *playing the piano* cannot be located at the utterance time, and it has a habitual reading only. In other languages such as French, both states and dynamic events allow for a present time interpretation in which the described situation goes on at the utterance time, cf. (14) and (15):

(15) a.  Je  suis          à    l'aéroport.
      I  be-PRS.1SG  loc  the airport
      'I am at the airport.'

b.  Je  joue            au    piano.
      I  play-PRS.1SG  to.the  piano
      'I am playing the piano.'                                         (French)

As de Wit (2017) points out, the use of the perfect to convey a universal reading in English is not trivial since it appears to solve the incompatibility problems related to the *Present Perfective Paradox*. Consider the following examples:

(16) a.  *I live in London since 2015.

b.  I have lived in London since 2015.

As shown in (16a), the use of the present tense in universal readings in English is not available, and the present perfect, which is a construction that has a present-time reference, is required instead, see (16b). This is not the case in languages such as Catalan, French, German, Spanish, etc., in which the use of the universal reading of the present perfect is quite marginal. Instead of the present perfect, the present simple is preferred in Catalan as well as in Spanish, French, German and Russian (Comrie 1976), cf. (16) and (17).

(17) a.  J'habite          à    Londres  depuis 2015.
      I live-PRS.1SG  loc  Londres  since   2015
      'I have lived in London since 2015.'                             (French)

b.  Ich lebe          in  London  seit  2015.
      I   live-PRS.1SG  loc  Londres since 2015
      'I have lived in London since 2015.'                             (German)

c.  Vivo          en  Londres  desde 2015.
      live-PRS.1SG  loc  Londres since  2015
      'I have lived in London since 2015.'                             (Spanish)

For de Wit (2017), the incompatibility of the present tense in universal readings is due to the fact that, in English, the present tense imposes a perfective viewpoint on the situation it denotes. Such a viewpoint clashes with present time events.

Schaden (2011) also notices that Smith's (1991) claim that all aspectually unmarked tenses behave alike cannot be mantained since a perfective reading is not always available for aspectually neutral present-tense markers, which are supposed to allow imperfective as well as perfective readings. He points out another kind of puzzle, called the *Present Perfective Puzzle*, which refers to the incompatibility of the present tense with a perfective reading when it appears combined with *depuis* and *seit* 'since' in French and German, respectively, see (18).

(18) a.  Marie  mange       depuis 12.
         Marie  eat-PRS.3SG since   12.
         'Marie has been eating since 12.'                          (French)

     b.  Hans  isst         seit   12.
         Hans  eat-PRS.3SG since   12
         'Hans has been eating since 12.'                           (German)

In (18), the equivalents for *since* cover a time interval that starts at 12 and reaches up to the time of utterance and the event time of *eating* holds throughout this period of time. However, a perfective reading in which the initial as well as the final point of the event time are properly included within the time interval that starts at 12 is not available.

## 4. Perfect morphology and modal verbs

The interaction of modality with tense and aspect is quite complex and there is considerable cross-linguistic variation as to the possibility of having perfect morphology realized on the modal itself or on the non-finite complement of the modal verb. Unlike in English, Romance languages allow perfect morphology to fall on the non-finite complement as well as on the modal verb, cf. (19)-(20).

(19) He may have won the match.

(20) a.  Juan  puede       haber   ganado   el  partido.
         Juan  may-PRS.3SG have-INF win-PTCP the match
         'Juan may have won the match.'

     b.  Juan  ha          podido   ganar    el  partido.
         Juan  have-PRS.3SG may-PTCP win-INF the match
         'Juan may have won the match.'                             (Spanish)

The combination of perfect morphology and modal verbs gives rise to a number of interpretive constraints. The linearisations MODAL > PERFECT-INFINITIVE and PERFECT > MODAL are usually semantically equivalent options. However, there is

considerable linguistic variation. According to Laca (2018), in French, epistemic readings are preferred when the perfect precedes the modal, i.e., PERFECT > MODAL, whereas Spanish tends to prefer the option MODAL > PERFECT-INFINITIVE. In languages such as Catalan or German (cf. Picallo 1990 on Catalan; Eide 2011 on German), the epistemic reading is not available for the linearisation PERFECT > MODAL as in (21b).

(21) a. En Joan pot         haver    anat    a  Banyoles.
        the Joan can-PRS.3SG have-INF go-PTCP to Banyoles
        'Joan may have gone to Banyoles'

     b. En Joan ha          pogut    anar    a  Banyoles.
        the Joan have-PRS.3SG can-PTCP go-INF to Banyoles
        'Joan has managed to go to Banyoles'                            (Catalan)

In the literature on English modal verbs, it is generally assumed that epistemic and root modals exhibit different semantic properties and syntactic positions. Epistemic modals have a higher position than root modals, which are within the scope of Tense and Aspect (Cinque 1999). However, there is considerable cross-linguistic variation, and the exact sytantic structure of modal verbs and, more specifically, the semantic and syntactic features of perfect modals in Romance languages are still under debate.

## 5. The contributions in this volume

The present issue presents a collection of papers dealing with the questions outlined above and cover a wide range of languages. Next we offer a brief summary of the contributions to this volume.

Borik studies the meaning correspondences between the (im)perfective in Russian and the perfect in English. Her paper shows that there is a split between perfective and imperfective aspect in the non-past tense with respect to expressing perfect meanings. There is also a split between different existential meanings of perfect in the sense that some of them correspond to the perfective aspect and some of them are only rendered by the imperfective aspect. The author aims to present relevant data which might facilitate further studies of these complex grammatical categories.

Laca argues for a double correlation between the distribution of perfect morphology with modal verbs and the semantics of the perfect. She finds out that (i) the preference for higher perfects, i.e., the structure Perfect > Modal, is related to the possibility of the perfect to have aorist uses and function as an absolute past tense, and (ii) Aorist-like uses of the perfect correlate with the possibility of epistemic readings for the linearisation Perfect > Modal. In French, the *passé composé* has aorist uses and may be analysed as an absolute past tense. When combined with a modal verb, higher perfects are more dominant and allow for epistemic readings. By contrast, the European Spanish perfect may function as a relative tense, as an anterior present which locates the reference time in the present and, when it appears with a modal verb, it tends to prefer the linearisation Modal > Perfect-infinitive.

Laca also examines Classical French and Latin American Spanish varieties which show relevant paralellisms with European Spanish.

Carrasco focuses on the interaction of temporo-aspectual morphology, modality and the lexical properties of modal verbs in Spanish. She shows that epistemic modal verbs are vacuous and have a non-eventive nature, whereas root modal verbs are interpretable and eventive, i.e., they denote obligations which can be located on the timeline. The eventive nature of root modal verbs allows for independent modification of the modal and the infinitival complement and the author integrates them into biclausal structures. Unlike root modal verbs, epistemic modal verbs are analysed as monoclausal structures that are interpreted in relation to the main predicate of the modal. The proposal that epistemic modal verbs are non-eventive supports the hypothesis of identity of *haber* posited by Martin (2011). In Spanish, structures with the auxiliary verb *haber* preceding an epistemic modal verb (<*haber* + epistemic modal verb + past participle>), as well as structures with an epistemic modal before the infinitive *haber* (<epistemic modal + *haber* + past participle>), are semantically equivalent.

Azpiazu studies the interaction between the notion of simultaneity introduced in Rojo's (1974) and Rojo & Veiga's (1999) vector model to account for the European Spanish perfect and other related concepts such as Alarcos's (1947) Increased Present (IP), which shares relevant similarities with McCoard's (1978) Extended Now (XN) and Iatridou et al.'s (2003) and Pancheva & von Stechow's (2004) Perfect Time Span (PTS). She compares the European Spanish perfect with English and Portuguese and shows that the differences in the time interval denoted by the perfect (e.g., IP, XN or PTS) mainly rely on the way the simultaneity and anteriority vector interact with each other.

Building on Nishiyama & Koening (2010), Ritz assumes that the present perfect denotes a state and analyses the hot news present perfect as a perfect state, which can be pragmatically enriched. She extends Rett & Murray's (2013) proposal to add this pragmatic component and argues that the hot news present perfect is a marker of mirativity, i.e., it conveys the speaker's reaction of surprise. Her proposal is illustrated with non-canonical uses of the present perfect in Australian English narratives and police media reports, in which the present perfect is combined with definite past time adverbials.

Finally, Lewandowski reports the results of an acceptability judgement task on the *be/have* alternation with motion verbs in German. In line with Randall's (2007) proposal, the author shows that the feature [+locomotion] is a property of constructions which is relevant for auxiliary selection and is directly connected to the prominence of directionality associated with the verb. The results of the experimental task show that the feature [+locomotion] is related to directional manner-of-motion verbs and tend to select the auxiliary verb *be*; whereas [-locomotion] corresponds to non-directional manner-of-motion verbs and are likely to trigger the selection of *have*.

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