(Un)boundedness **across Syntactic Categories**

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1. The quest for symmetry[1]

The quest for symmetric properties in the syntax and semantics of phrasal domains (e.g. the nominal domain and the verbal domain) has been a major guideline in linguistic research. In generative syntax, this quest for cross-categorial symmetry has led, among others, to the following theoretical implementations: (a) the uniform X-bar theoretic format for the phrase structural organization of the lexical categories N, V, A and P (Chomsky 1970, Jackendoff 1977); (b) the extension of the X-bar theoretic format to functional categories (Chomsky 1986, Abney 1987), such as determiners, tense and complementizers; (c) the symmetric structuralization (i.e., projection) of the functional-lexical dichotomy (i.e., it is generally assumed that the lexical structural layer is hierarchically embedded within the functional structural layer); (d) the uniform binary branching organization of phrase structure (Kayne 1984); (e) the cross-categorial application of certain types of displacement operations, like "passivization/A-movement" (Chomsky 1970), head movement (Longobardi 1994) and A-bar movement to the left periphery of a phrasal domain (Szabolcsi 1983, Bennis et al. 1998); and (f) Stowell's (1982) idea that subjects appear across (small clause) categories.

The search for cross-categorially symmetric properties also plays an important role in semantic research on human language. Champollion's article is a nice illustration of this (see also Bach 1986, Krifka 1986, Doetjes 1997): he shows that the *bounded* versus *unbounded* opposition underlies a wide range of semantic oppositions in the nominal (e.g., singular vs. plural, count vs. mass) and verbal domain (e.g. telic vs. atelic, collective vs. distributive) and introduces the notion of *stratified reference* to characterize these semantic oppositions. As Champollion (section 2) notes, " [...] stratified reference applies to a predicate P just in case the following is true: whenever P holds of an entity or event x, there is a way to divide x into strata y_1, y_2, etc. such that each y_i is mapped by the function f to a value which counts as very small with respect to the comparison class K." For example, the atelic event expressed by *John walked for an hour*, where *walk* is an activity verb (see Vendler 1957), can be divided (along the temporal dimension) into one or more parts, each of which is a walking event whose runtime is very short compared with one hour. Thus, the atelic event of walking can be subdivided into smaller walking events (subevents/strata). Likewise, a pseudopartitive construction like *ten liters of water* or *ten minutes of walking* only permits a predicate (*in casu* a noun) that can apply to the parts of the entity (*water*) or event (*walking*) in its denotation. This accounts for the fact that the second noun can be a plural (*five pounds of **books***) or a mass noun (*ten liters of **water***) but not a singular count noun (**five pounds of **book***). In *ten liters of water*, for example, every amount of water can be divided into smaller amounts (parts/strata) of water, each of which is an amount of water whose volume is very small compared with ten liters; see section 3 of Champollion's article).

Taking the quest for cross-categorial symmetry seriously and agreeing with Champollion and others that the bounded versus unbounded opposition is a nice illustration of cross-categorial parallelism, I will briefly address four questions here, the last one of which is also raised in Champollion's article (section 5):

- If unboundedness (presence of stratified reference) of an event (*walking*) or entity (*water*) implies that the event/entity "can be divided into one or more parts (strata)", then the question arises as to whether those parts sometimes appear at the "linguistic surface". In other words, are there linguistic signs that hint at the existence of a part-whole relation?
- To what extent can the bounded versus unbounded opposition be found in the adjectival domain and the prepositional domain? In other words, is this opposition truly cross-categorial in the sense that it applies to *all* types of phrasal domain?
- If the bounded-unbounded opposition is a core property of human language (i.e., a property manifest in different phrasal domains), the question arises as to whether signs of this distinction can also be found in more "peripheral" parts (and therefore often less well studied parts) of human language.
- If (un)boundedness involves a common semantics for the verbal and nominal domain (and possibly other types of phrasal domains), does this go hand in hand with a common syntax?

My answers to these questions will be the following: (i) Parts (strata) can become manifest by means of coordination (section 2); (ii) (un)boundedness is also attested in prepositional and adjectival phrases (section 3); (iii) the bounded versus unbounded opposition also plays a role in the characterization of (sound-symbolic) interjections (section 4); (iv) the property of (un)boundedness seems to be associated with a lower functional layer in the hierarchical organization of phrases (section 5).

2. Making parts visible

The part-whole relation is a core ingredient of unboundedness (stratified reference). The walking event in a sentence like *John walked for an hour* can be divided into one or more parts, each of which is a walking event. Likewise, the amount of water designated by the mass noun *water* in *ten liters of water* can be divided into one or more parts, each of which is an amount of water. Given this part-whole relationship, the question arises as to whether this property of divisibility into parts ever becomes linguistically manifest. That is, are there constructions in which the parts (subevents, subamounts *et cetera*) making up the whole are overtly expressed?

A construction type that comes to mind is coordination, more specifically coordination by means of the coordinate conjunction *and*. The use of this conjunction entails that the coordinates contribute in an equal way and in the same manner to the interpretation of the expression of which the coordination is part (Cremers 2015). For example, in the expression *John and Bill walked for an hour*, both *John* and *Bill* fulfill the semantic role of agent. And in *John walked and talked for an hour*, the verbs *walked* and *talked* take *John* as their external argument. Although the coordinator *and* normally conjoins two distinct lexical items (or phrases), as in *John and Bill* and *walked and talked*, it is possible in principle to have a coordinate structure whose conjuncts are realized by one and the same lexical item (or, in the case of complex phrases, identical strings of words). In such repetitive structures, we typically get an unbounded reading: each of the conjuncts represents a part (subinterval, subevent, subamount, etc.) of the larger whole (the entire interval, the entire event, the entire amount, *et cetera*). Or to phrase it differently, each conjunct represents a stratum and the entire coordinate structure constitutes 'the whole.' It is the repetition of identical conjuncts (identical strata/parts) that triggers an unbounded meaning. Consider, for example, the sentences in (1)

and (2). In a way, there is no end to the time of walking, the extent of widening, the amount of snow, and the number of books.[2]

(1)   a.   John walked, walked and walked.
         b.   The crack widened, widened and widened.
(2)   a.   What I saw outside was snow, snow and snow.
         b.   What I saw in the Harvard library were books, books and books.

Notice that it is impossible to have this repetitive coordinate structure with predicates that have a bounded interpretation:

(3)   a.   John walked (* ,walked and walked) to the store.[3]
         b.   The crack widens (*, widens and widens) 2 cm.
(4)   #What I saw in the Harvard library was a book, a book and a book.

In (3a), the PP *to the store* defines a clear endpoint for the walking event. Consequently, a temporally unbounded (i.e., atelic) interpretation of the walking event is impossible. In (3b), we have the spatially telic expression *The crack widens 2 cm* (see Champollion's example (9b)). The unbounded (atelic) meaning triggered by the repetitive coordinate structure conflicts with the bounded (telic) meaning of *widens 2 cm*. In (4), we get the pragmatically odd reading that what I saw in the Harvard library were just three books. Coordination of identical singular count nouns does not yield an unbounded amount meaning but rather an enumeration of (*in casu*) three individual books.

        The question arises whether there are other syntactic constructions that make the part-whole relation visible. A potential candidate is the construction type "bare noun + P + bare noun", where the two bare nouns are identical, just like in the repetitive coordinate structures: e.g., *mile after mile (after mile* etc.) and *step by step (by step* etc.)). In this construction type, it is not the event or entity that is "linguistically cut into smaller parts", but rather the modifier of the event or entity. The repetitive meaning of the modifier hints at a continuous (i.e. unbounded rather than punctual) dimension. Some examples (drawn from the internet) are given in (5):

(5)   a.   We drove *mile after mile (after mile after mile)* past golden fields and
                  sapphire skies, with only one thought between us: are we there yet?
         b.   The back of my property borders national forest with *miles and miles and miles
                  of woods* and logging roads and clearcuts.
         c.   Thus I walked up the hill, *step by step, by step*— my feet growing tired with
                  each step.
         d.   […] after manually driving *mile after mile after mile* of boring highway.
         e.   [..] he opted to dive back into music and opened up a recording studio that
                  grew *bit by bit by bit* until he purchased the building he would later turn into
                  the Saltmine.

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[2] The sentence are also fine without *and* (e.g., *John walked, walked, walked.*). In that case, we have a completely asyndetic coordination pattern; i.e., all coordinate conjunctions remain phonetically empty.

[3] The event seems to be atelic in a sentence like *John walked all the way to the store*. Notice that this sentence permits the repetitive coordination pattern: *John walked, walked and walked all the way to the store*. The question obviously arises as to why the PP headed by *to*, which defines an endpoint, does not trigger a telic reading of the walking event. Possibly, following a suggestion by Hans-Martin Gärtner, the PP (*all the way to the store*) is not a complement of the verb *walked*, but rather a PP-modifier (functioning as a sort of afterthought) adjoined to the VP headed by the intransitive verb *walked*.

In sum, the grammatical device of coordination makes it possible to make subparts (strata) of a larger whole (an event, an entity) "linguistically visible". Another construction type that makes the part-whole structure of an event/entity "(indirectly) visible" is the N_α+P+N_α-pattern (where α indicates the lexical sameness of the two bare nouns).

3. (Un)boundedness in prepositional phrases and adjectival phrases

In his article, Champollion shows that the bounded versus unbounded opposition is clearly attested in the nominal domain (e.g. count versus mass nouns) and verbal domain (e.g. telic versus atelic verbs). From the perspective of cross-categorial symmetry, the question obviously arises as to whether this opposition can also be found in the two other major phrasal domains: the prepositional phrase (PP) and the adjective phrase (AP). Also building on insights from others, I will answer this question positively.

As noted in Den Dikken (2010), the 'verbal-aspectual' distinction between bounded and unbounded events has its spatial equivalent at the level of locative P(reposition) (Koopman 2000's PlaceP) and directional P (Koopman's PathP). For example, both *walk into the house* and *walk around the house* involve a Path-denoting PP, but while the former path is bounded (i.e., the path has an endpoint), the latter is not (see also Zwarts 2005).

In line with what we saw in section 2, it is possible to have the repetitive coordinate pattern with Path-PPs that denote an unbounded path. This is exemplified in (6) (examples drawn from the internet):

(6)   a.   My only real activity, besides going to work, has been to walk *around and around and around the track.*

         b.   The snowball rolled *down and down the mountain* towards the stream.

Notice that when the Path-denoting PP has a clear endpoint (i.e., when it is bounded), the repetitive coordination pattern is not possible, as shown in (7):[4]

(7)   The wolf walked into (*and into) the cave.

In terms of Champollion's notion of stratified reference, we can say that the Path denoted by the PP in (6) can be subdivided into sub-paths (spatial strata), while the Path denoted by *into the cave* in (7) cannot.

As shown by Tortora (2008), on the basis of data from Italian and Spanish, locative PPs (in Koopman (2000)'s terms: PlaceP's) also display the spatial-aspectual distinction. Consider, for example, the minimal pair in (8) from Italian (examples taken from Tortora's article):

(8)   a.   Ci sono delle api *dietro a*ll' albero.

               there are of.the bees behind **a**.the tree

               [bees are spread out in a wide space, perhaps flying around]

         b.   Ci sono delle api *dietro* l' albero.

               there are of.the bees behind the tree

               [bees are in one spot together, perhaps sitting on the tree]

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[4] Unboundedness (continuation) can be expressed, though, by means of the modifying comparative adjective *further*, as in *The wolf walked further and further (and further) into the cave*.

In (8a) we have a complex PP in the sense that a lexical preposition (*dietro*) is combined with the grammatical preposition *a*. In (8b), we have a simplex PP; there is only one prepositional element, viz. *dietro*. As Tortora notes, the complex PP denotes an unbounded space (i.e., a space that is allowed to flexibly expand and change shape, size, or dimension) and as such allows for a distributed interpretation of the object ('the bees'): the bees are spread out in a wide space. The simplex PP (i.e. without *a*), on the contrary, denotes a space that is bounded ('punctual'). The PP yields a point-like interpretation of 'the bees'; they are conceptualized as consisting of a bounded entity occupying a single spot.

Tortora further notes that in English the bounded versus unbounded opposition in place-PPs sometimes becomes manifest in the choice of modifiers. The modifier *all* is typically attested in PPs that designate an unbounded place.[5] The modifier *right*, however, typically combines with PPs that designate a bounded (i.e., punctual) place. Compare, for example, the examples in (9) and (10):

(9)   a.   I love the fact that we have forest [PP *all* around the house].
      b.   [*All* above the tree] were tiny birds.
(10) a.   [PP *Right* behind the house] was a cherry tree.
      b.   The fly flew [PP *right* above my head].

In (9), the PP modified by *all* denotes an unbounded space: the forest is spread out in a wide space around the house and the birds are distributed in a wide space above the tree. In (10), on the contrary, the PP modified by *right* has a bounded interpretation: There is a punctual, bounded space behind the house where the cherry tree is located, and the fly is at a specific spot above my head. Since the singular count noun cannot get a distributive reading, it is impossible to have a sentence like **All behind the house was a cherry tree* (compare with (9b)).

As noted by Tortora, not all locative prepositions in English allow modification by *all*. While locative prepositions such as *around, above, over, under* and *along* allow modification by *all* (see (9) and (11)), the prepositions *near* and *next to* do not (see (12)). The latter can only appear with the punctual modifier *right*. From this, Tortora concludes that spatial (un)boundedness is a property that is associated with the preposition itself.

(11) a.   There were purple flowers [*all* over the field].
      b.   There are tunnels [*all* under the house].
      c.   [*All* along the wall] were pictures of the Mayson family.

(12) a.   (**All*/[OK]*Right*) near the house are a few fields with large round bales of hay.
      b.   (**All*/[OK] *Right*) next to the farm are the ruins of Ogmore castle.

If (un)boundedness (presence or lack of stratified reference) can be identified in the verbal, nominal and adpositional domains, then arguably we should be able to identify this opposition also in the adjectival domain (see also Corver 2013). One might argue, for

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[5]   Champollion (section 4) notes that the distributive determiner *all* imposes stratified reference requirements that are similar to those imposed by *for*-adverbials and pseudopartitives. A sentence like *all the children smiled* is assigned the following interpretation (see Champollion's (62)): Every smiling event can be divided into one or more parts, each of which is a smiling event whose agents are very small in number compared with the total number of children. Along the same lines, a locative PP like *all over the field* in (11a) denotes a space (with purple flowers) that can be divided into smaller spaces ("sub-fields") occupied by purple flowers.

example, that the aspectual dimension is found in the adjectival expressions in (13), which feature a gradable adjective whose degree is specified in different ways. In (13a), the measure phrase *five feet* identifies a specific point on the scale of 'degrees of tallness'. In other words, the degree is punctual and bounded. This bounded reading is also found in a comparative form like (13b), where the measure phrase designates the size of the gap that spans from today's pile of snow up to yesterday's pile of snow (see Schwarzschild 2005). Interestingly, the degree expressed by a comparative form like *taller* can also be unbounded. This is the case in (13c), where the modifier *ever* specifies the unboundedness of the degree of tallness.

(13) a. The pile of snow was [five feet tall].
      b. Today's pile of snow is [two feet taller than yesterday's].
      c. The piles of snow in his garden grew [ever taller].

In line with what we saw in section 2, this unbounded degree can also be expressed by means of the repetitive coordination pattern. Consider the following examples, in which the comparative adjective of the synthetic comparative form (14a,b) or the free comparative morpheme (*more/less*) of the periphrastic comparative form (14c,d) is repeated.

(14) a.   The piles of snow in his garden grew [taller and taller].
      b.   John gets [smarter and smarter and smarter].
      c.   She slowly started getting [[more and more and more] afraid of people].
      d.   Each day that went by I was [[less and less] angry].

Again if the degree is bounded (i.e., punctual, in the sense of denoting a specific point on the scale of 'degrees of tallness'), the repetitive coordination pattern is impossible:

(15) a.   John is two inches taller (*and taller) than Bill is.
      b.   Mary is less (*and less) tall than Sue is.
      c.   John is as (*and as) tall as Bill is.

Summarizing, in this section I have tried to show that the bounded (punctual/delimited) versus unbounded (continuous/non-delimited) opposition is a property that is attested across syntactic categories and their projections. In short, the bounded versus unbounded distinction seems to be a clear case of cross-categorial symmetry. If the bounded-unbounded opposition is such a deep property of human language (i.e., a property manifest in different phrasal domains), the question arises as to whether signs of this distinction can also be found in more "peripheral" parts (and therefore often less well studied parts) of human language. In the next section I will explore one such peripheral part: Sound-symbolic interjections.

4. Bounded versus unbounded interjections

Knowledge of interjections and their grammatical behavior is part of our knowledge of language. Yet, interjections belong to the least studied parts of speech (Ameka 1992), and according to some rightly so given that "Interjections are among the least important of speech elements;" Sapir (1921:5). Although at first sight, there seem to be good reasons for this lack of interest in interjections, upon closer inspection interjections turn out to display quite interesting linguistic behavior after all (see e.g. Corver (2015)). For the purpose of this article, I would like to argue that the opposition bounded versus unbounded also plays a role in

distinguishing certain types of sound symbolic interjections (i.e., those interjections whose "meaning" is a sound-designating one). Specifically, in the sound dimension, as manifest linguistically in the form of sound-symbolic interjections, a distinction can be made between point-like ('punctual') sound-symbolic interjections (i.e., boundedness) and continuous (i.e. unbounded) ones. The latter can be divided into smaller sound parts ("sound-symbolic strata"). In what follows, I will try to motivate this extension of the bounded-unbounded opposition towards interjections on the basis of data from Dutch.

Consider the following examples:

(16) a. De vaas viel PATS op de grond.
    the vase fell PATS on the ground
  b. Jan hakte TSJAK het vlees doormidden.
    Jan cut TSJAK the meat in-two-pieces.
  c. Jan reed BOEM tegen de muur op.
    Jan drove BOEM against the wall PRT
  d. Jan zakte KRAK door het ijs.
    Jan went KRAK through the ice.
  e. De zak viel BAF op de grond.
    the bag fell BAF on the ground.
  f. Het kiezeltje kwam TOK tegen zijn brilglas aan.
    the pebble came TOK against his spectacles-glass PRT

In these sentences, the sound-symbolic interjection has a "point-like" (punctual) interpretation. It denotes a bounded sound: a discrete "sound point" in the "sound space". Not surprisingly, the events denoted by the sentences in (16) have a clear end point. For example, in (16a) this endpoint is the moment at which the falling vase touches the ground, and in (16c) the end point is the moment at which Jan (or better, his car or bike) ends up against the wall. In a way, the sound-symbolic interjection marks the moment at which the endpoint (the ground, the wall, *et cetera*) is reached.

Besides interjections with a punctual interpretation, there are also interjections having an unbounded meaning: the sound is allowed to flexibly expand in the "sound space". This sound expansion is linguistically represented by means of an iterative syntactic pattern. Consider, for example, the sentences in (17), where the unbounded interjection is represented in italics.[6]

(17) a. Jan viel *holder de bolder (de bolder de bolder ..) de bolder* naar beneden.
    Jan fell HOLDER DE BOLDER (DE BOLDER DE BOLDER ..) DE BOLDER to downstairs
  b. Ze reden *hobbel (de bobbel de bobbel ..) de bobbel* over de keienweg.

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[6] Possibly, the elements *-er* and *-el* in expressions like *holder de bolder* and *rinkel de kinkel*, respectively, also contribute to the frequentative/repetitive meaning of these complex interjections. As exemplified in (i), the sound sequence *-er* also occurs in verbs that have a frequentative/repetitive meaning (see also Van Langendonck 1979):

  (i) fladd*er*en 'to flutter', flodd*er*en 'to flounder', debb*er*en (dialectal) 'to potter', bibb*er*en 'to shiver', ploet*er*en 'to dabble', dabb*er*en 'to stamp', lebb*er*en 'to sip', snott*er*en 'to snivel'

That *-el* contributes a frequentative/repetitive meaning aspect is suggested by minimal pairs such as *huppen* ('to hop') vs. *huppelen* ('to hop (repeatedly)') and *duiken* ('to plunge/dive') vs. *duikelen* ('to tumble/somersault'); see also Doetjes (1997).

they drove HOBBEL (DE BOBBEL DE BOBBEL ..) DE BOBBEL across the stone-way

    c.   De scherven vielen *rinkel (de kinkel de kinkel ..) de kinkel* op de grond.
the shards-of-glass fell RINKEL (DE KINKEL DE KINKEL ..) DE KINKEL on the ground

    d.   Jan zakte *krakker (de krakker de krakker ..) de krak* door de stoel heen.
Jan went KRAKKER (DE KRAKKER DE KRAKKER ..) DE KRAK through the chair PRT

    e.   Jan roffelde *roemer (de boemer de boemer ..) de boem* op z'n trom.
Jan drummed ROEMER (DE BOEMER DE BOEMER ..) DE BOEM on his drum

Note that in these complex interjections there is one lexical element (*bolder*, *bobbel*, *kinkel*, *krakker, boemer*) that is used repeatedly. This repetitive use of a sound symbolic interjective element has the effect that the (expandable) length of the "sound event" (i.e., a stumbling sound, the roll of drums, the sound of breaking glass *et cetera*) is represented. Of course, this phenomenon is reminiscent of the repetitive coordination patterns in (1) and (2).[7]

5. Symmetric syntax

So far, I have tried to give further support for the idea that the bounded-unbounded opposition (in Champollion's terms: the lack versus presence of stratified reference) is a core property of natural language grammar. It is a property found across syntactic categories. This brings me to the fourth question raised in section 1 (see also Champollion, section 5): Is there a common way (i.e., a symmetric syntax) in which this type of information (i.e., boundedness/unboundedness) is represented in the syntactic structure? Obviously, this question is far too complex to answer within the limits of this article. However, I will try to give a global answer by sketching the approach taken in generative syntax towards the (cross-categorially parallel) encoding of certain types of grammatical information.

    The general research program on the internal structure of phrasal domains (or better: extended projections in the sense of Grimshaw 1991/2005) tends to adopt the position that the same types of information are attested across the various phrasal domains (i.e., noun phrases, verb phrases, prepositional phrases and adjective phrases) and that the structural organization of these "informational layers" is highly similar (see e.g. Abney 1987, Szabolcsi 1987, Cinque 1999). It is generally assumed that the extended projection of the lexical category V includes, as its core, the following three functional projections (see Chomsky (2002), Den Dikken (2010), Corver (2013): (i) a projection for aspectual information; (ii) a projection for temporal-deictic information; (iii) a projection for expressing illocutionary force/sentence

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[7] See Corver (2015) for an analysis of the internal syntax of these complex interjections. They are analyzed as coordinate structures. Corver (2014) gives an analysis of Dutch curse expressions that display the same iterative pattern. A further illustration of this construction type featuring the remarkable linking element *de* is given in (i) and (ii), where the expression *slinger de slanger* (meaning: 'winding, with many curves') can be used repetitively and triggers a spatially atelic meaning.

    (i)   We reden *slinger de slanger (de slinger de slanger de slinger de slang)* het bergpad af.
we drove SLINGER DE SLANGER DE (SLINGER DE SLANGER DE SLINGER DE SLANG) the mountain-path down

    (ii)   De weg ging *slinger de slanger (de slinger de slanger de slinger de slang)* door het landschap heen.
the road went SLINGER DE SLANGER DE (SLINGER DE SLANGER DE SLINGER DE SLANG) through the landscape PRT.

mood. The aspectual projection (AspP) encodes information about the boundedness versus unboundedness of an event. The temporal-deictic projection (TP) encodes information about how the event is situated in time: 'present', 'past', and 'future'. The Force projection (CP) encodes illocutionary properties such as 'declarative', 'interrogative', 'exclamative', *et cetera*. It is generally assumed that these information types are distributed across the clause (i.e. the extended verbal projection) in the following organized way:

(18)   [$_{CP}$ ….C… [$_{TP}$ …T… [$_{AspP}$ …Asp… [$_{vP}$ … V …]]]]

In line with the idea of symmetry, one expects these different layers of information and their hierarchical ordering with respect to each other to be also present in other extended projections: the extended nominal, prepositional and adjectival projections (cf. Den Dikken 2010, Corver 2013).

Zooming in on the information layer 'aspectuality', one expects the property of (un)boundedness to be present and active not only in the clausal domain (say, the syntactic domain that can designate events) but also in other phrase structural domains. In sections 2 and 3 I tried to give some support for that. If one adopts the view that, cross-categorially, aspectual information (say, [+bounded] versus [-bounded]) is associated with a specific functional layer (for which I use the umbrella term 'AspP' here), then one expects aspectual information to "materialize" in (at least) the following ways. First, the functional head encoding the aspectual information can materialize (i.e. be lexically realized). Some examples:[8]

(19)   a.   Mae Steffan [$_{AspP}$ **yn** [$_{VP}$ sgwennu llyfr]].   (Welsh; Tallerman 1998)
              is Steffan PROGRESSIVE write book
              'Steffan is writing a book.'
        b.   [$_{AspP}$ san [$_{Asp'}$ **ge** [$_{NP}$ shu]]][9]   (Mandarin Chinese; Cheng & Sybesma 1999)
              three CL$_{UNIT}$ book
              'three books'
        c.   Ci sono delle api [$_{AspP}$ **a** [$_{PP}$ dietro l'albero]][10]   (Italian; Tortora 2008)
              there are of.the bees 'a' behind the tree
        d.   The size of yachts gets [$_{AspP}$ ever [$_{Asp'}$ **–er**$_{[+compar]}$ big]] (i.e. *ever bigger*)

In example (19a) from Welsh, the particle *yn* marks progressive aspect (i.e. [-bounded] information). In (19b), the Mandarin Chinese classifier *ge* marks countability (i.e. [+bounded] information). In the Italian example (19c), the prepositional element *a* marks spatial-aspectual information, more specifically unbounded space (see section 3). In (19d), finally, the comparative morpheme *–er* is compatible with an unbounded reading (i.e., the unboundedness of the degree of tallness).

A second way in which aspectual information "materializes" is by means of modifiers that occupy the specifier position of the aspect-encoding head.

(20)   a.   The galaxy is [$_{AspP}$ **still** [growing]].
        b.   After [$_{AspP}$ **three hours** [of driving]]

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[8] As indicated in the main text, I use AspP here as an umbrella term. The nominal AspP in (19b) has been labeled ClasP (Classifier Phrase) in Cheng and Sybesma 1999, the adjectival AspP in (19d) has been labeled QP in Corver (1997). Tortora (2008) refers to the prepositional AspP as AspP$_{PLACE.}$

[9] Cheng and Sybesma place the numeral *san* in a higher NumP-projection.

[10] In order to obtain the right word order (*dietro all' albero*; see (8a)), Tortora proposes that displacement is operative within the extended prepositional projection. See Tortora (2008) for details.

    c.   [$_{AspP}$ **all** [around the house]]
    d.   [$_{AspP}$ **ever** [taller]]

In (20a) the modifier *still* marks continuative (i.e. unbounded) aspect (Cinque 1999:95) in the clausal domain. In (20b), the temporal measure phrase *three hours* of the pseudopartitive constructions occupies the specifier position of the linking element *of*. In (20c), the distributive element *all* occupies the specifier position of the spatial preposition *around* and in (20d), the modifier *ever* marks the unboundedness of the degree of tallness.

    As I tried to argue in this article, unboundedness can also be expressed by making use of the syntactic device of coordination, specifically coordination of identical conjuncts. Either material in the head position —see the a-examples— or material in the specifier position (i.e. the modifier) —see the b-examples— is coordinated; examples are drawn from the internet.

(21)   a.   After *[four or five hours of [**driving and driving**]]* we made it back to the house.
        b.   After *[[**hours and hours**] of driving]* from Philly to Atlanta, we're safely reunited with home sweet home.

(22)   a.   Your feet become [**bigger and bigger**] the more energy you use.
        b.   Machines for tilling soil and harvesting are becoming *[[**ever and ever**] bigger]* and more powerful.

    The above is just a rough sketch of a cross-categorially symmetric approach towards the syntactic encoding of aspectual information. Obviously much more research is needed to give further substance to this uniform approach.

6. Conclusion

In line with Champollion's article I have tried to give further support for the idea that (un)boundedness (lack versus presence of stratified reference) is a cross-categorially significant property of human language. I have argued (i) that the syntactic device of coordination can make parts (strata) "visible", (ii) that (un)boundedness is also attested in the prepositional and adjectival system, (iii) that (un)boundedness is also manifest in more peripheral parts of grammar, *in casu* (sound-symbolic) interjections, and (iv) that the property of (un)boundedness is syntactically encoded in a cross-categorially uniform way. Within the bounds of this article I have only been able to touch upon a few issues of a topic that needs continuous research.

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