Hungarian particle reduplication as local doubling

Anikó Lipták
Leiden University
A.Liptak@hum.leidenuniv.nl

Andrés Saab
Instituto de Filologia y Literatura Hispanica "Doctor A. Alonso", Consejo Nacional de Investigaciones Científicas y Técnicas, Buenos Aires
al_saab75@yahoo.com.ar

Abstract: This paper provides a morphosyntactic account of particle reduplication in Hungarian, a case of reduplication whose function is to express repetition of events. The most conspicuous property of this process is that it can only apply when the particle is strictly left adjacent to an overt verb. We develop an analysis in terms of a syntactic process that yields a string of doubled particles that do not form a constituent, following the insight of Piñon (1991), and we propose that reduplication targets subwords and derives the facts via a local doubling process.

Keywords: subword; head movement; ellipsis; doubling; Distributed Morphology

1. Introduction to particle reduplication

Many Hungarian verbs combine with verbal particles (also called preverbs), which comprise resultative, terminative and locative elements (see Ladányi 2015 for a recent overview).[1] The main contribution of particles is the indication of situation aspect: resultative and terminative particles mark telicity and locative particles appear in atelic predication (see É. Kiss 2006b;c).

While particle–verb combinations are often idiosyncratic and thus must be lexically listed, particles are syntactically independent of their

---

[1] Kiefer and Ladányi (2000, 482) list the following as productive particles, which we provide with approximate translation: *agyon* 'to death', *alá* 'under', *át* 'across', *be* 'in', *bele* 'into', *elé* 'before', *elő* 'fore', *fel/föl* 'up', *félre* 'aside', *fölé* 'above', *hátra* 'to the back', *hozzá* 'towards', *ide* 'here', *keresztül* 'across', *ki* 'out', *körül* 'around', *le* 'down', *meg* PERFECTIVE, PRF, *mellé* 'next', *mögé* 'behind', *neki* 'to, against', *oda* 'there', *össze* 'inwards', *rá* 'onto', *szét* 'outwards', *túl* 'beyond', *tönkre* 'bust', *tovább* 'further', *utána* 'after', *újra* 'again', *végig* 'through', *vissza* 'back'. In addition, *el* 'away' is productive as well.

verbs in many syntactic environments. In neutral clauses the particle is left adjacent to the verb (cf. (1a)), whereas in clauses with a focused element or negation the particle appears in a postverbal position, but not necessarily right adjacent to the verb (cf. (1b)). In the latter cases, the verb is adjacent to the focus or the negative marker instead of the particle.[2]

(1) a. Peti be nézett   az előbb az ablakon.   *uninverted order*
         Peti IN look.PST.3SG the before the window.SUP
         'Peti has looked in the window just now.'

     b. Peti nem nézett   az előbb be az ablakon.   *inverted order*
         Peti not look.PST.3SG the before PRT the window.SUP
         'Peti has not looked in the window just now.'

As (2) illustrates, Hungarian particles can be reduplicated to signal iteration of events in a fully productive process. The particles that participate in reduplication can be resultative or terminative particles, which indicate telicity. In addition, perfective *meg* can also be reduplicated:

(2) a. Peti rendszeresen be-be nézett   az ablakon.
         Peti regularly   IN-IN look.PST.3SG the window.SUP
         'Peti looked in the window regularly.'

     b. Fel-fel dobta   az érmét   a levegőbe.
         UP-UP throw.PST.3SG the coin.ACC the air.ILL
         'He threw up the coin into the air from time to time.'

     c. Időnként meg-meg álltunk   körülnézni.
         sometimes PRF-PRF stop.PST.3PL around.look.INF
         'We stopped sometimes to look around.'

As Piñón (1991) and Ackerman (2003) mention, next to uninflected particles, the class of inflected adpositional particles (as defined in e.g., É. Kiss 2002; Surányi 2009a) are also well-formed with reduplication. See the following examples for illustration ((3a) is from Ackerman 2003, ex. 31).[3]

---

[2] To reflect the fact that sometimes particles are syntactically autonomous of the verb, we do not spell particle-verb combinations in one word in any example in this paper, unless they contain inseparable particles. Abbreviations are the following: ALL = allative, DAT = dative; DEL= delative; FUT = future auxiliary; ILL = illative; IN = inessive; INF = infinitival ending; SUB = sublative; SUP = superessive; PASS.PRT = passive participle; PRF = perfectivizer; PR.PRT = present participle; PST = past tense. Present tense is not indicated. For convenience, we gloss particles with their lexical meaning when that is possible.

[3] In an online questionnaire grammaticality survey with 13 native speakers, we have found that for some speakers, the 3rd person forms (e.g., (3c)) fare better than the

(3) a. A tanítványaim   belém-belém   szeretnek.
         the disciple.POSS1SG.PL INTO.1SG-INTO.1SG fall.in.love.3PL
         'My disciples fall in love with me from time to time.'

     b. A kutya rád-rád   ugrott   hátulról.
         the dog   ONTO.2SG-ONTO.2SG jump.PST.3SG back.DEL
         'The dog jumped onto you from time to time from the back.'

     c. A cápák   neki-neki   mentek   a hálónak.
         the shark.PL DAT.3SG-DAT.3SG bump.PST.3PL the net.DAT
         'The sharks bumped into the net from time to time.'

Without reduplication, the above sentences would refer to a single event, and with reduplication they refer to a series of events. The semantic contribution of reduplication is referred to as iterative/erratic aspect or frequentative aspect (Kiefer 2006), habitual-iterative meaning (Halm 2015) or the expression of an intermittent repeated action (Ackerman 2003). This is in line with observations in the typological literature. While reduplication affecting the verb (or a part of it) can encode several aspectual distinctions across languages, the most common of these are frequentative, repetitive, continuative and progressive (Inkelas 2014); repetitive aspect also being one of the iconic meanings of reduplication (Kiyomi 1995).

The phenomenon of Hungarian particle reduplication has been discussed in the pioneering study of Kiefer (1995–1996), a study that showed that particle reduplication has the semantic import of iterativity and applies to perfective events. With a reduplicated particle, the examples in (2) above indicate that the event reoccurred an unspecified number of time intervals. We will indicate this ingredient of meaning in the English translations by adding an adjunct such as *from time to time* when there is no overt adverb in the sentence denoting frequency of occurrence. As Halm (2015) mentions, overt adverbs of regular frequency, such as *rendszeresen* 'regularly', can occur in sentences with reduplicated particles (as in 2a). Due to the component of event iteration, the predicate undergoing particle reduplication must express dynamic events and cannot denote a state (**meg-meg felel* 'PRF-PRF comply'; **össze-össze fér* 'PRT-PRT go well (with)'), an irreversible change of state (**meg-meg öregszik* 'PRF-PRF get.old', **el-el butul* 'AWAY-AWAY get.dumb') or an excessive deed (**agyon-agyon hajszol* 'TO.DEATH-TO.DEATH rush (someone)'). Irreversible predicates are well-formed with reduplication; however, if the repeated events

---

1st (3a) or 2nd person (3b) forms: the latter forms are degraded to varying degrees. We refrain from commenting on this effect in this paper.

are understood cumulatively. In the following example, drowning happened
to different swimmers an unspecified number of times:

(4)   Időnként egy-egy úszó   bele-bele   fullad   a   tóba.
      sometimes an-an   swimmer INTO.3SG-INTO.3SG drown.3SG the lake.ILL
      'From time to time a swimmer drowns in the lake.'

The iterative import of reduplication is further ascribed to an iterative
operator that applies to the meaning of the basic predicate, the PRT-verb
combination in Kiefer's (1995–1996) study.

    Importantly, reduplication does not change the lexical meaning of the
particle-verb combination, and for this reason, as well as for the reason
that reduplication is fully productive, this process should not be treated
as a lexical process, but rather as a syntactic one, as was concluded in
Piñon (1991) and Kiefer (1995–1996).[4]

    We side with these two works in treating and analyzing particle redu-
plication as a syntactic process in this paper. In this we differ from the
lexicalist approach of Ackerman (2003; 2018), which treats particle redu-
plication as an instance of derivation.

    Particle reduplication furthermore has intriguing syntactic traits, in
that it yields doubled particles whose syntactic behavior is distinct from
their non-reduplicated counterparts. These syntactic differences are the
focus of this article. There are three differences to note, all noted in some
form or other in Piñon (1991). First, reduplicated particles are always left
adjacent to the verb, and show no evidence for syntactic autonomy: they

---

[4] This claim is also supported by Kiefer (1995–1996) by the observation that particle
    reduplication does not occur together with what he calls "morphological rules", one
    of which is what lexicalist approaches call derivational processes, like nominaliza-
    tion, consider the ill-formedness of *meg-megértés 'PRF-PRF understand.NOM', 'un-
    derstanding from time to time'. There are, however, cases of reduplicated forms,
    which are grammatical in what Kiefer would call morphological rules, such as the
    following:

    (i)   be-be térő   (vendégek)
          IN-IN enter-PR.PRT   guests
          '(guests) entering occasionally'

    (ii) fel-fel dobott   (kő)
          UP-UP throw-PASS.PRT stone
          '(stone) being thrown up occasionally'

    These forms, however, are not counterarguments to the claim that reduplication is
    syntactic, as participle formation is argued to be a syntactic process in Kenesei (2005)
    or Lipták & Kenesei (2017).

can never appear in a postverbal position in any context. One context that forces postverbal positioning is sentential negation, as the negative *nem* needs to be adjacent to the verb, the latter stranding its particle (this is modelled by verb movement to the head of a negative projection, Puskás 1998; 2000).

(5) a. Peti bele   nézett   a   könyvbe.
         Peti INTO.3SG look.PST.3SG the book.ILL
         'Peti looked into the book.'

     b. Peti nem nézett   bele   a   könyvbe.
         Peti not look.PST.3SG INTO.3SG the book.ILL
         'Peti did not look into the book.'

As illustrated in (6), reduplicated particles cannot occur in a sentence containing sentential negation (Piñon 1991; Kiefer 1995–1996, Song 2017; 2018), irrespective of the position of the reduplicated particles (following or preceding the verb). The intended meaning can only be expressed by a paraphrase:

(6) a. *PETI nem nézett   bele-bele   a   könyvbe.
         Peti not look.PST.3SG INTO.3SG-INTO.3SG the book.ILL
         'Peti did not look into the book from time to time.'

     b. *PETI nem bele-bele   nézett   a   könyvbe.
         Peti not INTO.3SG-INTO.3SG look.PST.3SG the book.ILL
         'Peti did not look into the book from time to time.'

     c. Nem igaz, hogy Peti bele-bele   nézett   a   könyvbe.
         not true that Peti INTO.3SG-INTO.3SG look.PST.3SG the book.ILL
         'It is not true that Peti looked into the book from time to time.'

Second, unlike ordinary particles, reduplicated particles cannot themselves be focused or contrastively topicalized:

(7) a. *Marci BE-BE nézett   az ablakon,   Peti pedig
         Marci IN-IN look.PST.3SG the window.SUP Peti on.the.other.hand

         KI-KI   nézett.
         OUT-OUT look.PST.3SG
         'Marci looked IN the window from time to time and Peti looked OUT the window.'

     b. *Ki-ki   NÉZTEM.
         OUT-OUT look.PST.1SG
         lit. 'Out, I did look from time to time.'

Third, particle reduplication cannot take place when the verb is elided, in clausal ellipsis processes, in contradistinction to non-reduplicated particles. Compare (8a) to (8b), where the second answer is ill-formed. A well-formed answer must contain the particle followed by the verb (8c).

(8) a. A: Be nézett   az ablakon?   B: Be.
          IN look.PST.3SG the window.SUP   IN
          'Did he look in the window?'   'He did.'

     b. A: Be-be nézett   az ablakon?   B: *Be-be.
          IN-IN look.PST.3SG the window.SUP   IN-IN
          'Did he look in the window?'   'He did.'

     c. A: Be-be nézett   az ablakon?   B: Be-be nézett.
          IN-IN look.PST.3SG the window.SUP   IN-IN look.PST.3SG
          'Did he look in the window?'   'He did.'

In this paper we provide a syntactic account of particle reduplication, designed to explain these three core properties of the phenomenon: lack of syntactic autonomy (cf. (6)); incompatibility with focusing and topicalization (cf. (7)) and incompatibility with ellipsis (cf. (8)). The account we propose treats Hungarian particle reduplication as a morphosyntactic process, a process that results in a PRT-PRT sequence that does not form a syntactic constituent, following the insight in Piñon (1991). We furthermore treat a reduplicated particle as the doubling of a subword, in which a single morpheme is copied and spelled out more than once, which we analyze as an instance of **local** double copy pronunciation as defined in Saab (2008; 2017). As shown in section 5, local doublings form a natural class of copy pronunciation phenomena as opposed to non-local ones. The key to understanding this distinction, we argue, is in the morphosyntactic status of the objects involved in each type of duplication, namely, the distinction between subwords and morphosyntactic words (as defined in Embick & Noyer 2001).

We hasten to add that our goal on these pages is to design an account of the formal behavior of the reduplication process, and we will not be providing any novel insight about the semantics or the aspectual restrictions on this construction, neither will we comment on individual particles, their occurrence in reduplication and speaker variation in these matters. Similarly, in this paper we confine our attention to the reduplicative process that targets verbal particles only, leaving reduplication in other domains aside. To briefly give some examples of other reduplicative phenomena, we note that Hungarian has two other productive reduplication processes. One targets numerals in indefinite noun phrases, and has the semantic import

of distributivity: the reduplicated indefinites are interpreted as co-varying in the scope of a quantifier, cf. Farkas (1997).

(9) Minden gyerek olvasott   két-két / hat-hat / tíz-tíz könyvet.
      every   child read.PST.3SG two-two six-six   ten-ten book.ACC
      'The children read two/six/ten books each.'

The other process is echo-reduplication, yielding word-like units composed of two nearly identical parts, differing only in their initial consonants or vowels, see Sóskuthy (2012) for further details, including a discussion of the productivity of this pattern.

(10) cica-mica cat.DIM   from *cica* 'cat'
      csiga-biga snail.DIM   from *csiga* 'snail'
      ici-pici   very small from *pici* 'tiny'

In addition to the above, Hungarian has a handful of expressions that involve doubled forms, such as a quantifier (11a), a multiplicative adverb (11b), an adverb of quantification (11c) and a degree adjective (11d). The reduplication process yielding these forms is, however, non-productive, as it cannot target all items belonging to these grammatical categories.

(11) a. sok-sok   gyerek
          many-many child
          'a lot of children'

      b. Egyszer-egyszer be   nézett   ide.
          once-once   INTO look.PST.3SG here
          'He visited this place infrequently.'

      c. Néha-néha   be   nézett   ide.
          seldom-seldom INTO look.PST.3SG here
          'He very seldom visited this place.'

      d. Debrecen csupa-csupa   fejlődés.
          Debrecen complete-complete development
          'Debrecen is full of development.'

The paper is structured as follows. In section 2, we elaborate on the core properties of particle reduplication and argue that they only characterize reduplicated particles and do not follow from independent requirements. In section 3, we lay out our assumptions about verbal particles and the configuration in which particle reduplication takes place. In section 4, we show how the proposed account can derive the core properties of redupli-

cation, and in section 5 we introduce the independently motivated mechanism of head copying that is capable of deriving the doubling effect and demonstrate that Hungarian particle reduplication forms a natural class with certain types of local verbal doubling in European Portuguese. Thus, our analysis for Hungarian receives independent theoretical and empirical support. Section 6 sums up the paper.

2. The properties of particle reduplication

2.1. Lack of syntactic autonomy

As illustrated in (6), particle reduplication is only possible when the particle is left adjacent to the verb (Piñon 1991; Kiefer 1995–1996, Song 2017; 2018). This rules out reduplicated particles in inverted position, i.e., where the particle follows the verb. The following illustrative examples contain a preverbal focus (12b) or negation (12c) and (12d), which are both incompatible with a preverbal particle. Without reduplication, the particles are grammatical in postverbal position.

(12)　a.　Peti bele-bele　　　　　nézett　　　a　könyvbe.
　　　　　Peti INTO.3SG-INTO.3SG look.PST.3SG the book.ILL
　　　　　'Peti looked into the book from time to time.'

　　　b.　*PETI nézett　　　　bele-bele　　　　　a　könyvbe.
　　　　　 Peti　look.PST.3SG INTO.3SG-INTO.3SG the book.ILL
　　　　　'It was Peti who looked into the book from time to time.'

　　　c.　*Nem nézett　　　　bele-bele　　　　　a　könyvbe.
　　　　　 not　look.PST.3SG INTO.3SG-INTO.3SG the book.ILL
　　　　　'He did not look into the book from time to time.'

　　　d.　*A　kismackó nem állt　　　　　meg-meg az　erdőben.
　　　　　 the little.bear not　stop.PST.3SG PRF-PRF the woods.IN
　　　　　'Little bear did not stop occasionally in the woods.'

Reduplication is also ruled out in imperatives or sentences with experiential aspect, which are also characterized by inversion: the particle normally has to follow the verb. Similarly to the cases in (12), these examples are perfectly grammatical if the particle is not reduplicated.

(13)　a.　*Nézz　　　　ki-ki　　　az ablakon!　　　　　　　　　　　(imperative)
　　　　　 look.IMP.2SG OUT-OUT the window.SUP
　　　　　'Look out of the window from time to time!'

b. *Néztem   már   ki-ki   az ablakon.   (experiential)
    look.PST.1SG already OUT-OUT the window.SUP
    'I have infrequently looked out of the window before.'

The inverted verb–particle order that shows up with focus, negation and imperatives has been analyzed with reference to verb movement to a high functional position stranding the particle in a lower position. In sentences with preverbal focus, the verb moves to FocP (Brody 1990; 1995); in negative sentences, the verb moves to NegP (Puskás 1998; 2000). In imperatives, É. Kiss (2011) identifies verb movement to NonNeutP (Non-Neutral word order projection), while the particle remains in its surface position (see section 3 for details). If the particles are reduplicated, this kind of verb–particle inversion is impossible.

The generalization that emerges on the basis of these examples is that reduplicated preverbs have no syntactic autonomy. Kiefer (1995–1996, 188) also states that reduplicated particles cannot be separated from the base verb, by stating that "no syntactic operation is possible which would force the reduplicated form out of its original place". We will refer to this requirement as the **left adjacency requirement** of reduplication, which has as its consequence that reduplicated particles lack the syntactic autonomy that their non-reduplicated counterparts have.

It is important to mention that reduplicated particles differ in the above respect not only from non-reduplicated particles but also from what Piñon (1991) calls **compound particles**, which are lexicalized particle combinations of two distinct particles. Such particles can be adjacent or non-adjacent to the verb, i.e., they can occur in any position where ordinary particles can as well, both in cases where their meaning is compositional (14) and when it is non-compositional (15).

(14) a. Ági föl-le   rohangált   a   lépcsőn.
      Ági UP-DOWN run.PST.3SG the stairs.SUP
      'Ági was running up and down the stairs.'

b. Ági nem rohangált   föl-le   a   lépcsőn,   helyette olvasott.
      Ági not run.PST.3SG UP-DOWN the stairs.SUP instead read.PST.3SG
      'Ági was not running up and down the stairs, instead she was reading.'

(15) a. Össze-vissza beszélt   Peti.
      inwards-back talk.PST.3SG Peti
      'Peti talked nonsense.'

    b. Peti nem beszélt   össze-vissza.
       Peti not talk.PST.3SG inwards-back
       'Peti did not talk nonsense.'

The requirement for left adjacency seems to be apparently violated in two contexts mentioned by the earlier literature, namely Kiefer (1995–1996) (see also Song 2018 with reference to Kiefer's study). The first concerns the case where reduplicated particle and the verb can be separated by the additive clitic *is*, similarly to the case where *is* can follow a preverbal particle in (16a):

(16) a. A kendőt   meg is libbentette.
        the kerchief.ACC PRF also flutter.PST.3SG
        'He/she even fluttered the kerchief.'

     b. A kendőt   meg-meg is libbentette.
        the kerchief.ACC PRF-PRF also flutter.PST.3SG
        'He/she even fluttered the kerchief from time to time.'

Piñon (1991) on the other hand notes that such PRT-PRT-*is*-verb order is extremely rare. We contend, together with the latter observation, that this order is not grammatical for present-day speakers. In a small survey with five speakers, we have found that examples like (16) are almost completely ungrammatical (scoring on average 2.1 on a 5 point scale).[5] For this reason, we do not consider the PRT-PRT-*is*-verb order a possible one.

    The other seeming counterexample, listed in Kiefer's study, concerns the possibility of placing a finite auxiliary or semi-lexical verb (such as *fog* FUTURE or *akar* 'want') between reduplicated particles and the verb (17b). This pattern is similar to the placement of particles in so-called **particle climbing** contexts (17a):

---

[5] We also note that for some speakers the PRT-PRT-*is*-verb order improves if it is part of a conditional and if there is an explicit antecedent that contains the particle already:

(i) A: Aztán tényleg gyakran át   ment   a szomszédba?
       then really often   ACROSS go.PST.3SG the neighbour.SUP
       'Did he go to over to the neighbours from time to time?'

     B: Hát, ha át-át   is   ment,   nem igazán gyakran.
       well if ACROSS-ACROSS also go.PST.3SG not really often
       'Even if he went over from time to time, (it was) not really often.'

Since standard cases of reduplication do not depend on there being an antecedent, the antecedent condition in (i) is mysterious. We have no account for it.

(17) a. Át   akart   menni.
        ACROSS want.PST.3SG go.INF
        'He wanted to go over/across.'

  b. Át-át   akart   menni.
        ACROSS-ACROSS want.PST.3SG go.INF
        'He wanted to go over/across.'

In this case, too, our small scale survey with five speakers yielded a different result. As the following minimal pairs show, while particle reduplication was perfectly grammatical in cases where the particle was next to the base verb (18a), (19a), it was judged ungrammatical in case the particle was separated by an auxiliary (18b), (19b) (mean scores are provided in brackets after the examples). Note that (18b) and (19b) are perfectly grammatical if the particle is not reduplicated.

(18) a. Séta közben a   gyerekek időnként   meg-meg álltak.   [4.8]
        walk during the kids   sometimes PRF-PRF stop.PST.3PL
        'During the walk, the kids stopped from time to time.'

  b. Séta közben a   gyerekek időnként   meg-meg akartak   állni.   [2.4]
        walk during the kids   sometimes PRF-PRF want.PST.3PL stop.INF
        'During the walk, the kids wanted to stop from time to time.'

(19) a. Kint   hagytam   az újságot.   Időnként fel-fel kapta
        outside leave.PST.1SG the newspaper.ACC sometimes UP-UP lift.PST.3SG
        a   szél.   [4.8]
        the wind
        'I left the newspaper outside. The wind lifted it up again and again.'

  b. Ha kint   hagyod az újságot,   időnként fel-fel fogja
        if outside leave.2SG the newspaper.ACC sometimes UP-UP FUT.3SG
        kapni a   szél.   [2]
        lift.INF the wind
        'If you leave the newspaper outside, the wind will lift it up again and again.'

The difference between the two averages points to the conclusion that reduplicated particles are degraded when they appear separated from their base verb by finite verbs.[6]

---

[6] In this domain, just like in the case of the *is* clitic, speaker variation is attested. One of our five informants systematically accepts sentences like (18b) and (19b), another informant reports that while degraded, the semi-lexical *akar* 'want' fares worse when intervening between the particle and the verb than the habitual auxiliary *szokott*

2.2. Reduplicated particles cannot be focused

The second requirement we have stated in section 1 was that reduplication is incompatible with focus on the reduplicated particle. In addition to (7a) above, we illustrate the incompatibility with focus with a corrective dialogue in (20):

(20) A: *BE-BE nézett   az ablakon?
         IN-IN   look.PST.3SG the window.SUP
         'Did he look IN the window?'

     B: Nem. *KI-KI   nézett.
        no   OUT-OUT look.PST.3SG
        'No. He looked OUT the window.'

The dialogue is perfectly fine if the particles in the question and the answer are not reduplicated.

(21) A: BE nézett   az ablakon?
         IN look.PST.3SG the window.SUP
         'Did he look IN the window?'

     B: Nem. KI   nézett.
        no   OUT look.PST.3SG
        'No. He looked OUT the window.'

To wit, this condition is different from the one of left adjacency stated in the previous section, as in this case particle and base verb **are** adjacent in the phonetic string. This observation is also important because it discredits one analytical possibility for explaining away the need for left adjacency: it is not the case that reduplication is a focusing operation (see this proposal in Kiefer 1995–1996, 188) that requires the presence of the particle in preverbal position. Since reduplicated particles cannot be focused according to the evidence in (7a) and (20), we conclude that these items are not inherently focal in their semantics.

'HABIT'. An anonymous reviewer reports that he/she accepts various auxiliary-type interveners, but rejects intervention by the additive *is*, as in (16b). While we have no explanation for the attested variation, it is possible that speakers who accept PRT-PRT AUX VERB sequences derive particle climbing "late", i.e., via PF-movement of the particle, or particles (in the case of reduplication). Note that particle climbing has been analyzed as a movement with a PF trigger, having to do the with the phonologically defective status of auxiliaries and semi-lexical verbs (Olsvay 2004; Szendrői 2004).

Similar to the above example, reduplicated particles cannot appear as contrastive topics in preverbal position either. As (22a) shows, such orders are possible for non-reduplicated particles, with marked intonation on the contrastive topic (characterized by a rise followed by a pause). The contrastive reading on the particle conveys the implicature that the claim the speaker is making about the event of looking out need not be true about another event (e.g., looking in). Small caps on the verb indicates *verum* focus.

(22) a. Ki   NÉZTEM.
      OUT look.PST.1SG
      lit. 'Out, I did look.'

    b. *Ki-ki   NÉZTEM.
      OUT-OUT look.PST.1SG
      lit. 'Out, I did look from time to time.'

These examples illustrate that there is a second requirement on particle reduplication, which is independent of the requirement of left adjacency: reduplicated particles cannot be contrastively focused or contrastively topicalized. We need to find an explanation for this.

2.3. Reduplicated particles cannot be stranded under ellipsis

The third property we have mentioned in section 1, and which will need to be accounted for, concerns the interaction of ellipsis and reduplication. Since the facts are complex and potential explanations based on morphological or phonological properties can be ruled out right from the start, we take some time to explain the patterns.

As noted in 2.2., reduplicated particles cannot be contrastively focused. It does not come as a surprise then that contrastively focused reduplicated particles cannot be followed by ellipsis, either. As (23a) illustrates, contrastive particles can normally be followed by ellipsis. Reduplicated particles differ again in this respect from non-reduplicated ones. (23b) illustrates a hypothetical question-answer pair where both the question and the answer are ill-formed.

(23) a. A: FEL dobtad   a   követ?
        UP   throw.PST.2SG the stone.ACC
        'Did you throw the stone up?'

  B: Nem, LE.
    no DOWN
    'No, down.'

 b. A: *FEL-FEL dobtad   a köveket?
     UP-UP throw.PST.2SG the stone.ACC
     'Did you throw the stones up from time to time?'

  B: *Nem, LE-LE.
    no DOWN-DOWN
    'No, down.'

It comes more as a surprise that reduplicated particles cannot participate in the ellipsis process that strands non-focal particles, either. Hungarian allows for ellipsis eliminating the finite verb phrase to the exclusion of the verbal particle, to express a positive polarity answer to a polar question (É. Kiss 2006b; Surányi 2009b; Lipták 2012; 2018). We will refer to this process as particle stranding ellipsis or simply as **particle stranding**. The dialogue in (24) illustrates particle stranding with ordinary, non-reduplicated particles, which can serve as the sole pronounced element in a clause in which the rest of the clause undergoes ellipsis.

(24) A: Be kukkantott a nagyszülőkhöz Peti?
    IN peep.PST.3SG the grandparent.PL.ALL Peti
   'Did Peti visit his grandparents?'

  B: Be.
    IN
    'He did.'

The exact same ellipsis process is unavailable with reduplicated particles. As B' shows in the next example, if the reduplicated particle is followed by the verb, an elliptical answer is well-formed. This pattern is called **verb-stranding ellipsis** (see Lipták 2013 on this phenomenon).

(25) A: Be-be kukkant azért a nagyszülőkhöz Peti néha?
    IN-IN peep.3SG still the grandparent.PL.ALL Peti sometimes
   'Does Peti visit his grandparents sometimes?'

  B: *Be-be.
    IN-IN
    'He does.'

  B': Be-be kukkant.
    IN-IN peep.3SG
    'He does.'

As the translation indicates, the elliptical clause in (24) has focus on the positive polarity of the clause (see section 3.2 for further details). Positive polarity is the newly conveyed information and the particle itself is not construed as focal: it is neither new nor contrastive. We therefore cannot put down the ungrammaticality of (25B) to the incompatibility of reduplication and focus.

Neither is incompatibility with ellipsis due to morphological complexity. Compound particles (recall (14)–(15) above), which are also morphologically complex in that they contain a sequence of two particles, can be stranded:

(26) A: Össze-vissza beszélt   Peti?
         inwards-back talk.PST.3SG Peti
         'Did Peti talk nonsense?'

     B: Össze-vissza.
         inwards-back
         'He did.'

One can also eliminate a second potential explanation, namely that the problem is phonological length. As Kiefer (1995–1996) points out, particle reduplication has a maximal size restriction on the target of reduplication: only mono- and bisyllabic particles can be reduplicated. Three-syllabic *keresztül* 'across, through' and *utána* 'after' cannot:

(27) a. *Keresztül-keresztül nézett   az üvegen.
         THROUGH-THROUGH look.PST.3SG the glass.SUP
         'He looked through the glass from time to time.'

     b. *Utána-utána   szaladt   a   lányoknak.
         AFTER.3SG-AFTER.3SG run.PST.3SG the girl.PL.DAT
         'He ran after the girls at times.'

Ellipsis, however, is not only ruled out with three-syllabic particles, but also with monosyllabic ones (cf. (25) above), which do not violate the maximal size restriction on reduplication.

One might wonder if the problem comes from a size restriction on particle stranding itself, which could perhaps constrain the availability of particle stranding with reduplicated particles. In an on-line acceptability survey with 13 native speakers, we have tested this possibility by asking speakers to judge question – answer pairs using particle stranding with differing sizes of particles. The pattern in (28) illustrates three sentences that are very close in meaning but which differ in the size of the particle

used: monosyllabic in (28a), bisyllabic in (28b) and three-syllabic in (28c). The mean judgments are given in brackets, on a scale of 1 to 5.

(28) a. A: Át   gázolt   a   mocsáron? B: Át.   [mean: 4.31]
              ACROSS wade.PST.3SG the swamp.SUP   ACROSS
              'Did he wade across the swamp?'   'He did.'

      b. A: Végig   gázolt   a   mocsáron? B: Végig.   [mean: 4.23]
              THROUGH wade.PST.3SG the swamp.SUP   THROUGH
              'Did he wade through the swamp?'   'He did.'

      c. A: Keresztül gázolt   a   mocsáron? B: Keresztül.   [mean: 3.15]
              THROUGH wade.PST.3SG the swamp.SUP   THROUGH
              'Did he wade through the swamp?'   'He did.'

These data indicate that particle stranding is somewhat degraded for three-syllabic particles, but importantly, there is no size effect to be found for monosyllabic and bisyllabic particles. Both are equally acceptable under stranding.

Seeing this, consider now reduplicated particles under ellipsis. These are perceived as truly ungrammatical for the same set of informants, as the lower mean indicates:

(29) A: Be-be kukkant a   nagyszülőkhöz   Peti?
          IN-IN   peep.3SG the grandparent.PL.ALL Peti
          'Does Peti visit his grandparents from time to time?'

      B: *Be-be.   [mean: 1.77]
           IN-IN
          'He does.'

The distinction between reduplicated and non-reduplicated particles is shown in Figure 1 for bisyllabic elements: while stranding a single bisyllabic particle is well-formed, stranding a bisyllabic reduplicated particle is not.

Since the stranding of bisyllabic particles is acceptable, there is no reason why reduplicated particles should be unacceptable when stranded, if the effect is due to the number of syllables.

Further, we found no difference in judgment between reduplicated monosyllabic particles and reduplicated bisyllabic particles: they are both fully ungrammatical for our informants, compare the judgements in (29) and (30).
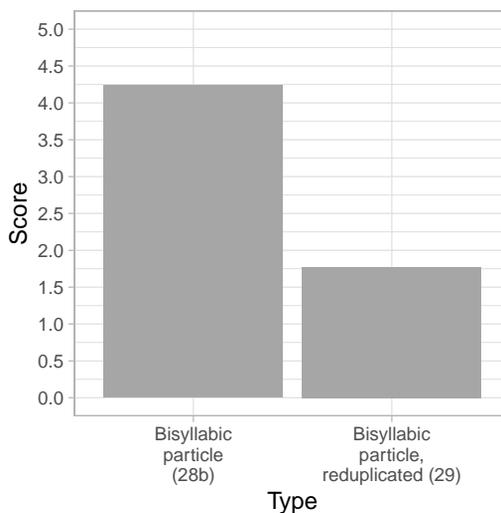
Figure 1: Particle stranding, mean score of judgement ($N = 13$, scale: 1 to 5)

(30) A: Bele-bele   nézett   a   könyvbe?
       INTO.3SG-INTO.3SG look.PST.3SG the book.ILL
       'Did he look into the book from time to time?'

      B: *Bele-bele.   [mean: 2]
        INTO.3SG-INTO.3SG
        'He did.'

If size did determine the availability of particle stranding under ellipsis, we would expect (30) to yield lower scores than (29), since it contains a longer, four-syllabic particle unit as opposed to a bisyllabic unit. That both received low scores is indication that size is not the determining factor of unacceptability. This in turn forces us to conclude that the incompatibility of particle reduplication and ellipsis does not stem from restrictions on phonological length.

Neither can the impossibility of ellipsis with reduplication be due to lack of stress on the reduplicated particles, with reference to the general expectation that remnants of clausal ellipsis must bear stress. Hungarian particles do bear lexical stress in preverbal position (indicated by ' in the next example), while the verb that follows them is unaccented (indicated by ^{0}). The stress on the particle is similar to phrasal prominence charac-

teristic of major constituents in the language.[7] Importantly, reduplication retains this stress pattern such that both particles carry lexical stress. And for this reason, reduplicated particles are prosodically suited to be ellipsis remnants.

(31) a. ˈBe ⁰kukkantott　a　ˈnagyszülőkhöz.
　　　　IN　peep.PST.3SG the grandparent.PL.ALL
　　　　'He visited his grandparents.'

　　 b. ˈBe-ˈbe ⁰kukkantott　a　ˈnagyszülőkhöz.
　　　　IN-IN　peep.PST.3SG the grandparent.PL.ALL
　　　　'He visited his grandparents from time to time.'

As a last observation, we can also rule out the possibility that particle reduplication is incompatible with any form of ellipsis. As (25B′) above showed, if the reduplicated particle is followed by the verb, the rest of the clause can undergo ellipsis (indicated by ⟨ ⟩ brackets): arguments and modifiers in the VP can be elided (see Lipták 2013 for details).

(32) A: Be-be kukkant azért a　nagyszülőkhöz néha?
　　　　IN-IN peep.3SG still　the grandparent.PL.ALL sometimes
　　　　'Does he visit his grandparents sometimes?'

　　 B: Be-be kukkant ⟨azért a　nagyszülőkhöz　néha⟩.　　　　　(= 25B′)
　　　　IN-IN peep.3SG still　the grandparent.PL.ALL sometimes
　　　　'He does.'

On the basis of this, there appears to be no general ban on ellipsis taking place with reduplicated particles. Reduplicated particles are only incompatible with ellipsis when ellipsis severs them from the verb. To derive the latter observation, we design an account that capitalizes on the fact that reduplication is **dependent** on the presence of the verb, i.e., it requires that the verb forms part of the base of reduplication. In essence we will argue that particle and verb together form the morphosyntactic base of reduplication, but only one part of this morphosyntactic base is reduplicated (namely the particle). With respect to ellipsis, we will argue that it blocks reduplication because in the context of ellipsis, the base of reduplication cannot be formed. We turn to the explication of our analysis in the next sections.

---

[7] Particles are furthermore assumed to carry nuclear or sentence stress in theories that subscribe to the view that Hungarian has a single main stress in the clause, such as Szendrői (2001) and É. Kiss (2002).

3. The morphosyntax of particle constructions and particle reduplication

In this section, we first provide our assumptions about Hungarian particles, their position and morphosyntactic status in elliptical and non-elliptical configurations in section 3.1 and 3.2. In section 3.3, we present our approach to reduplication, concerning the basic structural conditions on reduplication.

3.1. Assumptions about the morphosyntax of particles

We share the view with many researchers that Hungarian particle verbs are constructed in the syntax (Koopman & Szabolcsi 2000; Olsvay 2004, É. Kiss 2002; 2006c among others). According to this view, particles start their life as independent phrasal units (categorically PP or AdvP constituents) that originate inside the VP, mostly as predicates of small clauses (but some can originate as complements or adjuncts, see Surányi 2009a;b, see also Hegedűs & Éva Dékány 2017 for qualification). From the VP, particles undergo movement to higher functional projections. In the extant analysis of Surányi (2009a), particles undergo a two-step movement, first through a predicative PredP projection, where semantic incorporation between particle and verb takes place, and then on to a higher functional projection which serves as the final landing site (triggered by EPP requirement of the functional head in Surányi's analysis).

We follow this kind of two-step movement approach to particles. More specifically, we assume for the purposes of this paper, following Csirmaz (2006) and more recently Kardos (2016), that particles move to the specifier of the AspP projection, via the PredP (cf. (33) below), where AspP is the syntactic encoding of situation aspect. Particle movement to Sp,AspP is obligatory for all particles and this position corresponds to the preverbal position of particles.[8]

AspP itself functions as the complement of the tense projection, and in non-neutral sentences, there are further projections on top of tense, such as FocP, or NegP, whose head always triggers verb movement, resulting in the particle being stranded in a postverbal position (Brody 1995).

---

[8] In other words, we treat Sp,AspP as the highest landing site for the particle. Our account will in principle also be compatible with the option that there is further movement up to TP, as in Surányi (2009a) for example.

(33) Particle and verb movement, following Csirmaz (2006)
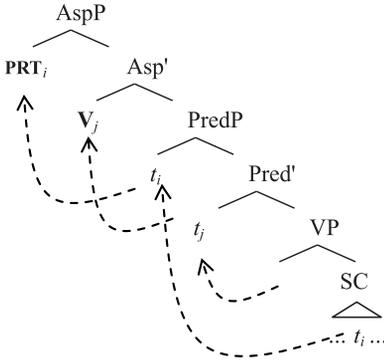
    Concerning the role of aspect, we assume (following Csirmaz 2006; É. Kiss 2006b;c and Kardos 2016) that particles determine situation aspect, and that they only indirectly affect viewpoint aspect. Together with É. Kiss (2006c), we assume that resultative and terminative particles have the feature [+telic], while locative particles lack such a feature.
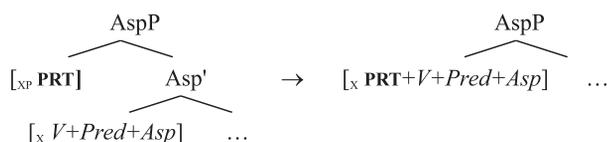
    The telic feature is only compatible with perfective aspect when the particle is in preverbal position: when the verb is associated with a resultative or terminative particle and the event is perfective, the particle must occur in preverbal position. That preverbal positioning of the particles is crucial to achieve a perfective reading is indicated by the fact that in postverbal position the same particles are only compatible with an imperfective reading (É. Kiss 2006c, ex. 66):

(34) a. Amikor észrevettem,   János éppen tolta   ki   a   biciklit
        when   notice.PST.1SG János just   push.PST.3SG OUT the bike.ACC
        az   utcára.
        the street.SUB
        'When I noticed him, János was pushing his bike into the street.'

    b. Amikor észrevettem,   János éppen ki   tolta   a   biciklit
        when   notice.PST.1SG János just   OUT push.PST.3SG the bike.ACC
        az   utcára.
        the street.SUB
        'When I noticed him, János had just pushed his bike into the street.'

Before turning to the details of reduplication, we need to spell out another important assumption concerning the final realization of particles. In addition to assuming that particles start the derivation as phrases and make their way up to AspP via XP-movement, we also assume that once

this position is reached, and the verb is in the Asp^0 head, particle and verb undergo morphosyntactic reanalysis under adjacency, following Brody (2000), Surányi (2009b) and specifically, É. Kiss (2002). We define morphosyntactic reanalysis as a syntactic process in which the particle merges with the verbal head adjacent to it and loses its phrasal status, i.e., it is reanalyzed as a head. We take this to be a process of syntactic cliticization under adjacency, which takes place when particle and verb are in a spec-head configuration. We represent the reanalysis step as in (35).[9]

(35) Morphosyntactic reanalysis of particles as part of the verb (adapting É. Kiss 2002)

structure before reanalysis   structure after reanalysis

$$AspP$$

$[_{XP}$ **PRT**$]$ Asp' $\rightarrow$ $[_X$ **PRT**$+V+Pred+Asp]$ …

$[_X$ $V+Pred+Asp]$ …

We furthermore assume that morphosyntactic reanalysis is not obligatory in the sense that it need not take place for convergence in every Hungarian clause (see van Riemsdijk 1978 for a similar claim for Dutch particles): in sentences where the verb moves out of the Asp^0 to a higher projection (leaving behind the particle), or the particle is severed from the verb via some other mechanism, reanalysis does not take place. Reanalysis is only possible in the configuration (as above) in which the particle and the verb are in specifier-head relationship and they are both overt. Reanalysis results in the two forming a single morphological word, with the characteristic stress pattern illustrated in (31) above, in which the stress falls on the particle. This indicates that the particle and the verb form a single phonological word as well.

    As a result of this operation, the particle becomes a head, more specifically part of a complex head, as illustrated in (36).

---

[9] A similar type of operation is presented in Song (2017), as an ingredient of reduplication. In Song's account, the verb and the particle are "recategorized" as a single verbal head, which is achieved as a result of merging a category-defining head to an already categorized syntactic object, a PredP containing the particle and the verb. See Song (2017) for details, and Song (2018) for an alternative account.

(36)

```
                        AspP
                       /    \
                    Asp⁰     PredP
                   /    \    /    \
                 PRT    Asp⁰ t_PRT
                       /    \    /    \
                    Pred⁰   Asp⁰  t_Pred  VP
                   /    \    |          /\
                 V⁰    Pred⁰ Asp⁰     t_V  t_PRT
```
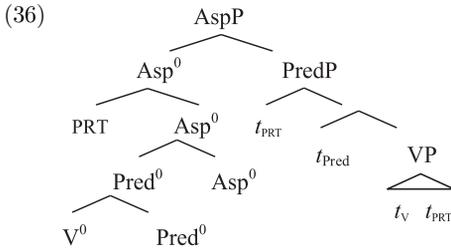
Using the terminology in Embick & Noyer (2001, 574), we will refer to the result of morphosyntactic reanalysis by saying that the particle becomes a **subword**, defined in (37).

(37) i.   At the input to Morphology, a node X^0 is (by definition) a **morphosyntactic word** (MWd) iff X^0 is the highest segment of an X^0 not contained in another X^0.

ii. A node X^0 is a **subword** (SWd) if X^0 is a terminal node and not an MWd.

As (36) shows, according to the definition in (37), PRT is a subword as it is a terminal node and not the highest segment itself.

We are now in position to introduce the central premise of the paper. We aim to rule out reduplication in any context where particle-verb adjacency and consequent reanalysis cannot obtain, by proposing the following conjecture:

(38) **Conjecture:** Particle reduplication is possible iff reanalysis has formed a complex morphosyntactic word containing the verb and the particle.

In cases where the particle is postverbal or when the verb is elided, (38) is not satisfied, and thus particle reduplication cannot take place.

The assumption about morphosyntactic reanalysis and the resulting subword status of the particle constitute the key of our analysis. With reference to these assumptions and the conjecture in (38), we will explain the interaction of ellipsis and reduplication in section 3.2 below. Together with further assumptions about reduplication to be introduced in section 3.3, where we claim that reduplication targets particles with a subword status, we will also be able to explain why particles under reduplication cannot have any syntactic autonomy.

Before closing this section, it is important to emphasize that we consider reanalysis an analytical tool that allows us to capture the puzzling nature of particles as syntactically dependent and independent elements at the same time. In this respect, our approach forms part of a family of approaches that treat particle and verb as a complex word in some con-

figurations but as two independent syntactic items in others, such as van Riemsdijk (1987); Grewendorf (1990); Koopman (1995) among others. In approaches of this type, the independently generated particle and the verb can be turned into a complex word in various ways, by syntactic head-to-head adjunction, incorporation or reanalysis. We opt to utilize reanalysis as this has been suggested in the literature on Hungarian and we treat this form of reanalysis as a syntactic process, for reasons that will become clear in section 5.[10]

3.2. Assumptions about particle-stranding ellipsis

To fully spell out the core insight from the realm of ellipsis, in this section we give details about the incompatibility of reanalysis and ellipsis (see also Lipták 2018).

Particle constructions in Hungarian can undergo ellipsis of the verbal predicate to the exclusion of the particle, as was mentioned in section 2.

(39) A. Be kukkantott   a   nagyszülőkhöz   Peti?
          IN peep.PST.3SG the grandparent.PL.ALL Peti
          'Did Peti visit his grandparents?'

      B. Be.
          IN
          'He did.'

This kind of particle-stranding elides a single syntactic constituent, a constituent containing the verbal predicate. The claim that the elided material forms a constituent comes from two considerations. First, elliptical answers of the sort in (39) correspond to ellipsis of an VP/AspP/TP constituent cross-linguistically (see Holmberg 2016), thus they are likely to target such a constituent in Hungarian as well. Second, particle stranding is only attested with particles which are syntactically autonomous in at least some configurations, which in our model entails that they originate as phrases independent of the verbal head and move to an aspectual projection via

---

[10] While we consider this approach to particle verbs to be the most successful, we could also achieve the same level of descriptive and explanatory adequacy by proposing that a particle verb can correspond to two distinct structures in Hungarian: particle and verb can either form a single word from the start (base generated in the position of the verb) or they can exist as two syntactically independent words throughout the derivation. The first option would characterize neutral sentences with particles left adjacent to their verb, while the second option would characterize all other cases.

phrasal movement. Proof for this comes from so-called inseparable parti-
cles (40a), which cannot undergo particle stranding and which do not show
syntactically autonomous behavior in any syntactic environments, such as
under inversion in (40b) (Hegedűs & Dékány 2017; see (43) below for the
structure of inseparable particle verbs):

(40) a. A: Felvételiztél   az egyetemre?
              UP.exam.took.2SG the university.SUB
              'Did you take an entrance exam?'

          B: *Fel.
               UP
              'I did.'

      b. *Peti nem vételizett   fel az egyetemre.
          Peti not   exam.took.2SG UP the university.SUB
          'Peti did not take an entrance exam.'

Facts like (40) indicate that strandability and syntactic autonomy corre-
late, which provides an argument to the effect that syntactic autonomy
is a precondition for stranding to be possible. Third, particle stranding
shows properties of ordinary forward ellipsis, which is subject to the same
recoverability conditions as fragment formation.[11]

   There are at least two analytical options to account for the fact that
particle stranding cannot target reduplicated particles. On the one hand,
we can assume that ellipsis follows V movement to the Asp head and that
it targets Asp', containing the highest position of verbal head (41a). On
the other hand, it is also possible that ellipsis targets only PredP. On this
account, ellipsis has the effect that it bleeds verbal head movement out of
the ellipsis site (41b). This bleeding effect of ellipsis is attested in other
elliptical phenomena as well (see, for instance, Merchant's 2001 Sluicing-
COMP generalization):

---

[11] Note that particle stranding is not a coordination-based process that eliminates part
of a (compound) word or phrase as in (i) (this kind of ellipsis is also referred to as
conjunction reduction):

(i) Mari ki   ~~nézett~~   vagy be nézett   az ablakon.
     Mari OUT look.PST.3SG or   IN look.PST.3SG the window.SUP
     'Mari looked out or in the window.'

Unlike word-part ellipsis/conjunction reduction, particle stranding operates in for-
ward ellipsis contexts, can occur in non-coordinated configurations and does not
allow ellipsis of non-constituents.

(41) Ellipsis in preverb stranding

    a. $[_{\text{AspP}}$ PRT $[_{\text{Asp}'}$ ~~V~~ $[_{\text{PredP}}$ $[_{\text{VP}}$ ~~~~$]]]]$ *analytical option I*

    b. $[_{\text{AspP}}$ PRT $[_{\text{Asp}'}$ Asp^0 $[_{\text{PredP}}$ $[_{\text{VP}}$ ~~V~~$]]]]$ *analytical option II*

The structures in (41) have as their crucial ingredient that particle and verbal head do not form a single unit when ellipsis applies, i.e., configurations in which particle and verb have merged into a single head via morphosyntactic reanalysis cannot give rise to ellipsis. If morphosyntactic reanalysis takes place, the verb is no longer part of a syntactic constituent to the exclusion of the particle and ellipsis would not be able to take place. This in effect compels us to say that ellipsis yielding particle stranding **must precede** the step of morphosyntactic reanalysis and when it applies, it blocks the application of morphosyntactic reanalysis.[12] In this model, Hungarian preverb stranding therefore has to take place in the syntax or must be instigated in some form already in the syntax (see e.g., Saab 2008; Aelbrecht 2010; Baltin 2012 for arguments that ellipsis is syntactic in this sense).

To extend this argumentation to other domains, we believe that movement of the verb to a head position higher than Asp^0, e.g., to Foc^0, or Neg^0, stranding the particle in postverbal position has a similar effect: it blocks

---

[12] Readers might wonder at this point whether reanalysis should always be ordered **before** ellipsis in all languages. Unfortunately, we do not have any data that allow us to check whether it is the case. We only know of one discussion of this topic on another language (thanks to Troy Messick for bringing this to our attention), which happens to be inconclusive. Lasnik (1999) mentions that the elliptical construction pseudogapping in English (ia) is possible with noun phrase remnants with verbs that can also undergo pseudopassivization (ib). When pseudopassives are unavailable, pseudogapping is ill-formed as well (ii):

(i) a.   John took advantage of Bill and Mary will Susan.
     b.   Bill was taken advantage of by John.
(ii) a. *John swam beside Bill and Mary did Susan.
     b. *Bill was swum beside by John.

Lasnik's account of these facts is that pseudogapping takes place in contexts in which the verb and the preposition are reanalyzed into a single unit [V+P] and the NP object does not form a constituent with the preposition. In other words, in this proposal ellipsis **follows** reanalysis.

There are several problems with Lasnik's account, however. First, Baltin and Postal (1996) show that there is no syntactic evidence for the preposition forming a unit with the verb in pseudopassives, as the preposition retains its syntactic status independent of the verb in these constructions. The same conclusion is reached by Drummond and Kush (2015) on the matter, who also mention that the judgments reported by Lasnik (1999) on the elliptical examples are controversial, and speakers they consulted do not allow for pseudogapping with such predicates.

the possibility of the application of morphosyntactic reanalysis. It does that because it destroys the configuration in which PRT and verb are in a spec-head relation, which is a requirement on the application of reanalysis. Since PRT and verb are not adjacent, they cannot form a complex head. In other words, we are proposing that in non-neutral word orders and under ellipsis, morphosyntactic reanalysis never takes place. It does, however, take place in non-elliptical neutral clauses when the particle and verb are adjacent in a spec-head configuration.

To summarize, we assume an XP-movement-based account of particle placement (such as Surányi 2009b) which is complemented by a step of morphosyntactic reanalysis of particle and verb, obtaining only in configurations where particle and verb are both overt and the particle is left adjacent to the verb.

3.3. Assumptions about the nature of particle reduplication

After setting our assumptions about the syntax of verbal particles in the previous section, we now turn to reduplication with particles.

To work our way to the basic proposal, we start by our key typological consideration, namely that reduplication in Hungarian represents a case of what the literature on reduplication refers to as **affix reduplication** (Inkelas & Downing 2015). Semantically, the hallmark of affix reduplication is that the meaning associated with reduplication is unrelated to the meaning of the reduplicated unit (Inkelas & Zoll 2005).

In Hungarian, reduplication has semantic scope over the denotation of the particle + verb combination and not just the particle itself. As (42) illustrates, reduplication results in quantification over the event (event iteration) and not in some kind of quantification over the resulting state of the event, which is denoted by the particle:

(42) a. fel dob   egy labdát
         UP throw.3SG a   ball.ACC
         'throw up a ball'

    b. fel-fel dob   egy labdát
         UP-UP throw.3SG a   ball.ACC
         'throw up a ball from time to time'
       #'throw up a ball to an extreme height'

To express the above insight – which, as we will show aligns with the syntactic properties of the process – we consider particle reduplication

as **partial** reduplication in which the particle and the verb make up a morphosyntactic unit, and reduplication duplicates a subpart of this unit, namely only the particle.

To zoom in on this aspect of the analysis, we start by noting that reduplication is always a process that operates on a particular domain, which in general can be either phonological in nature (McCarthy & Prince 1986) or morphosyntactic (Travis 1999; Haugen 2008, among others). In the case of particle reduplication, reduplication clearly targets a morphosyntactically defined domain, not a phonological one (in this sense, it represents a case of syntactic reduplication in terms of Kirchner 2010).

Evidence for this comes from the fact that reduplication strictly only reduplicates particles, moreover particles of the sort whose syntax was described in section 3.1: those that start their lives as phrases independently of the verb. They undergo movement to the PredP and AspP projections, followed by the step of reanalysis with the overt verb. This kind of particles are also called **separable** particles in the literature, as they can separate from their verb in some contexts. In addition to these particles, Hungarian also possesses a handful of non-separable particles (already mentioned in (40)), such as *ki* in *kifogásol* 'take objection to', *fel* in *felvételizik* 'take entrance exam', *be* in *befolyásol* 'influence'. These particles cannot be separated from the verb. As Hegedűs and Dékány (2017) argue, inseparable particles have a distinct relation to the verb, they form part of a nominal constituent inside the verb (43) and cannot move out of this constituent to PredP/AspP or any other position in the clause.[13]

(43) [$_V$ [$_N$ [ki-fog]-ás]-ol]
       out-hold-NOM-VRB
       'take objection to'

Importantly for our purposes, inseparable particles are morpho-phonologically completely identical to separable particles and appear to the left of the verbal base. In contradistinction to separable particles, however, inseparable particles cannot undergo reduplication:

---

[13] The representation in (43) is a simplification of Hegedűs and Dékány (2017), in that it reflects their structural proposal in lexicalist terms. Working in the framework of Distributed Morphology, the authors argue for a **syntactic** derivation of inseparable particle verbs and subscribe to the view that *ki + von* correspond to a [$_{PredP}$ [$_{VP}$ [$_{SC}$]] structure on its own. In this account, the "frozen" nature of the inseparable particle follows from the phasehood of the NOM head, i.e., the nominalization operation. We abstract away from these details as they are immaterial to our purposes.

(44) a. *Peti időnként   ki-kifogásolt   valamit.
          Peti sometimes OUT-OUT.hold.NOM.VRB.PST.3SG something.ACC
          'Peti has taken objection to something from to time.'

      b. *Peti időnként   be-befolyásolta   a   kollégákat.
          Peti sometimes IN-IN.hold.NOM.VRB.PST.3SG the colleague.PL.ACC
          'Peti has sometimes influenced the colleagues.'

This constitutes our key argument for saying that reduplication targets
a morphosyntactic domain and not a phonological one. If reduplication
targeted a phonological domain, we would expect that it should apply
to separable and inseparable particles uniformly. The fact that it does
not indicates that the target of duplication is a morphosyntactic unit:
namely particles that combine with their verb in the domain of the clause
(via semantic incorporation in PredP and movement to AspP). Particles
trapped inside a nominal projection cannot be targeted by reduplication.

     To spell out the basic insight of our approach to particle reduplication,
we introduce some terminology. Following many works on reduplication
(particularly Inkelas & Downing 2015), we will refer to the reduplicated
particle as the **reduplicant** (we consider this to be the first element in
a PRT-PRT sequence) and the morphosyntactic unit that forms input to
reduplication as the **base**. In our view, particle reduplication is a process
that operates (in a sense that will be further defined in sections 4 and
5) on the particle–verb complex, and is **partial** since only a subpart of
this complex is duplicated. We will call the subpart that is reduplicated,
namely the particle, as the **target** of reduplication:

(45) [_reduplicant be] [_base [_target be] kukkantott]

We take reduplication to be faithful, meaning that the output of reduplica-
tion is two segmentally identical particles. At the same time, the copying
operation is phonologically constrained: it has a maximal size restriction
such that it can only apply to mono- or bisyllabic particles – see (27) again
for this observation.

     As for the specific configuration in which reduplication takes place,
we follow proposals such as Travis (1999; 2001) in taking reduplication to
be the effect of a syntactic head in the structure of the clause that copies
the content of the target (see also Haugen 2008 and Marantz 1982 for
reduplication corresponding to an abstract vocabulary item). We will dub
the syntactic head in question Q_{Asp}, following Travis, where Q stands for a
quantification operation on events, which can be taken to be the syntactic
representation of the iterative operator assumed by Kiefer (1995–1996).

Q_{Asp} takes an aspectual projection as its complement. Since reduplication can only operate on perfective events, the aspectual complement must be perfective. The Q_{Asp} copies the content of the target of reduplication, the particle, and yields a doubled particle in adjacent position:

(46) a. the syntactic configuration of particle reduplication
$[_{QP} \; Q_{Asp} \; [_{AspP} \; PRT \; V \; [_{PredP} \; \cdots \; [_{VP} \; \cdots \;]]]]$

　　 b. output after copying
$[_{QP} \; PRT \; [_{AspP} \; PRT \; V \; [_{PredP} \; \cdots \; [_{VP} \; \cdots \;]]]]$

As stated in the introduction, reduplication can only occur with resultative and terminative particles, and is impossible with locative particles, which are only compatible with atelic events ((47a,b) are repeated from (2) above):

(47) a. Peti rendszeresen be-be nézett   az ablakon.
　　　　 Peti regularly   IN-IN look.PST.3SG the window.SUP
　　　　 'Peti looked in the window regularly.'

　　 b. Fel-fel dobta   az érmét   a levegőbe.
　　　　 UP-UP throw.PST.3SG the coin.ACC the air.ILL
　　　　 'He threw up the coin into the air from time to time.'

　　 c. *Peti bent-bent   maradt   az osztályban.
　　　　 Peti INSIDE-INSIDE stay.PST.3SG the classroom.INE
　　　　 'Peti stayed in the classroom from time to time.'

　　 d. *Peti bent-bent   hagyta   a kutyát   a lakásban.
　　　　 Peti INSIDE-INSIDE leave.PST.3SG the dog.ACC the flat.INE
　　　　 'Peti left the dog in the flat from time to time.'

We code this restriction by stating that reduplication is an aspectual operation that operates on perfective events (Kiefer 1995–1996), and targets a morphosyntactic item (the particle) which has a [+telic] feature.[14] Note

---

[14] Kiefer notes that there is an exception to the generalization that reduplication affects only perfective events and it is the particle *el* 'away' in its durative meaning, in forms such as *el-el-üldögél* AWAY-AWAY-sit.ITER 'sit about from time to time' or *el-el-ábrándozik* AWAY-AWAY-daydream 'daydream from time to time.' We do not have an explanation for this exception.

　　 We also note here that there are other constituents in the language that could be argued to possess a telic feature, namely resultative or locative verbal modifiers (in addition to scalar DPs of certain types), see Kardos (2016) for recent arguments. Resultative and locative expressions are also preverbal in neutral clauses and postverbal otherwise, just like particles. But contrary to particles, they cannot be reduplicated, as (i) shows.

that we do not want to state this selectional relation as selection for per-
fectivity alone. Perfective events can also be expressed without the use of
particles. Consider the case of verbs like *lő* 'shoot' or *vesz* 'buy', which,
when combined with an indefinite object have a perfective reading:

(48) a. Peti lőtt   egy nyulat.
         Peti shoot.PST.3SG a   rabbit.ACC
         'Peti shot a rabbit.'

     b. Peti vett   egy autót.
         Peti buy.PST.3SG a   car.ACC
         'Peti bought a car.'

Reduplication, however, cannot apply to these perfective events by dupli-
cating the verb, even though in other languages, iterativity of events can
be marked by reduplication of the verb, see for instance Bar-el (2008) or
Součkova & Buba (2008).

(49) a. *Peti lőtt-lőtt   egy nyulat.
         Peti shoot.PST.3SG-shoot.PST.3SG a   rabbit.ACC
         'Peti shot a rabbit from time to time.'

     b. *Peti vett-vett   egy autót.
         Peti buy.PST.3SG-buy.PST.3SG a   car.ACC
         'Peti bought a car from time to time.'

In this connection, we also note that reduplication cannot apply to entire
particle–verb combinations, either:

(50) a. *Peti le   lőtt-   le   lőtt   egy nyulat.
         Peti DOWN shoot.PST.3SG DOWN shoot.PST.3SG a   rabbit.ACC
         'Peti shot a rabbit from time to time.'

(i) a.   *Peti földre-földre   ejtett   egy követ.
           Peti ground.SUBL-ground.SUBL dropped.PST.3SG a   stone.ACC
           'Peti dropped a stone to the ground from time to time.'
     b.   *Peti kékre-kékre   festette   a kerítést.
           Peti blue.SUBL-blue.SUBL paint.PST.3SG a fence.ACC
           'Peti painted the fence blue from time to time.'

Assuming that telicizing resultative and locative expressions have a [+telic] feature,
we can explain the pattern in (i) with reference to the fact that these expressions
do not undergo reanalysis with the verb, which is a precondition for reduplication in
our analysis. Reanalysis cannot apply to them because they have phrasal syntax and
cannot be reanalyzed as heads.

b. *Peti meg vett-   meg vett   egy autót.
   Peti PRF buy.PST.3SG PRF buy.PST.3SG a   car.ACC
   'Peti bought a car from time to time.'

And the latter in turn is important because it allows us to rule out an analysis of particle reduplication that would derive the adjacency of two particles by deletion of the first verb in such examples:

(51) a. Peti le [l̵ő̵t̵t̵] - le lőtt egy nyulat.
     b. Peti meg [v̵e̵t̵t̵] - meg vett egy autót.

Since the underlying source of these examples is unavailable (50), it is highly unlikely that particle reduplication should be due to the reduplication of a particle + verb sequence, followed by phonological reduction of the initial verb.[15]

4. Deriving the core properties of Hungarian particle reduplication

Having introduced the basic insights of our analysis, in this section we turn to the question of how the proposed configuration of reduplication explains the properties we listed in the introduction. As we specified in the previous section, we take the reduplicant to be a fully identical morphosyntactic copy of the target of reduplication in a configuration in which both reduplicant and target are pronounced, as illustrated in (52) from above.

(52) a. the syntactic configuration of particle reduplication
        $[_{QAspP}$ Q_{Asp} $[_{AspP}$ PRT V $[_{PredP}$ ... $[_{VP}$ ... $]]]]$
     b. output after copying
        $[_{QP}$ PRT $[_{AspP}$ PRT V $[_{PredP}$ ... $[_{VP}$ ... $]]]]$

Postponing a more detailed implementation of the actual copying process until section 5, these structural assumptions already allow us to explicate

---

[15] An anonymous reviewer calls into question the validity of this argument by saying that ellipsis is known to be able to repair otherwise deviant structures, perhaps it can repair the ungrammaticality in (50). We believe this is not the case for two reasons. First, the elliptical process in (51) resembles conjunction reduction, which is not known for its potential to repair any deviance. Second, known cases of ellipsis repair exceptionally license the absence of an otherwise obligatory movement step (Lasnik 1999; 2001), while in our case we have the opposite situation: an otherwise ill-formed doubling process becomes possible under ellipsis. It is also not the case that the repair effect can be said to solve a phonological/prosodic problem: the doubled verbs in (51) are bisyllabic, and bisyllabic entities can be reduplicated (cf. (27) again).

why particle reduplication in Hungarian is restricted to neutral word orders, in which particle and verb are adjacent. The most crucial premise of our proposal is the subword status of the target of reduplication, and the fact that the reduplicated PRT-PRT sequence does not form a syntactic constituent, an insight we borrow from Piñón (1991). To focus on this latter aspect of the analysis even more, we illustrate the configuration of the output of reduplication in (53).

(53) the syntactic configuration of particle reduplication
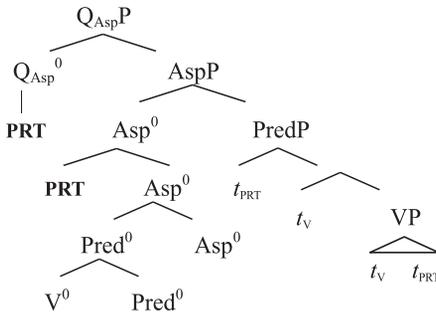
We can now explain the three core properties of particle reduplication, as described in detail in section 2:

 (i) particle reduplication can only target particles left-adjacent to their verb

 (ii) particle reduplication is incompatible with focus and contrastive topicalization of the particle

(iii) particle reduplication is incompatible with particle stranding ellipsis

As for property (i), the immediately preverbal position of reduplicated particles is explained because it is only in this position that we have morphosyntactic reanalysis. In other words, when the verb precedes the particle or the particle precedes the verb but is not adjacent to it, we have configurations that do not define an environment in which reanalysis can take place.

As for core property (ii), the key ingredient of our explanation is the proposed structural configuration that triggers reduplication: the reduplicant is the Q_{Asp} morpheme that selects an AspP projection, and triggers copying the particle. Due to the specific selectional requirement of Q_{Asp}, reduplication can only obtain in the inflectional domain of the clause, and not in higher positions, such as the left periphery. Furthermore, impor-

tantly, the output of reduplication is a structure in which the two particles **do not form a constituent**. This is important as we further assume that particles can only be contrastively interpreted if they undergo phrasal movement to FocP (accompanied by V-movement to a specific left peripheral head), or phrasal movement to a contrastive topic phrase, with no associated verb movement. In assuming this, we follow É. Kiss (2002, 59) among others. Due to lack of constituency, the two particles cannot undergo any movement into any higher position, such as the position for focused or topicalized constituents (the verb itself cannot move to higher positions independently of the particles, either). This explains why reduplicated particles cannot be contrastively focused or topicalized, cf. (20) repeated from above.

(54) A: *BE-BE nézett   az ablakon?
         IN-IN look.PST.3SG the window.SUP
         'Did he look IN the window?'

      B: Nem. *KI-KI   nézett.
          no   OUT-OUT look.PST.3SG
          'No. He looked OUT the window.'

Finally, let's address property (iii) again. Our basic insight is that ellipsis, conceived of as a syntactic operation, cannot apply because it would block reanalysis, a precondition for particle reduplication according to our initial conjecture. Beyond stating this conjecture, we considered two approaches to the configuration in particle stranding (cf. (41) repeated below as (55)). It could be the case that ellipsis targets Asp′ after V movement to Asp (55a) or ellipsis targets a smaller phrase, PredP and V movement is bled by ellipsis (55b):

(55) Ellipsis in preverb stranding
      a. [$_{AspP}$ PRT [$_{Asp'}$ V [$_{PredP}$ [$_{vP}$]]]]   *analytical option I*
      b. [$_{AspP}$ PRT [$_{Asp'}$ Asp^0 [$_{PredP}$ [$_{vP}$ V]]]] *analytical option II*

Under the first analytical option (55a), reanalysis is blocked because predicate ellipsis necessarily applies to a single constituent, thus it must eliminate Asp′ **before** the step of reanalysis has affected the particle. Under the second analytical option (55b), in which verb movement to Asp is blocked, there is nothing to reanalyze the particle with, as the particle cannot be reanalyzed with a morphologically zero Asp head – we assume here that reanalysis can only apply to a particle and a syntactic head that contains the **morphosyntactic terminal that corresponds to the verb**. Reanalysis in

(55b) cannot apply as the verb is not in the required local configuration for the particle to merge with it.

5. The mechanism of reduplication: local doubling

Having seen the explanation of the core properties of particle reduplication, we now turn to spelling out in detail the mechanism of the copying process, which we still owe the reader. We postponed the explication of this process until now for two reasons. On the one hand, as the previous section has shown, the structural configuration in (52)/(53) can already explain the core syntactic properties of reduplication, without reference to any particular implementation of the copying mechanism, which we take to be a welcome feature of the analysis. On the other hand, we postponed the discussion of the copy process, because syntactic accounts of reduplication are scarce in the literature, and it is not evident what kind of process we are dealing with. For this reason, we present our own view on the issue, which will be driven by theoretical parsimony.

We adopt a theory that derives the double realization of the particle from independently needed assumptions about head copy realization in other contexts and languages. Concerning the mechanism of reduplication, we follow accounts that treat reduplication as a case of **copy and delete "sans" delete** (Travis 1999; 2001). In our analysis, the particle is copied to Q_{Asp} as in the copy theory of movement, but unlike in well-known cases of head movement, the lower copy fails to delete.

In section 5.1., we outline the important details of the formal system we favor for the representation of multiple copy pronunciation, which come from Saab (2008) and Saab (2017). Then we provide some illustrations of the two basic types of head duplications that can be attested across languages in sections 5.2. and 5.3. As we will see, Hungarian particle reduplication forms a natural class with some variants of verbal doubling in languages like European Portuguese, namely **local doublings** in Saab's terminology. Local doubling patterns exactly the opposite way to non-local doublings of the type attested in Rio de La Plata Spanish. Thus, Hungarian particle reduplication fits into a typology of doubling constructions that have independent theoretical and empirical motivations.

5.1. The formalization: local duplication via blocking of copy deletion

We assume separation of form and meaning, as in some version of Distributed Morphology, such as Halle & Marantz (1993), and, in particular, Embick & Noyer (2001). In this framework, phonological information is inserted at PF, after linearization of syntactic structure and after the application of other relevant morphological operations, if any.

In our framework, PF-deletion processes targeting copies of heads (as well as some phrasal items or specific silent constituents) can be conceived of as the **byproduct of lexical insertion blocking**. Using the term "deletion" in this precise meaning below (not to be confused with the term referring to ellipsis or elliptical phenomena in general), we formulate the condition on deletion as in (56) below, together with the associated definitions for the condition, from Saab (2008; 2017):

(56) VI-Blocking

Vocabulary Insertion does not apply in the domain of X^0, X^0 a Morphosyntactic Word (MWd), if X^0, or some phrasal projection of X^0, is specified with a [I] feature,[16] where [I] is a feature that marks morphosyntactic identity.

Associated definitions ((ii) and (iii) from Embick & Noyer 2001, 574)

(i) The domain of X^0, X^0 a MWd, is the set of terminal nodes reflexively contained in X^0.

(ii) Morphosyntactic word
At the input to Morphology, a node X^0 is (by definition) a **morphosyntactic word** (MWd) iff X^0 is the highest segment of an X^0 not contained in another X^0.

(iii) Subword
A node X^0 is a **subword** (SWd) if X^0 is a terminal node and not an MWd.

The above definitions implicitly lead to what Saab calls the **Subword Deletion Corollary**, which has the effect that the deletion of subwords is dependent on the deletion of the morphosyntactic words containing them.

(57) Subword Deletion Corollary (adapted from Saab 2008, 375)
Given a subword X^0, X^0 can only be deleted if the morphosyntactic word containing X^0 is deleted by (56).

---

[16] A reviewer wonders whether the insertion of the [I] feature violates the inclusiveness condition (Chomsky 1995). This is not necessarily the case. In principle, one could introduce such a feature already in the numeration, similarly to, for instance, F(ocus) and other information structural features. On this implementation, no inclusiveness violation arises. For discussion of other alternatives, see Saab (2008).

Put differently, subwords cannot be deleted even in cases in which they have a [I] feature in configurations where these subwords are part of a word that is not itself [I]-marked (see Saab 2008 for relevant discussion).

We furthermore assume, as is standard in Distributed Morphology, that Vocabulary Items are represented as a phonological matrix associated with an instruction for insertion in an abstract node (see Embick 2015):

(58) T[past] ↔ *-ed*   (Vocabulary Item)

An abstract node for the tense node, like (59a) would then be realized as *-ed* in the default case:

(59) a. T[past]   (abstract node)

   b. T[past] → T[past, *-ed*]   (Vocabulary Insertion)

In our system, whenever T or any other morphosyntactic head is specified with an [I]-feature, Vocabulary Insertion does not apply.

This system has consequences for the timing of head deletion in PF. To illustrate, let's assume, as we do in this paper (although nothing essential depends on this assumption), that head movement is a syntactic process, and head to head movement creates an adjunction structure as illustrated in (60):

(60)
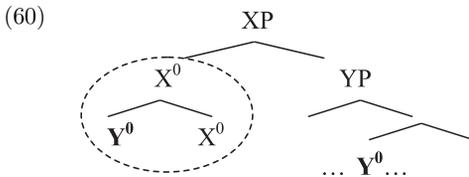
As argued at length in Saab (2008), this structural configuration gives rise to the application of the following condition that regulates non-pronunciation of heads:

(61) Head Ellipsis

   Given a Morphosyntactic Word (MWd) Y^0, assign an [I] feature to Y^0 if and only if there is a node Z^0 identical to Y^0 contained in an MWd **adjacent** or **immediately local** to Y^0 (where the notion of **containment** is reflexive).

This definition aims to express the insight that as far as heads and complex heads are concerned, these can be deleted under the exact same conditions that need to be observed by the two basic varieties of morphological

merger: Lowering (observing immediate locality, e.g., affix hopping in English) and Local Dislocation (observing adjacency, e.g., English comparative/superlative formation in Embick & Noyer 2001) – at least according to the model defended in Embick & Noyer. In the abstract situation in (62), the lower Y receives its [I]-feature as it is immediately local (i.e., it is the head of X's complement) to the higher X, a head containing an antecedent for the lower Y.

(62) head copy deletion
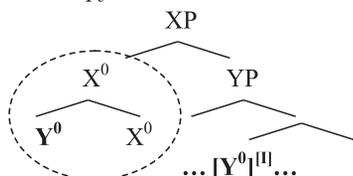
As a result of the [I] feature on Y, Y is not pronounced, that is, it does not undergo vocabulary insertion. The same result obtains whenever adjacency is met, for instance, if Y has an antecedent in an MWd adjacent to it, as shown in (63). In this configuration, too, Y gets an identity feature assigned to it, which results in the deletion of this head.

(63)
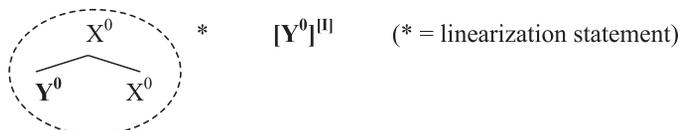
Our formal system predicts that head deletion can occur under immediate locality (dependency between a head and the head of its complement) or under adjacency. In effect, heads are deleted under the conditions that are relevant for Lowering and Local Dislocation. In (64), we schematize the postsyntactic component we assume, specifying the order of operations and the possible loci of head deletion in this "timeline" of operations:

(64) Order of operations in the postsyntactic component (following Embick 2007)

Lowering (*deletion*) > Linearization > Local dislocation (*deletion*) > Vocabulary insertion

Syntax⸻⸻⸻⸻⸻⸻⸻⸻⸻⸻⸻⸻→PF

Having introduced the mechanisms that underlie the non-pronunciation of heads, we now turn to the predictions of our system when it comes to the realization of **multiple head copies**. Multiple head copy realization is possible under two different scenarios:

(65) Scenario #1:
Multiple copy realization occurs whenever some syntactic or morphological process blocks deletion because of the Subword Deletion Corollary.

Scenario #2:
Multiple copy realization occurs whenever the locality conditions relevant for head deletion are not met for some syntactic or PF reason.

At a more concrete level, these scenarios yield two types of multiple head copy realization: under scenario #1, we obtain local duplications and under scenario #2, we obtain non-local duplications. Local duplication of head copies is fed by different syntactic and post-syntactic operations with a common property: the output of such operations creates a chain of subwords. By the Subword Deletion Corollary, deletion of subwords is not generated. On this account, excorporation is perfectly possible (*pace* Baker 1988), provided excorporation is coupled with multiple head copy pronunciation of the moving item.

In what follows, we provide some illustrations of local and non-local head copy duplications and demonstrate that Hungarian particle reduplications instantiates a case of local duplication of the European Portuguese type, although with one particularity that we will duly note.

5.2. Local duplications

European Portuguese shows a type of local verbal duplication. Consider the following example containing multiple verb realization:

(66) A: O   João não comprou o   carro, pois não?
       the J.   not bought   the car   *pois* NEG
       'John didn't buy the car, did he?'

   B. Comprou, comprou.
      bought   bought
   'Yes, he DID.'   (Martins 2007, 81)

Following the essential ingredients of Martins's (2007; 2013) analysis, Saab proposes that (66B) is derived through V-to-T-to-Σ-to-Foc movement followed by TP ellipsis.[17] This is consistent with the basic fact that Portuguese is one of the Romance languages that allows verb stranding under

---

[17] According to Martins, the elided category is just the VP. On this analysis, the head copy in the TP is eliminated under copy deletion. We assume instead that this is an instance of TP-ellipsis, but the point is orthogonal to the main claims of this paper.

ellipsis. The crucial step in the derivation of verbal duplication is the head movement of T out of Σ to Foc via excorporation (illustrated with the arrow below):

(67)
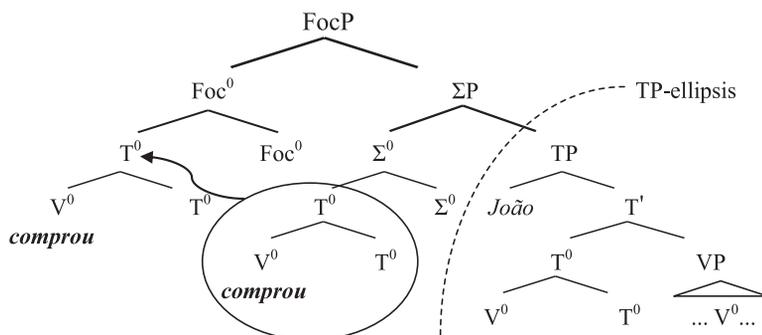
Importantly, this results in a configuration in which Head Ellipsis cannot apply to the intermediate head copy of T in Σ (marked by the circle), as T is not a morphosyntactic word. Due to this, this copy must be pronounced. Notice that the lower T and V head do meet the definition of Head Ellipsis, but being included in the elliptical TP, they get deleted in a step of phrasal ellipsis and does not surface because of that (see Saab 2008; 2017 for detailed discussion).

Evidence for excorporation of the T head complex in (67) comes in the form of several varieties of subword effects originally discussed in Martins (2007) and reconsidered in Saab (2008; 2017). One piece of evidence is the impossibility of reduplication with clitic + verb complexes in this language. As shown in (68), while duplication of a single verb is allowed, verb duplication is not allowed with any sequence of clitics on the verb:

(68) A: Não me devolveste   o   livro que eu te   emprestei, pois não?
          not me returned.2SG the book that I   you.DAT lent   *pois* NEG
          'You haven't returned to me the book I lent you, did you?'

      B1: Devolvi, devolvi.
          returned returned

      B2. *Devolvi-te,   devolvi-te.
          returned-you.DAT returned-you.DAT

      B3. *Devolvi-to,   devolvi-to.
          returned-you.it returned-you.it
          'Yes, I DID.   (Martins 2007, 110)

The framework we introduce, allowing excorporation, directly captures the fact that there are no clitics reduplicated in this process, on the assumption that clitics adjoin to the maximal head that contains the verb. Since multiple pronunciation is due to excorporation, if the verb excorporates from a morphosyntactic word containing one or more clitics, it necessarily leaves these behind:

(69) [$_{FocP}$ Devolvi [$_{ΣP}$ devolvi [$_{TP}$ ... [clitic + ⟨devolvi⟩] ...]

Thus, European Portuguese clearly illustrates the blocking of Head Ellipsis in the case of apparently adjacent, local objects.[18]

Turning to Hungarian, particle reduplication can be thought of as exhibiting a similar pattern, namely the kind of local doubling seen in Portuguese. As we argued in section 3 and 4, the first step in the derivation of Hungarian particle reduplication involves particle movement (as a phrase)

---

[18] The Subword Deletion Corollary also derives cases of multiple realization of heads that are not superficially adjacent. In Vata focal verb doubling, the higher and lower verbal copies are separated by the pronominal subject (Nunes 2004):

(i) $\widehat{li}$ à $\widehat{li}$-dā   zué   sàká
    eat we eat-PAST yesterday rice
    'We ATE rice yesterday.'

On Nunes's (2004) analysis, the verbal copy excorporates out of T and moves to Foc, with which it undergoes fusion. In Nunes' analysis, fusion with Foc is a precondition for double pronunciation.

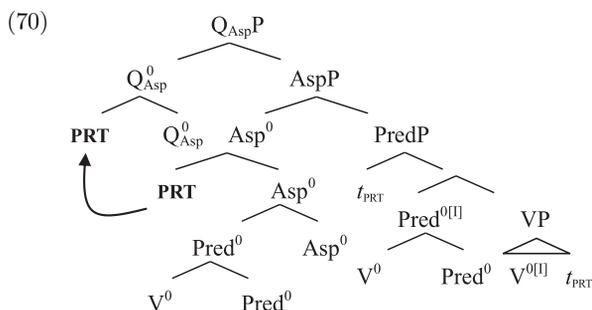(ii) [$_{FocP}$ V^0-Foc [$_{TP}$ SUBJ V^0-T^0 [$_{VP}$ ...]]]

Indication that excorporation of the verb out of T takes place comes from the absence of negation or tense particles in the higher verb (PRT tense is glossed as TP in Nunes):

(iii) a. (*$n\breve{a}$) $\widehat{le}$ wà $n\breve{a}$ $\widehat{le}$-kā
        NEG eat they NEG-eat-FUT
       'The will not EAT.'

   b. $\widehat{li}$ (*wa)   wà $\widehat{li}$-wa   zué.
      eat   PRTtens they eat(PRTtense) yesterday
      'They ATE yesterday.'   (Koopman 1984 *apud* Nunes 2004, 8)

In the account presented in Saab (2008; 2017), however, it is not fusion, but excorporation out of T that causes duplication of the verb, due to the Subword Deletion Corollary. Like in European Portuguese, the middle link of the verbal chain cannot get an [I] feature because the conditions for Head Deletion are not met. The lower V head, on the other hand does receive an [I] feature. The higher and immediate local heads, Foc^0 and T^0, contain two links of the verbal head chain, yet since both links are subwords, they must be pronounced.

to the specifier of AspP, and verb movement from V to Asp. In the second step, the particle adjoins to the Asp head via reanalysis when the condition for this is met (i.e., under the spec-head dependency in AspP). This step turns the target of reduplication into a subword. The following step involves merger of an abstract event quantificational head, which selects a perfective aspectual projection as its complement. The abstract head will later be realized as the reduplicant. In the last step, depicted in (70), the reanalyzed particle moves to the Q_{Asp} head, checking its [+telic] feature against Q_{Asp}. In this environment, just like in European Portuguese, the lower copy does not receive an [I] feature as the condition for Head Ellipsis is not met, i.e., the lower PRT is not a morphosyntactic word. The result is head copy pronunciation for the lower particle. Note that the lower copies of the verb in PredP and the VP are [I]-assigned and, as a result, not realized in PF.

(70)

$$Q_{Asp}P$$
$$Q_{Asp}^0 \quad AspP$$
$$\textbf{PRT} \quad Q_{Asp}^0 \quad Asp^0 \quad PredP$$
$$\textbf{PRT} \quad Asp^0 \quad t_{PRT}$$
$$Pred^0 \quad Asp^0 \quad Pred^{0[I]} \quad VP$$
$$V^0 \quad Pred^0 \quad V^0 \quad Pred^0 \quad V^{0[I]} \quad t_{PRT}$$

The structures in (67) and (70) have several similarities, as the reader can ascertain. Differences between European Portuguese and Hungarian pertain to independent properties of the ellipsis process that can or cannot apply in the contexts of doubling. In Hungarian, reduplicated particles cannot be stranded under ellipsis, as we specified in section 3 and 4, with reference to conjecture in (38). In European Portuguese, doubled verbs can be stranded by ellipsis.

5.3. Non-local duplications

Non-local duplication is attested whenever the two locality conditions for head deletion are not met for syntactic or PF reason (scenario #2 in (65)). A concrete example of non-local duplications is Río de La Plata Spanish verbal doubling (similar data can be found in Vata, European Portuguese,

Italian and its dialects; Greek and Turkish have other forms of non-local duplication):

(71) a. Vino Juan, vino.   (Río de la Plata Spanish)
          came J.   came
      b. *Vino vino Juan.
          'John came!'

As the pair in (71) illustrates, verbal doubling in Río de La Plata Spanish is subject to an anti-adjacency requirement that prevents that the two verbal links be adjacent. Thus, local verbal doubling in European Portuguese and non-local verbal doubling in Río de La Plata Spanish constitute a crucial example of the typology of head doubling we are describing here. As mentioned, in local doubling pronounced head links are adjacent or immediately local; double copy pronunciation is mandatory given the head status of the copies involved in this case. Anti-adjacency effects could be taken as primary evidence for the morphosyntactic word status of the head copies involved in Río de La Plata Spanish. If this were not the case, and the relevant links were subwords, we would expect double pronunciation under adjacency also in Río de La Plata Spanish. As argued in Saab (2008; 2017), an example like (71a) instantiates an underlying derivation in which there is head movement to a higher position, possibly C, in the left periphery followed by remnant movement of the entire clause to the specifier of such a position (which we assume to be the CP for ease of reference):

(72) $[_{CP} [_{\Sigma P}$ vino Juan$] [_{C'}$ vino $[_{\Sigma P}$ vino Juan$]^{[I]}]]$

The lower copy of ΣP is I-assigned in the syntax under identity and c-command (see Saab 2008 for details of how phrasal ellipsis works in this model). This results in a PF configuration where the two surviving verbal heads do not meet immediate locality or adjacency. In effect, the lower verbal head is not the head of the higher verb complement and they are not adjacent to each other. Crucially, if the subject *Juan* (or any other XP) were not intervening, then the conditions for head deletion under adjacency would be met, with the crucial consequence that the left complex head in the sequence should be deleted:
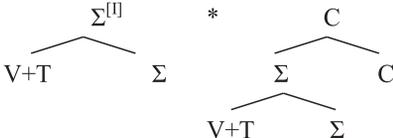
(73) $\Sigma^{[I]}$ *   C   (* = adjacency statement)

          V+T   Σ   Σ   C

                                    V+T   Σ

There is clear evidence for the morphosyntactic word nature of the head links involved in Río de La Plata verbal doubling. For instance, unlike European Portuguese, clitics adjoined to the verb are also obligatorily duplicated in this process:

(74) Me lo dio Pedro, me lo dio.
  CL.DAT.1SG CL.ACC.3.MASC.SG gave P. CL.DAT.1SG CL.ACC.3.MASC.SG gave
  'Pedro gave it to me!'

Assuming that clitics adjoin to the maximal head containing the verb, we obtain a complex morphosyntactic word:

(75) $[_{X^0}$ CL $[_{X^0}$ CL $X^0]]$

It is then this object that moves to C as an entire morphosyntactic word. On this assumption we also predict that clitic + verb complex should duplicate, a prediction that is borne out as shown in (74).

  The difference between this type of non-local doubling and our Hungarian case is clear. We have proposed that Hungarian particle reduplication can only target subwords, and as such falls under the umbrella of the Subword Deletion Corollary. It patterns in this respect with verbal doubling in European Portuguese. Since the indicated step of head movement is movement of a subword, the lower copy does not undergo deletion. That is to say, the fact that both particles are formally identical (identical copies) is irrelevant for Head Ellipsis, given their status as subwords. This results in the duplication of the particle. If this analysis is on the right track, Hungarian particle reduplication forms a natural class with other types of local doubling attested in other languages, a fact that gives additional support to the research line we are pursuing here.

6. Summary

In this paper we have stated three core properties of Hungarian particle reduplication to account for: lack of syntactic autonomy; incompatibility with focus and topicalization of the particle and incompatibility with an ellipsis operation that elides the verb. We designed a morphosyntactic account that can explain all three properties, and doing so stated that particle reduplication is an instance of partial reduplication and it operates on the morphosyntactically complex base containing the particle and the verb. We have treated this type of partial reduplication as a morphosyntactic phenomenon in which an abstract morpheme (Q_{Asp}) copies the target of

reduplication (the particle), which is necessarily a subword. Concerning the mechanism of this copying operation, we assumed a "move-and-delete-*sans*-delete" approach to particle movement to Q_{Asp}. We have shown that this configuration falls under the umbrella of local doubling, a phenomenon in which two chain links are not eligible for Head Ellipsis because of their subword status, which we illustrated with the case of verbal doubling in European Portuguese. We observed that Hungarian particle reduplication has the particularity of ruling out ellipsis with stranded particles even though the language has particles stranding with non-reduplicated particles. This, we argued, is not a universal ban on stranding duplicated material, but rather a specific property of the Hungarian grammar, which requires reanalysis as a precondition for reduplication (cf. the conjecture in (38)).[19] Reanalysis played an important role in our analysis: we believe it provides a flexible account to particle verbs, which predicts autonomous syntactic behavior of the particle in some cases and non-autonomous behavior in others, such as the case of reduplication.

Acknowledgments

---

[19] Our treatment of reanalysis throughout this article has been syntactic: that is to say, we stated it as a syntactic process, not a morphological one. This allowed us to provide a uniform treatment for this process and cases of syntactic head movement resulting in doubling in Portuguese. At the same time we are also aware that the observed effect of reanalysis might be partially morphologically conditioned, or it could possibly take place in the morphological component (PF) entirely (see Matushansky 2006 for a proposal). While we leave the exploration of this option to future investigations, we note here that the impossibility of reanalysis under ellipsis can be explained with reference to morphological reanalysis as well, with reference to the generalization that morphological operations are blocked under ellipsis, as stated in Saab (2008), Saab & Zdrojewski (2012), and Saab & Lipták (2016):

(i) Ellipsis-Morphology Generalization
     For every morphological operation MO that affects the domain of X, where X contains the target of MO, MO cannot apply in X if X is subject to ellipsis.

References

Ackerman, Farrel. 2003. Lexeme derivation and multi-word predicates in Hungarian. Acta Linguistica Hungarica 50. 7–32.

Ackerman, Farrel. 2018. Systemic organization in word-based morphology. Paper presented at the International Morphology Meeting 18, Budapest, Eötvös Loránd University, 10–13 May 2018.

Aelbrecht, Lobke. 2010. The syntactic licensing of ellipsis. Amsterdam & Philadelphia: John Benjamins.

Baker, Mark. 1988. Incorporation: A theory of grammatical function changing. Chicago: University of Chicago Press.

Baltin, Mark. 2012. Deletion versus pro-forms: An overly simple dichotomy? Natural Language and Linguistic Theory 30. 381–423.

Baltin, Mark and Paul Postal. 1996. More on reanalysis hypotheses. Linguistic Inquiry 27. 127–145.

Bar-el, Leora. 2008. Verbal number and aspect in Skwxwú7mesh. Recherches linguistiques de Vincennes 37. 31–54.

Brody, Michael. 1990. Remarks on the order of elements in the Hungarian focus field. In I. Kenesei (ed.) Approaches to Hungarian 3: Structures and arguments. Szeged: JATE. 95–121.

Brody, Michael. 1995. Focus and Checking Theory. In I. Kenesei (ed.) Approaches to Hungarian 5: Levels and structures. Szeged: JATEPress. 29–43.

Chomsky, Noam. 1995. The minimalist program. Cambridge, MA: MIT Press.

Csirmaz, Anikó. 2006. Particles and a two component theory of aspect. In É. Kiss (2006a, 107–128).

Drummond, Alex and Dave Kush. 2015. "Reanalysis" is raising to object. Syntax 18. 425–463.

É. Kiss, Katalin. 2002. The syntax of Hungarian. Cambridge: Cambridge University Press.

É. Kiss, Katalin (ed.). 2006a. Event structure and the left periphery. Studies on Hungarian. Dordrecht: Springer.

É. Kiss, Katalin. 2006b. From the grammaticalization of viewpoint aspect to the grammaticalization of situation aspect. In É. Kiss (2006a, 129–158).

É. Kiss, Katalin. 2006c. The function and the syntax of the verbal particle. In É. Kiss (2006a, 16–55).

É. Kiss, Katalin. 2011. On a type of counterfactual construction. In T. Laczkó and C. O. Ringen (eds.) Approaches to Hungarian 12: Papers from the 2009 Debrecen conference. Amsterdam & Philadelphia: John Benjamins. 85–107.

Embick, David. 2007. Linearization and local dislocation: Derivational mechanics and interactions. Linguistic Analysis 33. 303–336.

Embick, David. 2015. The morpheme. A theoretical introduction. Berlin: de Gruyter Mouton.

Embick, David and Rolf Noyer. 2001. Movement operations after syntax. Linguistic Inquiry 32. 555–95.

Farkas, Donka. 1997. Dependent indefinites. In F. Corblin, D. Godard and J.-M. Marandin (eds.) Empirical issues in formal syntax and semantics. Frankfurt am Main: Peter Lang. 243–267.

Grewendorf, Günther. 1990. Verbbewegung und Negation im Deutschen. Groninger Arbeiten zur Germanistischen Linguistik 30. 57–125.

Halle, Morris and Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In K. Hale and S. J. Keyser (eds.) The view from building 20. Essays in linguistics in honor of Sylvain Bromberger. Cambridge, MA: MIT Press. 111–176.

Halm, Tamás. 2015. Free choice and aspect in Hungarian. In K. É. Kiss, B. Surányi and É. Dékány (eds.) Approaches to Hungarian 14: Papers from the 2013 Piliscsaba conference. Amsterdam & Philadelphia: John Benjamins. 167–186.

Haugen, Jason. 2008. Morphology at the interfaces. Reduplication and noun incorporation in Uto-Aztecan. Amsterdam & Philadelphia: John Benjamins.

Hegedűs, Veronika and Éva Dékány. 2017. Two positions for verbal modifiers: evidence from derived particle verbs. In H. van der Hulst and A. Lipták (eds.) Approaches to Hungarian 15: Papers from the 2016 Leiden conference. Amsterdam & Philadelphia: John Benjamins. 65–94.

Holmberg, Anders. 2016. The syntax of yes and no. Oxford: Oxford University Press.

Inkelas, Sharon. 2014. Non-concatenative derivation: Reduplication. In R. Lieber and P. Stekauer (eds.) Oxford handbook of derivational morphology. Oxford: Oxford University Press. 169–189.

Inkelas, Sharon and Laura Downing. 2015. What is reduplication? Typology and analysis. Language and Linguistics Compass 9. 502–528.

Inkelas, Sharon and Cheryl C. Zoll. 2005. Reduplication. Doubling in morphology. Cambridge: Cambridge University Press.

Kardos, Éva. 2016. Telicity marking in Hungarian. Glossa 41. 41.

Kenesei, István. 2005. Nonfinite clauses in derived nominals. In C. Piñón and P. Siptár (eds.) Approaches to Hungarian 9: Papers from the Düsseldorf conference. Budapest: Akadémiai Kiadó. 161–186.

Kiefer, Ferenc. 1995–1996. Prefix reduplication in Hungarian. Acta Linguistica Hungarica 43. 175–194.

Kiefer, Ferenc. 2006. Aspektus és akcióminőség, különös tekintettel a magyar nyelvre. Budapest: Akadémiai Kiadó.

Kiefer, Ferenc and Mária Ladányi. 2000. Az igekötők [Verbal particles]. In F. Kiefer (ed.) Strukturális magyar nyelvtan 3. Morfológia [A structural grammar of Hungarian 3. Morphology]. Budapest: Akadémiai Kiadó. 453–518.

Kim, Minjoo and Uri Strauss (eds.). 2001. Proceedings of the North East Linguistic Society (NELS) 31. Amherst, MA: GLSA Publications.

Kirchner, Jesse Saba. 2010. Minimal reduplication. Doctoral dissertation. University of California Santa Cruz.

Kiyomi, Setsuko. 1995. A new approach to reduplication: A semantic study of noun and verb reduplication in the Malayo-Polynesian languages. Linguistics 33. 1145–1167.

Koopman, Hilda. 1995. On verbs that fail to undergo V-second. Linguistic Inquiry 26. 137–163.

Koopman, Hilda and Anna Szabolcsi. 2000. Verbal complexes. Cambridge, MA: MIT Press.

Ladányi, Mária. 2015. Particle verbs in Hungarian. In P. O. Müller, I. Ohnheiser, S. Olsen and F. Rainer (eds.) Word formation: An international handbook of the languages of Europe. Berlin & New York: Mouton de Gruyter. 660–673.

Lasnik, Howard. 1999. On feature strength: Three minimalist approaches to overt movement. Linguistic Inquiry 30. 197–217.

Lasnik, Howard. 2001. When can you save a structure by destroying it? In Kim & Strauss (2001, 301–320).

Lipták, Anikó. 2012. Verb-stranding ellipsis and verbal identity: The role of polarity focus. Linguistics in the Netherlands 29. 82–96.

Lipták, Anikó. 2013. The syntax of positive polarity in Hungarian: Evidence from ellipsis. Lingua 128. 72–94.

Lipták, Anikó. 2018. Dissecting adpositional particle constructions: Remarks from ellipsis. In H. Bartos, M. den Dikken, Z. Bánréti and T. Váradi (eds.) Boundaries crossed, at the interfaces of morphosyntax, phonology, pragmatics and semantics. Chem: Springer. 327–348.

Lipták, Anikó and István Kenesei. 2017. Passive potential affixation: Syntax or lexicon? Acta Linguistica Academica 64. 45–77.

Marantz, Alec. 1982. Reduplication. Linguistic Inquiry 13. 435–481.

Martins, Ana Maria. 2007. Double realization of verbal copies in European Portuguese emphatic affirmation. In N. Corver and J. Nunes (eds.) The copy theory of movement. Amsterdam & Philadelphia: John Benjamins. 78–119.

Martins, Ana Maria. 2013. Emphatic polarity in european portuguese and beyond. Lingua 128. 95–123.

Matushansky, Ora. 2006. Head movement in linguistic theory. Linguistic Inquiry 37. 69–109.

McCarthy, John J. and Alan Prince. 1986. Prosodic morphology 1986. Linguistics Department Faculty Publication Series 13. http://scholarworks.umass.edu/linguist_faculty_pubs/13, retrieved: 7-11-2018.

Merchant, Jason. 2001. The syntax of silence. Oxford: Oxford University Press.

Nunes, Jairo. 2004. Linearization of chains and sideward movement. Cambridge, MA: MIT Press.

Olsvay, Csaba. 2004. The Hungarian verbal complex: An alternative approach. In K. É. Kiss and H. van Riemsdijk (eds.) Verb clusters. A Study of Hungarian, German and Dutch. Amsterdam & Philadelphia: John Benjamins. 290–333.

Piñón, Christopher. 1991. Falling in paradise: verbs, preverbs, and reduplication in Hungarian. Handout. Syntax Workshop, Stanford University, 21 May 1991, http://pinon.sdf-eu.org/, retrieved: 7-11-2018.

Puskás, Genovéva. 1998. On the NEG-criterion in Hungarian. Acta Linguistica Hungarica 45. 167–213.

Puskás, Genovéva. 2000. Word order in Hungarian. The syntax of A-bar positions. Amsterdam & Philadelphia: John Benjamins.

Riemsdijk, Henk van. 1978. A case study in syntactic markedness. Dordrecht: Kluwer.

Saab, Andrés. 2008. Hacía una teoría de la identidad parcial en la ellipsis. Doctoral dissertation. University of Buenos Aires.

Saab, Andrés. 2017. Varieties of verbal doubling in Romance. Isogloss 3. 1–42.

Saab, Andrés and Anikó Lipták. 2016. Movement and deletion after syntax. Ellipsis by inflection reconsidered. Studia Linguistica 70. 66–108.

Saab, Andrés and Pablo Zdrojewski. 2012. Anti-repair effects under ellipsis: Diagnosing (post)-syntactic clitics in Spanish. In I. Franco, S. Lusini and A. Saab (eds.) Romance languages and linguistic theory 2010. Amsterdam & Philadelphia: John Benjamins. 177–202.

Song, Chenchen. 2017. Revisiting non-parting particles in Hungarian. Paper presented at the 13th International Conference on the Structure of Hungarian, Budapest.

Song, Chenchen. 2018. Recategorization blocks verb movement: Revisiting non-inverting particle verbs in Hungarian. Manuscript. University of Cambridge.

Sóskuthy, Márton. 2012. Morphology in the extreme: Echo pairs in Hungarian. In F. Kiefer and Z. Bánréti (eds.) Twenty years of Theoretical Linguistics in Budapest. A selection of papers from the 2010 conference celebrating the twentieth anniversary of the Theoretical Linguistics Programme of Eötvös Loránd University. Budapest: Hungarian Academy of Sciences, Research Institute for Linguistics & TINTA Publishing House. 123–143.

Součková, Kateřina and Malami Buba. 2008. Intensive plurality. Hausa pluractional verbs and degree semantics. In M. van Koppen and B. Botma (eds.) Linguistics in the Netherlands. Amsterdam & Philadelphia: John Benjamins. 133–144.

Surányi, Balázs. 2009a. Locative particle and adverbial incorporation at the interfaces. In K. É. Kiss (ed.) Adverbs and adverbial adjuncts at the interfaces (Interface explorations 20). Berlin & New York: Mouton de Gruyter. 39–74.

Surányi, Balázs. 2009b. Verbal particles inside and outside vP. Acta Linguistica Hungarica 56. 201–249.

Szendrői, Kriszta. 2001. Focus and the syntax–phonology interface. Doctoral dissertation. University College London.

Szendrői, Kriszta. 2004. Focus and the interaction between syntax and pragmatics – Introduction. Lingua 114. 229–254.

Travis, Lisa deMena. 1999. A syntactician's view of reduplication. In C. Smallwood and C. Kitto (eds.) Proceedings of AFLA VI: The Sixth Meeting of the Austronesian Formal Linguistics Association. Toronto: University of Toronto. 313–331.

Travis, Lisa deMena. 2001. The syntax of reduplication. In Kim & Strauss (2001, 313–331).