Anatomy of Hungarian aspectual particles

Benjamin Slade and Aniko Csirmaz
University of Utah

Aspectual particles. We explore the behaviour and morphosyntax of a subset of aspectual particles in Hungarian, including *meg* and *még*. We argue that in a number of cases, the properties of the specific particles are predictable. In cases where no specific predictions are possible, we note that the attested behaviour is expected. The Hungarian facts are reminiscent of patterns found in Hindi and Nepali. Not only does this investigation address the development and internal structure of aspectual particles in Hungarian specifically, but it also has wider implications for understanding aspectual particles in natural language more generally.

Hungarian *meg*. The particles considered in this paper are derivatives of *meg* (historical data are from Zaicz 2006). In the description, we only distinguish present-day Hungarian from earlier Hungarian (in most cases, this is old Hungarian). Let us consider various forms of *meg* first. Note that it is plausible, given the characterizations of earlier interpretation, that meg_1 and meg_2 were originally identical — certainly in earlier texts they are homographs. According to Zaicz 2006, *még* derives from meg_2.

(1)   a. meg_1 (particle): "back (direction)"; present day: perfectivizer

      b. meg_2: "again, back (direction)"; present day: "and" (cp. *és*)

(2)   *még*: (from meg_2 "again, back"); present day: "still"

The 'again' / 'back' ambiguity is expected; similar facts are seen in English (esp. early English; see Beck 2005, Beck & Gergel 2015, Gergel et al 2016) as well as in Indo-Aryan languages like Gujarati (Patel-Grosz & Beck 2014). The meaning relevant for the emergence of other forms, we suggest, is 'again', which can be defined as given below in (3) (cp. Beck 2005). The other senses discussed below ("still" &c) are more restricted versions of "again", i.e. they entail "again".

(3) $[\![again]\!]^{c,g,w} = \lambda t_i.\lambda e_l.\lambda P_{\langle l,\langle i,t\rangle\rangle} : \exists t' \prec t[\exists e'[P(e',t')]].P(e)(t) = 1$

Még and its relation to $meg_{1/2}$ *Még* is ambiguous, including temporal & marginality interpretations:

(4)   János   még (mindig) olvas
      J-nom   still   always   reads

      'János is still reading' (temporal)

(5)   Az   Octavia   még   biztonságos (az annál   kisebb   autók   veszélyesek   lehetnek)
      the O-nom   still   safe   the than.that smaller cars-nom dangerous-pl are.cond

      'Octavias are safe (cars smaller than that can be dangerous)' (marginality)

For temporal *még*, we assume the following definition. Note that it resembles the definition for *again*, with the addition of a superevent. The superevent, e'', is of type P, and its runtime must contain the runtime of e and e'.

(6) $[\![still(temporal)]\!]^{c,g,w} = \lambda t_i.\lambda e_l.\lambda P_{\langle l,\langle i,t\rangle\rangle} : \exists e''\exists t''[P(e'')(t'')\&\exists t' \prec t[P(e',t')]\&e \subseteq e''\&e' \subseteq e''\&t \subseteq t''\&t' \subseteq t''].P(e)(t) = 1$

The temporal "still" *még* is in essence a special case of the sense of "again", which requires the presence of a novel event, e''. This new event will be a superevent (rather than an event with a distinct ordering, e.g. preceding both e and e') because e and e' unambiguously determine a subinterval of the runtime of e''. This has the effect of requiring one continuous event of predicative type P (which "again" does not rule out but also does not require).

The marginality *még* has the definition in (7), where a set of alternatives is under consideration (y). Given a gradable adjective such as *safe*, x and all y must be *safe* (that is, there degree of safety must be above the contextually determined standard). The degree of safety of all y elements must be greater than that of x — that is, x must be the least safe (but still safe) car in (5) above (for marginality *már* — essentially the inverse counterpart of marginality *még* — the alternatives have a degree of safety that is smaller than that of x, and y is not required to be safe).

(7) $[\![still(marginality)]\!]^{c,g,w} = \lambda x. \lambda P : \forall y \neq x \to P(y) > P(x) . P(x) = 1$

We suggest that essentially marginality *még* is a scalar element. It scalar behaviour is also shown in (8).

(8)   Ez   egy   nagy   labda. (Az   nagyobb.) És   az   még   nagyobb
      this   one   big   ball   that bigger   and that still bigger

      'This is a big ball. (That one is bigger.) And that one is still bigger.'

The equivalent of English *even* can also involve the additive particle *is*:

(9) János szendvicset kért. Még Feri *(is) szendvicset kért
     J-nom sandwich-acc asked still F-nom too sandwich-acc asked

     'János asked for a sandwich. Even Feri asked for a sandwich'

We return to this fact after discussing the concessive *még is*.

Concessive *még is*. In (10a), the interpretation (see Ippolito 2007) is that János getting a shot and dying was less likely than János getting a shot and not dying. The definition of *mégis* (and of the English concessive *still*) is given in (10b).

(10) a. János kapott egy injekciót, mégis / *még meg halt
        J-nom got an injection-acc still / still perf died

        'János got a shot, but he still died'

      b. $[\![still(concessive)]\!]^{c,g,w} = \lambda p : \exists q \ [\max_{<,wc} \{w : w \in p \cap w \in q\} <_{likely} \max_{<,wc} \{w' : w' \in \neg p \cap w' \in q\} \ . \ p(w){=}1$

We suggest that the concessive form derives from marginality *még*. Marginality *még* involves the comparison of two degrees – concessive *még* is similar in that it compares two degrees of likelihood. The presence of the additive *is* may be related to the fact that in the concessive form it is the likelihood of two complex events involving conjunction (p and q / non-p and q) that is compared. Szabolcsi's (2015) analysis of additive particles like Hungarian *is*, Japanese *mo*, Sinhala *-t* suggests that such elements are semantically non-contentful but involve a suppositional component resulting in such particles only being felicitous in contexts where additivity/universality is present, of which logical conjunction is one manifestation, as is seen for *is*.

The role of *is*: At this point we can return to *még Feri is*. The additivity of *is* will require another element in addition to *Feri*. *Még*, as elsewhere, involves a scalar component (as seen in examples like *még nagyobb* 'even bigger'.) The scalar component is responsible for the likelihood presupposition; but in order for this to be felicitous at least one other individual must present in the context; this explains the necessity of *is*.

Further connections: In present day Hungarian, *meg₂* is nearly synonymous with *és* 'and'. This meaning is somewhat expected given the fact that *m*-initial elements are part of the set of element associated with universal quantification (e.g. *mind* 'every', *mindenki* 'everyone'). Finally, there are two elements which mean 'again' in present-day Hungarian: *megint* and *ismét*.

(11) János megint / ismét szendvicset evett
      J-nom again / again sandwich-acc ate

      'János was eating a sandwich again'

Megint is derived from *meg₂* and the suffix *-int* (see *rész-int*, part-int 'partly'). *Ismét* is a compound word, formed from *is* and *meg* 'again' or *még* (subsequent word-final changes involved /g/ > /k/ > /t/). We note that both forms can be seen as retaining the meaning 'again' from *meg₂*. We tentatively suggest that the lack of compositional interpretation (especially with *ismét*) is related to the sound changes of the form, which obscure the constituent parts.

Summary and extensions. In contrast to the relation between elements like *again*, *still*, and *and* in English, the internal structure of Hungarian aspectual adverbials betrays their semantic interconnectedness. Other languages, such as Hindi and Nepali, are similar to Hungarian in the morpho-semantic relations between aspectual adverbials. That is, Hindi *phir* and Nepali *pheri* mean "after that; again", with Hindi *phir bhī* and Nepali *pheri pani* — where *bhī* and *pani* are additive particles similar to Hungarian *is*. The patterns found in Hungarian on the one hand and Hindi/Nepali on the other are similar in their broad outlines, but differ greatly in their details. So while Hindi *phir bhī* and Nepali *pheri pani* can be either temporal or concessive "still", these elements are distinct in Hungarian. Likewise Hindi *bhī* and Nepali *pani* are ambiguous between scalar and non-scalar readings, unlike Hungarian *is* which is non-scalar. Thus the distinctive features of Hungarian aspectual adverbials provide a new perspective on semantic compositionality of aspectual elements in natural language.