Passive potential affixation: syntax or lexicon?

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Abstract: In this paper we will argue that contrary to the received view passive potential affixation in Hungarian primarily derives complex syntactic objects rather than adjectives. By means of a number of tests we show the differences between the two classes of items bearing the homophonous affix *-ható/hető*: one a nonfinite verb form, the other a lexicalized adjective. In addition to a syntactic analysis of this composite affix, a typology is provided for languages that have similar constructions.

Keywords: *-ható/hető*; affixation; nonfinite clause; participle

1. Introduction

In this paper we will argue that contrary to the received view, passive potential affixation primarily derives complex syntactic objects rather than adjectives. Our arguments are mainly based on Hungarian data but in our final analysis we rely on constructions from a number of unrelated languages, such as Turkish, Japanese, and Chichewa, and to a lesser degree, Russian. We will challenge the view that the equivalent of English *-able* affixation as in the derived form *acceptable*, the Hungarian affix *-ható/hető* derives adjectives from passivized verbal roots.

Instead, we will propose that productive passive potential affixation derives nonfinite verb forms from transitive verbs, which differ from homologous adjectives in a number of syntactic, morphological, and morphophonological criteria, including the possibility of modification, the availability of comparative forms, retaining the verb's argument structure, among other things. Since the adjectives in this class are all lexicalized, we will argue that there is a bifurcation of functions: adjectives are in the lexicon, primarily because of the behavior of verbal particles, which are

inseparable in the adjectives, while nonfinite verb forms are a result of a syntactic process. As will be shown, it is the data that forces us to follow a weakly lexicalist hypothesis in this paper.

Again in contrast with previous research we will claim that the affix in question can be analyzed into overt potential and participial constituents, and a covert passive one, as supported by related constructions in other languages, which allows us to put forward a typology in which some or another of these constituents can be overt or covert.

The paper is structured as follows. In section 2, we address the issue of the category of the affix using cross-linguistically valid syntactic and morphological criteria defining adjectives, and distinguish the lexical objects from the syntactic ones. Section 3 is dedicated to syntactic tests, with the help of which we demonstrate that the clausal forms, when based on a verb with a preverbal particle, have subparts that are syntactically autonomous in certain contexts. In section 4, we turn to a language-specific morphophonological distinction between lexicalized adjectives and syntactically formed nonfinite clauses that is attested in the presence or absence of the linking vowel before the plural marker. Section 5 presents our analysis of the two types of constructions, including a syntactic structure of passive potential clauses. It concludes with a typology of passive and potential affixation of similar constructions in a few other languages. Section 6 provides a summary of the findings.

2. Differentiating between adjectival and non-adjectival *ható* forms

The *ható* affix productively attaches to transitive verbs, and the resulting *ható* forms can be used both attributively and predicatively. (1) illustrates this for *érthető* 'understandable', containing a transitive verb and (2) for the case of the ditransitive *adható* 'givable', which obligatorily occurs with a direct and an indirect object argument, the latter being *gyerekeknek* 'to children' in (2).[1]

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[1] Note that *-ható* is realized as *-ható* or *-hető* depending on vowel harmony exhibited with the stem, so technically it should be represented as *-hAtÓ*. For ease of exposition we refer to the affix throughout simply as *ható*. In the glossing of *ható* words we diverge from spelling conventions and separate the preverb and the verb stem when they are syntactically autonomous and do not form one lexical item. Specific abbreviations used in this article are: AOR = aorist; COMP = comparative suffix; INE = inessive; ELA = elative; MOD = modality; OBL = modal affix expressing obligation; POT = potentiality; DEF/INDEF = definite/indefinite conjugation; PASS = passive; PASS.PRT = pas-

(1) a. egy ért-hető   szöveg
        an understand-ABLE text
        'an understandable text'

  b. Ez a   szöveg ért-hető.
      this the text   understand-ABLE
      'This text is understandable.'

(2) a. a   gyerekeknek nem ad-ható   könyvek
        the children.DAT not give-ABLE book.PL
        'the books that cannot be given to children'

  b. Ezek a   könyvek nem ad-ható-k   gyerekeknek.
      these the book.PL not give-ABLE-PL children.DAT
      'These books cannot be given to children.'

As it turns out when considering other properties of these *ható* forms,
their uniform usage as attributive and predicative modifiers does not entail
identical **categorial** status in the two cases: simplex *ható* forms like *érthető*
'understandable' differ from complex ones that retain their source verb's
argument structure, such as *adható* 'givable' in (2).

The difference between these two types is observable if we subject
simplex and complex *ható* forms to morphosyntactic tests that are used
to identify adjectives. The criteria we will use for this purpose, following
Komlósy (1992), are:

  (i) modification by intensifiers
 (ii) serving as possible input to lexical derivations
(iii) the availability of comparative forms

As the rest of this section will show, the application of these three tests
yields the result that there are two distinct classes of *ható* forms: those
that pattern as ordinary true adjectives (cf. *érthető*) and those that do
not (cf. *adható*). We will also show that this difference aligns with other
differences: the *ható* forms' ability to retain their base verb's argument
and event structure, as well as differences concerning their interpretation.

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sive participle; PR.PRT = present participle; PART = verbal particle; SUB = sublative;
SUP = superlative prefix.

2.1. Testing for the adjectival category

Let us then go through the above three tests one by one. The first test that differentiates between the two types is modification by intensifiers, such as *kifejezetten* 'particularly', or *nagyon* 'very'. These intensifiers are perfectly fine when modifying ordinary adjectives in Hungarian (3), and can also precede *ható* forms like (4), but not those in (5). In the latter case, a meaning similar to the intended one can only be expressed using adverbial modifiers such as *jól* 'easily':

(3) egy kifejezetten/ nagyon hosszú szöveg
     a   particularly very   long   text
     'a particularly/very long text'

(4) egy kifejezetten/ nagyon ért-hető   szöveg
     a   particularly very   understand-ABLE text
     'particularly/very understandable text'

(5) a   problémára   {*kifejezetten/ *nagyon/ jól} alkalmaz-ható megoldás
     the problem.SUB   particularly   very   well apply-ABLE   solution
     lit. 'the solution particularly/very/well applicable to the problem'

This shows that the form in (4) is categorically an adjective, while the one in (5) is not.

The second test concerns serving as possible input for derivational processes that apply to adjectives. Words like *érthető* 'understandable' or *beszámítható* 'sane' test positively in this respect: they can be input to lexical derivations which operate on adjectives, such as nominalizations or adverb formation, see the examples in (6). Items like *leültethető* 'seatable' or *adható* 'givable' do not give rise to such derivatives, cf. (7):

(6) ért-hető-ség   understand-ABLE-NOM   'understandability'
     ért-hető-en   understand-ABLE-ADV   'understandably'
     beszámít-ható-ság   PART.count-ABLE-NOM   'being sane'
     beszámít-ható-an   PART.count-ABLE-ADV   'in a sane manner'

(7) *leültet-hető-ség   PART.seat-ABLE-NOM   lit. 'seatability'
     *leültet-hető-en   PART.seat-ABLE-ADV   lit. 'in a seatable manner'
     *ad-ható-ság   give-ABLE-NOM   lit. 'givability'
     *ad-ható-an   give-ABLE-ADV   lit. 'in a givable manner'

Third, *érthető* 'understandable' or *beszámítható* 'sane' also pattern alike and unlike complex *ható* forms in that they have morphological comparative forms, just like ordinary, underived adjectives in Hungarian:

(8) az {ért-hető-bb/ leg-ért-hető-bb} szövegek
    the understand-ABLE-COMP SUP-understand-ABLE-COMP texts
    'the more understandable/most understandable texts'

(9) a {beszámít-ható-bb/ leg-beszámít-ható-bb} emberek
    the PART.count-ABLE-COMP SUP-PART.count-ABLE-COMP people
    'the more/most sane people'

leültethető 'seatable' or *akasztható* 'hangable', on the other hand, do not have comparative forms, as (10) shows (see also Farkas 2013, for a similar observation).

(10) a. *Öt ember leültet-hető-bb, mint tíz.
        five man seat-ABLE-COMP than ten
        (intended meaning: 'Five people can be better/easier seated than ten.')

    b. *Ez a kabát fogasra akaszt-ható-bb (mint az).
       this the coat rack.SUB hang-ABLE-COMP than that
       (intended meaning: 'This coat can be hung onto racks better than that one.')

Note that the ungrammaticality of the example in (10b) is not due to the presence of the overt argument, as overt arguments do not block the comparative form in the case of ordinary adjectives (11):

(11) Ez az apa büszké-bb a fiára, mint az.
     this the father proud-COMP the son.POSS.3SG.SUB than that
     'This father is more proud of his son than that one.'

This set of three criteria reviewed above clearly singles out some forms derived by means of *ható* as true adjectives, and others as non-adjectival.

2.2. Differences in argument and event structure and interpretation/compositionality

The non-adjectival type of *ható* forms are distinct from the adjectival ones when it comes to yet another aspect as well. Obligatory internal arguments of the base verb are required to appear next to the *ható* form, without these such *ható* forms cannot be used, they are ungrammatical, cf. (12b). The

agent is also expressable; it can appear optionally and is always marked by *által* 'by', cf. (13).

(12) a. A   könyvtáros könyveket ad   az olvasóknak.
         the librarian   books.ACC give.3SG the readers.DAT
         'The librarian gives books to the readers.'

   b. (a   könyvtáros által) az *(olvasóknak) ad-ható   könyvek
         the librarian   by   the readers.DAT give-ABLE books
         'the books that can be given to readers by the librarian'

(13) a. Mindenki letölti   ezt   a   programot.
         everyone download.3SG this.ACC the program.ACC
         'Everyone downloads this program.'

   b. Ez a   program (bárki által) letölt-hető.
         this the program anyone by   download-ABLE
         'This program can be downloaded by anyone.'

The agent of a causativized verb, namely the causee, can also be optionally retained similarly to agents of simple transitive verbs. Note that the case (instrumental) is retained on the causee:

(14) a. A zenetanár   elénekel-tet-i   a   gyerekekkel a dalokat.
         the music.teacher PART.sing-CAUS-3SG the children.INST the songs.ACC
         'The music teacher makes the children sing the songs.'

   b. (a   gyerekekkel) elénekel-tet-hető   dalok
         the children.INST PART.sing-CAUS-ABLE songs
         'songs that the children can be made sing'

Similarly to retaining the base verb's argument structure, non-adjectival *ható* forms inherit their base verb's event structure as well. For example, these forms can appear together with adverbs that modify the event, as in (15a–b), where *helyben* 'on the spot' and *többször* 'more than once' modify the waiting and the printing event and not the ability to wait for or print something. (15a) also shows that temporal modifiers that occur with the *ható* form matches the type of the base predicate: *megvárható* 'PART.wait.ABLE' can be modified by *in 2 hours* just like *meg-vár* 'PART-wait' can.

(15) a. az eredmény {helyben/ 2 óra   alatt} megvár-ható
         the result   place.INE 2 hour under PART.wait-ABLE
         'you can wait for the result on the spot/in 2 hours'

b. egy e-jegy többször nyomtat-ható
   an e-ticket more.times print-ABLE
   'an e-ticket is printable more than once'

Adjectival *ható* forms, on the other hand, unlike non-adjectival *ható* forms, do not inherit their verb's argument and event structure, such that the arguments of the original base verb cannot be added to them (cf. (16a,b)).

(16) a. (*Mari által) beszámít-ható   emberek
          Mari by   PART.count-ABLE people
          'people who are sane (*to/for/by Mari)'

      b. (*mindenki által) ért-hető-bb   szövegek
          everyone by   understand-ABLE-COMP texts
          'texts more understandable (*by everyone)'

In (16b), we are using the comparative form of *érthető* 'understandable', to disambiguate it in its adjectival use, as this word is ambiguous between the two uses: the same form can also have a non-adjectival use, when it combines with a subject *by*-phrase. In the latter use it counts as a non-adjectival form of *ható*, and the comparative morpheme is impossible:[2]

(17) mindenki által ért-hető(*-bb)   szövegek
      everyone by   understand-ABLE-COMP texts
      'texts (more) understandable by everyone'

The ambiguity described here characterizes many other forms as well, such as *értékelhető* 'appreciable/can be evaluated', *áttekinthető* 'transparent/can be (re)viewed', *elérhető* 'available/can be reached', *megbízható* 'trustable/can be entrusted (with a task)', *tűrhető* 'passable/can be endured'.

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[2] Note that adjectival *ható* can combine with experiencers, but these are not arguments of the source verb but optional experiencers. This is demonstrated by the fact that they must appear with dative case, differently from the agent arguments of non-adjectival *ható* forms that are marked by *által* 'by' (ia). Dative case marked experiencers are available in combination of adjectival predicates as well, compare (ib).

(i) a. Ez a   szöveg mindenkinek ért-hető-bb,   mint az.
         this the text   everyone.DAT understand-ABLE-COMP than that
         'This texts is more understandable to/for everyone than that.'

     b. Ez a   szöveg mindenkinek hosszú.
         this the text   everyone.DAT long
         'This texts is long to/for everyone.'

(18) a. adjectival form

      Péter próbálkozása   értékel-hető.
      Péter attempt.POSS.3SG evaluate-ABLE
      'Péter's attempt is appreciable.'

   b. non-adjectival form

      A versenyzők teljesítménye   10-pontos skálán   értékel-hető.
      the competitors' production.POSS.3SG 10-point   scale.SUPER evaluate-ABLE
      'The competitors' production can be evaluated on a 10-point scale.'

As the translations show, the adjectival and the non-adjectival forms differ in some aspects of meaning. While the non-adjectival form is fully compositional, the adjectival form may have a shifted, non-compositional meaning that is not predictable from the meaning of the base verb. Non-predictable meanings are illustrated in the following examples: *beszámít-ható* 'PART.count-ABLE' contains the verb *számít* 'count (on)', but instead of meaning 'countable on', it means 'sane'; *vár-ható* 'wait-ABLE' containing *vár* 'wait', has a shifted meaning corresponding to 'expected'.

(19) a. beszámít-ható   emberek
     PART.count-ABLE people
     'sane people'

   b. Vár-ható, hogy a   csapadék eloszlása   egyenetlenebb lesz.
     wait-ABLE that the rainfall   distribution.POSS.3SG uneven.COMP be.FUT
     'It is expected that the distribution of rainfall will be more uneven.'

2.2.1. The key distinction: *ható* adjectives and *ható* clauses

The category difference as well as the differences in the presence/absence of argument and event structure point to the conclusion that there are two types of *ható* forms in Hungarian (see also Komlósy 1992 for the same conclusion). One group is *ható* forms that are lexical adjectives and which lack an argument and event structure associated with their base verb. The other type is non-adjectival concerning its category and retains the base verb's event and argument structure, which is indicative of a verbal projection that contains these arguments. In line with this, we claim that this second group of *ható* forms are **nonfinite,** i.e., **participial clauses**, which can function as prenominal modifiers or as main predicates in a sentence. These participial clauses are formed in the syntax by applying *ható* to a verbal projection (for details, see section 5 below). Given that these clauses are productively derived in the syntax, under our analysis *ható* is an inflectional affix, similarly to affixes yielding other participial forms

in Hungarian, such as *-ó/ő* deriving present participles or *-t/tt* deriving passive (traditionally called past) participles, see, among others, Laczkó (2000; 2001; 2008).

Concerning the truly adjectival class of *ható* forms, we believe that these correspond to lexicalized instances of *ható* participles that through frequency of use acquire the adjectival category and get listed as lexical items of Hungarian. We use the term *lexicalization* here in its widely accepted meaning, as a process of change whereby speakers use a linguistic form with formal and semantic properties that are not completely derivable from its components (see Traugott & Dasher 2002; Brinton & Traugott 2005, also Bauer 1983). We claim that the adjectival nature of *ható* adjectives is brought about by the lexicalization process, as an instance of formal change affecting category. In addition to this kind of formal change, *ható* participles – similarly to other participles in Hungarian – also lose their complement frames, i.e., their ability to take arguments (see Komlósy 1992; 1994; H. Tóth (2000) for the same point).

There are two reasons why the process of lexicalization can account for *ható* adjectives better than lexical word formation. One has to do with productivity: unlike *ható* clauses that are without exception productively derived from a transitive verb phrase,[3] *ható* adjectives are the result of a rather unproductive process, as many potentially possible forms do not occur in the language (Table 1, overleaf).

Second, as (19) has illustrated, unlike *ható* participles, whose meanings are always fully compositional, *ható* adjectives often have unpredictable, non-compositional meanings that are not derived from the meanings of their base verbs. These facts are predicted if *ható* adjectives are lexicalized forms, and their idiomatization is due to the lexicalization process. In this respect, *ható* forms are analogous to other participial clauses; lexicalized present participles like *kitűn-ő* 'outstand-PR.PRT; outstanding, excellent' or *borzaszt-ó* 'horrify-PR.PRT; horrible', whose meanings are obscured in comparison to their original compositional meanings as participial forms.

It is important to note that compositionality is not the only aspect of meaning that can differentiate between adjectival and non-adjectival *ható* forms. Often one can find a distinction in interpretation when it comes to the stage vs. individual level readings. While *ható* clauses express stage

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[3] In a few exceptional cases the *ható* adjective does not even correspond to a transitive verb, cf. *él-hető* 'live-able', lit. a place where you can live nicely; *ég-hető* 'burn$_{intr}$-able; flammable'. If *ható* adjectives all originate from syntactic *ható* forms, as we argue here, exceptions like these should not occur in large numbers. This is exactly what we find, *ható* adjectives with intransitive verbs are sporadic.

Table 1:

	Form	Gloss	Translation
Existing *ható* adjectives	áttekint-hető	overview-able	overseeable
	elér-hető	reach-able	reachable
	elvisel-hető	bear-able	bearable
	hozzáfér-hető	access-able	available
	köz-ért-hető	public-understand-able	understandable by all
	tűr-hető	bear-able	passable
Non-existing *ható* adjectives	*ismer-hető (emberek)	know-able	(people who) can be known
	*ve-hető (áruk)	buy-able	buyable (products)
	*leültet-hető (emberek)	seat-able	(people who) can be seated
	*felad-ható (probléma)	give.up-able	(problem that) can be given up

level predicates, *ható* adjectives have individual level readings, as adjectives usually denote inherent properties. To illustrate, consider the case of *megbízható* 'trustable'. As an adjective, without any modifiers indicating temporal boundedness, it is used to express someone's permanent characteristic (cf. 20a), as a *ható* clause, on the other hand, it expresses its subject's temporary, transient property in (20b), in line with the fact that the participial clause is temporally anchored:

(20) a. individual level predicate
         János megbíz-ható(-bb   mint Mari).
         János PART.trust-ABLE(-COMP than Mari)
         'János is (more) trustable (than Mari).'
     b. stage level predicate
         János ma   meg-bíz-ható   ezzel   a   feladattal.
         János today PART-entrust-ABLE this.INST the task.INST
         'János can be entrusted with this task today.'

This tendency, however, does not mean that *ható* adjectives cannot be used with a stage level interpretation: they can also be used as predicates that are temporarily bound, as (21) illustrates (both examples from the internet).[4]

(21) a. Ausztria pénzügyi rendszere   sebez-hető-bb,   mint volt.
         Austria financial system.POSS.3SG wound-ABLE-COMP than was
         'Austria's financial system is more vulnerable than it was.'

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[4] Sources: (21a): https://tinyurl.com/j44292f; (21b): https://tinyurl.com/zhnu95h (last accessed 15-01-2017).

b. Addig   ugyanis bár   már   nálam lakott,   még beszámít-ható
   then.TILL namely although already ADE.1SG lived.3SG yet PART.count-ABLE
   volt.
   was
   'Till then, although he already lived with me, he was still sane.'

In sum, this section has identified two classes of *ható* forms that differ from each other in various respects. Using a set of criteria that can identify categorial status as well as phrase vs. word-level distinctions, we have established that only lexical *ható* forms are true adjectives, while *ható* clauses are participial clauses (see Kenesei 1996; 2014, for the application of these criteria to related phenomena). The properties of each type are summarized in Table 2.

Table 2: Properties of the two classes of *ható* forms

Properties of *ható* forms		*ható* adjectives	*ható* clauses
(i)	modification by intensifiers or adverbs	intensifiers	adverbs
(ii)	input to lexical derivations	✓	∗
(iii)	availability of comparative forms	✓	∗
(iv)	non-compositional meaning possible	✓	∗
(v)	argument and event structure preserved	∗	✓
(vi)	interpretation	stage/individual level	stage level

We hasten to add that while our findings hold for the specific case of *ható* in Hungarian, we are by no means the first to propose that *-able*-affixation is not uniform in languages. We are aware of proposals for other languages that suggest that *-able* forms can be classified into two classes, according to syntactic, morphological and semantic criteria.

Concerning category distinctions, Leeman (1992) has identified some *-ble* forms in French as belonging to either a 'verbal' or an 'adjectival' category. Verbal *-ble* can be modified by an event adverb, but adjectival *-ble* cannot (see (22)). Also, verbal forms are paraphrasable by the verbal predicate in question, while adjectival forms are not paraphrasable by the original verb (cf. (23)). This distinction is similar to what we are making between clausal and adjectival *ható*.

(22) a. une manette qui   est abaissable rapidement   (verbal *-ble* form)
         a   lever   that is lowerable quickly
         'a lever that is quickly lowerable'

b. *un homme qui est abominable rapidement   (adjectival -*ble* form)
    a   man   who is   horrible   quickly
    'a man who is (*quickly) horrible'

(23) a. La manette ne paraît pas abaissable mais j'y arriverai quand   même.
       the lever   NE seems not lowerable but I   in-it   will.succeed anyway
       'The lever does not seem lowerable, but I will succeed anyway.'

     b. un prix abordable   = ^{??}un prix qu'on peut aborder
       a   price reasonable/affordable   a   price that   one can reach

A similar distinction has also been recognized in English, where -*able* gives rise to both productive and non-productive forms. Fabb (1984) argues that the non-productive ones (which can also be based on intransitive verbs or nominals, cf. examples in (24a,b)), are derived in the lexicon, and necessarily do not associate with arguments. Productively derived ones, on the other hand, are formed in the syntax and retain, among other things, secondary predicates.

(24) a. perishable; variable   (non-productive -*able*)

     b. palatable, objectionable, comfortable, seasonable

     c. *it is flammable to ashes

     d. *he is risible out of the room

(25) a. rememberable, conquerable, wearable   (productive -*able*)

     b. Beef is eatable raw./Trout is hammerable flat.

Our own account of Hungarian *ható* sides with Fabb (1984) in that we also propose that *ható* can apply in the syntax, but we go further in that we claim it always does so in fact (recall footnote 3 above about intransitive forms in Hungarian). This way, via putting down the adjectival cases of *ható* to a lexicalization process, we arrive at the simplest theory.[5]

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[5] At this point the reader might wonder why we do not adopt a non-lexicalist model like Distributed Morphology (DM) (Halle & Marantz 1993) for our analysis, instead of the weakly lexicalist approach to word formation we follow. DM subscribes to the view that all types of word formation take place in the syntactic component, and there is no stored list of the output of word formation corresponding to a single Lexicon. Consequently, in this framework no distinction can be made between syntactic word formation vs. forms that are lexicalized outputs of syntactic word formation. To explain the differences between adjectival *ható* and *ható* clauses in this framework, we would need to postulate a difference in the *height* of attachment of (what makes up) the *ható* ending in the two cases, with reference to the standard DM practice

In the rest of the paper, we return to the characterization of the properties of the Hungarian *ható* affix and provide further, language-specific evidence for a syntactic versus lexical status of the two forms. Section 3 is dedicated to their distinct syntactic behavior with respect to the position of verbal particles. Section 4 shows that the two trigger a difference in the realization of the plural marker they take. Section 5 provides the outline of our syntactic analysis of *ható* participles in Hungarian, as well as our proposal for treating the phenomena of passive potential affixation in other languages.

3. Further syntactic differences between adjectival and clausal *ható* forms: verbal particle position

The present section furnishes independent support for the differentiation above between adjectival and participial occurrences of *ható*. The evidence to be presented comes from the realm of syntax and concerns the syntactic behavior of verbal particles in the two classes of *ható* we established above.

Many Hungarian verbs combine with so-called **verbal particles** (abbreviated as PART), which occur with the verb and have aspectual or predicative roles, often resulting in idiosyncratic combinations with the verb. As argued in several recent works (e.g., Koopman & Szabolcsi 2000; Surányi 2009a;b), verbal particles are phrasal constituents, which furthermore do not form a single lexical item with the host verb. Rather, the verb and

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to differentiate "inner" (low, root-) affixation for the case of *ható* adjectives, yielding non-predictable meaning vs. "outer" (high) affixation for *ható* clauses, yielding predictable, regular meaning (see Anagnostopoulou & Samioti 2014; Wood & Sigurðsson 2014; Oltra-Massuet 2014 for proposals along these lines to -*able* affixation in other languages).

The reason why we do not adopt this approach to our data is twofold. One reason is that we are aware of one *ható* adjective in which *ható* attaches high enough to qualify as an outer affix, yet the form is clearly adjectival: the case of *el-számol-tat-ható-(bb)* PART-count-CAUSE-ABLE-(COMP) 'can be made accountable', in which *ható* follows the causative -*tat* morpheme, an outer affix (see the discussion of this element in Bartos 2011). Since the position of *ható* should be higher than that of causative -*tat*, we predict that this form can only be a *ható* participial (see also ex. (14) above), contrary to the finding that *elszámoltatható* has comparative forms and thus is of the adjectival category. The occurrence of this item is not predicted by an inner affixation account to *ható* adjectives, but can be explained if these forms are lexicalized participial *ható* forms. A second reason why we do not follow DM for the analysis of our data is because at this point, it is not clear to us how DM could handle the patterns in section 3 (see below), where Lexical Integrity (a notion lacking in DM) forms a crucial part of our argument.

its particle are generated in two distinct positions in the syntactic structure and the particle reaches its immediately preverbal position in neutral clauses via movement. Even though the exact details of the derivation are immaterial for the present purposes, we take the verb to be in T and the particles to occupy Spec,TP in neutral clauses (following Kenesei 1989; Surányi 2009b, among others).

Importantly, the position immediately left of the verb is not the only position available to particles. Particles show a large degree of syntactic independence from the verb in all finite and some nonfinite clauses in contexts that contain focus or sentential negation. In these contexts the particle is stranded by the verb moving higher and as a result may appear at a distance following, rather than preceding the verb. Consider the position of *meg*, the perfectivizer particle with respect to its host verb *bíz* 'have trust in' in the following examples.[6]

(26) a. neutral clause: PART – V order

    Jánost   meg bíztam   ma   a   feladattal.
    János.ACC PART entrusted.1SG today the task.INST
    'I entrusted János with the task today.'

  b. clause with focus: V...PART order

    JÁNOST   bíztam   ma   meg a   feladattal.
    János.ACC entrusted.1SG today PART the task.INST
    'It was János who I entrusted with the task today.'

  c. clause with negation: V...PART order

    Jánost   nem bíztam   ma   meg a   feladattal.
    János.ACC not entrusted.1SG today PART the task.INST
    'I did not entrust János with the task today.'

Leaving irrelevant syntactic details aside, the crucial observation for us is that the kind of syntactic position attested in (26) also characterizes *ható* participles. When the verb affixed by *ható* functions as the main predicate of the clause, it *must* strand its particle if the sentence contains focus or sentential negation (the non-stranded versions, not illustrated here for reasons of space, are ungrammatical; see also Farkas 2013):

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[6] The verb *bíz* 'have trust in someone' differs both in its complement/argument structure and thematic frame from the PART – V combination *meg bíz* 'entrust/commission someone with something', the former intransitive with an experiencer external argument, while the latter transitive with an agentive one. Focus is marked by small caps.

(27) a. János meg bíz-ható   ma   a   feladattal.
        János PART entrust-ABLE today the task.INST
        'János can be entrusted with the task today.'

    b. JÁNOS bíz-ható   ma   meg a   feladattal.
        János entrust-ABLE today PART the task.INST
        'It is János who can be entrusted with the task today.'

    c. János nem bíz-ható   ma   meg a   feladattal.
        János not entrust-ABLE today PART the task.INST
        'János cannot be entrusted today with the task.'

On the other hand, *ható* adjectives do not allow for such particle placement, in fact particles can never occur in non-adjacent position with respect to the host verb: in the cases of *ható* adjectives, the particle cannot split off or appear in any position other than the position immediately next to the verb.[7]

(28) a. János ma   be-számít-ható.
        János today PART-count-ABLE
        'János is sane today.'

    b. *JÁNOS számít-ható ma   be.
        János count-ABLE today PART
        'It is János who is sane today.' (intended meaning)

    c. *János nem számít-ható ma   be.
        János not count-ABLE today PART
        'János is not sane.' (intended meaning)

These facts, in sharp contrast with those presented in (27) argue for a syntactic difference between the two types of examples, a difference that is completely in line with the predictions of our analysis that assigns the *ható* form in (28) lexical status, and that of (27) a syntactic one.

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[7] The same kind of difference with respect to negation can be attested in *ható* forms that appear as prenominal modifiers of nouns. With *ható* participles, the particle can be separated from the verb and be placed before negation for many speakers (i), while the same is completely impossible with *ható* adjectives (ii):

(i)   az [ezzel   a   feladattal meg nem bíz-ható] emberek
     the this.INST the task.INST PART not trust-ABLE people
     'the people who are not trustable with this task'

(ii) *a   be   nem számít-ható emberek
     the PART not count-ABLE people
     'people who are not sane'

In (28), the putative particle *be* is a subpart of the lexical word *beszámítható*, and as such its position cannot be manipulated by any syntactic means, in line with the **lexical integrity** or **word structure autonomy condition** (Selkirk 1982; Booij 1985) that rules out manipulation of the internal parts of lexical items. The position of the particle in the *ható* clause in (27), on the other hand, is susceptible to syntactic manipulation just like it is in finite clauses, exactly because the *ható* form is not a frozen lexical unit. The fact that the particle positions are the same as in finite clauses provides evidence that these *ható* constructions are not lexically derived, but put together in the syntax.

The same kind of argument can also be made with reference to another syntactic process, ellipsis. One of the forms of clausal or TP ellipsis in Hungarian affects the tensed domain of the finite clause in positive answers to a polar question (see also Holmberg 2001 for TP ellipsis of this general type). As (29B) shows, the answer to a yes/no question can solely consist of the particle:

(29) A: Meg bíztad   Jánost   a feladattal?
       PART entrusted.2SG János.ACC the task.INST
      'Did you entrust János with the task?'

    B: Meg.
      PART
      'I did.'

As was shown in Lipták (2012; 2013), in this process of particle-stranding the answer in (29B) is an instance of forward constituent ellipsis, and contains the entire TP elided after the particle (together with the verbal head). The only item not affected by ellipsis is the particle, which moves to a focal position in the left periphery and thus survives TP ellipsis – providing another piece of evidence for the syntactic autonomy of the particle:

(30) [FP Meg [TP ~~bíztam~~   ~~Jánost~~   ~~a~~   ~~feladattal~~]].
       PART   entrusted.1SG JánosACC the task.INST
   'I did.'

It is interesting that the exact same kind of particle placement as found in (30) can be observed in *ható* clauses as well. When *ható* forms are used as main predicates of the clause, the particle associated with the base verb can be left behind in positive answers to polar questions. In other words,

ellipsis eliminates the tensed domain together with the main predicate, but to the exclusion of the particle:[8]

[8] It is crucial to stress that the above demonstrated ellipsis process in (29) is ordinary forward ellipsis deleting an entire clause to the exclusion of a single constituent (the particle), the type of ellipsis that is standardly taken to be a clausal reduction operation (Merchant 2001, among others). This process elides syntactic constituents and is subject to the same recoverability conditions as for example fragment formation, cf. (i), where ellipsis is made possible by the fact that the elliptical remnant is manipulated by the syntax and comes to occupy a position outside the elided constituent.

(i) A: JÁNOST   bízta   meg a   feladattal?
         János.ACC entrusted.3SG PART the task.INST
         'Was it János who she entrusted with the task?'

     B: [FP JÁNOST   [TP ~~bízta~~   ~~meg a   feladattal~~]].
             János.ACC   entrusted.3SG PART the task.INST
         'János (it was).'

Note also that this process is clearly *distinct* from coordination-based so-called word-part ellipsis (also called conjunction reduction) in which part of a (compound) word or phrase undergoes ellipsis. Word-part ellipsis can elide the verb to the exclusion of its particle in Hungarian, cf. (ii) (Bánréti 2007; Kenesei 2007; 2008), just as it can apply in similar contexts in other languages (cf. Hungarian (a) to the Dutch (b)):

(ii) a. ki ~~vonul~~   és be-vonul
         out march.3SG and in-march.3SG

     b. in ~~lopen~~   en uit-lopen   (Dutch)
         in walk.INF   and out-walk.INF

As Booij (1985) argued, word-part ellipsis is not a syntactic operation, but a prosodic one, and as such it does not violate **lexical integrity** (see Booij 1985). Evidence for its prosodic nature comes from the fact that it does not observe syntactic constituency: the elided material need not correspond to a syntactic constituent (indicated by brackets), rather prosodic ones (see also Kenesei 2007; 2008):

(iii) [[ki ~~vonulás~~   ~~ellenes~~] és be-vonulás   ellenes
         out march.NOM opposed and in-march.NOM opposed
         'opposed to marching in and out'

For this reason, in this section arguing for the syntactic derivation of some *ható* forms, we do not base our arguments from ellipsis on operations like word-part ellipsis, but rather the ellipsis of particle-stranding in (29). That particle-stranding is unlike word-part ellipsis is also evident from that fact that (a) it is not coordination-based (rather it operates across utterance boundaries), and (b) it is an instance of forward ellipsis, while word-part ellipsis is necessarily backward, observe the ungrammaticality of the following example attempting to eliminate material in the second conjunct:

(iv) *ki vonulás   ellenes és ~~be-vonulás   ellenes~~
         out march.NOM opposed and in-march.NOM opposed
         'opposed to marching in and out'

(31) a. A: Meg bíz-ható   János a   feladattal?
         PART entrust-ABLE János the task.INST
         'Is János entrustable with the task?'

     b. B: Meg [TP ~~bíz-ható   János a   feladattal~~].
         PART   entrust-ABLE János the task.INST
         'He is.'

Importantly, and predictably by now, lexical *ható* adjectives do not allow
for the splitting up of the *ható* word in the same way. In these cases the
particle cannot function as an answer to the question. In (32a), this is
shown for the case of *beszámítható* and in (32b), this is shown for the
adjective *megbízható* characterized by an individual level reading (see (20a)
above).[9]

(32) a. A: Be-számít-ható   ma   János?
         PART-count-ABLE today János
         'Is János sane today?'

         B: *Be   [TP ~~számít-ható ma   János~~].
         PART   count-ABLE today János
         'He is.'

     b. A: Meg-bíz-ható-bb   János mint Mari?
         PART-trust-ABLE-COMP János than Mari
         'Is János more trustable than Mari?'

         B: *Meg [TP ~~bíz-ható-bb   János mint Mari~~].
         PART   trust-ABLE-COMP János than Mari
         'He is.'

The possibility of ellipsis of the base verb plus *ható* in the case of *ható*
clauses in (31) thus provides further evidence for the syntactic derivation
of these clauses. Only a syntactic derivation of the *ható* phrase yields the

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[9] The only correct positive reply in this case repeats the entire adjective, as in (i).
This non-splitting strategy is available for all adjectives and non-verbal predicates in
general (cf. (ii)):

(i) A: Be-számít-ható   ma   János? B: Beszámítható.
     PART-count-ABLE today J.   PART-count-ABLE
     'Is János sane today?'   'He is.'

(ii) A: Beteg ma   János? B: Beteg.
     ill   today J.   ill
     'Is János ill today?'   'He is.'

kind of syntactic autonomy of the particle that is observed in finite clauses: one in which the particle freely moves out of the tensed domain. On the other hand, *ható* adjectives exhibit no such autonomy of the particle due to the fact that these adjectives are lexical words whose internal structure is an opaque domain for syntactic processes like clausal ellipsis.

4. A morpho-phonological difference: variation in the linking vowel in plural affixation

The two classes of *ható* forms we have established show a distinction in the domain of morphophonology as well. This distinction is present in the form of the plural marker that is found on *ható* forms when they are used predicatively.

To introduce this morphophonological distinction, we first have to note that adjectival and nominal predicates in Hungarian agree with their subject in number, cf. (33).

(33) Ezek a   lány-ok szép-**ek**.
      these the girl-PL beautiful-PL
      'These girls are beautiful.'

The plural marker on the predicate adjective *-ek* consists of the plural marker *-k* and a so-called linking vowel, *-e* in this case, the latter harmonizing with the vowel quality of the adjectival stem.

As Kálmán et al. (2012) have shown, adjectival forms (both derived and underived) ending in *-ó/-ő*, show variation in the presence of the linking vowel: most speakers find the linking vowel optional (with some individual preferences detectable):

(34) Ezek a   lány-ok méltó{-k/-ak} a   díjra.
      these the girl-PL worthy-PL   the prize.SUB
      'These girls are worthy of the prize.'

In an on-line survey carried out in May 2013 with 34 informants, we tested the presence of the linking vowel in forms ending in *ható* (since they also end in *-ó/-ő*). We have found that the use of the linking vowel is sensitive to the nature of the *ható* form, lining up according to the split we are arguing for in this paper: *ható* adjectives show the same variation with respect to the use of the linking vowel as ordinary adjectives, but *ható* clauses do not.

While most speakers find the linking vowel optional with *ható* adjectives (again, with some individual preferences detectable), speakers systematically disprefer the linking vowel with *ható* clauses:

(35) A piros színű gombá-k   nem ehető{-k/-ek}.
      the red colored mushroom-PL not edible-PL
      'Red mushrooms are not edible.'

(36) A 10 évesnél   régebbi használt autók nem számítható{-k/$^{?*}$-ak} be
      he 10 year.than older   used   cars not countable-PL   PART
      egy új   autó árába.
      a   new car   price.POSS.3SG.ILL
      'Cars older than 10 years cannot be counted toward the price of the new car.'

Interestingly, this behaviour is entirely parallel to the behaviour of present participial clauses. Lexicalized forms show variation in the presence of the linking vowel, while clausal participials do not use a linking vowel at all:

(37) (Sok diák   volt a teremben.) A kivál-ó{-k/-ak}   jutalmat kaptak.
       many student was the room-in   the outstand-PR.PRT-PL prize.ACC received
      '(Many students were in the room.) The excellent ones received a prize.'

(38) (Sok diák állt a téren.)   A tömegből kivál-ó{-k/*-ak}   hazasétáltak.
       many student stood the square.ON the crowd.FROM outstand-PR.PRT-PL home.walked
      'Many students stood on the square. The ones separating off the crowd walked home.'

This shows that the morphophonological form of the plural marker *-k* is sensitive not only to the phonological shape of the final syllable, but also to the category of the *ható* form. It transpires that *ható* clauses cannot appear with a linking vowel, while *ható* adjectives optionally can.

5. The structure of *ható* participles

In this section, we turn to the analysis of participial *ható*, with an aim to provide a representation for it that appropriately reflects its morphological and basic syntactic composition. We also aim to place the proposed structural analysis in a cross-linguistic light by observing patterns from other languages that are similar in some way to Hungarian and thus may count as support for our analysis.

As we mentioned above in section 2, we take both adjectival and clausal *ható* forms to contain the same inflectional element, *ható*. We fur-

thermore treat *ható* (following suggestions in Komlósy 1992, 395; Kiefer 1998, 252) as a complex unit that contains two subparts: the potential *-hat* morpheme (also inflectional in nature, see Kenesei 1996; Bartos 2000) and the present participle morpheme *-ó* 'PR.PRT', which derives nonfinite clauses (39):

(39) a könyvet a gyerekeknek ad-ó   férfi
    the book.ACC the children.DAT give-PR.PRT man
    'the man giving the book to the children'

The morpheme *-hat* that appears in combination with the *-ó* ending requires more comments. This *-hat* is homophonous with the active potential *-hat* morpheme that can attach to any verb in Hungarian, transitive and intransitive alike. This active potential affix can have an epistemic or a root modality reading. We illustrate these in (40).

(40) a. A férfi a gyerekeknek ad-hat-ja   a könyvet.
      the man the children.DAT give-**POT**_{ACT}-DEF.3SG the book.ACC
      'The man is allowed to give the book to the children.'
      'It may be the case that the man gives the book to the children.'

    b. A férfi sétál-hat-∅.
      the man walk-**POT**_{ACT}-INDEF.3SG
      'The man is allowed to walk.'
      'It may be the case that the man walks.'

Albeit homophonous with it, the *-hat* morpheme that yields *ható* together with the participial ending *-ó* is different from the active potential affix with respect to two important properties: its specification for Voice (see section 5.1.) and the kind of modality expressed by it (see section 5.2.). Due to these differences, we do not equate the two homophonous forms, and we refer to the *-hat* morpheme in *ható* as the **passive potential modality** affix, to distinguish it from its active homophone.[10]

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[10] It is this aspect of the analysis in which we differ most from previous discussions of *ható* in the generative literature, as discussed in Komlósy (1992); Kiefer (1998) and Bartos (2000). These works consider the question of whether *ható* can be decomposed into *-hat* and *-ó*, and conclude that such decomposition cannot account for the passive component of meaning, as neither (what we call) active *-hat* nor *-ó* are passivizing morphemes themselves. If, however, we treat the affix *-hat* in *-ható* as a passive *-hat*, distinct from the active *-hat* in (40), decomposition is possible.

    At the same time, we do not rule out the option that the passive and the active *-hat* morphemes have developed out of a single potential element that was underspecified in that it could appear on both active and passive verb forms. We are aware

5.1. The passive component

We begin the discussion with *ható*'s specification for Voice. In present-day Hungarian, *ható* only attaches to passive (and thus necessarily transitive) predicates, whose external argument has been demoted.

(41) a. a   gyerekeknek ad-hat-ó   könyv
        the children.DAT give-**POT**_{PASS}-PR.PRT book
        'the book that can be given to the children'

   b. Ez a   könyv gyerekeknek ad-hat-ó.
       this the book   children.DAT give-**POT**_{PASS}-PR.PRT
       lit. 'This book is givable to children.'

The passive verb form that serves as the base of the derivation is unmarked, that is, it contains no overt passive morpheme (it is important to add that Hungarian does not have passive finite clauses either, the morphological passive being obsolete now). The presence of the covert passive morpheme

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that the use of *ható* on unaccusative verbs, ungrammatical in present day Hungarian, is attested in the recent history of the language as late as in 19th century, as the following examples illustrate.

(i) a. A tisztaszobában ágy is   volt vetve,
        the guest.room.INE bed also was made

        érkez-hető tisztes   vendég számára.
        arrive-ABLE respectful guest   for
        'There was a bed prepared in the guest room for respectful guests that might
        arrive.'   (Mór Jókai, *Mégis mozog a föld*, 1872)
   b. Erre a   meg-es-hető   szerencsétlenségre nem is   gondolt.
       this.sub the PART-happen-ABLE mishap.SUB   not also thought.3SG
       'He didn't even think about this mishap that might happen.'
                                                    (Mór Jókai, *Fekete gyémántok*, 1870)
   c. [...] és egy ollyat   adni   a' gondolkodni szeretők
            and one such.ACC give.INF the think.INF   love.PR-PRT.PL

        kezébe,   melly minden elő-fordul-ható   esetnél
        hand.POSS3SG.INE which all   PART-occur-ABLE case.ADE

        utba   igazítsa öket...
        way.INE guide   them
        '[...] and to give something into the hands of those who like to think, which
        can guide them in every case that might occur.' (Zsigmond Ferenczy, *Adalék
        honi nyelvünk és irodalmunk történetéhez*, 1844)

This indicates that the addition of the passive ingredient to the potential -*hat* morpheme in *ható* forms might be a relatively recent development in the language.

in *ható* participles, however, is supported by various pieces of evidence. First, the passive nature of *ható* participles is shown by the fact that the demoted agent that optionally appears in *ható* participles carries the same oblique marker (postposition) as it does in the passive (*aka* past) participle constructions, namely, *által* 'by', see (13b), repeated here as (42a).

(42) a. Ez a program bárki által letölt-het-ő.
    this the program anyone by download-**POT**ₚₐₛₛ-PR.PRT
    'This program can be downloaded by anyone.'

    b. egy Péter által letölt-ött   program
    an Péter by download-PASS.PRT program
    'a program downloaded by Péter'

Second, there are a handful of transitive verbs in Hungarian that cannot appear in the passive, i.e., do not have a passive participial form. The same set of verbs cannot form a *ható* participle, either, which can be explained if *ható* participles are passive in nature:

(43) a. Péter el-vette   Zsuzsát.
    Péter PART-married.DEF3SG Zsuzsa.ACC
    'Péter married Zsuzsa.'

    b. *az {el-ve-tt/   el-ve-hető}   lányok
    the PART-marry-PASS.PRT PART-marry-POTₚₐₛₛ-PR.PRT girls
    intended meaning: 'the girls who were married/who can be married'

(44) a. Péter kétli   az eredmények érvényességét.
    Péter doubt.DEF3SG the result.PL validity.POSS3PL.ACC
    'Péter doubts the validity of the results.'

    b. *{kétel-t/   kétel-het-ő}   érvényesség
    doubt.PASS.PRT doubt-POTₚₐₛₛ-PR.PRT validity
    lit. 'doubted validity'

Third, that *ható* participles contain a **passive ingredient** is also in line with the observation in the cross-linguistic literature that *-able* type adjectives are built on passive forms, see Anagnostopoulou & Samioti (2014) and Oltra-Massuet (2014) and references cited in the latter (such as Chapin 1967; Fabb 1984 among others, as well as Kayne 1981 on a related point). The morphological composition of *-able* forms in many languages reflect this fact. As Oltra-Massuet (2014) points out, in Turkish the complex verbal suffix *Il(y)Abil(A)r* or *(I)n(y)Abil(A)r*, corresponding to *-able* in

English, contains both a passive and a modality affix, providing the most striking evidence for the claim that *-able* forms are internally complex.

(45) Bu oku-n-abil-ir   bir kitap.
      this read-PASS-MOD-AOR a   book
      'This is a readable book.'

In Japanese, the same meaning is carried by a form that only contains an overt passive morpheme and lacks an ability modal. As illustrated in (46), Japanese passive potentials contain the run-of-the-mill passive morpheme in potentials expressing the same meaning as *ható* potentials in Hungarian, as Ishizuka and Koopman (2014) show.

(46) Sono doresu-ga ki-rare-ru.
      the   dress-NOM wear-PASS-PRS
      'The dress is wearable.'

On the basis of these facts it seems clear that *able/ható* forms are built on a passive construction, and languages might differ in whether they morphologically spell out the passivizer (Japanese), the modal affix (Hungarian) or both affixes (Turkish).
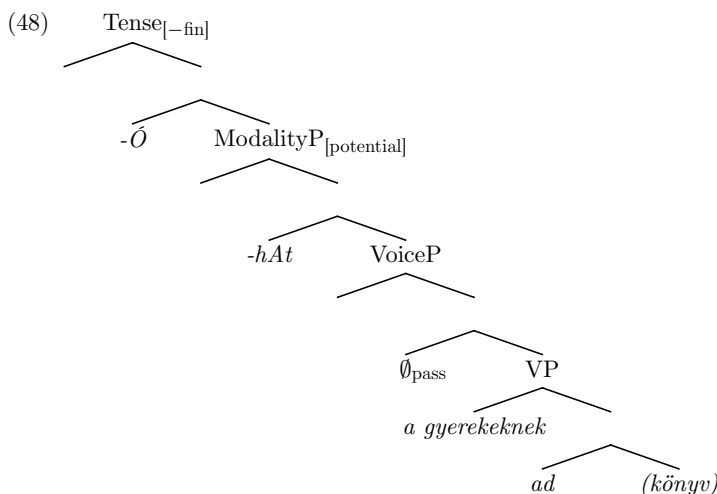
The close connection between *-able* forms and the passive is also revealed in other languages. Bantu languages provide evidence that passive and potential ability can be expressed via the same morphological means: the potential ability reading and the stative passive meaning receive the same expression, cf. the -IK morpheme in Chichewa (data from Dubinsky & Simango 1996, see for the same observation Chavula 2016 for Citumbuka and Seidl & Dimitriadis 2003 for Swahili).[11]

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[11] Russian is similar to Bantu, as present passive participles, derived by adding *-im/em* and an adjectival ending to the verb stem can express both a passive and an ability reading, the latter usually in the negative form, prefixed by *ne-* (Lena Karvovskaya p.c.). See Petrova (2008) for the relation between the passive participle and the adjectival forms.

   (i) Perevod-im-aja   statja dolzhna polnostju soxranit pervonachalnyj smysl.
        translate-IM-ADJ.F paper must   complete keep   original   meaning
        'The paper that is being translated must keep its original meaning.'

   (ii) Eto ne-perevod-im-aja   igra   slov.
        this not.translate-IM-ADJ.F game.NOM word.GEN.PL
        'This is an untranslatable word game.'

(47) Nyemba zi-na-li   zo-phik-ida.
     beans   ARG-PAST-be AGR-cook-IK
     'The beans were cooked.'/'The beans were cookable.'

Having established the passive nature of *ható* participals in Hungarian, we are in position to draw up a basic syntactic representation of their composition. To indicate this voice-specific selectional property of passive potential *-hat*, we argue that the modality potential *-hat* selects a passive verb phrase (a VoiceP) as its complement, cf. (48) as the structural representation of (41a).

(48)   Tense$_{[-\text{fin}]}$

                -Ó   ModalityP$_{[\text{potential}]}$

                        -hAt   VoiceP

                                ∅$_{\text{pass}}$ VP

                                a gyerekeknek

                                        ad   (könyv)

There are two reasons behind proposing that passivization applies to the verb phrase, and it does so **before** potential modality builds in, even though the passivization operation is morphologically unmarked in Hungarian and thus its place vis-à-vis other morphemes cannot be established. One is that the proposed order is in line with the universal order of positions in the extended projection of the verb (see Kratzer 1996, among many others). Second, we fashion our analysis on the basis of Ishizuka and Koopman (2014), who argue that *-rare* (cf. (46)) appears in a VoiceP below the modality phrase.

       The difference between Hungarian and Japanese then boils down to the realization of these functional projections: while in Hungarian the potential affix is overt and the passive one is null, Japanese shows the reverse. In a similar approach, Turkish would have both of them overt, thus filling in the remaining slot, as it were, in a three-way variation of the morphology

of passive potentials. Russian and the Bantu languages follow the Japanese pattern, while English *-able* is like Hungarian *ható* in this respect.

(49) a. [$_{TP}$ -Ó [$_{ModP}$ -hAt [$_{VoiceP}$ $\emptyset$ [$_{vP/VP}$]]]]   *Hungarian passive potentials*
     b. [$_{TP}$ $\emptyset$ [$_{ModP}$ $\emptyset$ [$_{VoiceP}$ -rare [$_{vP/VP}$]]]]   *Japanese passive potentials*
     c. [$_{TP}$ -ir [$_{ModP}$ -abil [$_{VoiceP}$ -n   [$_{vP/VP}$]]]]   *Turkish passive potentials*

5.2. Root modality and intentional reading

Having discussed the position of the passive *-hat* morpheme, we turn to the second point of difference between active and passive *-hat* morphemes, which concerns interpretation: while active *-hat* can express a variety of meanings, including an epistemic one (see Kiefer 1981 for an overview), passive *-hat* can only express dispositional (root) modality and lacks the epistemic reading:[12]

(50) A   férfi a   gyerekeknek ad-hat-ta   a   könyvet.
     the man the children.DAT give-**POT**$_{ACT}$-PST.3SG the book.ACC
     'It may be the case that the man gave the book to the children.'
     'The man was allowed to give the book to the children.'

(51) Ez a   könyv gyerekeknek ad-hat-ó   volt.
     this the book   children.DAT give-**POT**$_{PASS}$-PR.PRT was
     [#]'It might be the case that this book was given to the children.'
     lit. 'This book was givable to children.'

The fact that *-hat* in *-ható* expresses dispositional (root) modality arguably also explains why the passive *-hat* morpheme implies that the base predicate must be understood with the semantic ingredient of obligatory intentionality, i.e., requiring that the expressed event has an **agentive** initiator, who has to make an effort to reach the resulting state described by the passive (Toman 1987).

(52) a.   A   szél szét-hord-hat-ja   a szemetet.
          the wind PART-carry-POT$_{ACT}$-DEF.3SG the trash.ACC
          'The wind can scatter the trash.'

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[12] The epistemic reading with *ható* can possibly be missing as the epistemic operator cannot scope out of the participial clause and take scope over the finite tense (representing the truth value of the sentence). In finite contexts, such scopal relations are possible as Bartos (2000) has shown.

  b. A   szemét szét-hord-hat-ó.
      the trash   PART-carry-POT_{PASS}-PR.PRT
      'The trash can be scattered (by someone doing something to it/by the wind).'

(53) a. Egy földrengés el-pusztít-hat-ja   a   várost.
         an   earthquake PART-destroy-POT_{ACT}-DEF.3SG the city.ACC
         'An earthquake can destroy the city.'

  b. A   város el-pusztít-hat-ó.
      the city   PART-destroy-POT_{PASS}-PR.PRT
      'The city can be destroyed (by people doing something to it/*by an earthquake).'

We believe this meaning ingredient stems from the fact that the passive potential affix expresses root modality, as root modality is known to be an agentive type of modality. Note also that this meaning ingredient cannot originate from these forms containing passive voice: passive participles do not imply agentive activity resulting in the state described by the passive.

(54) a. a   szét-hord-ott   szemét
         the PART-carry-PASS.PRT trash
         'the scattered trash (scattered by someone/by the wind)'

  b. az el-pusztít-ott   város
      the PART-destroy-PASS.PRT city
      'the destroyed city (destroyed by people/*by the earthquake)'

5.3. On the position of the internal argument in *ható* participials

Before concluding this section, we must return to the question how the internal argument of the base verb in *ható* participial clauses is case-licensed. As we have indicated in (48), this argument thematically originates in the complement position inside the VP, but as a result of passivization it is promoted to subject.

   This promoted argument always appears outside the participial clause as the subject predicated about by the participial clause or the noun phrase modified by the participle. Its position outside the participial clause is related to case-licensing. Due to the fact that the *ható* participle is a nonfinite form, it cannot assign nominative case to this argument and for this reason, the promoted subject must invariantly receive case elsewhere, outside the participle.

   When *ható* participles function as main predicates in their clause, they must be embedded under a copula, and the internal argument receives case

in the finite clause containing the copula (cf. (55a)). When the participial is a prenominal modifier, the promoted internal argument receives case in function of its position as a nominal constituent in its clause (cf. (55b)).

(55) a. [$_{\text{TP(+fin)}}$ Ez a könyv$_i$ nem volt [$_{\text{TP(−fin)}}$ gyerekeknek ad-hat-ó e_i]]
　　　　 this the book　 not was　　　　　 children.DAT give-POT$_{\text{PASS}}$-PR.PRT
　　　 lit. 'This book was not givable to children; This book could not be given to children.'

　　 b. [$_{\text{TP(−fin)}}$ gyerekeknek ad-hat-ó e_i] könyvek-et$_i$ vettem.
　　　　　 children.DAT give-POT$_{\text{PASS}}$-PR.PRT　 book.PL-ACC bought.1SG
　　　 'I bought books that can be given to children.'

It is important to stress that the illustrations in (55) aim to reflect the thematic relatedness between the co-indexed elements. We are uncommitted as to the question of how the promoted internal argument gets to its participial-external position, via movement or other means (such as being base-generated outside the participial, with an empty operator binding its position inside the participial). What is important is that the predicative use of *ható* participles in (55) runs completely parallel to that of adverbial participles in Hungarian, such as the adverbial *-vA* participles (also called the pseudopassive as it is used instead of the by now obsolete morphological passive), which also need to combine with the copula to be used as main predicates, a combination that is motivated by the need to license case on the internal argument of the *-vA* participle, as argued extensively in Bartos (2009).

(56) A levél nem volt meg-ír-va.
　　 the letter not was PART-write-VA
　　 'The letter was not written.'

Last but not least we need to mention that the complex *ható* ending is not the only productive element that has a passivizing component preceding the *-ó* participial ending in Hungarian. Another nonfinite ending that combines modal semantics (deontic modality) with passive voice is *-andó* (which again comes in two harmonizing forms: *-andó/endő*).[13] The

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[13] É. Kiss (2005) argues that in contrast with traditional views *-andó* has a modal rather than a temporal (future) meaning. Laczkó (2000, 441–444) shows that additional construction subtypes are acceptable in some dialects, in which unaccusatives can underlie the participle, while Dékány (2014, 224–227) presents a number of interesting, and now obsolete constructions from Old Hungarian, in which unergatives, too, served as the root of the construction.

verb forms constructed via this suffix can be used both attributively (57a) and predicatively (57b), and when the latter, the verbal particle can be removed from them. In both uses arguments of the base verb must be retained. (OBL$_{\text{PASS}}$ stands for 'obligation' and 'passive'.)

(57) a. az   *(olvasóknak) oda-ad-and-ó   könyvek
         the   readers.DAT PART-give-OBL$_{\text{PASS}}$-PR.PRT books
         'the books to be given (to readers)'

    b. Ezek a   könyvek nem ad-and-ó-k   oda   az olvasóknak.
        these the books   not give-OBL$_{\text{PASS}}$-PR.PRT-PL PART the readers.DAT
        'These books are not to be given out to readers.'

Moreover, idiosyncratic lexicalized forms, i.e., true adjectives, also occur in this construction type, cf. *meggondol-and-ó* 'think-OBL$_{\text{PASS}}$-PR.PRT 'worth thinking about', *megvet-end-ő* 'despise-OBL$_{\text{PASS}}$-PR.PRT, to be despised, despicable'. Unlike the participial forms in (57), lexicalized adjectives can have comparative and superlative forms, as well as be preceded by intensifiers.

6. Summary of findings

This paper offers novel evidence that the seemingly derivational affix *ható* does not apply in the lexicon and does not directly produce canonical adjectives in Hungarian. So rather than considering it as an adjectivalizer affix, it is best classified as a purely syntactic device producing nonfinite clauses.

We have provided several arguments for this claim. The first came from category-specific tests, with which we have shown that while some *ható* words are proper adjectives, a great number of *ható* forms are not. On the basis of this we have argued that those forms that are not adjectival are formed in the syntax: the *ható* affix applies to a verb phrase, and the resulting nonfinite clause inherits the base verb's argument and event structure. On the other hand, *ható* adjectives differ from *ható* clauses in that they are **lexicalized** as adjectives and consequently behave as lexical units. Key evidence for the lexicalized nature of these adjectives were presented from the placement of particles belonging to *ható* forms in syntactic configurations that trigger the splitting off of the particle from the base verb in for example finite clauses. This kind of splitting is possible only in the case of *ható* clauses, but not in the case of *ható* adjectives. Last but not least, we have shown that speakers distinguish between lexical vs. non-lex-

ical *ható* forms when it comes to the plural marker that these receive: the distinction boils down to the use of the linking vowel before the plural *-k* marker in the lexical cases only. Table 3 lists all distinctive properties of the two types of *ható* at a glance.

Table 3: Summary of findings

Properties of *ható* forms		*ható* adjectives	*ható* clauses
(i)	modification by intensifiers or adverbs	intensifiers	adverbs
(ii)	input to lexical derivations	✓	∗
(iii)	availability of comparative forms	✓	∗
(iv)	non-compositional meaning possible	✓	∗
(v)	argument and event structure present	∗	✓
(vi)	stage vs. individual level reading	stage/individual level	stage level
(vii)	PART can split off the verb under focus/ negation/ellipsis	∗	✓
(viii)	plural form	*-k* or *-Vk*	*-k*

In addition the initial survey of the exponents of the passive potential morpheme across languages holds promise of a comprehensive typology of the variation in its exponents.

Acknowledgements

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