# Active participles are (deverbal) adjectives

Abstract: This paper examines so-called active participles in three languages with different morphological systems (Bosnian/Croatian/Serbian, English, and Hebrew). Based on a wide range of morphological, syntactic, and interpretational diagnostics, I argue that these elements are uniformly deverbal adjectives. This is in contrast to a substantial body of work claiming that active participles show an adjectival/verbal split, but in line with Bešlin in press which analyzes passive participles as deverbal adjectives. Importantly, deverbal adjectives may have both stative and eventive interpretations, depending on the properties of the verbal structure they embed. The results presented in this paper argue for an architecture of the grammar in which there is no one-to-one mapping between an item's syntactic distribution and its meaning. If these results generalize to other languages, then there is no need to assume that (verbal) participles constitute a separate lexical category, which is a desirable theoretical outcome.

**Keywords:** active participle, deverbal adjective, syntactic decomposition, Bosnian/Croatian/Serbian, English, Hebrew

#### 1 Introduction

In the generative tradition, active participles (1a) have received less attention than passive participles (1b). Nonetheless, research on the two types of participles has taken a similar trajectory. Specifically, there has been a general consensus regarding the active participles' categorial status, with most authors claiming that they show an adjectival/verbal split (Chomsky 1957, Fabb 1984, Brekke 1988, Milsark 1988, Bennis and Wehrmann 1990, Parsons 1990, Meltzer-Asscher 2010, 2011). The disagreement thus far has been restricted to the question of whether all prenominal active participles, like (2), are unambiguously adjectival (Borer 1990, Parsons 1990), or if they can be verbal as well (e.g., Brekke 1988, Milsark 1988, Meltzer-Asscher 2010, 2011).

- (1) a. The police are **arresting** John.
  - b. John was **arrested** (by the police).
- (2) The **smiling** boy entered the room.

In this paper, I investigate the interpretation, morphology, and distribution of active participles in English, Bosnian/Croatian/Serbian (BCS), and Hebrew. I examine English participles because they have received the most attention in the literature. Being a morphologically poor language, however, English does not always provide us with the strongest positive data about categorization; therefore, I also look at two morphologically rich languages, one with concatenative morphology (Bosnian/Croatian/Serbian (BCS)) and one with a

non-concatenative morphological system (Hebrew). Substantial evidence converges on the conclusion that all active participles in these languages have the external syntax (i.e., distribution) and morphology of adjectives, while they are internally verbal (see Emonds 1991 for an early analysis along these lines). This will be shown to be the case even for active participles that have an eventive interpretation. Therefore, the findings in this paper strengthen the two main conclusions from Bešlin in press, namely that syntactic category membership is not always reflected in interpretation and that "participle" is unnecessary as an independent category in the grammar.

The paper is organized as follows. In section 2, I establish the basic interpretive characteristics of active participles and discuss some issues that arise when one attempts to make a strong link between the distributional properties of a linguistic item and its interpretation, for participles and more broadly. In section 3, I show that the morphological features of active participles are distinctly adjectival. I analyze the "participial" suffix in the concatenative languages as an exponent of the adjectivizing morpheme, and I furthermore show that the same suffix appears on root-derived adjectives. In the Hebrew non-concatenative system, the active participle, which has been argued to appear in a present-tense template, is reanalyzed as appearing in a non-verbal template instead. Active participles are shown to inherit the formal features of a noun (e.g., gender, number, case and/or definiteness) to the same extent as adjectives in the languages under consideration. Section 4 focuses on the active participle's distributional properties. I show that the diagnostics

that have been used to argue for the verbal status of certain active participles either (i) rest on problematic assumptions or wrong empirical generalization, or (ii) are sensitive to a meaning contrast between events and states, and do not tell us anything about syntactic category. I also argue, based on evidence from depictive constructions and reduced temporal clauses, that active participles *cannot* be verbal. Finally, I bring forth evidence from prenominal modification and *it*-cleft constructions to argue that active participles *must* be adjectives. In section 5, I conclude by discussing the importance of these findings for our general understanding of grammatical categories.

#### 2 Interpretation

Many researchers have noted that at least some active participles can have two distinct interpretations; the participle in (3a) denotes an event while the participle in (3b) denotes a state. This has led to the intuition that the participle in (3a) is a verb–because verbs canonically denote events–and that the participle in (3b) is an adjective–because adjectives canonically denote states (see e.g., Meltzer-Asscher 2010, 2011 and the references therein).

- (3) a. The child is annoying the teacher.
  - b. an annoying child

Let us first acknowledge that positing a system of transparent mappings from syntactic category to meaning components such as eventivity or stativity is theoretically appealing. In a world where adjectives always denoted states, verbs always denotes event, and nouns always denoted entities, the syntax-semantics interface would arguably be quite straightforward, at least in this particular domain. The view that adjectives and adjectival participles invariably denote states is adopted, for example, in Parsons 1990, Meltzer-Asscher 2011, Gehrke 2015, among others.

However, note first that the eventive/stative distinction is clearest with participles like *annoying* in (2) whose verbal counterparts can have both an eventive an a stative reading (4); see Dowty 1979, Pesetsky 1995, a.o. The distinction is much less clear with participles derived from verbs which do not show such ambiguity, for example (5), derived from an unambiguously eventive verb. Though it is true that *dancing* in (5a) can be understood as either currently dancing or habitually/generally dancing, it is unclear how this ambiguity is different from the famous stage-/individual-level ambiguities of certain prenominal adjectives reported in Cinque 2010; see (6a) with the two interpretations in (6b) and (6c). Crucially, Cinque argues that the ambiguity is due to the attributive versus predicative origin of the adjective in (6a), and not due to anything to do with its category. The same analysis could arguably be applied to (5a), without positing that the two interpretations arise because of a category difference. I will have more to say about the importance of the eventive/stative distinction in section 4; for now, it is sufficient to flag that we should be extremely careful about using any diagnostics that invoke meaning contrasts to determine syntactic category.

(4) a. Mary (intentionally) annoyed John. (eventive)

b. This joke annoys John.

(stative)

- (5) a. The dancing child came into the room.
  - b. The child was dancing as she came into the room.
- (6) a. The visible stars include Aldebaran and Sirius.
  - b. 'The stars that are generally visible include Aldebaran and Sirius' (individual-level)
  - c. 'The stars that are visible now include Aldebaran and Sirius' (stage-level)

More generally, as Meltzer-Asscher (2010) notes, verbs can denote permanent properties (e.g., *God exists*) and stage-level adjectives denote transitory eventualities (e.g., *John is hungry*), suggesting that interpretation is not a reliable diagnostic for category membership. Furthermore, Bešlin in press shows for BCS passive participles that having the external syntax and morphology of an adjective is in no way causally related to having a stative interpretation or denoting a property. It is important to note, however, that these observations have not deterred researchers from (erroneously) equating stative interpretations with adjectivehood, and eventive interpretations with verbhood, as we will see throughout the paper.

#### 3 Morphological generalizations

In this section, I discuss the morphological generalizations that pertain to active participles in the languages under discussion, namely "participial"

marking and  $\phi$ -marking. I conclude that there is no morphological evidence that participles are verbs (though there is evidence that they do contain verbal structure), and that in fact the evidence clearly suggests that participles are treated by the grammar as adjectives.

# 3.1 "Participial" marking

We cannot rely on the morphology of English active participles to tell us much about their category.<sup>2</sup> Based on the presence of overt verbalizers in at least some active participles (e.g., an electrifying performance), we may conclude they contain some verbal structure (Harley 2009, a.o.). The status of the -ing suffix itself is less clear, with most recent literature treating it as a verbal aspectual suffix. The picture is muddled even further by the fact that the suffix also appears in gerunds (e.g., John's marrying Jane surpised me.). This has led some researchers to argue that -ing is special, and that the result of its affixation may be of any category (see e.g., Milsark 1988). Such an assumption does, however, seriously complicate the grammar since affixes generally have a deterministic contribution to the category of the element they attach to. I will instead make the simpler assumption that -ing is an adjectival suffix which may attach to verbal stems (e.g., electifying) and certain roots (e.g., cunning, grueling, fleeting).<sup>3</sup>

For Hebrew, Meltzer-Asscher 2010, 2011 argues that active participles "appear in a morphological form identical to that of verbs in the present tense, in any one of the five non-passive verbal templates of the language (*XoXeX*, *niXXaX*, *meXaXeX*, *maXXiX*, and *mitXaXeX*)" (Meltzer-Asscher 2010:2212).<sup>4</sup>

However, she also claims that, unlike the present tense form (7a), the active participle in (7b) is actually uninflected for Tense (and it instead receives temporal interpretation from the main verb), as in English.

(7) a. Dina mexanex-et heitev.

Dina teach-FEM.SG well

'Dina educates well.'

b. Dan ra'a et Dina mexanex-et et Omri.

Dan saw ACC Dina teach-FEM.SG ACC Omri

'Dan saw Dina educating Omri.'

A likely explanation for the identity of the active participle and the "present tense" form in Hebrew is that the "present tense" form in this language is also a participle—a deverbal adjective on my account—and that Hebrew has a zero copula in the present tense. This conclusion is supported by the fact that, in order to obtain present interpretations, uncontroversially non-verbal predicates must also appear in the form SUBJECT+PREDICATE with no intervening copula (8). This fact knocks down the argument that *mexanexet* in (7a) is a verb because all clauses in the language need to contain a(n overt) verb. Furthermore, both the participial and the nominal predicate require the same copula for past interpretations (9). If *mexanexet* in (7a) were a true present tense form, (9a) would involve the addition of a past marker to an overtly marked present tense, a typologically unattested pattern.

(8) Dina mor-a.

Dina teacher-FEM

'Dina is a teacher.'

(9) a. Dina hai-ta me-xanex-et heitev.

Dina BE.PAST-FEM.3SG PART-teach-FEM.SG well

'Dina used to educate well.'

b. Dina **hai-ta** mor-a.

Dina BE.PAST-FEM3SG teacher-FEM

'Dina was a teacher.'

Overall, the morphological facts from Hebrew do not support the conclusion that the active participle in this language is verbal. On the contrary, the data suggests that it patterns with non-verbal predicates. The distribution facts in section 4. will allow us to pinpoint the category of this non-verbal element as an adjective.

In BCS, I focus on the so-called *l*-participle.<sup>5</sup> The *l*-participle is an active participle which contains verbal structure, as indicated by the presence of verbal theme vowels and (optionally) aspectual affixes (10a)-(11a), see Svenonius 2004, Caha and Ziková 2016, Biskup 2019, Bešlin in press. The *l*-participle additionally contains a suffix that appears on some simple adjectives: -*o* for masculine singular (10), and -*l* for all other gender/number combinations (11). Some other examples of such pure adjectives include *zao* 'evil', *debeo* 'fat', *vreo* 'hot' and *veseo* 'joyful'. We may consider this marker to be

an adjectivizer (*a*); note that this is not a marker of  $\phi$ -features–I turn to  $\phi$ -marking next.

(10) a. o-nemoć-a-o čovek

PERF-weakness-V-A

'a weakened man' (a man who became weak)

b. be-o kaput

white-A coat

'a white coat'

(11) a. pro-ključ-a-l-a voda

PERF-boil-V-A-F.SG

'boiled water' (water that boiled by itself)

b. be-l-a haljina

white-A-F.SG dress

'a white dress'

#### 3.2 $\Phi$ -marking

Even though, as expected, the morphology of English is not particularly telling when it comes to  $\phi$ -marking, I will mention that in closely related German agreement (or concord) properties of active participles mirror those of simple adjectives (and passive participles); namely, the participle inherits the  $\phi$ -features of the noun in the attributive position, and it is uninflected in the predicative position, as seen in (12)-(13), adapted from Haiden 2001:195.

- (12) a. ein sing-end-es Kind

  a sing-PART-NEUT.SG child

  'a singing child'
  - b. ein traurig**-es** Kind
    - a sad-NEUT.SG child 'a sad child'
- (13) a. Sie stieg sing-end(\*-e) in den Zug.

  she stepped sing-PART-FEM.SG into the train

  'She boarded the train singing.'
  - b. Sie stieg traurig(\*-e) in den Zug. she stepped sad-FEM.SG into the train 'She boarded the train sad.'

BCS l-participles can also appear in attributive or in predicative position (14). There are certain restrictions on the attributive l-participle, namely only participles derived from unaccusative verbs can appear in this position (see Aljović 2000). The argument structure-related intricacies of the l-participle go beyond the scope of this paper; what is important for us to note here is that the l-participle inflects for case, number and gender the exact same way an adjective does in both of these positions, cf. (15). In both cases, the  $\phi$ -marking of the adjective/participle is entirely dependent on the formal features of the noun it is associated with: the head noun of the NP modified by the participle in (14a)-(15a), and the subject noun in (14b)-(15b).

- (14) a. sa pa-Ø-l-im vojnic-imawith fall-V-A-INSTR.M.PL soldier-INSTR.M.PL'with (the) fallen soldiers'
  - b. Svi ovi vojnic-i su pa-Ø-l-i u bici.
     all these soldier-NOM.M.PL BE.3PL fall-V-A-NOM.M.PL in battle
     'All of these soldiers have fallen in battle.'
- (15) a. sa vese-l-im prijatelj-ima
  with joy-A-INSTR.M.PL friend-INSTR.M.PL
  'with (the) joyful friends'
  - b. Svi moji prijatelj-i su vese-l-i.all my friend-NOM.M.PL BE.3PL joy-A-NOM.M.PL'All of my friends are joyful.'

In Hebrew, simple attributive adjectives inflect for gender, number, and definiteness, while predicative adjectives inflect only for gender and number (16). The pattern is exactly the same for active participles (17).

- (16) a. ha-sir-ot ha-xum-ot (Glinert 2004:104)

  DEF-boat-F.PL DEF-brown-F.PL

  'the brown boats'
  - b. Ha-sir-ot xum-ot.DEF-boat-F.PL brown-F.PL'The boats are brown.'

(17) a. ha-par-ot ha-kofec-ot

DEF-cow-F.PL DEF-jumping-F.PL

'the jumping cows'

b. Ha-par-ot kofec-ot.DEF-cow-F.PL jumping-F.PL'The cows are jumping.'

We have seen that, while adjectives have language-specific morphological patterns, active participles follow these patterns perfectly. In what follows, I will show that BCS, Hebrew and English active participles have the syntactic distribution of adjectives. The differences we observe in the distribution of active participles and prototypical adjectives will be attributed to a well-motivated semantic difference between events and states. In particular, eventive active participles will be shown to be banned from certain positions not because they are verbal, but because the position in question requires that the element occupying it be stative. I will also show that accounts which differentiate between adjectival and verbal participles also need to assume that only stative verbs can give rise to "adjectival" participles. Since the eventive/stative distinction is relevant on any account, I will argue that the categorial distinction can be dispensed with completely.

#### 4 Evidence from distribution

This section is organized as follows. First, I discuss the diagnostics that have been claimed to distinguish between verbal and adjectival participles, but that on closer examination rely on problematic assumptions or incorrect empirical generalizations. Then, I discuss those diagnostics that have been claimed to distinguish between verbal and adjectival participles, but that are instead sensitive to the eventive/stative contrast. I then present evidence that active participles cannot be verbs, and, finally, positive distributional evidence that they are adjectives.

## 4.1 DP-complements

Bennis and Wehrmann (1990) argue that English active participles are verbs because they can have accusative-marked DP complements (18a), while prototypical adjectives cannot (18b). Meltzer-Asscher (2010) shows that the same contrast obtains in Hebrew (19). This conclusion is warranted only on a lexicalist approach, where "being an adjective" entails having no verbal structure. On a syntactic approach to word formation, if we can show that the relevant participles have the external syntax of adjectives, we can argue that they are deverbal adjectives which contain the portion of verbal structure that is responsible for assigning/checking accusative case (VoiceP, see (24) below).

- (18) a. John is watching her.
  - b. John is fond \*(of) her.

- (19) a. Hem šam'u ota xosefet et sodoteha.

  they heard her revealing(PART) ACC secrets.her

  'They heard her reveal her secrets.'
  - b. Ha-viduy šela haya xosfani (\*et sodoteha). the-confession hers was revealing(ADJ) ACC secrets.her

In fact, it is not entirely clear on lexicalist approaches like Levin and Rappaport 1986 (for passive participles) and Meltzer-Asscher 2010, 2011 (for active participles) what exactly would prevent the adjectival participle from having a complement corresponding to the internal argument of the verb it is derived from. The most these accounts could predict, it seems, is a case violation, but this should arguably be rescuable by of-insertion (e.g., \*There was closed of the door or \*John is annoying of her), contrary to fact. Furthermore, Bešlin in press shows that English passive participles derived from ditransitive verbs can have DP complements in unambiguously adjectival positions, which is claimed to be impossible in works adopting a lexicalist framework. Finally, the nominal status of gerunds has seldom been questioned, and yet they appear with (accusative-marked) DP complements, though simple nouns cannot (20a-b). Taken together, these facts suggest that having a DP complement–while suggestive of the presence of verbal structure in a language like English (or Hebrew)-does not entail that the element in question will have the distribution of a verb.

(20) a. John's marrying her surprised everyone.

b. John sat in the corner \*(of) the room.

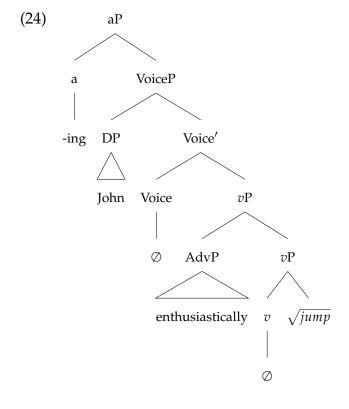
## 4.2 Postmodification by adverbs

Laskova (2007) notes that English eventive passive participles pattern with verbs in that they allow postmodification by adverbs (21a-b). She also notes that resultative passive participles do not allow it (21c). Based on this, she concludes that English eventive passive participles are verbs. Building on this work, Meltzer-Asscher (2010) argues that English -*ing* participles must necessarily be verbs, because they are readily postmodified by adverbs (22).

- (21) a. The silver was (carefully) polished (carefully).
  - b. John (carefully) polished the silver (carefully).
  - c. The silver seems (carefully) polished (\*carefully).
- (22) a. John was jumping enthusiastically.
  - b. I saw John jumping enthusiastically.
- (23) He relied heavily on me.

Bešlin in press argues that (21c) is ungrammatical because the English resultative participle lacks VoiceP, so there is not enough verbal structure for the verbal stem to move past the adverb to Voice°. She shows that the movement generally happens by pointing to examples like (23), where the selectional relation between *rely* and *on* is disrupted on the surface because the verb has moved. Therefore, all that needs to be said for (22) is that the verbal structure of active participles is not impoverished in a relevant way when

compared to the finite verb or the eventive passive participle. In other words, active participles in (22) do not lack VoiceP, which allows the verbal stem to move past the adverb. This seems correct given that VoiceP hosts thematic agents, and *John* in (22) is the thematic agent of the event of jumping, denoted by the *-ing* participle. Therefore, the argument for the category contrast between resultative participles and other participles dissipates. Since the argument presented here provides an analysis of the contrasts, rather than a mere observation, the conclusion reached here carries more weight than the one given in Laskova 2007 and Meltzer-Asscher 2010. The analysis I give also makes no claims about the categorial status of the relevant elements (i.e., their external syntax) and is compatible with the idea that all participles have the external syntax of adjectives. I give the (minimal) structure I'm arguing for for active participles in (24).



If (24) is the correct structural representation, we also predict that verbal projections which are located above v but below Voice should always be available with active participles. This includes high applicatives, if they are otherwise available in the language in question (see e.g., Harley 2013, 2017). While a closer investigation of this prediction is necessary, I will note here that high applicatives are possible with BCS active participles (25), and I am unaware of any counterexamples to the prediction.

(25) Otrč-a-l-a je **mam-i** po pirinač.
run-V-A-NOM.F.SG BE.3SG mother-DAT for rice
'She ran to get rice for her mother.'

#### 4.3 Phasal verbs

In Meltzer-Asscher 2010, Emonds 1991 is cited for the claim that phasal verbs (*keep, resume, cease*) take only verbal, but not adjectival complements. In fact, this is not what is claimed in the original paper; the claim is that these verbs select elements with a [+V] feature, regardless of their external syntactic structure (see Emonds 1991:99-100). Nevertheless, let us evaluate Meltzer-Asscher's claim at face value. The idea is that (26) demonstrates that these verbs only take verbal, but not adjectival complements and thus the participles (of intransitive verbs) in (27) must also be verbs.

- (26) a. John kept / resumed / ceased watching / annoying me.
  - b. \*John kept / resumed / ceased intelligent / mad at Sam.

(27) John kept / resumed / ceased walking / jumping.

A general point about this diagnostic is that it is not precise to say that the complement of these verbs "must be a verb phrase"; in fact, these verbs specifically require -ing complements and no other verb form can take their place (cf. \*keep runs/ran/(to) run).<sup>6</sup> Since the category of the participle is what is at issue, we cannot use this as a diagnostic for categorial status. Furthermore, it is not quite true that these verbs never combine with adjectives; for example keep can have adjectival complements, as in keep calm, keep busy, keep close, etc.

However, it is true that *resume* and *cease* cannot take any (root-derived) adjectives as complements. If participles are (deverbal) adjectives, we still have to explain why *-ing* adjectives are allowed as complements of these verbs in (26a)-(27), whereas simple adjectives are not (26b). I'd like to suggest that the *-ing* forms with *cease* and *resume* are, in fact, not participles at all, but rather nominal phrases (gerunds). The first reason to believe this is that these verbs do actually take simple nominals as their complements, as in (28a).

Furthermore, (27) can be expanded to include the nominal possessor *his* with no change in meaning (28b), suggesting that the *-ing* form in (27) may be nominal as well. An additional argument for the nominal status of the *-ing* form in the complement of *cease/resume* comes from the fact that it can be coordinated with uncontroversial DPs, as seen in (29).<sup>7</sup>

- (28) a. They ceased / resumed the peace talks.
  - b. John ceased / resumed his walking / jumping.

(29) He has not resumed running or actual football-related activities.

Even more compellingly, we can provide positive evidence that the -ing complements of cease and resume are not adjectival. It has long been noted that very modifies adjectives (though not all adjectives, see below) and not elements belonging to other categories (e.g. Brekke 1988, Emonds 1991, Meltzer-Asscher 2010). Observe moreover that some active participles can be modified by very, showing that they are uncontroversially adjectival (30). Now compare (30) to (31), where the AP very flourishing is the complement of the phasal verb—the result is ungrammatical. The ungrammaticality of (31) strongly indicates that the -ing complement of cease and resume is not adjectival, thus explaining why simple adjectives cannot appear in this position. Summing up, the complement of keep/cease/resume diagnostic cannot be used to determine verbhood because (i) no verb form other than the -ing form, whose category is in question, can appear in this position, (ii) some adjectives can appear as complements of keep, and (iii) cease and resume take gerundive, not participial, -ing complements.

- (30) a very flourishing town
- (31) \*The town ceased / resumed very flourishing.

#### 4.4 Adverbial affixation

In English, the suffix *-ly* attaches to adjectives to produce adverbs (32a). A number of authors have observed that only some active participles serve as

input to -ly suffixation and took this to indicate that only certain active participles can be adjectival in addition to being verbal (Fabb 1984, Brekke 1988, Meltzer-Asscher 2010, a.o.). Meltzer-Asscher 2010:2215 gives the lists in (32b-c) to illustrate the contrast. However, we should first of all recognize that not all simple adjectives serve as input to -ly suffixation (32d), so failing this test cannot be taken as irrefutable evidence that the element in question is not an adjective.

- (32) a. careful-ly, slow-ly, similar-ly, absolute-ly, annual-ly, particular-ly, sad-ly, curious-ly, mature-ly, furious-ly, usual-ly, sudden-ly...
  - b. interestingly, surprisingly, excitingly, pleasingly, fittingly, lastingly, compromisingly, forgivingly, shiningly, glimmeringly, inspiringly...
  - c. \*sittingly, \*cryingly, \*jumpingly, \*walkingly, \*writingly, \*chewingly,\*drawingly, \*findingly, \*foldingly...
  - d. \*parlamentarily, \*awarely, \*unknownly, \*pedestrianly, \*bluely,\*deadly, \*leftly...

Perhaps even more damaging for the view that the different behavior of the participles in (32b-c) stems from a category contrast is the fact that the participles that allow *-ly* suffixation are not necessarily the same participles that appear in other "adjectival" contexts. For example, *glowingly*, *cryingly*, and *jumpingly* are well-formed adverbs according to the Merriam-Webster dictionary (contra Meltzer-Asscher 2010), but the underlying participles cannot appear, for example, as complements of *seem* (e.g., \**The girl seemed* 

*jumping / crying / glowing*). If the category of the participle is supposed to account for both of these facts, we find ourselves in a paradox. On the account developed here, all participles are (deverbal) adjectives. The reason that some participles cannot appear as bare complements of *seem* is that they do not denote a state (see Bešlin in press for an extensive defense of this view). While I am not able to provide a definitive explanation for the contrast between cryingly and \*walkingly, some of these contrasts may be explained by appealing to meaning. The paraphrase in a walking manner sounds bad, while in a crying manner is acceptable, possibly because one does not quite know what doing something "in a walking manner" would mean. On the other hand, participles describing ways of walking are quite productive in this construction (e.g., in a limping/stumbling/strutting manner), and the difference between walking and *limping* is unlikely to be one of category. Regardless, the contrast between *cryingly* and \*walkingly shows that being stative is clearly not a condition on -ly suffixation. Furthermore, if we concede that *-ly* attaches only to adjectives, this means that *crying* is an (eventive) adjective, contra Fabb 1984, Brekke 1988, Meltzer-Asscher 2010.

According to Meltzer-Asscher, we observe a similar contrast in Hebrew, where "adverbs can be formed periphrastically using *be-ofen Adj* ('in a Adj manner')" (Meltzer-Asscher 2010:2215). Again, some participles can serve as input to *be-ofen*, while others cannot (33a-b), leading Meltzer-Asscher to conclude that only the participles in (33a) are adjectival. The first thing to notice is that, again, not all adjectives can appear with *be-ofen* (33c), so the

badness of (33b) is not convincing evidence for their non-adjectival status. Additionally, be-ofen xasar-xaim 'in-manner missing-life' in (33c) is fine if xasar-xaim is interpreted metaphorically to mean 'lifeless', but not if it is interpreted literally as 'dead'. This further supports the idea that a problem may arise not because of the category of the item that is chosen, but because of its lexical meaning. Simply put, one does not know what 'in a dead manner' is supposed to mean.

- (33) a. be-ofen me'anyen / mafti'a / merageš / matmid in-manner interesting surprising exciting lasting 'in an interesting / surprising / exciting / lasting manner'
  - b. \*be-ofen boxe / kofec / holex / kotevin-manner crying jumping walking writingintended: 'in a crying / jumping / walking / writing manner'
  - c. \*be-ofen kachol / xasar-xaimin-manner blue missing-lifeintended: 'in a blue / dead manner'

## 4.5 Negative un-

Negative *un*- attaches to adjectives, but not to verbs. It also attaches to some -*ing* participles, but not all, as seen in (34) from Meltzer-Asscher 2010:2216.

From this contrast, Meltzer-Asscher concludes that only the participles in (34a) are adjectives. Meltzer-Asscher does acknowledge that *un*- cannot attach to all adjectives; for example, adjectives like *unsmart* and *ungood* are ill-formed, and

we do not have a good understanding of why that is.<sup>8</sup> This means that we cannot conclude from the fact that an element fails this diagnostic that it is not an adjective.

- (34) a. uninteresting, unsettling, unsurprising, unexciting, unpleasing, unfitting, uncompromising, unforgiving, unsuspecting, unassuming, unreasoning, unsparing, unrevealing
  - b. \*uncrying, \*ungrowing, \*unjumping, \*unwalking, \*unwriting,\*unchewing, \*undrawing, \*unstanding, \*unfinding

Another thing to point out is that not all adjectives in (34b) are bad; for example, an uncrying baby or the nucleus of ungrowing cells are attested and acceptable. The reason this is relevant is because Meltzer-Asscher's account depends on the idea that all diagnostics show a split between the same two groups of participles, which we see is clearly not the case (cf. ungrowing and \*growingly). Moreover, we can use the prefix non-, which also attaches to adjectives (and nouns), but not verbs, to show that the contrast between (34a) and (34b) is not one between adjectives and verbs. For example, non-suspecting is possible alongside unsuspecting, and non-jumping (e.g., exercises) and non-chewing (e.g., diet) are also good, despite these participles' incompatibility with un-. This provides positive evidence that (at least some of) the purportedly verbal participles in (34b) are also adjectives.

#### 4.6 Coordination

Meltzer-Asscher (2010) argues that it is not possible to coordinate some active

participles with pure adjectives; the judgments in (35) are reported as they appear in Meltzer-Asscher 2010:2217. From the purported unacceptability of these coordinated phrases, combined with the view that identity of category is a sufficient (though not necessary) condition for coordination, she concludes that the *-ing* participles in (35) cannot be adjectives.

- (35) a. ??a crying and beautiful girl
  - b. ??a rude and jumping boy

The first thing to note is that, while the above examples may be somewhat odd, they are not unacceptable, especially when compared to, for example, *a* rude and jump(s) boy, which is judged as emphatically bad. Note that we would have no explanation for this contrast in acceptability on the view that both jumping and jump(s) are verbs. Furthermore, we can identify several factors that conspire to make (35a) and (35b) sound odd, none of which have to do with category. First off, the two attributes in (35a) stand in opposition, so using and is strange, the same way that (36a) is strange compared to (36b), even though both examples coordinate two simple adjectives; (36c) sounds much better compared to the original example in (35a).

- (36) a. ??a beautiful and miserable girl
  - b. a beautiful but miserable girl
  - c. a crying but beautiful girl

Another factor that may contribute to the degraded character of (35) is that coordination of an individual-level and stage-level adjective often sounds odd,

as in (37a), possibly because it is not immediately clear why the two adjectives are being coordinated. The example is perfectly acceptable without an overt coordinator (37b). Related to this, if the two attributes of a noun are not logically connected, overt coordination sounds odd even with simple adjectives, cf. (38a-b). The same carries over to the coordination of an *-ing* participle and a simple adjective, cf. (38c-d). What can we conclude from all this? It is not just that coordination does not provide evidence for the different categorial status of adjectives and active participles, it in fact shows us that they pattern exactly alike.

- (37) a. ??a hungry and Serbian girl
  - b. a hungry Serbian girl
- (38) a. ??a pink and plastic chair
  - b. a pink plastic chair
  - c. ??a jumping and blue robot
  - d. a jumping blue robot

#### 4.7 Eventive vs. stative participles

Next, we turn to tests that have been used to argue that only certain participles are adjectives, but which are better suited for diagnosing the meaning difference between eventive and stative elements, rather than a difference in category. There is a common observation that *very* generally modifies adjectives; in fact, Brekke 1988:169 takes modification by *very* as "the

conventional test for true adjective status" (see also Chomsky 1957). From here, one might conclude that those participles which are not modifiable by *very* are not adjectives, cf. (39-40) from Meltzer-Asscher 2010:2216. Of course, we must first acknowledge the simple fact that not all adjectives are modifiable by *very* (cf. \**very parliamentary elections*). Additionally, Meltzer-Asscher acknowledges Borer (1990)'s argument that the compatibility of a participle with *very* and other degree modifiers depends on semantic factors, those that determine whether the verb related to the participle is compatible with the modifier *very much*. In (41-42), from Borer 1990:97-8, we see that *very* is compatible with a participle only if the verb it is derived from is compatible with *very much*.

- (39) a. The movie is very interesting / amusing / boring.
  - b. Florence is very flourishing.
  - c. Your brother was very understanding.
- (40) \*Max is very jumping / growing / crying.
- (41) a. This story amazed/interested/bothered me very much.
  - b. a very amazing/interesting/bothering story
- (42) a. \*This car jumped very much.
  - b. \*a very jumping car.

Even more strikingly, Borer observes that Hebrew *me'od* 'very' can modify both verbs and adjectives, and yet only those verbs that can be modified by

me'od give rise to participles that allow me'od modification (43-44). Despite me'od's ability to modify both verbs and adjectives, the split is the same as in English, suggesting that it is not the category of the modified element that is the problem. From here, Borer concludes that the contrasts we observe have nothing to do with the participles' categorial status, but rather with a meaning component that distinguishes the two types of verbs, and, by extension, the participles they give rise to.

- (43) a. Ha-sipur (me'od) 'inyen / shi'amem / hifti'a 'oti (me'od).

  the-story (very) interested bored surprised me (very)
  - b. Ha-sipur haya (me'od) me'anyen/ mesha'amem/ mafti'a (me'od).the-story was (very) interesting boring surprising (very)
- (44) a. \*Ha-para (me'od) kafca (me'od).
  the-cow (very) jumped (very)
  - b. \*Para (me'od) kofecet (me'od).cow (very) jumping (very)

What is this meaning component? Brekke (1988) concludes that the relevant component cannot be gradability because even some gradable verbs such as *grow* give rise to -*ing* participles which are incompatible with *very*, cf. \**a very growing child*. Borer suggests that only object-experiencer verbs can be modified by *very much*, and both her and Brekke claim that only adjectives derived from them can be modified by *very*. Brekke then concedes that there are verb classes that derive participles modifiable by *very* which are not

object-experiencer verbs, but he nevertheless ultimately formulates the constraint with reference to the notion Experiencer, see (45).<sup>9</sup>

## (45) The Experiencer Constraint (Brekke 1988:177)

A given verb does not have a corresponding *-ing* adjective unless

- a. its underlying root has an Experiencer argument, and
- b. its surface subject represents an argument other than Experiencer.

I will now examine the verb classes collected in Brekke and argue, with Meltzer-Asscher 2010, that the relevant restriction is related to the eventive/stative distinction. The main point is that only participles derived from stative verbs allow modification by *very*. Note that, once we have established this generalization, the argument for treating those participles that cannot be modified by *very* as verbs goes away.

While all object-experiencer verbs are stative or at least have a stative reading, there are stative verbs which do not belong to this category, but which are nevertheless modifiable by *very*, as I show immediately below. Brekke mentions four types of verbs, examples of which are given in (46): object-experiencer verbs (46a), manner verbs (46b), verbs of light emission (46c), and disposition verbs (46d).

- (46) a. **Object-experiencer:** amaze, amuse, interest, bore, worry, excite...
  - b. **Manner:** endure, fit, flourish, last, reveal...
  - c. **Emission:** blaze, dash, glimmer, glisten, sparkle, shine...
  - d. **Disposition:** compromise, dare, forgive, know, love, care...

What all of these verbs have in common is that (i) they are stative or at least have a stative reading, and (ii) their corresponding *-ing* participles can be modified by *very*. Therefore, even though the lists in (46) are not exhaustive, we predict that verbs which serve as input to participles modifiable by *very* will pass stativity diagnostics. Meltzer-Asscher 2010 shows that the verbs in (46) are stative given their lack of habitual interpretation in the simple present tense (Kenny 1963), incompatibility with the progressive, and ungrammaticality with anaphoric *do* (Dowty 1979); see Meltzer-Asscher 2010:2220-25. To this, we may add Maienborn (2005)'s diagnostic which relies on the fact that sentences with stative predicates cannot be followed by *This happened while...*. See (47), which illustrates this restriction with each of the predicate classes in (46).

- (47) a. John's health worried him. \*This happened while he was in Spain.
  - b. The dress fit her nicely. \*This happened while she was pregnant.
  - c. Candles glimmered in te hall. \*This happened while they were dancing.
  - d. John loved Mary. \*This happened while they were in college.

The conclusion I argue for from this data is, however, very different from the conclusion reached in Meltzer-Asscher 2010. Meltzer-Asscher concludes that only stative verbs *give rise to adjectival passive participles*. However, given that compatibility with *very* is not a reliable diagnostic for adjectivehood, what we can safely conclude so far is only that stative verbs give rise to participles

that can appear with *very*. It is possible that *very* requires that the adjective it modifies have a stative component. This would explain why the same participles that are compatible with *very* are able to appear as bare complements of *seem* (and *remain*), which are necessarily stative (see Bešlin in press and the references there). This is illustrated in (48); cf. (49) where the participle is derived from an eventive verb.

- (48) a. John's health seemed worrying.
  - b. Wearing a tie seemed fitting.
  - c. The roads outside seemed blazing.
  - d. Their marriage seemed very loving.
- (49) \*The boy seemed jumping / growing / crying / eating / writing.

In addition to *very/me'od* modification, another pattern that may be better explained by appealing to the eventive/stative contrast than to a category difference is the participles' (in)compatibility with the future copula in Hebrew. Meltzer-Asscher shows that present participles behave non-uniformly in this context: some are able to follow the future copula (50a-b) and others not (50c). The same participles that allow *me'od* modification are also able to appear with the future copula; see Meltzer-Asscher 2010:2215 for details. Additionally, Hebrew adjectives but not verbs can follow the future copula (51); see Doron 2003.

- (50) a. Ha-yeled yihiye me'anyen / mafti'a / meša'aše'a / margiz

  the-boy will.be interesting surprising amusing annoying

  'The boy will be interesting / surprising / amusing / annoying.'
  - b. Ha-ir tihiye mesagseget.the-town will.be flourishing'The town will be flourishing.'
  - c. \*Ha-yeled yihiye kofec / holex / gadel / boxe.
    the-boy will.be jumping walking growing crying
    intended: 'The boy will be jumping / walking / growing / crying.'
- (51) a. Ha-yeled yihiye yafe / xaxam / xacuf.

  the-boy will.be beautiful smart rude

  'The boy will be beautiful / smart / rude.'
  - b. \*Ha-yeled yihiye lo'es mastik / mekapel niyarot.the-boy will.be chewing gum folding papersintended: The boy will be chewing gum / folding papers.'

From this, Meltzer-Asscher concludes that the participles in (50a-b) are adjectives, and that those in (50c) are verbs. This conclusion is premature. Hebrew has a template for the future tense, and the roots in (50a-b) can also appear in that template, see e.g., (52). The first question, then, is what the difference is between (50b) and (52). I argue that the element that follows the future copula needs to have a stative interpretation, which is why it is possible only with participles derived from verbs that at least have a stative reading.

Eventive verbs give rise to eventive active participles, and they are incompatible with the future copula, as seen in (50c).

(52) Ha-ir tesagseg.

the-town flourish.FUT

'The town will flourish.'

To see this, consider the participles' ability to combine with *be-atsmo* 'by itself' in the two constructions. An element's ability to combine with *be-atsmo* 'by itself' has been argued to diagnose the syntactic presence of a Cause argument (Levin and Rappaport Hovav 1995, Alexiadou and Anagnostopoulou 2004, Koontz-Garboden 2009, Alexiadou and Doron 2012, Kastner 2017, a.o.). Since the Cause argument is associated with the presence of a causing subevent, we expect it to be unavailable with stative predicates. As expected on my hypothesis, *be-atsmo* 'by itself' is available with the Hebrew equivalent of 'flourish' in the future template, but not if it combines with the future copula (53a-b). This suggests that the participle in (53a) is interpreted as stative, while the predicate in (53b) can have an eventive interpretation.

- (53) a. \*Ha-ir tihiye mesagseget be-atsm-a.

  the-town(F) will.be flourishing from-itself-F.SG

  'The town will be flourishing by itself.'
  - b. Ha-ir tesagseg be-atsm-a.the-town(F) flourish.FUT from-itself-F.SG'The town will flourish by itself.'

What we can conclude from this is that only participles derived from stative verbs can appear with the future copula in Hebrew. Those elements that can have both interpretations are only available with the future copula on their stative interpretation. It follows from this that elements that can only have an eventive interpretation will not be able to appear with the future copula. This seems to hold in addition to any c-selectional restrictions of the future copula; the ability to combine with the copula does not necessarily tell us anything about the participles' category.

## 4.8 Not verbs, adjectives!

Not only is there no positive evidence that active participles are verbs, but some distributional facts suggest that (i) they, in fact, cannot be verbs, and (ii) they pattern exactly like adjectives, and not like verbs. I address each of these in turn. First, let us look at depictive constructions: constructions that predicate a property of a DP (either subject or object) that holds throughout the event denoted by the matrix predicate. Predicates of English depictives can be root adjectives, participles (active or passive), PPs or DPs (54a), but they can crucially not be verbal elements, be it infinitives or tensed forms (54b). We observe the same pattern in BCS (55); see Schultze-Berndt and Himmelmann 2004 for a cross-linguistic perspective. 12

- (54) a. She found him naked/dancing/annoyed/in a state/a poor man.
  - b. \*She found him (to) dance(d) in the yard.

- (55) a. Našla ga je umor-n-og / po-crven-e-l-og
   found him BE.3SG tire-A-ACC.M.SG PFV-red-V<sub>act</sub>-A-ACC.M.SG
   očar-a-n-og / u užasnom stanju.
   enchant-V<sub>pass</sub>-A-ACC.M.SG in terrible state
   'She found him tired/reddened/enchanted/in a terrible state.'
  - b. \*Našla ga je po-crven-e-ti / crven-i.
     found him BE.3SG PFV-red-V<sub>act</sub>-INF red-V<sub>act</sub>-PRES.3SG
     'She found him (to) get red.'

Finite verbs include Tense, so they are categorially different from participles even on a verbal analysis of participles. We can therefore exclude finite verbs from depictive constructions by assuming that TPs are disallowed in this position. As far as I can tell, both the control analysis (e.g., Hornstein and Lightfoot 1987) and the small clause analysis (e.g., Bruening 2018) of depictives could explain this fact quite naturally. What is more difficult is explaining why participles are acceptable in depictive constructions, but (bare) infinitives are not. Related to this point, it is not clear on a verbal analysis of participles why participles do not combine with (English-style) modals and Tense, as infinitives do. While it is not impossible to describe these contrasts in technical terms (e.g., by stipulating that the participle contains some additional feature), the simplest account of the facts is one where the outward-most layer of participles is non-verbal, allowing them to appear in positions unavailable to verbs.

Additionally, English adjectives and participles (both active and passive)

may occur in what I will call a reduced temporal clause, as illustrated in (56a-c). Crucially, the infinitive form of the verb cannot appear in this construction (56d). I should mention that this test is inconclusive when applied to BCS because none of the equivalents of sentences in (56) are possible, for reasons that are poorly understood. However, at least for English, we can use this test to further show that the distribution of participles mirrors that of adjectives, and not verbs.

- (56) a. When wet, the floor is very slippery.
  - b. When opening the door, make sure to do it quietly.
  - c. When opened, the door stays that way the whole night.
  - d. \*When (to) open the door, make sure to do it quietly.

Even more glaringly, participles appear in positions that are otherwise occupied *only* by adjectives. As I showed in (10a), (11a), and (14a), BCS active participles can act as nominal modifiers. In addition to passive participles (which I have argued are adjectives) and pure adjectives, active participles are the only element that can appear in this position in BCS. Meltzer-Asscher 2010 acknowledges that even the active participles that fail her other diagnostics for "adjectivehood" appear in the prenominal position in both English and Hebrew, as illustrated in (57a-b). She also claims that participles derived from eventive transitive verbs cannot appear in the prenominal position, though Borer 1990 clearly shows that this is not the case. It is simply the case that participles derived from eventive transitive verbs need to overtly express their

internal argument, see (57c-d).<sup>13</sup>

- (57) a. a jumping / crying / growing boy
  - b. yeled kofec / boxe / oxelboy jumping / crying / eating'a jumping / crying / eating boy'
  - c. a self-destroying person
  - d. a brick-making machine

The claim that the prenominal position in languages like English is occupied only by adjectives has been challenged, but the arguments do not stand up to scrutiny. Sleeman 2011 argues that participial modifiers contain verbal structure, but gives no evidence that they are not (ultimately) adjectives. As already noted, the fact that prenominal participles contain verbal structure is problematic for the adjectival hypothesis only if one has lexicalist assumptions. Both Sleeman and Laskova (2007) also assume that being eventive equals being a verb, and conclude from the possibility of eventive interpretations in cases like (57a) that the prenominal position can be occupied by verbs. However, we saw at the beginning of this chapter that it is untenable to equate eventivity with verbhood and stativity with adjectivehood.

Moreover, authors who accept this position are on the hook to explain why infinitives do not similarly appear in the prenominal position. Once we accept that interpretation cannot determine category, the hypothesis that the prenominal position in languages like English is occupied only by adjectives is conceptually sound again. In fact, despite what is often claimed, the

prenominal position in English can be occupied by some PPs in addition to adjectives, an issue I address immediately below (see (58)). Nonetheless, there is no independent evidence that the prenominal position can be occupied by verbs. I therefore conclude that all active participles in these languages, including those derived from eventive verbs, are adjectives.

Additionally, both English prenominal participles (58a) and root adjectives (58b), but not prenominal PPs (58c), have to obey the Head-Final Filter which necessitates that a prenominal modifying expression be head-final (Williams 1982). In English, a language with rigid word-order, the modifiers in (58a-b) cannot be displaced to the left of the head element; combined with the Head-Final Filter, this leads to ungrammaticality. PPs, on the other hand, do not seem to be subject to the same restriction. This is another instance where participles show the same distribution as simple adjectives, suggesting that the syntax does not discriminate between the two based on their category.

- (58) a. a smiling (\*from ear to ear) boy
  - b. a happy (\*about everything) student
  - c. an in-your-face management style

Emonds 1991:97 furthermore shows that both English APs and *-ing* participles are incompatible with the cleft focus position (59a-b). This is in contrast to infinitives, which appear in this position quite freely (59c). <sup>14</sup> The data in (59) provides clear evidence that the distribution of participles mirrors that of adjectives, and not of verbs.

- (59) a. \*It was guilty about the exams that the students felt.
  - b. \*It was talking about the exams that the students kept.
  - c. It was take the dog to the vet that she didn't do.

Moreover, Emonds observes that in dialects of English in which AP may appear in the focus position of a cleft, present participle phrases may also appear there. In some varieties of Irish English, sentences like (60a) are grammatical. In these dialects, (60b) is also grammatical. The data we have just seen shows that the distribution of active participles follows that of simple adjectives; where there are dialectal differences in distributional possibilities, the participle still patterns with the uncontroversial adjective. Since distribution is largely determined by the category of an item, I conclude from this that the external syntax of these two elements is identical, namely they are both adjectives.

- (60) a. % It's cold and wet we are.
  - b. % It is trying to milk the poor you are.

Finally, I discuss the selectional restrictions of the BCS nominal suffix -ic-, broadly 'one who is  $X_{ADJ}$ ' (Babić 2002:565). Even though the present discussion is concerned with elements below the 'word' level, I include it in this section because it pertains to a prime example of c-selection. Namely, the BCS suffix -ic- can select for adjectival input, including participles, but it cannot select for verbs. We can observe examples where -ic- attaches to pure adjectives (61) and active participles (62) in -l, and to pure adjectives (63) and passive participles

(64) in -*n*. In (65), I provide a couple of examples to illustrate a general pattern, namely that infinitives cannot serve as input to -*ic*-affixation.

- (61) a. debe-l-ic-a fat-A-N-NOM.F.SG
  - b. z-l-ic-a evil-A-N-NOM.F.SG
- (62) a. lut-a-l-ic-a wonder-V-A-N-NOM.F.SG
  - b. sij-a-l-ic-a light-V-A-N-NOM.F.SG
- (63) a. rav-n-ic-a flat-A-N-NOM.F.SG
  - b. perja-n-ic-a feather-A-N-NOM.F.SG
- (64) a. kov-a-n-ic-a mint-V-A-N-NOM.F.SG
  - b. izabr-a-n-ic-a choose-V-A-N-NOM.F.SG
- (65) a. \*kov-a-t(i)-ic-a mint-V-INF-N-NOM.F.SG
  - b. \*izabr-a-t(i)-ic-a choose-V-INF-N-NOM.F.SG

All things equal, if active participles are (deverbal) adjectives, we expect them to be able to serve as input to affixation anywhere that a simple BCS *l*-adjective can. While this issue requires a more detailed investigation, (61)-(65) shows that participles behave the same way as adjectives (and not as verbs) in this domain, thus supporting the hypothesis that they are adjectival.

## 5 Conclusion

In this paper, I have challenged the assumption that active participles fall into two subclasses—adjectival and verbal—which belong to separate lexical categories. I argued that interpretation is not a reliable cue for determining category membership. I also showed that both morphological and distributional facts point to the conclusion that active participles are externally adjectival. The adjectival/verbal distinction one finds in the literature is the result of applying diagnostics which (i) rely on problematic assumptions or wrong empirical generalizations, or (ii) are sensitive to the eventive/stative distinction. Based on this, I argued that all participles in the languages under discussion are (deverbal) adjectives, that there are no "verbal participles", and that "participle" is not a distinct lexical category. Adopting this conclusion, we are left with a simpler grammar which provides us with better empirical coverage, both desirable results.

## References

- Alexiadou, Artemis, and Elena Anagnostopoulou. 2004. Voice Morphology in the Causative–Inchoative Alternation: Evidence for a Non-Unified Structural Analysis of Unaccusatives. In *The Unaccusativity Puzzle*, ed.
- Alexiadou, Artemis, and Edit Doron. 2012. The syntactic construction of two non-active Voices: Passive and middle1. *Journal of linguistics* 48:1–34.

A. Alexiadou, E. Anagnostopoulou, and M. Everaert, 114–135. Oxford: OUP.

- Aljović, Nadira. 2000. Recherches sur la morpho-syntaxe du groupe nominal en serbo-croate. Doctoral Dissertation, Université de Paris 8.
- Babić, Stjepan. 2002. *Tvorba riječi u hrvatskome književnome jeziku*. Zagreb: Nakladni zavod Globus, Hrvatska akademija znanosti i umjetnosti.
- Bennis, Hans, and Pim Wehrmann. 1990. On the categorial status of present participles. In *Linguistics in the Netherlands*, ed. R. Bok-Bennema and P. Coopmans, 1–11. Dordrecht: Foris.
- Bešlin, Maša. in press. Revisiting passive participles: Category status and internal structure. *Linguistic Inquiry* .
- Biskup, Petr. 2019. *Prepositions, Case and Verbal Prefixes: The case of Slavic.*Amsterdam: John Benjamins.
- Borer, Hagit. 1990. V+ing: It walks like an adjective, it talks like an adjective. *Linguistic Inquiry* 21:95–103.
- Brekke, Magnar. 1988. The experiencer constraint. *Linguistic Inquiry* 19:169–180.

- Bruening, Benjamin. 2018. The lexicalist hypothesis: Both wrong and superfluous. *Language* 94:1–42.
- Caha, Pavel, and Markéta Ziková. 2016. Vowel length as evidence for a distinction between free and bound prefixes in Czech. *Acta Linguistica Hungarica* 63:331–377.
- Chomsky, Noam. 1957. *Syntactic Structures*. The Hague: Mouton.
- Cinque, Guglielmo. 2010. *The syntax of adjectives: A comparative study*. Cambridge, MA: MIT press.
- Doron, Edit. 2003. Agency and voice: The semantics of the Semitic templates.

  Natural Language Semantics 11:1–67.
- Dowty, David. 1979. Word Meaning and Montague Grammar: The Semantics of Verbs and Times in Generative Semantics and in Montague's PTQ. Reidel:

  Dordrecht.
- Emonds, Joseph. 1991. The autonomy of the (syntactic) lexicon and syntax:

  Insertion conditions for derivational and inflectional morphemes. In

  Interdisciplinary approaches to language, ed. C. Georgopoulos and R. Ishihara,
  119–148. Dordrecht: Springer.
- Fabb, Nigel. 1984. Syntactic affixation. Doctoral Dissertation, MIT.
- Gehrke, Berit. 2015. Adjectival participles, event kind modification and pseudo-incorporation. *Natural Language & Linguistic Theory* 33:897–938.
- Glinert, Lewis. 2004. *The grammar of modern hebrew*. Cambridge: Cambridge University Press.
- Haiden, Martin. 2001. The German Present Participle. In On Case and

- Agreement, ed. B. Fernández and P. Albizu, 195–213. Bilbao: University of the Basque Country Press Service.
- Harley, Heidi. 2009. The morphology of nominalizations and the syntax of vP.In *Quantification, definiteness and nominalization*, ed. M. Rathert andA. Giannankidou, 320–342. Oxford: Oxford University Press.
- Harley, Heidi. 2013. External arguments and the Mirror Principle: On the distinctness of Voice and v. *Lingua* 125:34–57.
- Harley, Heidi. 2017. The "bundling" hypothesis and the disparate functions of little v. In *The verbal domain*, ed. R. D'Alessandro, I. Franco, and A. J. Gallego, 3–28. Oxford: Oxford University Press.
- Hogg, Richard M., and Robert Dennis Fulk. 2011. *A Grammar of Old English: Volume 2 Morphology.* Oxford: Wiley-Blackwell.
- Hornstein, Norbert, and David Lightfoot. 1987. Predication and PRO. *Language* 23–52.
- Kastner, Itamar. 2017. Reflexive verbs in Hebrew: Deep unaccusativity meets lexical semantics. *Glossa: a journal of general linguistics* 2.
- Kenny, Anthony. 1963. Action, Emotion and Will. New York: Humanities Press.
- Koontz-Garboden, Andrew. 2009. Anticausativization. *Natural Language & Linguistic Theory* 27:77–138.
- Laskova, Vesselina. 2007. Verbal Participles and the Prenominal Position in English. *Rivista di Grammatica Generativa* 32:125–140.
- Levin, Beth, and Malka Rappaport. 1986. The Formation of Adjectival Passives. *Linguistic Inquiry* 17:623–661.

- Levin, Beth, and Malka Rappaport Hovav. 1995. *Unaccusativity: At the Syntax-Lexical Semantics Interface*. Cambridge, MA: MIT press.
- Maienborn, Claudia. 2005. On the limits of the Davidsonian approach: The case of copula sentences. *Theoretical linguistics* 31:275–316.
- Malak, Janusz. 1993. The function of the present participle in the predicative position in Old English. *Studia Anglica Posnaniensia* XXV-XXVII:123–141.
- Meltzer-Asscher, Aya. 2010. Present participles: Categorial classification and derivation. *Lingua* 120:2211–2239.
- Meltzer-Asscher, Aya. 2011. Adjectives and argument structure. Doctoral Dissertation, Tel Aviv University.
- Milsark, Gary. 1988. Singl-ing. Linguistic Inquiry 19:611–634.
- Parsons, Terence. 1990. Events in the Semantics of English. Cambridge, MA: MIT press.
- Pesetsky, David. 1995. Zero syntax. Cambridge, MA: MIT Press.
- Schultze-Berndt, Eva, and Nikolaus P Himmelmann. 2004. Depictive secondary predicates in crosslinguistic perspective. *Linguistic Typology* 8:59–131.
- Sleeman, Petra. 2011. Verbal and adjectival participles: Position and internal structure. *Lingua* 121:1569–1587.
- Svenonius, Peter. 2004. Slavic prefixes inside and outside the VP. In *Nordlyd*, 32(2): Special issue on Slavic prefixes, ed. P. Svenonius, 205–253. Tromsø: CASTL.

Williams, Edwin. 1982. Another argument that passive is transformational. *Linguistic Inquiry* 13:160–163.

Zimmer, Karl. 1964. *Affixal Negation in English and Other Languages: An Investigation of Restricted Productivity*. Supplement to Word, Monograph 5: New York.

## **Notes**

<sup>1</sup>The acceptability judgments in this paper, unless stated otherwise, come from consultant work. The identities of the language consultants will remain unspecified for the duration of the peer-review process.

<sup>2</sup>But see Malak 1993 for evidence that the active participle in Old English, a morphologically richer language, bore all the hallmarks of adjectivehood.

<sup>3</sup>In the case of English gerunds, there are two possibilities. Either the *-ing* is the same adjectivizing *-ing* and the nominalizing suffix is null or English has an additional nominalizing suffix *-ing*. The latter view does receive some support from the existence of entity-denoting nouns like *building*, *lining*, *painting* and others. Historically, the two suffixes are distinct–nominal *-ing* comes from Old English *-ung/-ing*, and participial *-ing* from the Old English *-ende* (e.g., Hogg and Fulk 2011)–but it is possible that they have merged into one suffix in the synchronic grammar of English speakers.

<sup>4</sup>Meltzer-Asscher refers to the Hebrew participles and their English -*ing* counterparts as *present* participles. While this is the traditional term, I use the term *active* participle instead because the eventualities denoted by these participles can be interpreted as prior to, simultaneous with, or following the utterance time, as I make clear in the main text.

<sup>5</sup>Similar points can be made about the *ći*-participle, as in *leteći tanjir* 'flying saucer'. Both of these are active participles. I focus on the *l*-participle to keep the discussion more streamlined, because the *ći*-participle also has adverbial uses like the English *ing*-participle, as in *Leteći nebom, roda je videla gnezdo.* 'Flying across the sky, the stork saw a nest.' BCS, unlike English, allows us to eschew this complication by focusing on a different kind of participle.

<sup>6</sup>I am aware that *cease* can have infinitival complements, as in *Our region ceased to attract investment*, but the other two verbs in question cannot.

<sup>7</sup>This example is from The Washington Post, available here. Many such examples can be found on the internet; they are judged by native speakers as acceptable and completely unremarkable.

<sup>8</sup>Note that Zimmer 1964's generalization that *un*- does not attach to adjectival stems that have a negative value on an evaluative scale does not explain this data.

<sup>9</sup>Recall that, for Brekke, modification by *very* is taken as a key diagnostic for adjective status. Therefore, when Brekke writes "does not have a corresponding *-ing* adjective", he means "does not derive a participle modifiable by *very*".

<sup>10</sup>The caveat goes the other way too: Not all (classes of) verbs in (46) necessarily have a stative reading for all English speakers. All that is required for our generalization to hold is that participles whose corresponding verbs do not pass stativity diagnostics for a particular speaker are then also not modifiable by *very*.

<sup>11</sup>Not all stative verbs are incompatible with the progressive, so this test provides us with a sufficient but not necessary condition for stativity.

<sup>12</sup>The BCS pattern is identical in all relevant respects. BCS depictives of the type in (55) cannot be nominal, but that is irrelevant for the point made here.

<sup>13</sup>I am currently unable to answer the question why all and only participles derived from stative verbs, see (46), are able to appear without the internal argument, even if the underlying verb is transitive (e.g., *Her condition is worrying / a worrying condition*, but *Her condition worries me*. It could be that these participles are actually root-derived adjectives, but this raises further questions about (i) whether roots take complements, and (ii) why only roots that derive stative verbs lend themselves to root-adjectivization.

<sup>14</sup>I do not address the question why the VP *it*-cleft seems to require *do*-support. *Do*-support does not improve (59a-b).