

Blocking in Distributed Morphology

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Abstract

This is a chapter draft submitted to an upcoming handbook on Distributed Morphology. I welcome any comments that could help improve the final version, for example relevant cases I might have missed or places where more detail is necessary.

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1 Introduction

An attempted question like (1) is ungrammatical in English.

(1) *A good boy is who?

There are two ways of thinking about what this datapoint tells us. The first is that (1) is ungrammatical because that is just not the way we say things; the “right” way of saying (1) is in (2). This is perhaps the more intuitive way of thinking about this example, at least for non-linguists. The intuition here is that the two utterances are in **competition** with one another, whereby (2) **blocks** (1).

(2) Who’s a good boy?

Contemporary work, particularly within DM, has another way of thinking about this contrast. Given the metaphor of the grammar as a machine generating all and only grammatical strings, this machine will simply never produce something like (1) because there is no way to generate that utterance. As [Embick and Marantz \(2008\)](#) put it in their discussion of this issue, “Rules Apply”, but there is no rule that can give us a clause-final unstressed *wh*-word. On a typical syntactic analysis of questions (e.g. [Adger 2003](#)), whenever C has an unvalued [wh] feature, a DP carrying a [wh] feature moves to Spec,CP. We get clause-initial *Who*, and accordingly *Who’s*. That is the rule; in-situ *is who* is simply not generated in this case.

Many linguists find this kind of argumentation appealing. Nevertheless, a similar argument seems to be harder to swallow when applied to single words. The past tense of (3) is not (4a) but (4b).

(3) *go*

(4) a. **goed*

b. *went*

As far as traditional intuitions are concerned, **goed* does not exist because it is blocked by *went*, and as such is a different case entirely than in-situ *#is who*. After all, the latter is possible as a string in other contexts (including echo questions). But as far as work in DM is concerned, the two cases are identical. Competition holds only insofar as *went* is preferred to **goed* as the past tense form, but the two words are not compared as wholes. As we will review below, the grammar must decide which exponent of the root \sqrt{GO} to insert at Vocabulary Insertion, choosing the more specific *went* by Pāṇinian ordering (*go* is the default form that would have otherwise been inserted according to the Elsewhere Principle). This is the only case in DM word-formation where some element is blocked by another: when the grammar decides which string (Vocabulary Item) to use when spelling out a specific morpheme (here the root \sqrt{GO}).

The host of phenomena assumed under “blocking” were identified by [Embick \(2007\)](#) as in (5), while [Embick and Marantz \(2008\)](#) define “standard blocking” as in (6).

(5) A case in which the existence of one form prevents the appearance of another form whose existence would otherwise be expected (all other things being equal). ([Embick 2007:5](#))

(6) Some forms are ungrammatical only because other forms happen to exist and win over them; competition takes place at the level of the word, phrase, or sentence. ([Embick and Marantz 2008:9](#))

In the interest of clarity I will use “**competition**” for the **intuitive**, descriptive sense as in (6) and “**blocking**” to mean a **grammatical** mechanism regulating the appearance of competing forms; this is not necessarily the way these terms are used by different authors. Using this terminology, the only blocking in DM is selection of a VI for insertion at a node. While some authors assume or argue that the two are identical in at least some cases, under DM blocking is limited in scope and most of what is intuitively seen as competition ought to be analyzed in other terms.

In this chapter I will attempt to clear up different notions of competition and blocking at both the word and phrase level, drawing on a number of case studies. The inherent biases of such an overview should be clear: it is meant to survey how DM addresses competition when taking the DM view of blocking as axiomatic. The first case study, in Section 2, deals with individual words. The second (Section 3) discusses synthetic and analytic comparatives in English. Section 4 then compares verbal and adjectival passives in Hebrew and Latin. In all of these cases it has been claimed that certain forms compete with others; we will make sense of these proposals in light of the claim that blocking

only applies at the level of VI but not between larger units (words vs words, or words vs phrases). Section 5 concludes with some general words on “competition” and whether this concept is useful, together with some avenues for future work.

2 Blocking in morphology

2.1 Word/word competition: What inflection **tached us*

The basic idea behind blocking relates to individual words, specifically in inflection, and is traditionally traced back to the invocation of Pāṇinian ordering by Kiparsky (1973, 1982). Affixes are assumed to have a default exponent, the Elsewhere Form (see chapters ALLOMORPHY, SUPPLETION). The English nominal plural is *-s* and the English past tense is *-ed* (setting phonologically conditioned variants aside). In some cases, however, an irregular form of the affix (7c) or even the stem (7d) might be chosen. The intuition is that the specific forms in (7c–d) block usage of the default affixes seen in (7a–b).

		Regular, productive	Irregular
(7)	a. dog	✓ dog-s	✗ dogg-en
	b. walk	✓ walk-ed	✗ wunk
	c. ox	✗ ox-es	✓ ox-en
	d. teach	✗ teach-ed	✓ taught

DM handles the Elsewhere Principle using lists. An irregular plural like *-en* in *oxen* is listed under the Vocabulary Item for [PLURAL].

$$(8) \text{ [PLURAL]} \leftrightarrow \begin{cases} \text{a. } -en & / \text{ } _ \sqrt{\text{OX}} \\ \text{b. } \emptyset & / \text{ } _ \{ \sqrt{\text{SHEEP}}, \sqrt{\text{MOOSE}}, \sqrt{\text{FISH}}, \dots \} \\ \text{c. } -s & / \text{ elsewhere} \end{cases}$$

When it is time to insert the exponent of [PLURAL], the lists in (8) are consulted and the appropriate form is chosen. Importantly, there is no reference to **oxes*, **fishes* or **doggen* anywhere in the VIs. *Oxen* does not block **oxes*, but *-en* does block *-s*. This kind of blocking—as part of Vocabulary Insertion, in competition regulated by the Elsewhere Principle—is the only kind of blocking as a grammatical mechanism present in DM: competition for insertion of a VI at a node.

2.2 Word/word competition: The curious case of deriving **gloriosity*

One of the many important contributions of Aronoff (1976) was to extend the traditional idea of blocking to derivation (but see Chapter DERIVATIONAL MORPHOLOGY). To follow an oft-cited example, the adjective *curious* has a corresponding noun, *curiosity*. A straightforward account would suggest that the noun is derived by affixing *-ity* to the adjective, (9a–b). This would be a regular process. But the word *glorious* and others do not obey this rule: the most closely related noun is the unaffixed *glory*, (9c–f). Aronoff (1976) famously proposed that this special form blocks the productive process of default affixation. In contrast to *-ity*, the suffix *-ness* appears to be exceptionless; virtually every adjective can be nominalized using this suffix. For Aronoff (1976), this means that there are two relevant ways of forming nouns in a paradigm. The first is the *-ity* rule, which allows for exceptions. The second is the *-ness* rule, which does not.¹

1. Examples (9a,c–e) are from (Aronoff 1976:44); (9b) is from Embick and Marantz (2008:18); (9f) is my own, as far as I can tell; and many others probably exist.

Examining the rules, there is no way for the adjectivizer *-ity* to be inserted next to little *n* realized as *-ous*, accounting for Aronoff's observations without blocking between words. Affixes might compete, as in (16)–(17), in which case the most highly specified one wins. But words do not. In DM, for words to be related means that one structurally contains the other. This is the case with *-ness*, but all that *glory* and *glorious* share is an abstract root, not a categorized word.

This brief overview necessarily left out a large number of details, of which three loose ends should be mentioned. The first is that the question of how many different little *n* heads exist has not yet been answered authoritatively (see Chapters DERIVATIONAL MORPHOLOGY, INTERPRETATION OF STRUCTURES and ALLOSEMY, and cf. Baeskow 2012). The second is that some potential counterexamples to the English patterns exist, including attested cases of *gloriosity*; on these see the explicit discussion in Embick and Marantz (2008:24). Marantz (2001) also mentions *pomposity*, *monstrosity* and *porosity* (the meaning of the latter two is noted, in a slightly different context, in Aronoff 1976:39). The third is the possibility of “synonymy blocking” between words of different paradigms/roots in which e.g. *thief* ostensibly blocks *#stealer*. This mechanism of blocking was suggested by Giegerich (2001) and critiqued by Embick and Marantz (2008).

2.3 Word/phrase competition

The next type of blocking which has been proposed is that kind that holds between a word and a phrase. Following the influential proposal of Poser (1992), this has come to be known as “Poser-blocking”. Simply put, Poser-blocking is meant to regulate competition between a single word and a phrase, as when comparative *smarter* is preferred to *#more smart*: words block phrases when the word and the phrase would mean the same thing. Poser's main data came from English comparatives, Japanese causatives and Basque progressive forms. Important works discussing similar data include Di Sciullo and Williams (1987) and Andrews (1990).

How exactly this view should be formalized is a question that has received a number of different answers. Under Poser's original view, the fact that phrasal *more childish* is preferred to synthetic **childisher* is also part of this general pattern of blocking. Embick (2007) and Embick and Marantz (2008) set out to make this analysis explicit but concluded that it is incompatible with Lexicalist assumptions, the main conceptual reason being that the lexicon should not be able to block the creation of a phrase in a Lexicalist syntax. Bresnan (2001) proposed a view of blocking within Optimality Theory (OT, Prince and Smolensky 1993/2004) in which words and phrases can compete, introducing data from English auxiliary contraction into the mix; the predictions made by this analysis were likewise critiqued by Embick and Marantz (2008). Hankamer and Mikkelsen (2018) have recently argued that something like Poser-blocking could exist, but only when viewed through the lens of DM-blocking, that is, as competition between an affix and a free morpheme that is decided at VI. The Danish data are not reviewed here for reasons of space, although that debate should also be seen as an integral part of the literature on this topic.

Regardless of how the problem of formalizing these kinds of patterns is resolved, it cannot arise in a theory like DM which is architecturally skeptical about blocking. As with word/word competition, DM has by design no way of contrasting the derivation of a word with the derivation of a phrase. The rest of this chapter will be dedicated to how three cases where such blocking could be argued for have been discussed in the recent literature. First, however, I will briefly formalize two approaches to word/phrase competition implemented in OT.

2.3.1 OT Blocking

The theory I dub OT Blocking, proposed most explicitly by Kiparsky (2005, 2010), posits competition based on two contrasting constraints, MARKEDNESS and EXPRESSIVENESS. The former is a typical markedness constraint, which can be relativized to the phenomenon under discussion (as we will do in the case studies that follow). The latter is a faithfulness constraint which requires that all meaning in the input be represented in the output.

- (18) a. **MARKEDNESS** (Kiparsky 2010): Avoid complexity.
This constraint was introduced as ECONOMY in Kiparsky (2005:114) where it required that the simplest expression be chosen.
- b. **EXPRESSIVENESS** (Kiparsky 2005): Express the meaning of the input (FAITHFULNESS in Kiparsky 2010:318).

For the English past tense *John left*, the expression of past tense morphology appears as a suffix rather than an independent auxiliary because MARKEDNESS prevents too many words from expressing the same idea.

(19) *John left*:

	John ₁ PAST ₂ leave ₃	MARKEDNESS	EXPRESSIVENESS
	a. John ₁ did ₂ leave ₃	*!	
☞	b. John ₁ left _{2,3}		

Contrasting (19) with focused *John DID leave*, the theory needs to employ different MARKEDNESS and EXPRESSIVENESS constraints. Kastner and Zu (2017) formalize Kiparsky's analysis of focus in English as follows. ✓*John left* does not block emphatic ✓*John DID leave* because the latter carries focus; indeed, Kiparsky (2010:319) suggests that blocking only holds within paradigms, when different expressions are synonymous. Kiparsky (2005:114) similarly takes competition to hold only in inflection. Assuming that pronouncing focus counts as an extra violation of MARKEDNESS, the analysis would have to index a highly-ranked EXPRESSIVENESS(FOCUS) constraint focus constructions, beyond the general faithfulness constraint to input meaning. Otherwise the most harmonic candidate would be unmarked (20c).

(20) *John did_{FOCUS} leave*:

	John FOCUS PAST leave	EXPRESSIVENESS(FOCUS)	MARKEDNESS	EXPRESSIVENESS
☞	a. John <i>did</i> _{FOCUS} leave		**	
	b. John did leave	*!	*	*
	c. John left	*!		*

2.3.2 Neutralization

The other formalization of blocking between phrases takes as a given that different candidates might have different meanings. This view is encapsulated in the Neutralization approach to competition, also within OT (Legendre et al. 1998; Legendre 2009; Müller 2011, 2013). In this line of work the candidate with the *closest* meaning to the input might be chosen.

The case of multiple *wh*-questions from Legendre (2009) serves to explain. Assume that each clause with a *wh*-question contains an operator, Op, which in English and many European languages attracts the *wh*-phrase. Two Op heads would then attract two distinct *wh*-phrases. But different languages handle multiple *wh*-phrases in different ways: Bulgarian fronts both, (21a), English leaves one in situ, (21b), and Chinese leaves both in situ, (21c).

(21) Input: [Op₁ Op₂ [DP [wh]₁ ...V ...DP [wh]₂]]

- a. *koj₁ kakvo₂ na kogo e da?* Bulgarian
who what to whom has given
'Who gave what to whom?'
- b. *Who₁ bought what₂?* English
- c. *lisi geile shei₁ shenme₂?* Mandarin
Lisi gave who what
'What did Lisi give to whom?' (Kastner and Zu 2017:649)

In each of these languages, the right combination of markedness and faithfulness can determine how many phrases move. The combinatorics of these constraints generates the combinatorial typology in (21).

Where does Neutralization kick in? In Italian at least some speakers cannot construct multiple *wh*-questions at all. Without entering into specifics, this means that even though the input contains two question operators, the most harmonic candidate contains only one in the output. In other

words, despite the fact that the input contains two questions, the closest that a speaker can get to this construction is to ask a “regular” question with only one *wh*-phrase. The remaining part of the input—the second question *Op*—is thereby neutralized.

2.4 Interim summary

DM posits blocking as a grammatical mechanism only within a well circumscribed environment: competition for insertion of a Vocabulary Item under the Elsewhere Principle. This view necessitates that all other cases of blocking, at any “higher” level—be it between two words, between a word and a phrase, or between two phrases—must find a different explanation. The next two sections examine a number of case studies, how these have been analyzed within DM, and what weaknesses have been identified with analyses relying on blocking.

3 Synthetic and analytic comparatives

The proper analysis of comparative and superlative forms in English has had substantial influence on theories of morphology over the past two decades. The main contrast is that which holds between the **synthetic form**, i.e. one phonological word (*bigger*, *biggest*), and the **analytic form**, i.e. two or more phonological words (*more big*, *(the) most big*).² Almost everything I will have to say here applies equally to comparatives and superlatives, so I will focus on comparatives for simplicity.

Most of this section describes the blocking effect in more depth. For the purposes of this chapter I set aside completely the question of phonological restrictions on the form of the comparative (for example, quadrisyllabic *intelligent* cannot take the suffix *-er*, which prefers monosyllabic stems such as *smart*). The most recent comprehensive study of the phonology of English comparatives that I am aware of is Gouskova and Ahn (2016), which contains a useful synthesis of previous work as well. See Bobaljik (2012:Ch. 5.5) for some ideas on how to integrate the phonological findings into a theory of morphosyntax and Matushansky (2013) for a contrasting view.³

3.1 The blocking effect

To what extent does synthetic *smarter* block analytic *#more smart*, and to what extent does analytic *more intelligent* block synthetic **intelligenter*?

The general constraints dictating synthetic and analytic options are fairly well understood. For many monosyllabic gradable adjectives like *big*, the synthetic choice is the natural one, (22a). For adjectives larger than a certain prosodic size, the synthetic form is not possible and the analytic one is used, (22b). For non-gradable adjectives neither the synthetic nor the analytic forms are generally possible, (22c–d).

	Adjective	Synthetic	Analytic	Choice
(22) a.	<i>big</i>	✓ <i>bigger</i>	# <i>more big</i>	phonological
b.	<i>intelligent</i>	✗ <i>intelligenter</i>	✓ <i>more intelligent</i>	phonological
c.	<i>perfect</i>	✗ <i>perfecter</i>	# <i>more perfect</i>	semantic
d.	<i>done</i>	✗ <i>doner</i>	# <i>more done</i>	semantic

What does this general picture mean for (Poser-)blocking? We will assume that the synthetic and analytic form use the same comparative/superlative morpheme, Deg. Implementing an analysis in terms of MARKEDNESS and EXPRESSIVENESS as summarized in Section 2.3.1, Kiparsky (2005) presents a straightforward blocking analysis. Synthetic and analytic forms are assumed to mean the same thing, hence they are equally Expressive. The analytic form is made up of two phonological words, therefore it is more Marked. All else being equal, the synthetic form is chosen:

2. These are sometimes referred to as “morphological” and “periphrastic”, e.g. by Bobaljik (2012).

3. I assume throughout that contexts which allow one variant exclude the other. Hilpert (2008) and Aronoff and Lindsay (2014) present challenges to this view.

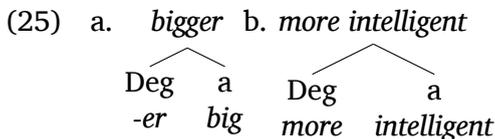
	Deg + smart	MARKEDNESS	EXPRESSIVENESS
(23) a. smarter			
b. more smart		*!	

One of the original arguments levelled against Poser-blocking was that this state of affairs cannot explain why *intelligent* takes only analytic comparatives. The way out with a blocking analysis would be to assume a higher-ranked markedness constraint penalizing synthetic forms with incompatible stems (Embick and Marantz 2008:33), one which I simply call MARKED(PHONOCMPR); as noted in Section 2.3.1, the theory needs to allow room for additional markedness and faithfulness constraints.

	Deg + intelligent	MARKED(PHONOCMPR)	MARKEDNESS	EXPRESSIVENESS
(24) a. intelligenter		*!		
b. more intelligent			*	

3.2 Comparative competition without blocking

In DM, the difference between synthetic and analytic comparatives must be viewed as competition at the VI level. The trees in (25) show the basic idea (skipping various details such as the node labels and the exact placement of the root or the categorizer): Deg will be spelled out differently depending on the adjective. We return shortly to the question of morphotactics, i.e. whether Deg will be a suffix or its own phonological word.

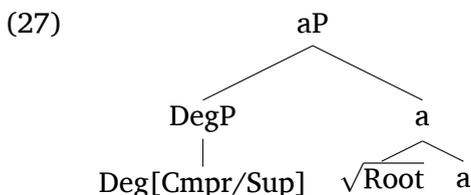


The phonological constraint can be translated into two lists for the purposes of VI, (26). The analytic form is the elsewhere case, so we might say that the suffixal form of Deg blocks the stand-alone one for certain adjectives (although the inverse makes just as much sense; see Embick 2007:13ff for related discussion).

$$(26) \text{ Deg} \leftrightarrow \begin{cases} \text{a. } -er & / \text{ ___ } \{ \sqrt{\text{BIG}}, \sqrt{\text{SMALL}}, \sqrt{\text{STRONG}}, \dots \} \\ \text{b. } more \end{cases}$$

What kind of predictions does such a view make? The most immediate one is that since *more* is the elsewhere form of Deg, it might appear if the conditioning environment for *-er* is not met. A number of influential papers have explored this question, making different claims about the position of Deg and the adjective in the structure.

Embick (2007) follows Bhatt and Pancheva (2004) in assuming that DegP attaches to the adjectival phrase, here in the specifier of the adjective little a:



Once VI occurs, Local Dislocation applies to create the synthetic forms (Embick and Noyer 2001 and Chapter ADJACENCY AND LINEARIZATION). The rules below are general ones, applying to all roots from the list in (26), that is, all roots that can form comparatives. Notice in particular how no reference is made to alternatives such as *#more smart* or **intelligenter*.

(28) VI at the lower phase, little a (see Chapter CYCLICITY AND PHASEHOOD):

- a. [Deg [$\sqrt{\text{SMART}}$ a]] \rightarrow Deg + *smart*
- b. [Deg [$\sqrt{\text{INTELLIGENT}}$ a]] \rightarrow Deg + *intelligent*

(29) Linearization and Local Dislocation:

- a. Deg + *smart* \rightarrow *smart*-Deg (Local Dislocation applies)
- b. Deg + *intelligent* \rightarrow Deg-*intelligent* (Local Dislocation does not apply)

(30) VI at Deg:

- a. *smart*-Deg → *smart-er*
- b. Deg-*intelligent* → *more intelligent*

Embick and Noyer (2001) and Embick (2007) predict that since the synthetic form relies on linear adjacency, it cannot arise when this adjacency is disrupted. This is exactly what happens, they argue, in cases of intervening adverbs which form part of an aP scoping under the superlative operator. Assuming that the *-st* in *most* spells out superlative Deg (e.g. Bresnan 1973; Hackl 2009), the resulting linear order is (31). Deg is not linearly adjacent to Adj, giving the patterns in (32).⁴

(31) Deg + Adv + Adj

- (32) a. Mary is amazingly smart.
 b. Mary is the mo-st amazingly smart person. Deg > [_{aP} amazingly smart]
 c. *Mary is the amazingly smart-est person.
 d. *Mary is the amazingly most smart/intelligent person.

See Embick (2007:14) for examples with the comparative and additional discussion of alternative analyses in terms of head movement, Lowering and affixation in the lexicon.

Where does this leave us? Eschewing reference to blocking, in a theory in which competition plays no role beyond the Elsewhere Condition, provides an elegant analysis of comparative and superlative alternations (the works cited also argue against alternatives, both lexicalist and syntactic). For instance, Embick and Marantz (2008) argue that the comparative alternation cannot be considered a case of word/phrase competition in which a word blocks a phrase (Poser blocking). This is because Poser blocking operates on words (nodes). Examples like (33a) have the schematic structure in (33b). Deg scopes over the entire AdjP, so that there is no single node [_{AP} Deg quick] in the tree, a situation which should have led to *more quick*. In contrast, if the choice of form depends on rules applying under adjacency, *quick-er* is predicted correctly.

- (33) a. Mary is quick-er to spot counterexamples.
 b. [Mary [is [_{AP} Deg [_{AP} quick [_{TP} to spot counterexamples]]]]]

The next section considers a few more consequences of analyzing comparatives without reference to blocking as a morphological constraint, focusing on developments within the theory. We pick up the general thread in Section 3.4.

3.3 Further developments

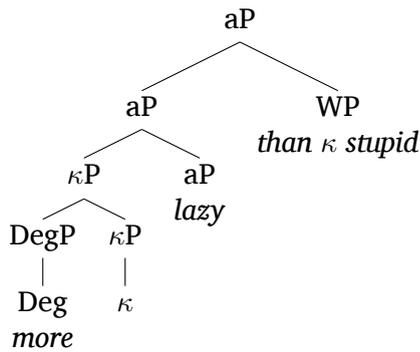
Deriving a synthetic comparative has been argued to require linear adjacency. But as is well known, cases of “metalinguistic comparison” like (34) involve linear adjacency of Deg and the adjective which nonetheless give rise to the analytic form. The ensuing line of argumentation holds that the structure of metalinguistic comparatives is different than that of regular comparatives, a difference which disrupts the adjacency condition in a specific way (Embick 2007).

- (34) a. It is more hot than humid.
 b. *It is hotter than humid.

Owing to a number of facts about the interpretation of metalinguistic comparatives which we will not go into here, Embick argues that what is compared is a degree of appropriateness or deviation, as opposed to a degree associated with the adjective itself (as is the case in regular comparatives). The semantic property of appropriateness is invoked by the element κ which heads its own κ P. DegP attaches to κ P, whereas in regular comparatives it attaches to the adjective, (27). The post-adjectival phrase is attached high, following Bresnan (1973). So in metalinguistic comparison, Deg combines with the adjective differently than in regular comparatives.

4. How these facts should be understood is a matter that has been discussed at considerable length by Kiparsky (2005), Embick (2007); Embick and Marantz (2008) and Matushansky (2013).

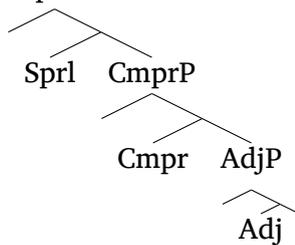
(35) Metalinguistic comparatives (Embick 2007:22):



Given (35) it is impossible to derive a statement in which Deg and the adjective are linearly adjacent to each other, since the only possible linear concatenations are Deg-κ and κ-lazy. As a result, Deg takes the elsewhere form *more* (in this case it is crucial that the null exponent of κ is not Pruned postsyntactically; cf. Embick 2010:59). The head κ, which is responsible for the “metalinguistic” interpretation of “metalinguistic comparatives”, disrupts the necessary adjacency condition.

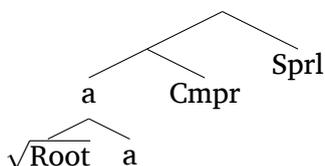
In a thorough study of comparative and superlative morphology, this time from a crosslinguistic perspective, Bobaljik (2012) argued for a difference between comparatives and superlatives. Instead of assuming that CMPR and SUP are both possible values of Deg, Bobaljik put forward his Containment Hypothesis: that the Sprl head is merged above the Cmpr head, which in turn is merged above the adjective, (36). Support for this proposal comes from crosslinguistically robust patterns of suppletion (see Chapter SUPPLETION).

(36) SprlP



For Bobaljik, contextual allomorphy can be triggered within a morphological word (X⁰). This means that (36) will simply be spelled out as the analytic form. In order to get the synthetic form, some morphological operation such as Lowering needs to bring the heads within the same complex heads:

(37)

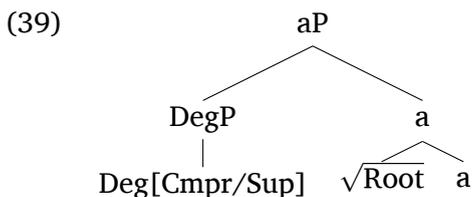


What is important for present purposes is that when both synthetic and analytic forms exist, it is only the synthetic one that can be suppletive. For example:

	Adj	comparative	superlative
(38) a.	old	old-er	more old
b.	good	bett -er	more good
c.	good	bett -er	X more bett

Matushansky (2013) highlights one theoretical consequence of these findings: Local Dislocation cannot be the right kind of analysis for comparatives, and it should be abandoned in favor of derivation via head movement in the syntax (see Chapter MOVEMENT). Two arguments are brought forward in support of this claim.

Bringing suppletive forms into the discussion, Matushansky notes that in an Embick-style system, the lower adjective must spell out before the higher Deg. The basic structure is (39), repeated here from (27).



The root is sensitive to the existence of Deg, whereby the latter can condition a suppletive variant of the former.

(40) $\sqrt{\text{GOOD}} \leftrightarrow \text{bett-} / \text{Deg } \underline{\quad}$

In Embick's system, Local Dislocation (synthetic affixation) and suppletion are orthogonal to each other. What this means is that four possibilities are predicted. Of these, however, only three are attested:

	LD?	Suppletion?	Adj	Cmpr/Sup
	✓ +	—	cute	cuter/cutest
(41)	✓ +	+	good	better/best
	✓ —	—	intelligent	more/most intelligent
	✗ —	+	wuggal	more/most galliwug

If a suppletive comparative form exists, an analytical form (in metalinguistic comparison or in superlatives) will still use the non-suppletive base form. Cases like *wuggal* ~ *most galliwug*, with suppletion in an analytic form, do not seem to exist. Matushansky proposes instead to build comparatives in the syntax via head movement, as I explain immediately below.

The second argument builds on Bobaljik's suggestion that change-of-state inchoatives are derived, crosslinguistically, from the comparative form of the adjective (rather than directly from the root), as with *worsen* (**badden*). Since word formation happens in the syntax, the comparative must first be formed in the syntax before a verb can be derived from it.

Matushansky (2013) prefers to analyze comparatives using head movement. She proposes that Deg has an uninterpretable feature [u:degree] and that little a has the interpretable [i:degree] feature. $\sqrt{\text{Root}}$ raises to adjoin to a and the a + $\sqrt{\text{Root}}$ complex raises to (affixal) Deg (if the phonology of the adjective is right). On this view, adjunction to Deg is crucial for synthetic forms, including suppletion. Therefore suppletion simply cannot happen in an analytic form, since suppletion occurs when the adjective raises to Deg and analytic forms result when Deg is spelled out separately.

Matushansky additionally provides arguments against the idea that DegP is merged in Spec,aP, a position which would be incompatible with either Lowering or head movement. See her paper for some discussion of reduplicated constructions like (42), from Jackendoff (2000).

- (42) a. smarter and smarter
 b. more and more intelligent

These details are all interesting in their own right but tangential to the general question of blocking, which we now pick up again.

What I would like to emphasize in this more technical detour is that even though we have now segued to discussing specific theoretical proposals within the literature, rather than blocking in general, there is no blocking. No direct competition between words and phrases is to be found: standard syntactic processes such as feature checking and movement either do or do not give rise to specific forms.

Recall that metalinguistic comparison utilizes analytic comparatives. What kind of competition holds between the two possible forms? For Embick (2007) there was none because a functional head implementing the metalinguistic comparative semantics intervened between Deg and the adjective, rendering it impossible to derive a synthetic causative, (35). In an analysis implementing comparatives in the syntax, such as Matushansky's, something else needs to be said. If synthetic morphology is due to the [degree] feature triggering head movement of the adjective to Deg, then we may assume that non-scalar adjectives do not bear [degree]. This much seems to be warranted, as non-scalar adjectives cannot form synthetic comparatives:

(43) *This is a realer/goldener/Frencher sword.

Nevertheless, non-scalar comparatives can form metalinguistic comparatives:

- (44) a. Becky's aunt is more French/dead/wrong than Napoleon.
 b. *Becky's aunt is Frencher/deader/wronger than Napoleon.

[Matushansky \(2013\)](#) argues that this is because the lack of [degree] on the adjective means it does not raise to Deg, and hence, does not trigger the synthetic comparative. Once again, there is no blocking regulating the two forms: certain processes apply when the semantically contentful [degree] feature, is at play, and others apply when it is not.⁵

Similarly for the case of intervening adverbs as in (32), [Matushansky](#) rejects an analysis based on linear intervention of the adverb between Deg and Adj in favor of an analysis relying on the [degree] feature. The details are complex and worthy of their own overview article. Some parts of the analysis are admittedly relevant to our general question of whether the synthetic and analytic forms block each other, but I will not recap them here. For example, [Kiparsky \(2005\)](#) engages with the question of intervening adverbs briefly but explicitly steps away from discussion of metalinguistic comparatives, whose distribution he assumes to be governed by other syntactic and semantic factors. His arguments regarding adverbs were countered, in different ways, by [Embick \(2007\)](#), [Embick and Marantz \(2008\)](#) and [Matushansky \(2013\)](#), leading to a more intricate understanding of the semantics of these constructions, including a tripartite typology of (intervening) adverbs.

3.4 Interim summary

This section started by considering the premise that a synthetic form like *smarter* blocks an analytic form like *#more smart*. Generally, the separation of lexicon and syntax forces these theories into positions in which the two modules compete with one another, a situation which should not be possible in Lexicalist work. Whenever structure factors into the equation, as with intervening adverbs or metalinguistic comparison, it poses immediate problem for lexicalist, blocking-based theories. In these cases the structural theories have been argued to make the right predictions.

Our discussion spent some time going beyond the original analysis in [Embick \(2007\)](#), even after the basic point about non-blocking was established. One reason was in order to highlight the dialectic between adjacency analyses (e.g. Local Dislocation) and structural analyses (e.g. head movement), since this debate can be found in another empirical domain: in the debate surrounding the Danish definite determiner mentioned in Section 2.3, [Hankamer and Mikkelsen \(2005, 2018\)](#) agree with the general premise of [Embick and Marantz \(2008\)](#) regarding blocking in DM, but in so doing shift the analysis from a Local Dislocation one to one based on competition between VIs of different kinds under syntactic sisterhood. To the extent that we are seeing a trend moving from adjacency analyses to structural ones, this is worth pointing out.

One last point should be made before moving on from comparatives. The literature is fairly unanimous on the idea that the synthetic and analytic forms have identical interpretations. I would like to mention the possibility that the two forms might not mean the same thing after all. For example, [Matushansky \(2013\)](#) notes in passing (while discussing a different issue) that in examples like (45), the synthetic forms have stronger readings than the analytic forms: *the most clear evidence* is clear, whereas *clearer evidence* could still be murky, and similarly something *subtler* could still be blunt, unlike something *more subtle* (arguably).

- (45) a. The {most clear / clearest} evidence comes from the third trial.
 b. The ending is even {more subtle / subtler}.

[Matushansky's](#) explanation of this suggested pattern is, however, syntactic. The synthetic forms here are scalar whereas the analytic ones are norm-related (binary, roughly speaking). This is exactly what we would expect given the [degree] feature, which triggers scalarity. Since this is the feature driving head-movement and synthetic forms, it follows that the norm-related forms are analytic and the scalar ones are synthetic.

5. What this part of [Matushansky \(2013\)](#) leaves out, it seems to me, is an explanation for why the [degree]-less forms in (i) are ruled out even as analytic comparatives with no head movement:

(i)*This is a more {real/golden/French} sword.

One possible explanation is that coercion, of the kind necessary to force a non-scalar adjective into metalinguistic comparison, is simply not available in environments with no explicit object of comparison such as (i). [Matushansky \(p.c.\)](#) speculates that the problem might lie with this being an identificational statement.

When synthetic and analytic forms do give slightly different readings, one possible factor could be the adjectives they are associated with. [Higgins \(1977\)](#) found that the higher a given adjective is on a scale (e.g. *huge* > *large*), the more likely its comparative form is to presuppose the truth of the positive form. That is to say, *more huge* entails *huge* to a greater extent than *larger* entails *large*. Exactly what factors feed into this pattern remains unresolved; the less “extreme” adjectives were for the most part synthetic and also more frequent.

It may well be that there really is no difference between the two forms as such, and that any difference in reading that does arise can receive an explanation in terms natural to the system (such as Matushansky’s [degree]). Nevertheless, this is an important exercise and one which we will repeat in the next section. In order to argue for blocking, one usually assumes that the competing forms mean the same thing. This has been the case for all theories discussed above, with the exception of Neutralization. We will now see how what at first looks like blocking is in fact non-competition between two forms which do not share the same meaning. The current section examined a case where one word could be said to compete with a phrase, while in effect there was no blocking. Next we will see a case where it was proposed that a phrase blocks a single word, but again we will see that there is no evidence for blocking in that sense, only DM-style blocking between VIs.

4 Synthetic and analytic passives

In both Modern Hebrew and Latin, a paradigm gap for a non-active synthetic verbal form finds a rough equivalent in an analytic form. It is tempting to consider the analytic form an expression of the same verb—that is, the same cell in a paradigm, or the same bundle of morphosyntactic features—in which case we would talk about competition between the two. However, it has been argued by [Kastner and Zu \(2017\)](#) that neither case survives closer scrutiny and as such, the analytic forms do not block the synthetic ones (counter to existing claims).

4.1 The blocking effect

4.1.1 Hebrew

Hebrew verbal morphology makes use of different morphophonological *templates* (see chapter NON-CONCATENATIVE MORPHOLOGY). Using X, Y and Z as stand-ins for the root consonants, we will focus on the two dedicated passive templates, *XuYaZ* and *huXYaZ*.

(46) Active and passive pair for \sqrt{jfv} in *XiYeZ*~*XuYaZ*:

a. *ha-filtonot jifv-u oto ba-negev*
the-authorities settle.INTNS-3PL him in.the-Negev
‘The authorities settled him in the Negev.’

b. *hu jufav be-negev (al-jedej ha-filtonot)*
he settled.INTNS.PASS in.the-Negev by the-authorities
‘He was settled in the Negev (by the authorities).’ (after [Alexiadou and Doron 2012:8](#))

(47) Active and passive pair for \sqrt{kns} in *heXYiZ*~*huXYaZ*:

a. *ha-xavera felo hexnis-a oto la-mesiba*
his-friend.F his insert.CAUS-F.SG him to.the-party
‘His girlfriend got him into to the party.’

b. *hu huxnas la-mesiba (al-jedej ha-xavera felo)*
he inserted.CAUS.PASS to.the-party by the-friend.F his
‘He was gotten into the party (by his girlfriend).’ (after [Alexiadou and Doron 2012:13](#))

In these templates a number of systematic paradigm gaps can be found, which one may be tempted to think of in terms of competition. First, there are no passive infinitives. In order to express the same idea, an analytic paraphrase can be used, utilizing the infinitival form of the copula with a passive participle.

- (48) a. *ha-misrad ratsa lejasev otam ba-Negev aval hem lo rats-u*
 the-office wanted to.settle.INTNS them in.the-Negev but they NEG wanted-3PL
 * _____ *šam*
 to.settle.INTNS.PASS there
 (int. ‘The office wanted to settle them in the Negev but they didn’t want to be settled there’)
- b. *ha-misrad ratsa lejasev otam ba-Negev aval hem lo rats-u lihiot*
 the-office wanted to.settle.INTNS them in.the-Negev but they NEG wanted-3PL to.be
mejušav-im šam
 settled.INTNS.PASSPTCP-3PL.M there
 ‘The office wanted to settle them but the didn’t want to be settled there.’

Second, there are no passive imperatives. Note that this is a morphological constraint: although the discourse in (49) is highly marked, it is in principle expressible in English, unlike in Hebrew. In order to express it in Hebrew, again an analytical form consisting of the copula and passive participle is used:

- (49) a. To the bouncer:
haxnes oto la-mesiba bevakašaf!
 insert.CAUS him to.the-party please
 ‘Let him into the party please’.
- b. To the boyfriend:
nu, tare lo teuda ve- _____ kvar!*
 well show to.him certificate and-insert.CAUS.PASS already
 (int. ‘Well, show him some ID and get let in already!’)
- c. ?*nu, tare lo teuda {ve-heje / ve-tihie}⁷ muxnas*
 well show to.him certificate and-be.IMPR and-you.will.be insert.CAUS.PASSPTCP
kvar!
 already
 ‘Well, show him some ID and get let in already!’

A brief summary is given in (50). There are also no dedicated passive nominalizations, a matter which might reflect a larger crosslinguistic tendency (Alexiadou 2001; Ahdout and Kastner 2018; Ahdout In prep).

(50) Different forms and gaps for Hebrew *jifev* ‘he settled’:

	Active	Synthetic passive	Analytic paraphrase
Past	<i>jifev</i>	<i>jušav</i>	<i>haja mejušav</i>
Infinitive	<i>lejasev</i>	—	<i>lihiot mejušav</i>
Imperative	<i>jašev</i>	—	<i>heje/tihie mejušav</i>

The question is whether the analytic forms and the synthetic gaps are in competition, whereby the analytic forms block the synthetic ones. This is exactly what has been traditionally assumed for Latin.

4.1.2 Latin

Latin has three tenses, of which we focus on present and past, and two aspects (perfect and imperfect). Our main interest here is the affix glossed NACT, also known as the “r-passive”, which appears on various non-active verbs including passives, (51), anticausatives, (52), reflexives, (53), and so on. See the characterization in Kastner and Zu (2017) and works cited there.

7. Contemporary usage tends to prefer the future tense over the imperative form in general, though nothing hinges on this difference.

- (51) *laud-a-ba-t-ur*
praise-Past-3SG-NACT
'he/she was praised'
- (52) a. *vulnus claudi-t-ur*
wound.NOM close-3SG-NACT
'The wound heals'
- b. *omnia mūta-nt-ur*
all.PL change-3PL-NACT
'All (things) change' (Ovid, *Metamorphoses* 17.165)
- (53) *vix tene-o-r quīn dīc-a-m*
scarcely hold-1SG-NACT that.not say-1SG-SBJ
'I can hardly keep myself from talking' (Plautus, *Casina* 239)

The examples above all show synthetic affixation of NACT. Now consider the perfect suffix. Each of the two, the nonactive and the perfect, can appear on their own as in (54)–(55). Yet the two cannot be combined. In order to express the same idea, an analytic form may be used, made up of the copula and the perfect participle and the copula, (56).

- (54) *laud-ā-t-ur*
praise-TH-3SG-NACT
'he/she is being praised'
- (55) *laud-ā-vi-t*
praise-TH-Perf-3SG
'he/she has praised'
- (56) a. **laud-ā-vi-t-ur*
praise-TH-Perf-3SG-NACT
(int. 'he/she has been praised')
- b. *laud-ā-t-us est*
praise-TH-PASSPTCP-NOM is.Imperf
'he/she has been praised'

This gap, and the way it can be filled, are reminiscent of the Hebrew case above. The table in (57) summarizes.

- (57) Different forms and gaps for Latin *laudat* 'he praises':

	Active	Synthetic nonactive	Analytic paraphrase
Present imperfect	<i>laudat</i>	<i>laudātur</i>	<i>laudātus est</i>
Present perfect	<i>laudāvit</i>	—	<i>laudātus est</i> ⁸

The literature—both traditional and contemporary—uniformly treats the analytic non-active perfect as part of the same paradigm as the synthetic forms. The sole outlier is [Kastner and Zu \(2017\)](#), who challenge the idea that any kind of paradigmatic relationship holds between the synthetic and analytic form of the non-active perfect. If they are correct, it is not possible to speak of blocking between these constructions and the gaps must receive some other kind of analysis. I recap their arguments below, first for Hebrew and then for Latin.

4.2 Competition without blocking: Hebrew

The main claim made by [Kastner and Zu \(2017\)](#) is that the distinction between synthetic and analytic forms in the contexts above is comparable to the distinction between verbal and adjectival passives (see the range of work from [Wasow 1977](#) onwards, as well as Chapter ARGUMENT STRUCTURE):

8. The choice of tense and aspect for the copula *sum* is a complex topic, which this table idealizes. For additional detail see [Gildersleeve and Lodge \(1903:§250\)](#), [Embick \(2000:189ff6\)](#), [Haverling \(2010\)](#), [Bjorkman \(2014:31ff28\)](#), and especially the recent discussion by [Burton \(2016\)](#). Thanks to Jaume Mateu for the literature pointers.

even though there are some intuitive similarities in the meaning of verbal and adjectival passives, their structure is different.

4.2.1 Differences between synthetic and analytic forms

As in many other languages, Hebrew passive verbs can be distinguished structurally from adjectival passives. The main resource for diagnostics distinguishing verbal and adjectival passives is the comprehensive work by Doron (2000) in Hebrew, which Kastner and Zu (2017) synthesize with observations by Kratzer (2000) and Embick (2004), and with work on Hebrew by Horvath and Siloni (2008, 2009), Sichel (2009) and Meltzer-Asscher (2011), arriving at three crucial differences.

First, while present tense forms are ambiguous between a verbal and adjectival reading, (58a), the future copula allows for only adjectival readings, (58b).

- (58) a. *ha-kontserto muklat* (synthetic)
 the-concerto record.CAUS.PASS.Pres
 ‘Someone is recording the concerto.’ (verbal)
 ‘The concert is on tape.’ (adjectival) (Doron 2000:47)
- b. *ha-kontserto jihie muklat* (analytic)
 the-concerto will.be record.CAUS.PASS.Pres
 ‘The concerto will be on tape.’ (adjectival only)

We are interested in infinitival (and imperative) constructions here. The same kind of difference is maintained, whereby the analytic (adjectival, stative) form does not entail that an event took place, only that the state holds, in contrast to the verbal form:

- (59) a. *ratsiti lihiot mesorak* (analytic)
 I.wanted to.be comb.INTNS.PASS.Pres
 ‘I wanted to be combed’ (adjectival only)
- b. *(ti)hie mesorak!* (analytic)
 be.IMP/FUT comb.INTNS.PASS.Pres
 ‘Be combed!’ (#‘Undergo a combing event!’)

Second, analytic forms may have an idiomatic reading as in (60a), yet synthetic passives are always compositional, (60b).

- (60) a. *ze jihie muvan me-elav* (analytic)
 this will.be understand.CAUS.PASS.Pres from-to.him
 ‘It will be self-evident.’ (idiomatic)
- b. *#ze juvan me-elav* (synthetic)
 this understand.CAUS.PASS.Fut from-to.him
 (no immediate clear meaning)

Idiomatic readings of analytic passives arise in infinitives, too:

- (61) *ha-balfanit garma la-hesber [lihiot muvan me-elav]*
 the-linguist caused to.the-explanation to.be understand.CAUS.PASS.Pres from-to.him
 ‘The linguist made the explanation be self-evident.’

Third, and immediately related to the state vs event distinction, synthetic passives force disjoint readings: the external argument and the internal argument cannot refer to the same entity. The analytic form allows such coreference but synthetic form does not:

- (62) a. *ha-jalda hajta mesorek-et* (analytic)
 the-girl was comb.INTNS.PASS.Pres-F
 ‘The girl was combed.’ (agent = / ≠ theme)
- b. *ha-jalda sork-a* (synthetic)
 the-girl comb.INTNS.PASS.Past-F
 ‘The girl got combed.’ (agent ≠ theme)

This patterns holds for infinitives just as well:

- (63) a. *ha-sapar garam la-jalda [lihiot mesorek-et]*
 the-stylist caused to.the-girl to.be comb.INTNS.PASS.Pres-F
 ‘The hair stylist caused the girl to be combed.’ (agent ≠ theme)
- b. *ha-jalda garma le-atma [lihiot mesorek-et]*
 the-girl caused to-herself to.be comb.INTNS.PASS.Pres-F
 ‘The girl caused herself to be combed.’ (agent = theme)

Kastner and Zu (2017) conclude that the synthetic and analytic forms have decidedly different structures.

4.2.2 Sketch of the analysis

Following Alexiadou and Doron (2012), and in line with a range of work across both syntactic (Doron 2003; Borer 2013; Kastner 2018; Ahdout and Kastner 2018) and lexicalist frameworks (Reinhart and Siloni 2005; Ussishkin 2005; Laks 2011), Kastner and Zu (2017) assume that passive verbs in Hebrew are derived using a dedicated head Pass which merges above VoiceP. Recall that verbal passives exist in the past, present and future but not in infinitives and imperatives (nor is there a dedicated form in the action nominal). The generalization is that these three constructions are all non-finite, leading to the following proposed selectional constraint:

- (64) In Hebrew, only finite T[FIN] licenses PassP; nonfinite T[-FIN] only selects for VoiceP or vP.
 (Kastner and Zu 2017:656)

Whether and how this constraint should be reduced to other processes is at this point tangential; as far as the discussion of blocking is concerned, (64) concerns itself solely with the derivation of verbal passives, making no reference to synthetic forms, correctly accounting for the behavior of three morphosyntactic contexts.

Verbal passives are derived using [Pass VoiceP], whereas adjectival passives are derived using [a VoiceP]. Assuming that verbal passives prohibit coreference of agent and theme, however formalized (Baker et al. 1989; Spathas et al. 2015), it follows immediately that this constraint holds for synthetic forms but not for adjectival forms. Kastner and Zu (2017) do not work through the logic of the three diagnostics explicitly; see Embick (2004) for additional illustrative derivations in English which can be transposed into Hebrew.

4.3 Competition without blocking: Latin

4.3.1 Differences between synthetic and analytic forms

The kind of argumentation put forward for Hebrew would ideally be applicable to Latin too. However, native speaker judgments are not available and the kind of necessary corpus work fell beyond the reach of Kastner and Zu (2017), preventing them from evaluating the argument from idioms (see their Appendix A). Since Latin non-active voice marks anticausatives, passives and reflexives, it allows for reflexive readings by definition, rendering the argument from coreference irrelevant. What this leaves is the challenge of showing that the two constructions have different sources, and therefore different structures.

The first step is fairly easy: the perfect participle used in analytic forms is part of the nominal-adjectival system, (65), in contrast to the verbal synthetic forms in Section 4.1.2.

- (65) Adjective and adjectival passive in Latin (Sadler and Spencer 2001):
- a. *Clodia roman-a est*
 Clodia Roman-3SG.F is
 ‘Clodia is Roman.’
- b. *Clodia laudat-a est*
 Clodia praise.PTCP-3SG.F is
 ‘Clodia is praised’, ‘Clodia has been praised.’

Bruening (2014) has argued that of the many tests proposed to tell apart verbal passives from adjectival passives, only a few survive scrutiny. One of these more reliable tests is, again, whether the

two forms have distinct sources of derivation, and specifically whether a given form has a “missing input” (Bruening 2014:408). For instance, *unkempt* hair was neither **kemped* nor **unkemped* to begin with: because the verb does not exist, the adjective must have been derived separately.

If the Latin forms are equivalent (part of the same paradigm), they ought to be derived from one underlying verb. Kastner and Zu (2017) schematize this hypothetical point in the following way:

- (66) active verb? $\begin{matrix} \rightarrow & \text{non-active verb} \\ \rightarrow & \text{perfect participle} \end{matrix}$

But Latin participles with “missing inputs” would look as follows:

- (67) a. source 1 \rightarrow non-active verb
b. source 2 \rightarrow perfect participle

Kastner and Zu (2017) argue that this is precisely the case with deponents, a class of verbs showing nonactive morphology despite active syntax. Deponents appear to take the suffix NACT as some kind of “morphological artifact”, since the verbs themselves are active (unergative or transitive). One typical example is verb *sequor* ‘to follow’, which differs from a regular verb like *amor* ‘to love’:

- (68) a. Regular verb, active/nonactive alternation:
amo-r ‘I am loved’ < *amō* ‘I love’
b. Deponent verb:
sequo-r ‘I follow’ $\not\leftarrow$ **sequō* (int. ‘I follow’)

The crucial point is that there is no active form of a deponent verb. Nevertheless, the perfect participle is derived as if from such a form, without NACT:

- (69) a. Regular participle, active stem:
amā-t-us ‘loved.PTCP’ \sim *amō* ‘I love’
b. Deponent participle, active stem:
secū-t-us ‘followed.PTCP’ \sim **sequō* (int. ‘I follow’)

The authors conclude that the perfect participle is derived independently of the active verb. Accordingly, the analytic (participial) form cannot have the same derivational base as the synthetic (verbal) form, (70). The two do not stand in direct competition, manifesting (67) rather than (66).⁹ See Kastner and Zu (2017) for additional discussion, including further references to the substantial literature on deponency.

- (70) a. root + verbal head + NACT \rightarrow non-active verb
b. root + adjectival head \longrightarrow perfect participle

4.3.2 Sketch of the analysis

As with Hebrew, the important point to establish was that the synthetic and analytic forms do not compete with one another. Accordingly, no blocking needs to be factored into the derivations. However, the question still remains of what rules out the synthetic gap. Kastner and Zu (2017) speculate that a particularly intricate conditioning environment for contextual allomorphy is the culprit.

The exponents of Voice, Perf and T + Agr vary widely from context to context, as discussed within DM by Embick (2010) and Kastner and Zu (2017). I skip some of the details and join the discussion of Kastner and Zu (2017) once it has been established that the linear order of exponents is (71):

- (71) $\sqrt{\text{root}}\text{-TH-Voice/Non-active Voice-(Perf)-T + Agr}$

Two conditioning environments can be established, shown here schematically. The first is that the exponent of Perf is sensitive to the identity of the root, (72).

9. Sadler and Spencer (2001) argue for an analysis that flips this approach on its head, claiming that the analytic form is borrowed to fill in an empty paradigm cell.

(72) VIs for Perf (Kastner and Zu 2017:674):

$$\text{Perf} \leftrightarrow \begin{cases} \text{a. } i & / \{ \sqrt{\text{COME}}, \dots \} \\ \text{b. } si & / \{ \sqrt{\text{WRITE}}, \dots \} \\ \text{c. } v/vi & / \{ \sqrt{\text{LOVE}}, \dots \} \end{cases}$$

Root Th Voice Perf T
 '-----↑

The second is that non-active Voice is sensitive to the phi-features on T + Agr, (73).

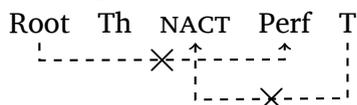
(73) VIs for non-active Voice (Kastner and Zu 2017:675):

$$\text{Voice}_{[-D]} \text{ (NACT)} \leftrightarrow \begin{cases} \text{a. } ri & / \text{2SG } _ \\ \text{b. } mini & / \text{2PL } _ \\ \text{c. } ur & / \text{3rd } _ \\ \text{d. } r & / \text{1st } _ \end{cases}$$

Root Th NACT (Perf) T
 ↑-----i

Now consider a situation in which both Perf and non-active Voice need to be spelled out, a configuration schematized in (74). Kastner and Zu (2017) propose that in this case, overt Perf intervenes between NACT and T + Agr at the same time that overt NACT intervenes between Perf and the root. As a result, the correct allomorphs cannot be chosen and the structure is ineffable.¹⁰

(74) Crossing paths in Latin contextual allomorphy:



Once again, what is important for our purposes is that this view makes no reference to the analytic form; the complexities of the synthetic form are dealt with on their own terms. One way or another, they have a structural cause, namely that this gap is related to the overt Perf head which appears exactly between the position in which NACT is generated and the position it is sensitive to, T + Agr.

With the arguments against blocking in Hebrew and Latin established, let us consider what a blocking-based analysis would look like in each case.

4.4 Blocking analyses: Hebrew

If the synthetic and analytic forms indeed realize different structures, then they cannot be compared under Kiparsky's OT Blocking (Section 2.3.1). This is because MARKEDNESS and EXPRESSIVENESS only regulate within-paradigm (inflectional) patterns (Kiparsky 2010), meaning that the two forms must be listed in separate paradigms. As a result there is no paradigm gap and no blocking. Crucially, OT Blocking needs to acknowledge that non-derivable expressions exist. Once it allows for non-derivable expressions, the notion of blocking becomes irrelevant; the strong claim against OT Blocking is that *any* case of purported blocking can be reduced to non-derivation of a certain given form. This is, in essence, the DM view.

Alternatively, the Neutralization view from Section 2.3.2 accepts the premise that synthetic and analytic forms have different meanings. Given that Neutralization allows deviations from the input meaning to be neutralized, the question is how these deviations are assessed. Kastner and Zu (2017) argue that the answer is only straightforward with cases like *wh*-movement and scope facts as explained earlier. If two operators have the order [Op1 Op2], whereas one candidate has [Op2 Op1] and the other [Op1], it is relatively clear what assumptions need to be made (namely quantity vs order). The case of Hebrew, they claim, is far less clear: faithfulness to stativity, idiomatic interpretation and coreference must all be countenanced.

Exemplifying with the infinitival passive *lihiot mesorak* 'to be combed', they construct the tableau in (75). Here the synthetic gap competes with the analytic adjectival passive but also with an additional candidate, a past tense passive verb, (75c). The synthetic candidate violates whatever Marked-

10. One question which arises is why the default forms of these morphemes are not chosen. It is possible that the various allomorphic interactions make it difficult for the learner to establish one default form in each case.

ness constraint is relevant. The adjectival passive violates three semantic faithfulness constraints which correspond to the three differences in meaning. The last candidate violates faithfulness to input tense.

(75) Analytic form in a paradigm gap for ‘to be combed’:

	T _[-Fin] ₁	PASS ₂	COMB ₃	MARKEDNESS	FAITH(STATE)	FAITH(T)	FAITH(IDIOM)	FAITH(COREF)
	a. F ₁ F ₂ F ₃ (Synthetic, gap)			*!				
desired [☞]	b. lihiot ₁ mesorak _{3,4}				*		*	*
actual [☞]	c. sorak					*		

The analytic form is the eventual winner even though going by sheer number of violations, (75c) has only one violation of Faithfulness and should be most harmonic. To account for the facts, faithfulness to (nono-finite) tense would need to be ranked higher: FAITH(TENSE) >> FAITH(STATIVE), FAITH(IDIOMS), FAITH(COREFERENCE). Kastner and Zu (2017) identify two issues with this kind of blocking account.

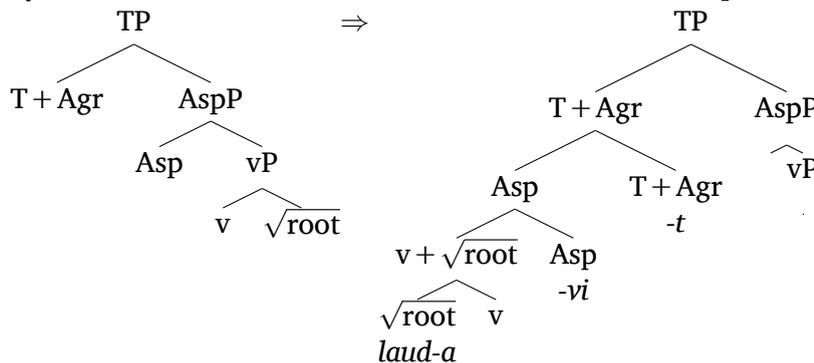
The first is that the grouping together of the three semantic faithfulness constraints is an accident; as outlined above, the literature on adjectival passives has shown that these three differences arise because of the difference in structure between the two forms, an explanation which is lost if an account such as Neutralization disregards the structural reasoning. The second is that the factorial typology predicts that in some language, it should be possible to have the ranking FAITH(IDIOMS) >> FAITH(TENSE) >> FAITH(STATIVE), FAITH(COREFERENCE). This situation would be unexpected on a structural view like the one reviewed above.

4.5 Blocking analyses: Latin

In contrast to the Hebrew data, The Latin case has been discussed in the literature within a range of frameworks, including DM (Embick 2000; Bjorkman 2011, 2014; Haugen and Siddiqi 2013), Paradigm Function Morphology (Sadler and Spencer 2001) and OT Blocking (Kiparsky 2005, 2010). What these analyses all have in common is the implicit or explicit assumption of equivalence or competition of some kind between the synthetic and analytic form. More concretely, in each of these accounts, the same process that disallows the synthetic form also gives rise to the analytic form. This view stands in contrast to what was presented above.

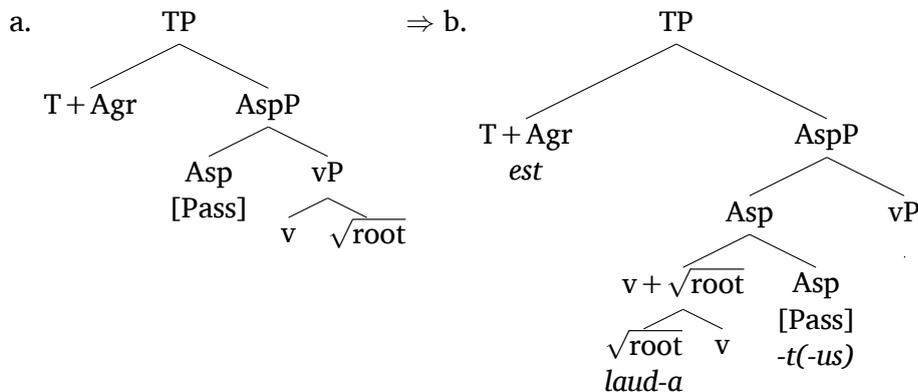
Embick (2000), for example, proposes that a [Pass] feature on Asp blocks adjunction of Asp to T, bleeding formation of the complex head $\sqrt{\text{root}}\text{-TH-Asp}$.¹¹ It is crucial here that surface order is derived by head movement, (76). If Asp cannot raise to T, then T + Agr are spelled out in a separate phonological word; an analytic form, (77). Bjorkman (2011, 2014) and Haugen and Siddiqi (2013) provide variants of this basic ideas, the details of which I will omit (but see chapter FUNCTION WORDS VS AFFIXES).

(76) Synthetic form for the active verb *laudāvit* ‘he/she has praised’, (55):



11. I leave out Theme and case nodes in the trees below.

(77) Analytic form for the non-active perfect *laudātus est* ‘has been praised’ with [Pass] on Asp, (56b):



The Asp head is thus the locus of competition: it carries the non-active feature [Pass] in verbal structures but also serves to adjectivize verbal structures into participles. It is important to note that these are not explicit blocking analyses: the existence of the synthetic form is not ruled out because it loses the competition with the analytic form. What happens is that the synthetic form is not derivable, allowing the analytic form to surface as some kind of repair. These systems therefore allow for competition between the two forms but do not regulate it via blocking.

Kiparsky (2005) does propose a blocking explanation for the gap within OT Blocking. This analysis proposes that the MARKEDNESS violation for the synthetic form arises because too many syntactic features try to be expressed in single word. Once again, this analysis is only coherent if the two forms are equivalent with regards to EXPRESSIVENESS, which they might not be. An additional issue pointed out by Kastner and Zu (2017) is that the analysis is underdetermined with regards to what constitutes a violation of MARKEDNESS; Kiparsky (2005:126) is careful to note that a combination of three features need not violate MARKEDNESS, only that a violation is *likely* to emerge where three features combine.

4.6 Summary

This section examined two cases of what we might call inverse Poser-blocking: situations in which an analytic form is used instead of a synthetic one. In both Hebrew and Latin, evidence can be found according to which a verbal synthetic non-active form exists independently of an adjectival passive. The structural differences between the two forms lead to grammatical differences, arguably indicating that the two do not compete and therefore do not need to be regulated by a grammatical mechanism of blocking. This point which leads us to the concluding remarks for this chapter, in which I emphasize that delimiting what kind of blocking might exist enables us to formulate falsifiable hypotheses about competition between forms.

5 Conclusion

Although the title of this chapter is “Blocking”, most of the time was spent explaining why various phenomena are not, in fact, the result of blocking processes. The only part directly discussing how blocking works within DM was Section 2.1, in which we saw that the specific kind of blocking that exists in DM—that is, a grammatical mechanism regulating competition between different forms—is narrowly circumscribed to be the choice of exponent at Vocabulary Insertion. Nevertheless, it is instructive to see exactly what counts as blocking in different frameworks, as this comparison serves to highlight their similarities, differences, and the potential points in which one can be preferred or rejected.

Since DM eschews blocking in almost all senses in which the term is otherwise used in the morphological literature, this chapter has been inherently biased against the non-DM works it summarizes. Nevertheless, making the claims explicit can only help in advancing our understanding of blocking

and competition. Two final points are now worth making: what this all means for competition in grammar, and what kind of work remains to be done.

5.1 Competition

This chapter summarized work exploring the view that blocking is regulated by the grammar (be it syntax, semantics or morphophonology), whereas competition is not. To be sure, the concept of competition can be invoked with insightful results when it is properly defined (Sichel 2014). What I would like to advocate is simply a more precise use of this term when using it as an explanatory tool.

What the brief history of blocking in DM shows is that when competition is posited between two forms, in particular between a synthetic and an analytic one, their equivalence in syntactic or semantic terms cannot be assumed; it must be argued for. The lack of blocking beyond the VI level follows directly from the basic principles of DM. The immediate consequence is that if cases of word-level or phrase-level blocking/competition can be claimed to exist, investigating them more closely will have a number of benefits. We will perhaps find support for the hypothesis explored in this chapter, or we will be able to falsify it in favor of something like OT Blocking. After all, if a language were found in which synthetic and analytic forms truly are equivalent in meaning, then they would be equivalent in terms of EXPRESSIVENESS. That kind of finding is not predicted to be found on a strong reading of the approach outlined here, but is compatible with OT Blocking.

The type of analysis promoted in this chapter also leads us to ask more in-depth questions about the synthetic and analytic forms separately from each other, leading to additional discoveries. I conclude by highlighting a few cases that invite additional study.

5.2 Prospects for future work

My aim here is to neither critique the analyses proposed in the works below nor advocate for them. If my overview in this chapter was clear, I hope it can spur more explicit analytical work (perhaps synthesizing different approaches).

A few phenomena have received in-depth treatments in the past few decades, settling for the most part on accounts that do not invoke blocking in order to explain competition or competition-like phenomena. These are the case of Japanese causatives, which have synthetic and analytic forms interacting with idiomatic and transparent meanings (Miyagawa 1998; Harley 2008; Oseki 2017); the Danish definite determiner and the argument for or against Poser-blocking, already mentioned earlier (Embick and Noyer 2001; Embick and Marantz 2008; Hankamer and Mikkelsen 2002, 2005, 2018; Katzir 2011; Norris et al. 2014); and French anticausatives with or without the reflexive clitic *se* (Labelle 1992; Labelle and Doron 2010; Martin and Schäfer 2014; Legendre et al. 2016).

Less discussed, but no less interesting, are various cases in which a relationship can be proposed between synthetic and analytic forms (Bonami 2015; Lee and Ackerman 2017; Fenger 2018) or between members of different paradigms (Laks 2014, 2018). The literature discussing free variation and how it might turn out to have certain organizing principles may also be relevant (Dressler et al. 2014; Mondorf 2014; Levshina 2018; and chapter MORPHOLOGICAL VARIATION). And finally, some recent work within DM has attempted to carve out a distinct place for competition, arguing that some competition holds at an extra-grammatical level with grammatical consequences (Martin and Schäfer 2014; Ahdout and Kastner 2018; Ahdout In prep). In all of these cases, as well as the cases surveyed in this chapter, progress can be and has been made once we treat the notion of competition between forms skeptically, in line with the basic principles of DM.

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