# Blends: an intermediate category at the crossroads of morphology and phonology

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## Abstract

Blends are traditionally seen as irregular and unsystematic. In this paper it is shown that one must make a distinction between stub compounds or clipped compounds (*sitcom*, *misper*) and real blends (*brunch*, *advertorial*). In much of the literature on blends, however, stub compounds are classified as blends.

Stub compounds appear to be compounds and follow the Compound Stress Rule, whereas blends turn out to form a category of its own. Blends exhibit a right-hand head and insofar they can be compared to compounds. However, their prosodic structure is a copy of the second source word, the word where the final part of the word comes from. The analysis presented here demonstrates that blends consist of one prosodic word, whereas compounds consist of two. This proves that blends are an intermediate category of their own at the intersection of phonology and morphology. The examples discussed mainly come from English. Data from Dutch and German is also presented.

**Keywords:** blends; clipping; stub compounds; prosodic word; phonology-morphology interface.

## 1. Introduction

The aim of this paper is twofold: first it will be shown that blends are fully systematic,<sup>1</sup> secondly it will be demonstrated that blends form a separate category at the crossroads of morphology and phonology.

Marchand (1969: 451–454) discusses blends at the very end of his classic handbook on English word formation in a chapter called briefly "blending and word-manufacturing". This placement and the very brief treatment indicate that, according to him, blending cannot be put on par with the main processes

<sup>&</sup>lt;sup>1</sup> Against a.o. Conolly (2013: 3) who claims that blending is irregular and unpredictable.

of word formation such as compounding, prefixation, suffixation and zero derivation. Moreover, Marchand (1969: 451) complains that "the term blending is generally used for quite heterogeneous things", such as the incidental change from words associated with other words, for instance "the change from OE gefan into gifan under the influence of niman", next to "folk-etymologies, secretion of suffixes and manufactured words". In addition, he claims that "blending can be considered relevant to word-formation only insofar as it is an intentional process of word coining". Blending, according to Marchand, "is compounding by means of curtailed words. However, the clusters sm and og [from *smoke* and *fog* and together forming the blend *smog*] were morphemes only for the individual speakers who blended them, while in terms of the linguistic system as recognized by the community, they are not signs at all. Blending, therefore, has no grammatical, but a stylistic status. The result of blending is, indeed, always a moneme, i.e. an unanalysable, simple word, not a motivated syntagma". Although Marchand is right when he claims that blends are monemes, as will be demonstrated, they can be analysed as will be shown in this paper.

Whereas Marchand considered blending to be a marginal case, Renner, Maniez and Arnaud (2012: 2) point to "the relative productivity of the process in Late Modern English" and the "variety of typologically different languages" for which blending is attested. Ayto (2003: 185) notices that the number of blends appears to have multiplied in English in the course of the 20th century. He shows a diagram with the number of blends by decade between 1900 and 1990. From these figures one can only support the conclusion Bryant (1974) drew thirty years before that "blends are increasing", as the title of her article is. The figures also support the claim by Cannon (1986: 736–737, Canon 2000: 956) that blending seems to have developed into an important word formation pattern. Bauer (1994: 37-38) even goes a step further in his discussion of different types of word formation processes in English over the period from 1880 till 1982. He claims that there is an increase of blends and 'abbreviations' as opposed to a decrease in the number of words derived by suffixation in the same period.<sup>2</sup> Brdar-Szabo and Brdar (2008: 190) conclude that any language, in which once finds compounding and clipping, may exhibit blending. Renner

 $<sup>^2</sup>$  However, the number of suffixations in his corpus remains a multiple of that of "abbreviations, blends and shortenings". The number of suffixations dropped from 289 to 222 between 1880 and 1982. The number of blends increased from 7 to 16 and of shortenings (clipped forms and back formations) from 13 to 17 during the same period. What Bauer calls abbreviations are letter words and acronyms. Their number increased from 2 to 13.

(2015: 121–122) lists Korean, Malay, Mandarin and Modern Hebrew as languages next to Indo-European languages in which blending has been documented. Renner (2018: 2) describes blending as one of the most expansionist processes in word formation, that can easily be copied from English into other languages. Balteiro and Bauer (2019: 2) notice that "blends seem to be everywhere, from the most technical language to the most informal, even in slang". In addition, Mattiello (2019: 24) concludes on the basis of "a lexicographic investigation combined with a corpus-base analysis that blending is growing as a word-formation process".

This productivity and easy borrowability make it difficult to still dismiss blending as marginal.<sup>3</sup> Therefore, the new handbook by Bauer et al. (2013: 458-462) no longer pushes blending aside and describes it as a type of compounding, just as Beliaeva (2019a), who regards blends a subtype of compounding, albeit with phonological restrictions resulting in blends being a single word. In this respect she follows the conclusion of Bauer et al. (2013: 458), who claim that blends "behave like other compounds" semantically, "but stress-wise they behave like a single word, normally adopting the stress pattern of one of the two source words". However, Bauer et al. must admit that there is "no agreed definition of the phenomenon". They discuss two types, the first involves loss of medial segmental material of both source words as in brunch from *breakfast* + *lunch* and the other in which both final segments of the two source words are truncated as in *modem* from *modulator* + *demodulator*. This second type is called "clipped compounds". However, the authors continue "it is not immediately obvious whether the distinction between blends and clipped compounds is theoretically or empirically informative".

Clipped compounds are also called "clipping compounds" (Bauer et al. 2013: 458), "complex clippings" (Bauer 2019: 92) or "stub compounds" (Spencer 1998; Hamans 2018a). Hamans (2018a) prefers the term stub compounds, since stubs are mainly bound elements whereas clippings may appear as free forms (see Hamans 2018b). Because of this reason the term stub compound is used here.

In the remaining of their analysis Bauer et al. mistakenly sweep the two types together into a heap, as will be shown here. Therefore their conclusion

<sup>&</sup>lt;sup>3</sup> However, Dixon (2014: 69) mentions blends only once in his book entitled *Making new words*. He warns that what he calls "analogical adaptations" – series formed on the basis of models such as *landscape* or *Watergate* – should not be confused with blends. Of the latter he only gives four well-known examples, *smog*, *brunch*, Lewis Carrol's *chortle* and *Oxbridge*.

"blends are a productive word-formation process in English which, in spite of the considerable variability, conforms to a number of general principles and tendencies that highly restrict the structure of possible formations" (Bauer et al. 2013: 462), can be stated even more strictly.

The data discussed in this paper come from the literature about blends.

## 2. Two types

As said before Bauer et al. (2013: 458) distinguish two types of blends. Both types combine portions of two source words. The first type "involves the loss of medial segmental material" or, to put it differently, combines the first or left part of the first source word (sw1), the left source word, and the last or right part of the second, the right one (sw2), as in (1).

(1)	sw1		sw2	blend
	breakfast	+	lunch	$\rightarrow$ brunch
	smoke	+	fog	$\rightarrow$ smog
	stagnation	+	inflation	$\rightarrow$ stagflation
	advertisement	+	editorial	$\rightarrow$ advertorial

In the second type final segmental material of both source words is truncated.

(2)	sw1		sw2	stub compound
	modulator	+	demodulator	$\rightarrow$ modem
	picture/pix	+	element	$\rightarrow$ pixel
	situation	+	comedy	$\rightarrow$ sitcom
	frozen	+	yoghurt	$\rightarrow$ froyo

"The two patterns can be formalized as in (3), where AB stands for the left base (with its two parts A and B) and CD stands for the right base, with its two parts C and D" (Bauer et al. 2013: 458).

 $(3a) \qquad AB + CD \rightarrow AD$ 

 $(3b) \qquad AB + CD \rightarrow AC$ 

The formalization of (3a), which says that the first part of the first source word, sw1, must be combined with the final part of the second source word, sw2,

leads to blends tout court. The pattern of (3b), where the first portions of both source words, sw1 and sw2, are combined, results in clipped compounds to use the terminology of Bauer et al. (2013: 458) but what is called here stub compounds

In the remaining of this paper it will be shown that the difference between AD and AC concatenations, or between blends and stub compounds, corresponds with other formal features and that both types of concatenations are systematic.

Beliaeva (2014a, 2014b, 2015, 2016, 2019b) emphatically points out that there are also blends where either or both source words remain fully present in the resulting blend. The presence of a complete word can be of great importance for recognizability, and therefore for possible interpretation. Hence the emphasis that Beliaeva, who focuses on the recognizability of blends, places on this. Because of this difference in recognizability it makes sense for her to distinguish categories of blends in which one or more complete words are included. However, whether or not a complete word has been preserved is unimportant to the formal analysis of blends. Most of Beliavea's data containing full words can easily be described as AD blends.<sup>4</sup>

#### 3. Stub compounds

Gries (2006 and 2012) analyses different kinds of "subtractive word formation" from a cognitive linguistic perspective. In this context he convincingly demonstrates by using sophisticated statistical techniques that there is a difference between blending and stub compounding. The differences he notes

<sup>&</sup>lt;sup>4</sup> An anonymous reviewer also wonders whether a third category containing one or two source words in full should perhaps not be distinguished. (S)he gives the following blends from the OED as examples: *cannabutter, freegan, listicle, anecdata* and *voluntourism*. As the remainder of this paper will demonstrate, the first three examples are perfect AD blends: *cannabutter < cannabis + peanut butter, freegan < free + vegan* and *listicle < list + article*. In these examples two respectively one syllable has been truncated from sw2 and exactly the same number of syllables of sw1 has been inserted in sw2. OED's suggestion that *cannabutter* is a blend from *cannabis* and *butter* must be rejected. It is much more likely that sw2 of *cannabutter* is *peanut butter*. The next example *anecdata* (*< anecdotal + data*), with main stress on the first syllable, turns out to be a well- formed AC stub compound. The final example *voluntourism* (*< voluntary + tourism*) is unclear. The stress pattern as given in the OED with main stress on the prefinal syllable and secondary stress on the first suggests that the form is an AD blend. The first two syllables in *voluntourism* are then unparsed as will be shown in Section 5 and 6.

are quite heterogeneous and can mainly be found in the degree of productivity between the two types, the amount of segmented material remaining in the final form, the degree of similarity between the source words and finally the absence of an overlapping part in the stub compounds. Beliaeva (2014a, 2014b, 2015, 2016) bases her research on Gries (2006) and notices that stub compounds go back to words that co-occur frequently, whereas blends tend to be formed from words, which are semantically and phonetically similar. Beliaeva (2014 a and b) studies, among onther things, the distribution of phonemes in stub compounds and blends. She combines the results thereof with semantic differences and then comes to the conclusion that there is a difference between AC and AD concatenations. AC concatenations or stub compounds are contractions of existing compounds, whereas AD concatenations or blends are the result of creative word formation. However, there are enough marginal cases for this distinction not to become absolute. In addition, it is doubtful whether her assumption that AC formations derive from the frequent co-occurrence of the two source words is correct. To take just a few AC examples from Belaieva (2014), the stub compounds botox, hazmat and modem do not come from frequently co-occurring source words. The respective combination of source words are: botulism + toxin, hazardous + material and modulator + demodulator. These examples do not confirm Beliaeva's claim (2014b: 80) that AC concatenations tend to merge together words which could appear as a compound or appear as contractions of existing compounds (Beliaeva 2014a).

The data presented so far are sufficient to follow the conclusion of Bauer (2019: 92) that "there is increasing evidence that they [stub compounds] behave differently from blends". One of the most promising differences has already been noted by Bauer (1983: 233) himself. It is the difference in stress pattern. Stub compounds follow the Compound Stress Rule, CSR, whereas blends tout court exhibit simple word stress, as already suggested by Marchand's conclusion that blends are monemes.

CSR says that in a compound [[A][B]], [A] is strong (Chomsky and Halle 1968: 1–4). CSR operates in a similar way in English, German and Dutch (Booij 1995: 115, Giegerich 1985: 168 and Wurzel 1980: 309).

Stub compounds get stress on the left part of the resulting AC form, even when stress is on the second lexeme in the full, non-truncated, sequence of source words, as the adjective + noun examples of (4a) show. Stress assignment in stub compounds also leads to stress on the leftmost part of the final AC form when stress falls on for instance the second or third syllable of the first source word, as shown in (4b).

(4a)	Stub compound		sw1	sw2	
	mísper	<	missing	pérson	
	mídcult	<	middle	cúlture	
	fróyo	<	frozen	yóghurt	
(4b)	Stub compound		sw1		sw2
	sítcom	<	situátion	1	cómedy
	bíopic	<	biógrap	hy/biográphical	pícture
	cýborg	<	cyberné	tic	órganism

The examples in (4a) show that these AC formations or stub compounds also behave like compounds in another respect: they appear to follow the Righthand Head Rule (Williams 1981) and thus is the final form a noun, whereas the combination of source words consists of a sequence of an adjective plus a noun. In this respect stub compounds can be compared to normal adjective + noun compounds such as *greenhouse*, *bluebird* and *redhead*.<sup>5</sup>

The data presented above show that AC concatenations really behave as if they were compounds, albeit that the constituent parts are not free forms but clippings. The question which now remains is how to clip or truncate the source words. Lappe (2007), Berg (2011) and Hamans (2012, 2018b, 2020) discusses clipping extensively. The most frequent form of clipping is back clipping, which results in (C)(C)V(C)(C) forms such as those in (5).

(5a)	clipped form		SW
	tram	<	tramway
	pic	<	picture
	ad	<	advertisement

However, a more recent trochaic (Hamans 2012, 2020) pattern also exists:

(5b)	clipped form		SW
	psycho	<	psychopath
	dipso	<	dipsomaniac
	info	<	information

<sup>&</sup>lt;sup>5</sup> Bauer (2019: 92) correctly concludes that semantically not all stub compounds are headed. Some are coordinated, take for example *modem*. However, this does not differ from normal compounds (or from blends as will be shown) where one also finds dvanda compounds such as *singer-songwriter* or *secretary-treasurer*.

Almost all clippings which appear in the examples (4a) and (4b) follow the main (C)(C)V(C)(C) pattern, only *bio* in *biopic* is an example of the trochaic pattern. This is not the place to discuss clipping extensively, it suffices to show that the clippings of the AC formations discussed here follow standard clipping patterns. The only difference between standard clipping and the clipping process operating in (4a & b) is that standard clipping may result in free forms, whereas the clipping process that operates here only seldom leads to a possible free form or makes use of free clipped forms. *Bio* and *pic* are the only possible free form so far.<sup>6</sup>

Another, less important property, of stub compounds is that they are mostly disyllabic, which is, of course, a consequence of the compounding of two monosyllabic clipped forms with a CVC syllabic structure. Blends can be monosyllabic, *smog* for instance, disyllabic, i.e. *glasphalt*, or polysyllabic, see for instance *stagflation*, *barkitecture* and *advertorial*.

#### 4. Head of blends

According to Gries (2012: 164, see also Bat-El 2006: 67, Shaw 2013, Shaw et al. 2013 and Moreton et al. 2017) AD-type blends have a head, which is usually the right part, the remnant of the second source word. Gries uses semantic criteria and statistical data to reach this conclusion. Shaw, Shaw et al and Moreton et al come to a similar conclusion on the basis of psycholinguistic experiments. However, the AD type, blends tout court, also exhibits a formal head, as claimed by Kubozono (1990:1) and as can be seen in the examples (6) and (7). Examples (6a) and (6b) demonstrate that the gender and the number of a blend is determined by sw2, whereas examples (7a), (7b) and (7c) deal with the resulting part of speech.

(6a) Dutch blends<sup>7</sup> *het potel* (n) 'hotel for Polish workers'

de Polen + het hotel

<sup>&</sup>lt;sup>6</sup> The free form *pic* is not the result of the occurrence in the stub compound *biopic*, as an anonymous reviewer correctly remarks. *Pic* is attested long before *biopic* according to the OED (1884 versus 1947). Neither the free form *bio* results from this kind of stub compounds. According to OED, it is already attested in 1925.

<sup>&</sup>lt;sup>7</sup> Examples from Pajerová (2018).

	<i>het preferendum</i> (n) 'referendum with more options' <i>de scheit</i> (common gender) 'mixed breed of sheep and goat'	< de preferentie + het referendum < het schaap + de geit
(6b)	German blends <i>der Kurlaub</i> (m) 'cure vacation' <i>das Sportel</i> (n) 'sport hotel' die <i>Datei</i> (sg.) 'file'	< die Kur + der Urlaub < die Sport + das Hotel < die Daten (pl.) + die Kartei (sg.)
(7a) En	glish blends simulcast (N) malware (N) barkitecture 'design of doghouses' (N)	< simultaneous (Adj) + broadcast (N) < malicious (Adj) + software (N) < bark (V) + architecture (N)
(7b)	German blends <sup>8</sup> Naktivist (N) 'naked activist' herrklären (V) 'mansplain' Teuro (N) 'nickname for the expensive Euro'	< nackt (Adj) + Aktivist (N) < Herr (N) + erklären (V) < teuer (Adj) + Euro (N)
(7c)	Dutch blends vagetariër (N) 'vague vegetarian' krommunicatie (N) 'crooked communication' alterneut (N) 'an unqualified healer'	< vaag (Adj) + vegetariër (N) < krom (Adj)+ kommunicatie (N) < alternatief (Adj) + therapeut (N)

The examples in (6) and (7) show that the righthand part determines the gender, the number and the part of speech of the blend. The examples in (6a) are simple and clear. In Dutch there are two genders, neuter and common gender.

<sup>&</sup>lt;sup>8</sup> Even the orthography of the German examples shows which part is the head. In *Naktivist* and *Teuro* the original adjectival parts n(akt) and teu(er) receive substantive *Großschreibung* 'capitalization' since the resulting blend is a substantive due to the second source word. In *herrklären* it is just the other way around: the substantive *Herr* has to give up its capital letter since the blend is a verb due to the verbal character of the righthand part, the head.

The gender of the second source word determines the gender of the blend. The German data of (6b) are somewhat more complicated. German has three genders, male, female and neuter. Again, it is the gender of the second source word which is decisive for the choice of the gender of the blend. The same applies to number as the example *Datei* (6b) shows.

In (7a–c) the second source word determines the resulting part of speech. When the second source word is a noun, then the resulting blend also is a noun, whatever the part of speech of the first source word is. However, when the second source word is a verb, as in *herrklären*, then the final blend is also a verb.

These examples show that blends exhibit a formal head, just as compounds<sup>9</sup>. However, this does not imply that all blends must also have a semantic head. Just as dvanda compounds do not show a semantic head, see for instance *singer-songwriter*, *bittersweet* and *spacetime*, where the meaning is the sum of the meanings of the two constituent words, 'copulative' or dvanda blends such as *smog*, from *smoke* and *fog*, or *brunch* from *breakfast* and *lunch* or *Oxbridge* from *Oxford* and *Cambridge* do not exhibit a semantic head. However, all blends have a formal head, and, in this respect, blends behave as compounds. Thus, the observation of Bauer et al. (2013: 458) that blends behave like compounds semantically may be supplemented with *and also formally*.

#### 5. Prosodic aspects

This section shows how blends copy the prosodic and syllabic structure of the second source word. First stress assignment will be discussed. The second part of this section is devoted to syllable structure and discusses which parts of which source word can be combined.

## 5.1. The stress pattern of blends

Beard (1998:57) was the first to observe that the prosodic structure of blends must be identical with that of the model, being the second source word, sw2. To put it differently: blends tend to copy the stress pattern of the head (see also

<sup>&</sup>lt;sup>9</sup> Renner (2019: 40) points out that languages, such as French and Modern Hebrew, in which compounds are canonically left-headed, behave differently in this regard. They do not exhibit a preferred head position.

Piñeros 2000 & 2002; Bat-el 2006; Bat-el and Cohen 2012; Trommer and Zimmerman 2012; Arndt-Lappe and Plag 2013: 558; Moreton et al 2017: 352; Beliaeva 2019b: 7–8; Wulff and Gries 2019: 18–19). The examples in (8) demonstrate the stress pattern of blends. In all the following examples it is the stress pattern of the second source word that determines the stress placement on the resulting blend.

(8)	blend	sw1	sw2
	boatél	< boat	+ hotél
	frappuc <i>i</i> no	< frappé	+ cappuccíno
	flust <i>á</i> ted	< flústered	+ frustráted
	advertórial	< advértisement	+ editórial
	fertig <i>á</i> tion	< fértilizer	+ irrig <i>á</i> tion
	préstinant	< prestígious	+ dóminant

The last example of (8), *préstinant*, taken from Arndt-Lappe and Plag (2013), is most convincing. Even when the segmental material of the second source word is not preserved, the suprasegmental prosodic feature stress of this source word retains its strength.<sup>10</sup> The resulting blend bears stress at exactly the same place as sw2, which is on the first or antepenultimate syllable, notwithstanding the fact that this syllable was unstressed in sw1. Blends appear to consist of one prosodic word,<sup>11</sup> although they are formed as a concatenation of parts of two separate words. The prosodic shape of a blend is the same as that of sw2. Blends simply copy the primary word stress of the second source word. Phonologically they are a moneme to use a term of Marchand (1969) or following Tomaszewicz (2012) they have the phonotactic structure of simplex words.

<sup>&</sup>lt;sup>10</sup> An anonymous reviewer suggests that the antepenultimate stress in *préstinant* can be explained as a result of analogy with other words ending in *-inant* in English. This might be correct, however, stress is on the first syllable in *disciplinant* according to OED and not on the antepenultimate. But even if this example were a matter of analogy, stress in the blend still falls on the same structural position as in sw2.

<sup>&</sup>lt;sup>11</sup> The notion prosodic or phonological word stands in opposition to the notion grammatical word (Booij 1999: 47). "Prosodic words are typically characterized as being the domain of word stress, phonotactics and segmental word-level rules" (Peperkamp 1999: 15). The size of the prosodic or phonological word does not have to correspond with the morphological word. For instance, compounds in English, German and Dutch consist of two prosodic words. (On prosodic words see also Nespor and Vogel (1986=2007<sup>2</sup>, 109–144, Peperkamp 1997 and Hildebrandt 2015)

#### 5.1.1. Monosyllabic source words

Bat-El and Cohen (2012) discuss the relation between blending and stress assignment in English in detail. They claim that two factors play a role in determining the position of stress in blends. The first one is position, the second size.<sup>12</sup> Here it will be argued that position will do for almost all their data.

Bat-El and Cohen (2012) agree that the main pattern of stress placement in blends is a copying process of the prosodic structure of sw2 as in (8), which means that the stressed syllable of the blend is identical to that of the second source word. Stress is position-based in these cases. However, there are exception they show, such as blends with a monosyllabic source word. For these blends size should determine stress assignment.<sup>13</sup>

blend	sw1	sw2
blógive	< blog	+ árchive
tankíni	< tank	+ bikíni
momprenéur	< mom	+ entreprenéur
blend	sw1	sw2
lúmist	< lúminous	+ mist
cítrisun	< cítric	+ sun
éscalift	< éscalator	+ lift
	blógive tankíni momprenéur blend lúmist cítrisun	blógive < blog tankíni < tank momprenéur < mom blend sw1 lúmist < lúminous cítrisun < cítric

The blends in (9), however, simply follow the stress pattern of sw2 and and should therefore not be considered as exceptional or as counterexamples. The data presented in (10) does not indeed follow the stress pattern of sw2, which, incidentally, is completely predictable. The second source words in (10) are monosyllabic words and thus have no lexical stress (Bat-El and Cohen (2012: 207) or metric pattern or rhythmic contour of their own. After all, stress, metric pattern or rhythmic contour is a matter of contrast. Within monosyllabic words there is only one syllable and thus there exists no contrast between syllables. Consequently, the resulting blend has to copy the only available stress pattern or rhythmic contour, which is the pattern of the first, left, source word. There is no reason to take size as a determining factor in these cases.

However, there are indeed a few real counterexamples.

<sup>&</sup>lt;sup>12</sup> Size is considered to be the main factor for stress assignment in blends by Cannon (1986).

<sup>&</sup>lt;sup>13</sup> Examples (9) and (10) taken from Bat-El and Cohen (2012).

#### 5.1.2. Counterexamples

Usually the first source word of a blend contains fewer syllables, and is therefore shorter, than the second one (Kelly 1998). However, this is not a condition as *brunch*, from *breakfast* + *lunch*, demonstrates. When the size of the second source word is smaller than that of the first source word (sw2<sw1), exceptions to standard blend stress assignment may occur, as Bat-El and Cohen (2012) show. In (11), the resulting form adopts the stress pattern of the first, left, source word, sw1, whereas in (12) the stress pattern of the second source word, sw2, is copied.<sup>14</sup>

(11)	blend	sw1	sw2
	húrricoon <sup>15</sup>	< húrricane	+ ballóon <sup>16</sup>
	hándkerchoo	< hándkerchief	+ kerchóo
	quálatex	< quálity	+ látex
(12)	blend	sw1	sw2
	ebónics	< ébony	+ phónics
	amerásian	< américan	+ ásian
	aggrannóying	< ággravating	+ annóying

Bat-El and Cohen (2012:202) conclude on the basis of these data that there is a certain 'inter-word variation where different words follow minimally different rankings' of constraints. However, they need these different constraints because of the behaviour of blends with a monosyllabic source word as discussed above. As shown in 5.1.1, only a small group of the blends analysed here which result from monosyllabic second source words (cf. 10) does not follow standard blend stress assignment. Here the outcome is the default option. Therefore, monosyllabic source words do not require a size constraint.

<sup>&</sup>lt;sup>14</sup> Examples (11) and (12) taken from Bat-El and Cohen (2012).

<sup>&</sup>lt;sup>15</sup> Bat-El and Cohen claim that he stress assignment for *hurricoon* and *handkerchoo* is as presented in (11). An anonymous reviewer doubt whether this is correct, since -oo(n) is typically a stressed ending in English. If the stress remains on the final syllable in *hurricoon* and *handkerchoo* these forms cease to be counterexamples. Unfortunately, these forms are not yet attested in the OED.

<sup>&</sup>lt;sup>16</sup> Elsewhere *hurricoon* is presented as a blend of *hurricane* and *typhoon* or *monsoon* (Lehrer 2006: 629), which sounds more likely.

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The examples in (12) simply follow the standard blend stress assignment. So, only the data in (11) might be considered to contradict the normal stress copying pattern. However, some of the data in (11) are not very convincing: *handkerchoo* and *qualatex* look more like AC concatenation than an AD one, since a full sw2 combines with the first syllable of sw1. They can thus be better described as a sort of stub compounds. Real counterexamples are blends such as *hurricoon* and *ballute*, as in (13).

(13)	blend	sw1	sw2
	húrricoon	< húrricane	+ ballóon
	ballúte	< ballóon	+ párachute

It should be noted that in *ballute* the first source word is smaller in size than in the second.

For the right stress placement Bat-El and Cohen (2012) suggest a few faithfulness constraints that preserve the phonological properties of the base words at the segmental level as well as at the level of metrical structure. For the position-based view of stress assignment they suggest two constraints that state that the stressed syllable in the blend corresponds to the stressed syllable in the respective source word. In order to put the stress on the correct syllable of the right word, both constraints are ranked in the following way.

#### (14) FAITHHEADWR >> FAITHHEADWL

Since blend stress normally corresponds to that of the right constituent of the blend, the candidate that does not violate stress assignment required by FAITH-HEADWR wins. For the size criteria of stress placement Bat-El and Cohen (2012: 199) suggest another constraint: FAITHMETRICALSTRUCTURE (FAITHMS), which states that "[t]he metrical structure (number of syllables and stress pattern) of the blend is identical to that of both base words". Different rankings of FAITHMS in relation to FAITHHEADWR and FAITHHEADWL account for the difference in stress assignment.

However, the constraints Bat-El and Cohen propose can easily be simplified. As demonstrated, only blends with a monosyllabic second source word violate systematically FAITHMS, provided that this constraint is split into FAITHHEADWL and FAITHHEADWR. In order to produce blends with correct placement on the right source word, the ranking of these two constraints must be as in (15).

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#### (15) FAITHHEADWR >> FAITHHEADWL

Since the second source words in the examples of (10) do not have any lexical stress or rhythmic contour, faithfulness to the metrical structure of the second source word (WR) is vacuous. Consequently, the resulting blend remains faithful to the first source word (WL).

The only real counterexamples are blends such as *ballúte* and *húrricoon*. These blends show the stress pattern and the syllabic skeleton of the first source word. These examples do not belong to a single category. The source words of *ballute* follow the normal pattern: sw2>sw1.<sup>17</sup> In *hurricoon* it is just the other way around, which is exceptional. One may try to explain the exceptional behaviour of these examples by pointing to the exceptionally large portion that is deleted of sw2, *parachute*, whereby even the place of stress appears to be erased, just as in sw1, *balloon*. Because of so many and serious violations the contour of the first source word may get priority. However, this explanation sounds rather ad hoc, when one realises that in examples such as (16) the phonemic content of the stressed syllable is deleted without any consequences for the stress pattern.

 (16) blend sw1 sw2 blógive < blog + árchive préstinant < prestígious + dóminant plúmcot < plum + ápricot</li>

Therefore, it seems better to accept that there is a very small group of exceptions, of which most show a difference in source-word length which is exceptionally sw2<sw1. In this group an opposite ranking applies, which means that there are two rankings available in English, of which (15) is the preferred one. However, (17) also exists, which implies that there is a 'crucial non-ranking' between FAITHHEADWR and FAITHHEADWL.

#### (17) FAITHMSWL >> FAITHMSWR

The fact that there are two possible rankings, of which one is the preferred one, is not exceptional (cf. Hamans 2012 on two possible rankings for Dutch clippings of which one is the preferred ranking).

<sup>&</sup>lt;sup>17</sup> According to Schoenfeld, Cohen and Bat-El (2019:1) this order follows Pāṇini's law, which says that shorter phrases and elements should precede longer ones where possible.

#### 5.2. The syllabic structure of blends

Stress assignment is not the only aspect which blends copy from their second source words. Usually, the syllabic structure of blends is also a copy of the syllabic structure of the second source word as the examples in (18) show (see also Kubozono 1990: 5 and 16; Bat-El 2006: 67–68.).

	sw1	sw2	blend	truncated and inserted in sw2
(18a)	<i>br</i> eakfast	+ lunch	$\rightarrow$ brunch	onset
	<i>sm</i> oke	+ fog	$\rightarrow$ smog	onset
	boat	+ hotel	$\rightarrow$ boatel	onset <sup>18</sup>
(18b)	Greek/Greece	+ exit	$\rightarrow$ Grexit	onset
	<i>Spa</i> nish	+ English	$\rightarrow$ Spanglish	onset + nucleus
	gigantic	+ enormous	$\rightarrow$ ginormous	onset + nucleus
(18c)	stagnation	+ inflation	$\rightarrow$ stagflation	$\sigma$ (= syllable)
	Oxford	+ Cambridge	$\rightarrow$ Oxbridge	σ
	guess	+ estimate	$\rightarrow$ guesstimate	$\sigma^{19}$
(18d)	advertisement	+ editorial	$\rightarrow$ advertorial	$\sigma\sigma^{20}$
	<i>edu</i> cation	+ entertainment	$\rightarrow$ edutainment	σσ
	stalker	+ papar <i>azzi</i>	$\rightarrow$ stalkerazzi	$\sigma\sigma^{21}$

<sup>18</sup> An alternative segmentation for this example may be, especially when one wants to give priority to the orthographic form:

 $boat + hotel \rightarrow boatel$ 

In this case a whole syllable consisting of an onset and a nucleus have been truncated from the second source word. Subsequently, the onset and the nucleus of the first source word are inserted. Another alternative might be:

 $boat + hotel \rightarrow boatel.$ 

In this case a whole open syllable plus the onset of the next syllable must have been truncated. Consequently, a CVC syllable must have been inserted, of which the last consonant has been resyllabilited in order to become the onset of the final syllable. However, examples such as Dutch *potel* 'hotel for Polish immigrant workers' from *Polen* + *hotel* or *stutel* 'student hotel', without final -*t* at the end of the first source word, make this last segmentation unlikely.

<sup>19</sup> An alternative segmentation may be:  $guess + estimate \rightarrow guesstimate$ 

In this case only the empty onset of the first syllable of the second source word has been truncated and replaced by the onset of the first source word.

<sup>20</sup> An alternative segmentation could be:

advert is ement + editorial  $\rightarrow$  advertorial.

However, a form such as *prefatorial*, from *preface* without a *-t* makes this segmentation unlikely. <sup>21</sup> An alternative segmentation may be:

 $stalker + paparazzi \rightarrow stalkerazzi.$ 

The examples presented here demonstrate that it is the syllabic structure of the second source word which determines the syllabic structure of the blend. Exactly as much syllabic material as has been truncated from sw2 may be taken from sw1 and inserted in the open syllabic places of sw2. If only an onset has been truncated from the second source word, then only an onset can be inserted.

It must be emphasized that it is not segmental material that is truncated and inserted but syllables and/or syllabic constituents. It should be noted, for example, that empty onsets can be truncated and refilled as in *glasphalt*, where the first syllable of sw2, *as*, does not include a realized onset. A similar insertion applies to *donkephant* from *donkey* and *elephant*. The syllable *el* without a realized onset is replaced by a syllable with a filled onset, *donk*.

In addition, the first syllable of the blend can exhibit a two-place coda instead of a one place coda as in *Oxbridge* with /ks/ as coda instead of /m/ from *Cambridge*, since this does not make any difference in terms of syllabic structure. It also appears possible to fill a one place onset with a cluster consisting of two or three consonants as is shown in the series *glitterati* from *glitter + literati*, *clitterati* from *clitoris* and *literati* and *splitterati* from *split* and *literati*.<sup>22</sup> These examples clearly demonstrate that it is the sw2 syllabic structure in terms of constituents and not in terms of segmental material that determines the outcome of the blending process. In addition, a blend with a two or three place onset, where sw1 contained a one place onset only, is fully well formed, since English onsets can consist of more than one consonant.

Also, in this case the deletion and insertion will affect two possible syllables.

<sup>&</sup>lt;sup>22</sup> In a discussion of 'Fandom Pairing Names' (FPN), a sort of nicknames, DiGirolamo (2012) shows that FPN blends have a preference for complex onsets, which may influence the selection of the order of the respective source words. In other words, other things being equal, the source word with the more complex onset will become sw1, since the longer the onset the greater the recognisability of sw1. For instance, *Brooke* and *Peyton*  $\rightarrow$  *Breyton* and not \**Pooke* In addition, an onsetless syllable will be given an onset: *Paige* and *Alex*  $\rightarrow$  *Palex* and not \**Apaige*. The FPN blends discussed by DiGirolama are all coordinative or dvanda blends, thus without a semantic head. It is unlikely that with subordinate, also called endocentric or determinative, blends the selection of the order of the source words can also be determined by the complexity of the onset. In subordinate English blends the order is fixed by the head modifier relationship: the head is the right part, whereas the left part functions as modifier, as shown in paragraph 4 (cf. Bet-El 2006: 68). The results presented by Gries (2012: 164) contradict the outcome of the analysis of DiGirolamo. According to Gries the length of the source words determines the order in coordinative blends: the shorter source word takes the left position.

Arndt-Lappe and Plag (2012a, 2012b and 2013) claim that truncation is also possible within a complex onset of sw2. They come to a total of 30% (Arndt-Lappe and Plag 2013: 548). However, the results of the production experiment they quote are not convincing. The subjects in the experiment were asked to coin blends out of two structurally highly similar source words, which thus resulted in dvanda blends only. Subsequently the testees were forced to blend the two source words in a specified order. They were also asked to blend source words which normally appear in a fixed expression such as *black and* white, bread and butter and import and export, and therefore oppose blending. The chance of strange results cannot be ruled out in these cases. In addition, Arndt-Lappe and Plag did not investigate the acceptability of the obtained forms. For instance, one of the results of the experiment are the possible blends bleen and breen from blue and green. However, since the blend breen already exists, as a result of *brown* + *green* and meaning 'brownish green' it is obvious that test subjects may turn to an alternative.<sup>23</sup> However, as far as can be concluded from the few results Arndt-Lappe and Plag present the deleted part of the onset of sw2 can only be filled with a structurally similar part from the onset of sw1, which means that even in the case of truncation within a complex onset the syllabic structure of the blend still remains a copy of the syllabic structure of sw2.

#### 5.2.1. The length of blends

Kubozono (1990: 12) claims that blends consist of the same number of syllables as their sw2. Kubozono's rule confirms Cannon's observation and the outcome of Hong's statistical analysis more or less that blends tend to consist of the same number of syllables as the longest source word or maximally may contain one syllable more (Cannon 1986: 741; and Hong 2004: 134). Although most of the examples presented here and elsewhere follow Kubozono's rule, there are a few counterexamples, as will be shown.<sup>24</sup>

 $<sup>^{23}</sup>$  Actually, the blend *bleen* has been attested. The philosopher Nelson Goodman coined *bleen* and *grue* in *Fact, fiction and forecast* (1983). He just choose these forms since the blends *breen* and *glue*, from *green* + *blue*, existed already. Arndt-Lappe and Plag also obtained *grue* as a resulting blend next to *glue*.

<sup>&</sup>lt;sup>24</sup> The data presented in Renner (2019) suggest that there is a sizeable minority of English blends that have the same length as sw1. However, Renner does not make a difference between AC and Ad blends in this study. Hence his observations are not very helpful here.

Incidentally it appears to be possible to insert more syllabic material as in the following examples.

(19)	sw1	sw2	blend
	aggravating	+ annoying	$\rightarrow$ aggrannoying
	happen	+ accident	$\rightarrow$ happenident <sup>25</sup>
	vodka	+ martini	$\rightarrow$ vodkatini

Usually, the explanation for the extra syllable(s) or syllabic constituent(s) can be found in the need for recognizability and retrievability of the original source words, see for instance (20).

(20)	sw1	sw2	blend
	hurricane	+ typhoon	$\rightarrow$ hurricoon
	ebony	+ phonics	$\rightarrow$ ebonics
	American	+ Asian	$\rightarrow$ Amerasian

In *hurricoon* truncation of the first syllable of sw2 and subsequent insertion of the first syllable of sw1 into the skeleton of sw2 would have led to a form *huphoon*, which is semantically opaque, since it apparently does not refer clearly enough to *hurricane*. In the second example *ebonics* it is not immediately clear what has been truncated from sw2, as is often the case with overlap blends. It may be an onset only, or the first syllable or a syllable plus the following onset. However, each resulting blend, be it *eonics*, *enics* or *ebnics*, would have been ill formed or non-retrievable. The semantic transparency of all these possible forms turns out to be insufficient, while maintaining the overlapping portion *on* provides just enough clues to recognize both source words. The example *Amerasian* demonstrates clearly why more material must be inserted than what has been truncated. Truncation of the first syllable of sw2, thus of the segment *as*, and subsequently insertion of the first syllable of sw1, thus *am*, would have resulted in *Amian*, a form in which neither *Asian* nor

 $<sup>^{25}</sup>$  This example and the next one are taken from Mattiello (2013: 132–133). Mattiello also presents an example in which less material is inserted than deleted: *fanzine* from *fan* + *magazine*. According to the analysis presented here the resulting blend should have been *fanazine*, which also exists. A quick Google search (28.01.2020) shows 3,220 hits for *fanazine*. However, *fanzine* is the most preferred form (13,000,000 hits). Maybe one better describes the segment *-zine* as a rather productive libfix (cf. Hamans 2017: 15). For the notion libfix, see Zwicky (2010). For the use of Google data, see fn.27.

*American* could have been recognized or retrieved. Therefore, no element of sw2 has been truncated and two easily recognizable syllables have been supplemented to make the ultimate form semantically transparent.<sup>26</sup>

The examples (19) show a similar picture. Truncation of the first syllable of sw2 and subsequent insertion of the first syllable of sw1 would have led to the following blends. The respective syllables of the source words that matter are italicized.

(21)	sw1	sw2	failed blend
	<i>a</i> ggravating	+ annoying	$\rightarrow$ annoying
	<i>happ</i> en	+ accident	$\rightarrow$ happident
	<i>vod</i> ka	+ <i>mar</i> tini	$\rightarrow$ vodtini <sup>27</sup>

It is clear why *annoying*, being identical to sw2, is not acceptable as a blend both formally and semantically. The case of *happident* is different. This blend generates unwanted associations. The segment *dent* seems to be more directly associated with *dental* than with *accident*. Actually, *Happydent* exists as a trade name for a chewing gum that claims to provide a fresh breath. *Vodtini* apparently lacks a direct association with vodka.

Although there are only a few examples found in the literature about English blends that do not follow Kubozono's length rule, counterexamples are also found in other languages as, for instance, in Dutch.

(22)	sw1	sw2	blend	gloss
	ana chronisme	+ acroniem	$\rightarrow$ anacroniem	'acronym derived
				from an outdated
				phrase' (e.g. radar <sup>28</sup> )

 $<sup>^{26}</sup>$  Retrievability is, as an anonymous reviewer rightly points out, a relative notion. No naïve language user will be able to recognize sw1 *smoke* in the lexicalized blend *smog*. Just because the term has been defined and explained referring to *smoke* and *fog* or because it has been used regularly in a context where no other interpretation is possible, the blend *smog* could be widely accepted. See also fn. 32. Consequently, one cannot completely rule out a possible blend *amian* theoretically.

<sup>&</sup>lt;sup>27</sup> A quick Google search (28.01.2020) attested the blend *vodkini*. However, there are only 191 hits for *vodkini* against 78,300 for *vodkakini*. These numbers are not presented as reliable data about the occurrence of the two alternatives. They are only given to show the difference in preference.

<sup>&</sup>lt;sup>28</sup> Radar is an acronym for radio detection and ranging.

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\begin{array}{ll} democratie & +\operatorname{dict} atuur \rightarrow \operatorname{democratuur}^{29} & \operatorname{'dictatorship} \text{ by a} \\ & & \operatorname{democratically} \\ & & \operatorname{elected} \text{ leader'} \end{array}
```

In *acronym* the first syllable *a* is truncated. Subsequently two syllables, a + na, are inserted.<sup>30</sup> If only the first syllable of *anachronism* would have been inserted the resulting blend would have been identical to sw2 and thus not acceptable as a blend. The second example *democratuur* is more complicated. In *dictatuur* the first syllable *dic* is truncated plus the onset of the following syllable, *t*. The 'correct' blend *demtatuur* is semantically not transparent. Therefore, one better inserts more material: in this case an extra syllable. This leads to the insertion of the two syllables de + mo plus a following onset kr, spelled out as cr.

The extra syllables *a* and *de* in *a*nacroniem and *de*mocratuur can be described as unparsed. In fact, such an extra, unparsed, syllable does not affect the overall picture that blends copy the syllabic structure of the second source words, of which the remnant becomes the formal head of the blend. Also, in this respect the blend remains one phonological word.

#### 6. Cut-off point

A problem that implicitly has been touched on in the preceding paragraph is where to cut off the second source word. This problem will not be discussed extensively here, since it requires another kind of research than the analysis presented here. So far, it is clear that the cut-off point<sup>31</sup> falls on a syllable boundary or on the boundary between and onset and a rhyme (cf. Kubozono 1990; Kelly 1998; Plag 2003: 123–125; Bauer 2012: 16). In addition, Arndt-Lappe and Plag (2013: 550, 558) rightly emphasize that the cut-off point should be to the left of the stressed syllable of sw2. Moreover, the examples discussed show that what has been cut off from sw2 should be supplemented

<sup>&</sup>lt;sup>29</sup> Alternative segmentations may be proposed, such as *democrat*ie + dicta*tuur* or *democrat*ie + dicta*tuur*. However, this does not make any difference for the argument

<sup>&</sup>lt;sup>30</sup> One can also describe *anacroniem* as a blend where no truncation of a part of sw2 has taken place. In this case the empty onset of the first syllable of *acronym* is filled by the initial segment *an* from *anachronism*. The result is the same: an extra syllable is added to the blend. Truncation of a segment of the second source word is not mandatory as the examples *slanguage*, *guesstimate* and *glasphalt* discussed before show.

<sup>&</sup>lt;sup>31</sup> Also called crossover point (Bauer 2012: 16) or switch point (Bat-El and Cohen 2012: 194).

from the initial segment of sw1. However, the decision whether an onset, an onset plus nucleus or a syllable or even more should be truncated seems arbitrary, although it is evident that one cannot delete a whole syllable from a monosyllabic source word. Gries (2004 and 2006) shows that the recognizability or recoverability of the original source word or of similar lexical competitors - forms with a similar form and meaning - plays an eminent role in the selection of the cut-off point. "While blends exhibit many structural characteristics, their structure is governed by a desire to guarantee the recognizability of both source words" (Gries 2004: 661). To describe the similarity between blends and their source words Gries (2004) develops a similarity index, which precisely quantifies these similarities, and which shows that there is a much higher degree of similarity between accepted blends and their source words than between randomly created blend-like formations and their source words. However much the sophisticated analyses by Gries lead to clear and quantified results, they do not offer an explanation. Beliaeva (2014b, 2015 2016) builds on Gries's research. She mainly focuses on the recognizability of the source words in the final concatenations and confirms his finding that stub compounds tend to split much earlier than blends and thus preserve much less of their source words than would be optimal for their recognizability (Beliaeva 2014:27).

In fact, it is the semantic transparency that determines the cut-off point of felicitous blends. That is why Hamans (2010) points to Zabrocki's theory of diacrisis and his notion of confusivum for an explanation. Zabrocki (1962 and 1969) expands the notion of minimal pair. He compares segments that differ in more respects than one phoneme or feature only. He calls the corresponding parts of lexemes confusive segments or confusiva. For instance, the lexemes *crack* and *pack* are not a minimal pair since the first one starts with a consonant cluster, whereas the initial segment of *pack* is only one consonant. Nevertheless, *crack* and *pack* share an equal segment, the confusivum *ack*. A felicitous blend must contain confusiva with both source words that are large enough to trigger recognition of the original form and thus a semantic interpretation in the mind of the listener. How large a transparent confusivum must be to achieve this result has still to be decided. The specificity of the segment compared to the corresponding lexemes,<sup>32</sup> the frequency of the source words and

 $<sup>^{32}</sup>$  An example may demonstrate how important specificity can be. It will be clear that the remaining part of sw2 *-normous* as in *ginormous*, from *gigantic + enormous*, or *hunormous*, from *huge + enormous*, reminds much more directly and specifically to the corresponding lexeme

the actual length of the confusion relative to the source word probably all play a role in the recognition of the source words.

Since the speaker or the word coiner formally starts with truncation of the second source word when he wants to introduce a new blend, he is obliged to keep as much material of sw2 as possible – a maximal or optimal confusivum - so that this part can easily traced back to the full original. After all, for a felicitous blend the confusivum should be large enough to be easily traceable. Subsequently the speaker must fill the truncated syllabic position(s) with corresponding material of sw1. The segmental material taken from sw1 also forms a confusivum with the original source word and with similar lexical competitors. When this confusivum is not large enough to make it easily traceable the open place in sw2 caused by truncation may be filled with more syllabic constituents from sw1. Even an unparsed initial syllable may be added as has been shown. Gries' (2004a, 2004b, 2006 and 2012). metrical and statistical procedures may be useful to determine when a remaining part can easily be traced back. Gries (2006: 540 and 2012: 162) introduces the notion recognition point, RP, of a word. "This is the point of a word form at which a majority of speakers (e.g. 85%) can recognize this word with a high probability (e.g. 80%) when presented with parts of W." Gries supposes that the cut-off point - here called selection point SP - is approximately the same as RP (Gries 2006: 544). However, both of his studies focus on the question of the difference between blends and stub compounds, just as Beliaeva (2014b, 2015, 2016) and not on the optimal length of the confusiva of a blend. In addition, Gries does not take into account the fact that blends copy the syllabic structure of sw2. Therefore, it is still unclear which factors exactly play a role in determining the cut-off point and what the possible interdependence of these factors can be. This is a matter for further psycholinguistic research just as the role of the overlap in blends such as slanguage from slang and language. An overlap undoubtedly increases the recognizability and therefore the acceptability of a blend, as already demonstrated by Beliaeva (201b, 2015, 2016). However, an overlap is not a condition for a felicitous blend as most of the examples discussed here show.

*enormous* than *-unch* from *brunch*. After all, there are no or hardly any English words with final *-normous* other than *enormous*, whereas there is a small list of completely different English words with final *-unch*, see for instance *bunch*, *munch*, *punch* and *crunch*. However, it should not be forgotten that the context in which *brunch* normally is used favors the interpretation of *brunch* as a sort of meal instead of that of a possible blend of *break* + *punch*.

#### 7. Blends as an Intermediate Category

In Section 4, it is demonstrated that blends and compounds share the characteristic of the righthand part as their formal head. The head determines the grammatical properties of the blend. Insofar the concatenation of parts of two source words that results in a blend behaves as if it was a compound or to use the terminology of Marchand (1969) a syntagma. In this respect there is no difference with stub compounds.

However, phonologically blends cannot be described as a sort of compounds. The constituents of a compound form each a prosodic or phonological word in English and Dutch (Booij 1985: 29, 1995: 49; Rakić 2014). So, *bluebird* and *greenhouse* consist of two phonological words each, just as the stub compounds *sitcom* and *midcult*. However, the constituents of a blend together form one phonological word, as has been shown in Section 5.<sup>33</sup> This phonological word is normally a copy of the prosodic structure of the second source words, the base of the righthand part.

Most of the second source words which pop up in blends are underived, monomorphemic thus simplex words. Consequently, most blends can also be described as simplexes from a phonological point of view or as monemes to use Marchand's term (Marchand 1969). Since blends combine characteristics of compounds and of simplex words at the same time, they should be described as an intermediary category.

Even blends which have a derived word as second source word do not contradict this observation. All the complex words that can act as second source word and that are presented here contain a vowel initial suffix. Such words form a single prosodic word, as Raffelsiefen (1999) demonstrated.

(19a)	blends with sw 2 ending in- <i>ish</i>			
	Blend	sw1	sw2	
	Spangl <i>ish</i>	< Spanish	+ Engl <i>ish</i>	

<sup>&</sup>lt;sup>33</sup> Beliaeva (2014b: 175) compares the difference in 'phonetic structure' between stub compounds and blends with the difference between any English monomorphic and polymorphemic words. For instance, she compares the stub compound *fin-lit* with the dimorphemic word *unlit* and the blend *shress* with the monomorphemic *shrink*. Even though the observation presented is correct, she misses the point that there is a difference in phonological or prosodic words which explains the difference in stress pattern. After all, there are ample English polymorphemic words without stress on the left most syllable.

(19b)	) blends with sw 2 ending in <i>-ial</i>			
	blend	sw1	sw2	
	advertorial	< advertisement	+ editorial	
(19c)	blends with sw 2	ending in <i>-ity</i>		
	blend	sw1	sw2	
	flexicurity	< flexible	+ secur <i>ity</i>	
(19d) blends with sw 2 ending in -er				
	blend	sw1	sw2	
	compander	< compressor	+ expand <i>er</i>	
(19e) blends with sw 2 ending in <i>-ation</i>				
	blend	sw1	sw2	
	fertigation	< fertilize	+ irrigation	

The resulting blends each form one phonological word, just as the second source word of which they are a phonological copy. In terms of word formation blends appear to behave as compounds, however from a phonological perspective they consist of only one prosodic word (cf. Arndt-Lappe and Plag 2013: 538).

## 8. Conclusion

The analysis presented here shows that:

- There is an essential formal difference between AD-blends and ACclipped compounds or better stub compounds. Stub compounds are compounds of two clipped lexemes.
- Being compounds, stub compounds have a righthand head and exhibit the compound stress rule.
- Blends are also concatenations of parts of two source words. However, blends are composed of the initial or left-hand part of the first source word and the final or righthand part of the second source word. These parts are not normally free morphemes. 'Part of a source word' may also include the entire source word.
- Blends also exhibit a formal righthand head, which suggests that blending is a form of compounding.

- However, the compound stress rule does not apply to blends.
- Blends form a single phonological word, which is a copy of the prosodic and syllabic properties of the second source word.
- Therefore, blends can best be described as a borderline or intermediate case between compounds and simplex words, especially in the case of blends derived from a monomorphemic second source word.
- Blends are a category of their own at the crossroads of morphology and phonology.

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