

Prosodic aspects of non-morphemic word formation

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Abstract: This paper discusses three processes of non-morphemic word formation with the aim of making it clear that in addition to traditional processes of word formation, there also exists an underexposed area of non-morphemic word formation, which is located at the interface of phonology and morphology. The processes discussed are clipping, libfixing and blending. In all three processes prosodic and syllabic features appear to play an essential role. The focus of the analyzes presented here is on the formal side. Semantic aspects are only discussed in passing.

Abstrakt: Niniejszy artykuł omawia trzy procesy tworzenia wyrazów bezmorfemowych, aby wykazać, że oprócz tradycyjnych procesów słowotwórczych istnieje również mało zbadany obszar tworzenia wyrazów bezmorfemowych, który znajduje się na styku fonologii i morfologii. Omówione procesy to skracanie, libfiksacja i mieszanie. We wszystkich trzech procesach istotną rolę wydają się odgrywać cechy prozodyczne i sylabiczne. Analizy przedstawione w artykule koncentrują się głównie na formalnej stronie zagadnienia. Aspekty semantyczne są omawiane jedynie pobieżnie.

Key words: non-morphemic word formation, clipping, embellished clipping, hypocoristic formation, libfixing, blending.

Słowa kluczowe: tworzenie wyrazów bezmorfemowych, skracanie, upiększone skracanie, formacje hipokorystyczne, libfiksacja, mieszanie.

1. Introduction

This paper wants to shed a light on word-formation processes that take place at the phonology-morphology interface. Three non-morphemic processes of word formation will be discussed: clipping, libfixing and blending. Clipping also covers embellished clipping and, in connection with it, the corresponding process of hypocoristic formation. In the analysis of these processes, it will become clear how prosodic and metrical factors are essential for non-morphemic word formation.

Although some of these processes have already received attention within a prosodic morphological framework, non-morphemic word formation as a whole

has thus far been an understudied area. This is probably related to the fact that these word-formation processes do not take place at the center of morphology, but rather at the intersection of phonology and morphology.

This contribution does not aim to develop a detailed theory but is merely intended to draw attention to an underexposed aspect of word formation and therefore of grammar. Most of the data that will be analyzed come from English and are collected from the literature about clipping, libfixing and blending.

2. Clipping¹

Clipping is a process of shortening of longer words without regard to the morphological boundaries of these longer words. See for example *pres* from *president*, *vet* from *veterinarian* or *veteran* and *tram* from *tramway*. Traditionally, clipping resulted in monosyllabic forms.

2.1. Traditional clipping

Marchand (1969²: 441) distinguishes a few types of clipping, of which the most important are:

- back clipping *lab* from *laboratory*
- fore clipping *plane* from *airplane*
- middle clipping² *flu* from *influenza*

The overwhelming majority of clipped forms, however, are back clippings. Therefore, I will concentrate on back clipping. Moreover, the truncation process applies to all three forms in the same way.

The examples given so far do not provide a clear picture of the boundary at which the final shortened word is cut from the original long one. Only *tram* from *tramway* might suggest that the clipping process takes place at an internal word boundary. However, what immediately stands out when one looks at some more examples is that (back) clipping is all about closed monosyllables. Traditional clipping mainly results in monosyllabic forms, as the examples in (1) show.

¹ See for a much more elaborated and detailed analysis of clipping in English, Dutch, German, Swedish, French, Italian and Spanish and for an overview of the relevant literature Hamans (2021a: 89-155) and for a sketch of the history of clipping in English Hamans (2021b).

² The term middle clipping is confusing, since it is not the middle part, which is truncated, but just the left and the right part. However, since Marchand's terminology has been accepted, it is retained here.

(1)	<i>sub</i>	from <i>submarine</i>	<i>stats</i>	from <i>statistics</i>
	<i>vamp</i>	from <i>vampire</i>	<i>gent(s)</i>	from <i>gentleman</i>
	<i>pant(s)</i>	from <i>pantaloons</i>	<i>gas</i>	from <i>gasoline</i>
	<i>cap</i>	from <i>captain</i>	<i>ref</i>	from <i>referee</i>
	<i>ad</i>	from <i>advertisement</i>	<i>spec(s)</i>	from <i>spectacles</i> (or <i>specifications</i>)

Moreover, the data presented in (1) show that the point at which the word is clipped is not only not a morpheme boundary but does not have to be a syllable boundary either, see for example *vamp*. After all, the first syllable of the ‘source word’, SW, *vampire* is *vam*.

What the examples in (1) also show is that back clipping must go all the way back to the beginning of the word. It is the first syllable only which can be retained. *Ref* and *sub* are well-formed clippings from *referee* and *submarine* respectively, whereas clipped forms with a penultimate clipped segment such as **fer* and **mar* are not attested. This implies that back clipping needs to be left aligned.

The data in (1) also show that the ultimate clipped monosyllabic form may either exhibit a VC structure (*ad*, *app*), or a CVC (*sub*, *prof*), or even a CVCC (*vamp*, *dorm*). In summary, a (C)VC(C) structure. If the final C of the clipped word does not form the original coda of the syllable which ultimately becomes the newly clipped word, this C will be re-syllabified as to form the coda of the ultimate CVC(C)-clipped word, see for instance *lab* where *b* originally was the onset of the second syllable of *laboratory* or *chimp* where *p* originally also was the onset of the second syllable of *chimpanzee*. The newly formed codas of course meet the phonotactic restrictions of English³. After all, one also finds *swamp* and *hemp* besides *chimp*. In addition to *lab*, the English lexicon also contains *grab* and *jab*, ending in a voiced *b* too.

For the sake of completeness, no CV clipped forms have been found. If the resulting clipped form might have ended in an open syllable, as in the case of *re-feree* or *ga-soline*, re-syllabification of the onset of the following syllable took place so that the monosyllabic clipped form became closed.

Finally, the examples in (1) make clear how important stress is for successful clipping.

Almost all monosyllabic clipped forms originate in a stressed syllable or in a syllable with secondary stress (e.g., *pantaloons* and *submarine* in an accepted British pronunciation). Only *advertisement* (when stressed in the British English way, *advértisement*) does not follow this constraint. In this case left alignment appears to be leading.⁴

³ See for an overview of phonotactic restrictions for English Harley (2006: 58-69)

⁴ Most likely, it is no coincidence that there is a disyllabic alternative to *ad*: *advert*.

How important the stress pattern of SW is, can be demonstrated by analyzing some of the very few disyllabic clipped words with a final closed syllable that can be found in English:

- | | | | | |
|-----|--------------|--------------------------|-------------------|-------------------------------|
| (2) | <i>exam</i> | from <i>examinátion</i> | <i>exec</i> | from <i>exécutive</i> |
| | <i>rehab</i> | from <i>rehabítation</i> | <i>acad</i> | from <i>académy</i> |
| | <i>celeb</i> | from <i>celébrity</i> | <i>congrat(s)</i> | from <i>congratulátion(s)</i> |

Exam, *rehab* and *congrats* seem to contradict the observation that the clipped form must contain the originally stressed syllable, since stress is on the penultimate syllable of these forms, as is shown in (2). However, secondary stress falls on the second syllable of these three words. See for example –*gra*– in *congratulations* and it is this syllable that receives main stress after clipping.

These examples also show that traditional clipping must result in a final closed syllable. Zee for example *academy* and *examination*. Theoretically the resulting clipped forms could have been **aca* and **exa*. However, the attested forms are *acad* and *exam*, which shows that re-syllabification of the onset of the following syllable must have taken place to avoid an open syllable.

In summary, it has been shown here that traditional (back) clipping in English appears to follow a strict pattern, which consists of the following constraints:

- it is a process that follows left alignment;
- truncation goes from right to left till the left-most stressed syllable is reached. Therefore, most clipped forms are monosyllabic;
- the resulting form ends in a closed syllable.

2.2. Disyllabic clipping

Recently a new pattern of clipped forms emerged in English, most likely under Italo-American influence (Hamans 2021a: 117-120). This process started with a disyllabic pattern in which final –*o* belongs to SW.

- | | | |
|-----|---------------|---------------------------|
| (3) | <i>psycho</i> | from <i>psychopath</i> |
| | <i>schizo</i> | from <i>schizophrenic</i> |
| | <i>dipso</i> | from <i>dipsomaniac</i> |

There are also ample examples such as *disco*, *phono* or *info* which refer to [-human] referents, but the focus here is on [+ human] –*o* formations since they appear to be highly productive.

As will be clear this ‘Italo-American’ clipping process differs from traditional clipping in several respects. Here the output is not monosyllabic but predominantly disyllabic. In addition, the final syllable is open, whereas it is closed in

traditional clipping. However, there are also similarities. The process of clipping still runs backwards from right to left and till and to the ultimate left word boundary. Left alignment is still essential. In addition, stress remains an important factor. The data presented in (3) show that the clipped form contains the originally stressed syllable, which is the first syllable of SW as well of the newly clipped form. The resulting stress pattern therefore is trochaic. To sum up the new disyllabic clipping process also follows a strict pattern, which shows the following features:

- left alignment;
- trochaic output, which means that stress stays where it was in the SW: on the first syllable;
- the final (=second) syllable is open.

2.3. Embellished clipping⁵

Connected to the process of disyllabic clipping, and most likely a later development of this process (Hamans 2021: 117-124), is what Bauer and Huddleston (2002: 1636) call embellished clippings. Examples are presented in (4).

(4)	<i>lesbo</i>	from <i>lesbian</i>	<i>lesb</i> + -o
	<i>journ</i>	from <i>journalist</i>	<i>journ</i> + -o
	<i>sleazo</i>	from <i>sleazy</i>	<i>sleaz</i> + -o

What should be noted first here, is that this process is no longer completely non-morphemic. While in (3) final -o is an unspecified segment of SW, here it is an added element which has no basis in SW. Added -o shows the formal appearance of a suffix. It also semantically contributes to the informal and pejorative meaning of the resulting clipped form and could therefore be assigned suffix status, i.e. morpheme status.

However, part of the process of embellished clipping remains traditional clipping of SW. After all, clipping of *lesbian* to *lesb*, *journalist* to *journ*, *sleazy* to *sleaz* or relative to *rel* or *African* to *afr* must precede suffixation with -o to *lesbo*, *journ*, *sleazo*, *relo* and *Afro*. What is remarkable about this process is that independent clipped forms such as *lesb*, *journ*, *rel* and *Afr* do not occur. In the case of *afr* and *lesb* this might be explained by violation of phonotactic (coda) restrictions for English. However, this does not apply to *rel* and *journ*, see for example the fully acceptable forms *well* and *earn*. The non-occurrence of *lesb*, *journ*, *rel* and *Afr* shows that embellished clipping does not consist of two

⁵ For a sketch of the historic and psycholinguistic aspects of the development from disyllabic to embellished clipping and the rise of a new suffix -o, see Hamans (2020a, 2021a: 116-117)

successive independent processes – traditional clipping followed by suffixation – but of a compulsory combination of the two processes or even better the compulsory sequence of these two processes. Embellished clipping combines traditional clipping, which results in a closed monosyllable, and suffixation. This explains how the trochaic process so characteristic of disyllabic clipping in embellished clipping occurs here.

In summary, embellished clipping also follows a strict pattern characterized by

- left alignment;
- clipping of the SW to a closed monosyllable;
- followed by compulsory ‘suffixation’ with a newly developed suffix -o;
- resulting in a trochaic output

However, this was not the end of the development. The language speaker expanded the scope of the process and started to produce what Hamans (2021b: 183) calls ‘pseudo-embellished clippings’.⁶

(5)	<i>stinko</i>	from <i>stink</i>	+ -o
	<i>pinko</i>	from <i>pink</i>	+ -o
	<i>kiddo</i>	from <i>kid</i>	+ -o

It is noteworthy that the new suffix -o needs not to be preceded by a clipped part, as in embellished clippings. The suffix can be added to monosyllabic nouns and adjectives. Consequently, pseudo-embellishment is not part of non-morphemic word formation but belongs to standard (morphemic) word formation. However, the data show that the input of pseudo-embellished clipping must be a monosyllabic word and the output of the process must be trochaic.

In short, the constraint clipped is abandoned, but the other constraints still operate:

- monosyllabic SW;
- followed by a suffix -o;
- trochaic output.

⁶ The term may be misleading since the resulting forms are not clipped forms. However, since there is a striking parallel with embellished clippings, the term pseudo-embellished clippings is preferred here.

2.4. Preliminary conclusion

What the examples and processes presented so far show is that the word formation process of clipping – traditional clipping as well as disyllabic clipping – does not make use of morphemes but is based on syllabic structure arguments and word stress. Embellished clipping is partly based on syllabic structure arguments. In addition, the outcome focuses on one stress pattern, which is the same as that of disyllabic clippings, i.e. trochaic. Although pseudo-embellished clipping is not a non-morphemic word-formation process, it is still based on monosyllabicity and is aimed at the same trochaic stress pattern in terms of outcome as embellished and disyllabic clippings.

2.5. Parallelism to hypocoristic formation

Bauer, Lieber and Plag (2013: 190-191, 400-404) point to the parallelism of hypocoristic formation. Hamans (2020a, 2024) extensively discusses this parallelism. A few examples will be presented here to show how this process of word formation also makes use of syllabic and prosodic arguments.

(6)	<i>Andy</i>	from <i>Andrew</i>	+ -y
	<i>Debbie</i>	from <i>Deborah</i>	+ -ie
	<i>Emmy</i>	from <i>Emma/Emily</i>	+ -y
	<i>Monty</i>	from <i>Montgomery</i>	+ -y
	<i>Brady</i>	from <i>Brádaigh</i>	+ -y
	<i>Patty/Patsy</i>	from <i>Patricia</i>	+ -y/-sy

It must be noticed that the source words of the hypocoristics in (6), the full names, are truncated to monosyllabic forms before affixation can apply, just as in embellished clipping. These monosyllabic forms are all heavy syllables. The total word-formation process again consists of two steps: first truncation to a monosyllable, a heavy syllable, followed by suffixation. Thus, *Montgomery* > *Mont* + -y or *Andrew* > *And* + -y. It is also remarkable that all forms in (6) consist of a trochee, just as in all disyllabic and embellished clippings. As is well-known, a trochee, thus a word form consisting of a stressed syllable followed by an unstressed one, is the preferred English word form.

It will come as no surprise that pseudo-embellished hypocoristic forms are also possible. See for example *Johnny* from *John*, but such a form can also and perhaps better be explained as a diminutive of *John*, just like *doggy* from *dog*.

3. Libfixing⁷

‘Libfixing’ is a term introduced by Zwicky (2010). ‘Libfix’ is a blend of the words *liberated* and *affix* and refers to suffix- like elements that are ‘liberated’ from a longer formation and that can productively be used to coin novel words. As will be shown, libfixes are non-morphemic word fragments, that are affix-like elements and, therefore, by definition productive.

- | | | | |
|------|--------------|---|-----------------------------------------------------------------|
| (7) | apocalypse | > | –(p)ocalypse
snowpocalypse
heatpocalypse
Trumpocalypse |
| (8) | Armageddon | > | –(ma)geddon
carmageddon
snowmageddon
pharmageddon |
| (9) | anniversary | > | –iversary
blogiversary
monthiversary
workiversary |
| (10) | vacation | > | –cation
staycation
brocation
gaycation |
| (11) | documentary | > | –umentary
mockumentary
shockumentary
dogumentary |
| (12) | radar | > | –dar
gaydar
jewdar
fishdar |
| (13) | Frankenstein | > | Franken–
Frankenstorm
Frankenfood
Frankenscience |

⁷ For a much more elaborated analysis of libfixing in English and especially Dutch and a discussion of the literature about libfixes see Hamans (2020b)

The data presented in (7) to (13) are clearly instances of conscious word formation.⁸ Although conscious word formation is usually ignored in grammatical analysis, the data presented above are nevertheless seen here as important examples of non-morphemic word formation. The data show that this is a productive word formation and for that reason alone these facts should not be excluded. In addition, analysis of these examples show that they follow a similar pattern as the data analysed in the previous section.

One may want to describe the processes operating in (7)-(13) as a result of blending. However, doing so denies the productive, serial nature of libfixing, where the libfix plays the role of an affix.

Looking at the data (7)-(13) makes clear that the resulting forms must adhere to the prosody, the syllabic, and the metric structure of the SW. In for example *apocalypse* the first and stressed syllable, *a-*, may be truncated but a new, also stressed, monosyllabic form must be inserted in the place left open by the deletion of *a-*. That is why main stress remains on the first syllable in *snowpocalypse*, *heatpocalypse* and *Trumpocalypse*. If the deleted syllable only bears secondary stress as *doc-* in (11) *documentary*, the replacement syllable, which is a fully stressed monosyllabic word in this case, also receives only secondary stress, see *mockumentary*, *shockumentary* and *dogumentary*.

The data presented in (8) nicely show that exactly as much material may be inserted as was previously deleted. Compare for instance *carmageddon* and *pharmageddon*. In the first case, only the first syllable of *Armageddon*, *ar-*, is deleted and replaced by the monosyllabic word *car*, while in *pharmageddon* the first two syllables of *Armageddon*, *arma-*, are deleted and replaced by the disyllabic word *pharma*.

In (13) it is, of course, the last and not the first syllable that must be truncated, which shows that libfixes not only are suffix-like, but can also be prefix-like. Suffix-like libfixes, however, are more frequent than prefix-like.

In short, libfixing follows a fixed pattern:

- delete one or more syllables from the utmost left or right end of SW;
- insert as much syllabic material as has been deleted into the open slot(s);
- follow the original stress pattern of SW.
-

Or even shorter: copy the syllabic and prosodic structure of the model, which is SW.

⁸ Libfixing does not necessarily require reanalysis of one opaque form. It is also possible that a libfix is the result of a few more or less similar forms, as in Pakistan, Kurdistan, Afghanistan, and Uzbekistan. These names gave rise to the libfix *-istan*, as in Londonistan, divorcistan, dum(b)fuckistan and girlistan.

In a later stage of the development, the libfix may acquire a more traditional suffix-like character and may accept longer forms than the originally deleted ones:

- (14) redneckdar
sarcasmdar
grammardar

Here the condition of monosyllabicity, which came from SW *radar*, is given up.

4. Blending⁹

Lexical blending is a process that combines (parts of) two source words into one single form, losing some phonological material in the process (Moreton et al. 2017: 349). Blends combine the first part of the first SW with the final part of the second SW. Plag (2003: 122) expresses this regularity in a blend rule:

- (15) AB + CD → AD

This rule says:

- (re)analyse both SW's and divide each of them in two parts respectively A and B, and C and D without necessarily basing this division on word, morpheme or syllable boundaries
- subsequently combine the first part of SW1, A, with the final part of SW2,¹⁰ D, as in the examples (16), where the parts B and C are between brackets.

- (16) br (eakfast) + (l) unch → brunch
A B C D A D
adver (tisement) + (edi)torial → advertorial¹¹
A B C D A D
Hunga (rian) + (Ame) rican → Hungarian¹²
A B C D A D

⁹ For a much more detailed analysis of blending and an extensive discussion of the relevant literature see Hamans (2021a: 157-238 and 2021c)

¹⁰ Plag (2003) exceptionally also accepts AC combinations as a special type of blends. This is not correct, as Hamans (2020c) shows. AC combinations exhibit the stress pattern of compounds, while AD blends do not. AC combinations, such as *sitcom*, *biopic*, and *cyborg* (from *situation comedy*, *biography picture* and *cybernetic organism*) should therefore be regarded as compounds of clipped words.

¹¹ It is, of course, also possible to divide both SWs in a different way: *advert(isement) and (edit) orial*. However, this has no effect on the outcome of the blending process.

¹² Again, a different division of both SW's is possible without any effect on the process of blending.

The data presented in (16) show that the division of the SW's and the subsequent combination of parts are not necessarily based on morphemes, which makes this process a non-morphemic word formation process.

Blends exhibit a head, as Gries (2012: 164) observed. Gries used semantic criteria and statistical data to reach this conclusion. However, there are also abundant formal arguments, as the following data show.

- (17) simultaneous (Adj) + broadcast (Noun) → simulcast (Noun)
malicious (Adj) + software (Noun) → malware (Noun)
bark (Verb) + architecture (Noun) → barkitecture (Noun)
- (18) German
die Kur 'cure' (F) + der Urlaub 'vacation' (M) → der Kurlaub (M)
die Sport 'sport' (F) + das Hotel 'hotel' (N) → das Sporthotel (N)
die Daten 'data' (pl) + die Kartei 'file' (sg) → die Datei (sg)

These examples show that the righthand part, the part which comes from SW2, is the head. It determines the part of speech as the English examples in (17) show and also gender and number, as the German data from (18) make clear. It is worth noting that blends resemble compounds in this respect.

However, when it comes to the stress pattern of the final blend, it appears that blends essentially differ from compounds. Compounds in English, and German, get stress on the first part, whereas blends follow or copy the stress pattern of the head, SW2, as the examples in (19) show (cf. Bat-El and Cohen 2012).

- | | | | | | |
|------|---------------|---|------------|---|-------------|
| (19) | SW1 | + | SW2 | → | Blend |
| | boat | | hotél | | boatél |
| | flústered | | frustráted | | flustáted |
| | advértisement | | editórial | | advertórial |
| | frappé | | cappuccíno | | frappuccíno |
| | fěrtilizer | | irrigátion | | fertigátion |
| | prestígious | | dóminant | | préstinant |

The last example shows how strong the prosody of the SW2 is. Even when all the relevant segmental material – *dóm* – is not preserved, SW2-stress is retained. The only conclusion which can be drawn here is that blends follow the stress pattern conditions of the head. Blends therefore appear to consist of one prosodic word, although formally they are a concatenation of two parts of SW's, which indicated that blends are formed at the morphology-phonology interface.

Finally, the syllabic structure of SW2 turns out to determine the outcome of the blending process, as the data in (20) show (cf. Bat-El 2006).

(20)	SW1	+ SW2	→	blend	replacement in SW2
	br(eakfast)	(l)unch		brunch	(onset replacement)
	gi(gantic)	(e)normous		ginormous	(onset plus nucleus replacement)
	stag(nation)	(in)flation		stagflation	(one syllable replaced)
	flexi(ble)	(vege)tarian		flexitarian	(two syllables replaced)

These examples show that if a left part of SW2 is deleted (part C of Plag's blending rule), then the structurally equivalent left part of SW1 (part A) may be inserted. The example *ginormous* shows that the part to be inserted must be structurally equivalent. SW2 of *ginormous*, which is *enormous*, starts with an empty onset followed by the nucleus of the first syllable *e-*. Truncation of this vowel implies also truncation of the preceding empty nucleus. Therefore, the onset plus nucleus of SW1, *gi-* must be inserted. In summary: the syllabic structure of the head determines the outcome of the blending process.

This brief analysis of blending shows that blending also follows a strict pattern:

- blends consist of a concatenation of the first part of SW1 and the final part of SW2;
- SW2 provides the head of a blend;
- blends form one prosodic word, which must follow the stress patterns of SW2;
- blends also copy the syllabic structure of SW2.

The only point which is not discussed here is the switch point, that is, it has not been checked where the cut-off points fall in SW2. Since this has to do with the possible recognition of SW2 and SW1 by the listener, this seems more a matter for psycholinguistic research than for a formal analysis.

5. Conclusion

In the foregoing, three phenomena normally counted among the exception areas of morphology - clipping, libfixing and blending - have been shown that, contrary to what has traditionally been assumed, these phenomena do exhibit a certain regularity and thus form part of the grammar.

It is then noticeable that these areas, which should all be counted among word formation, since they produce new word forms, do not make use of the notion morpheme. Therefore, they may be called processes of non-morphemic word formation. Next, what is also striking is that once these processes - except for traditional clipping - have reached a certain level of productivity they can lead to affix formation and thus lead to standard morphological word formation processes.

This becomes most obvious in the case of embellished and pseudo-embellished clipping.

Another common feature of all these processes is that they use syllabic structure conditions. Moreover, the processes leading to multi-syllabic outputs also appear to rely on prosodic and metrical factors, proving that these processes take place at the phonological-morphological interface.

- In short, the analysis of clipping, libfixing and blending presented here shows:
- that there exist systematic processes of non-morphemic word formation, alongside traditional morphemic word formation;
- that non-morphemic word formation takes place at the phonology-morphology interface;
- that prosodic, metric, and syllabic features play an essential role in processes of non-morphemic word formation.

References

- Bat-El, O. (2006). Blend. In K. Brown (Ed.), *Encyclopedia of language and linguistics* (2nd ed., pp. 66–70). Oxford: Elsevier.
- Bat-El, O., & Cohen, E. (n.d.). Stress in English blends: A constraint-based analysis. In V. Renner, F. Maniez, & P. Arnaud (Eds.), *Cross-disciplinary perspectives on lexical blending* (pp. 193–211). Berlin: De Gruyter Mouton.
- Bauer, L., & Huddleston, R. (2002). Lexical word-formation. In R. Huddleston & G. Pullum (Eds.), *The Cambridge grammar of the English language* (pp. 1621–1721). Cambridge: Cambridge University Press.
- Bauer, L., Lieber, R., & Plag, I. (2013). *The Oxford reference guide to English morphology*. Oxford: Oxford University Press.
- Gries, S. (2012). Quantitative corpus data on blend formation: Psycho- and cognitive linguistic perspectives. In V. Renner, F. Maniez, & P. Arnaud (Eds.), *Cross-disciplinary perspectives on lexical blending* (pp. 145–167). Berlin: De Gruyter Mouton.
- Hamans, C. (2020a). How an ‘Italian’ suffix became productive in Germanic languages. In P. ten Hacken & R. Panocová (Eds.), *The interaction of borrowing and word formation* (pp. 140–161). Edinburgh: Edinburgh University Press. <https://doi.org/10.3366/edinburgh/9781474448208.003.0008>
- Hamans, C. (2020b). Contra de linguïstische preutsheid. Over -gate en andere libfixen. *Nederlandse Taalkunde*, 25(2–3), 319–332.
- Hamans, C. (2020c). The difference between blends and clipped compounds. In G. Danon (Ed.), *Proceedings of IATL 34. Papers from the 34th annual conference of the Israel Association for Theoretical Linguistics* (pp. 31–43). Ramat Gan, Israel: Israel Association for Theoretical Linguistics. https://www.iatl.org.il/?page_id=1743
- Hamans, C. (2021a). *Borderline cases in morphology: A study in language change*. Lewedorp: Van Kemenade.
- Hamans, C. (2021b). The rise of non-morphemic word-formation. In R. Kiełtyka (Ed.), *Studies in the evolution of the English language* (pp. 173–205). Warsaw: Peter Lang.

- Hamans, C. (2021c). Blends: An intermediate category at the crossroads of morphology and phonology. *Yearbook of the Poznań Linguistic Meeting*, 7(1), 99–128.
- Hamans, C. (2024). The syllable as the basis for word formation: Evidence from diminutives, hypocoristics, and clippings in English, Dutch, Afrikaans, Swedish, and French. In S. Manova, L. Grestenberger, & K. Korecky-Kröll (Eds.), *Diminutives across languages, theoretical frameworks and linguistic domains* (pp. 132–147). Berlin, Boston: De Gruyter Mouton. <https://doi.org/10.1515/9783110792874>
- Harley, H. (2006). *English words: A linguistic introduction*. Oxford: Blackwell.
- Marchand, H. (1969). *The categories and types of present-day English word-formation: A synchronic-diachronic approach* (2nd ed.). München: Beck.
- Moreton, E., et al. (2017). Emergent positional privilege in novel English blends. *Language*, 93(2), 347–380.
- Plag, I. (2003). *Word-formation in English*. Cambridge: Cambridge University Press.
- Zwicky, A. (2010). Libfixes. Retrieved from <http://arnoldzwicky.org/2010/01/23/libfixes/> (Re-accessed January 16, 2024).