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On the marginality of lexical blending

In spite of a recent surge of interest in it, blending remains among the most poorly understood and elusive word formation processes. What almost everybody seems to be agreed on is that, although it appears to be attested in many languages, it is doubtlessly a marginal morphological process. However, a closer look at cross-linguistic data reveals that there are striking differences between individual languages concerning the degree of its marginality. The goal we set ourselves in the present paper is to motivate the observed cross-linguistic differences by discussing two clusters of factors that may play an important role in making blending more or less marginal, i.e. serve as functional prerequisites for the spread of blends. One of these are certain constructional traits of the languages involved. What we primarily have in mind here is the prominence of the constructional schemas for two other word formation processes – compounding and clipping. The other cluster of factors involved here has to do with the dynamics and flexibility in the lexicon, viz. the speed with which foreign lexemes are adapted and become near-native elements of the lexical stock. Our claim is that the less open and flexible a language is in this respect, the more marginal the blends that are found (if any) will tend to be.

Key words: lexical blending, contrastive linguistics; motivation; constructional schema; conceptual integration; word formation; compounding; clipping; truncation; lexical borrowing.

1. Introduction

In spite of a recent surge of interest in it, blending remains among the most poorly understood and elusive word formation processes. There are so many things about it that remain to be investigated and so many issues on which there

is no real consensus among researchers, from a satisfying definition to an extensional account of the phenomenon including an inventory of various subtypes. What almost everybody seems to be agreed on is that, although it appears to be attested in many languages, it is doubtlessly a marginal morphological process. However, a closer look at cross-linguistic data reveals that there are striking differences between individual languages concerning the degree of its marginality. In other words, blending is more marginal in some languages than in some others. The question of why this should be so has to our knowledge never been addressed directly.

This question is all the more interesting since a spate of recent studies pointed out that lexical blending is just one of the many ways in which conceptual integration or blending may manifest itself. Since conceptual blending is claimed to be one of the central cognitive processes, omnipresent in our daily lives, from online reasoning to arts to communication, and that it underlies a whole range of linguistic phenomena, it comes as somewhat of a surprise that lexical blending should be so marginal. Even if we grant it this universally marginal status, why should it be almost non-existent as a word formation process in certain languages.

The goal we set ourselves in the present paper is to discuss two clusters of factors that may play an important role in making blending more or less marginal, i.e. serve as functional prerequisites for the spread of blends. One of these are certain structural properties of the languages involved. What we primarily have in mind here is the prominence of the constructional schemas for two other word formation processes – compounding and clipping. We shall show that there seems to obtain a correlation between the productivity of these three word formation processes, if not an implicational scale, such that languages exhibiting less compounding and clipping are quite likely to have fewer blends. In other words, the centrality or marginality of blending can be linked to (and motivated by) the centrality or marginality of other word formation processes. The differences between languages concerning the productivity of these three processes can be teased out by a contrastive analysis, though, of course, not quite a classical one.

The other cluster of factors have to do with the dynamics and flexibility in the lexicon, viz. the speed with which foreign lexemes are adapted and become near-native elements of the lexical stock. Our claim is that the less open and flexible a language is in this respect, the more marginal the blends that are found (if any) will tend to be.

In the first part of our paper we try to determine the place of blending as a word formation process within a general morphological model by playing out its various definitions against each other, while at the same time sketching a possible typology of blends. After a discussion of the relationship between lexical blending and the conceptual blending or integration we move on to a cross-linguistic comparison of its productivity in English, German, Hungarian and Croatian. Subsequently, we plot our findings against the relative productivity of the two other word formation processes mentioned above. In the second part, we first consider the ratio of native and non-native elements in the respective lexical stocks of the four languages, and then flesh out our hypothesis by focusing on the activity of foreign elements in word formation in general, and specifically on their role in lexical blending.

2. Lexical blends and their structural kin

2.1. *On the nature of blending, conceptual and lexical*

According to Cannon (2000: 956), lexical blends are a very old kind of word formation attested in many of the world's ancient languages, e.g. in Vedic Sanskrit, Attic Greek, Latin and Old High German. However, he concludes that "blends may continue as a morphologically interesting but nonetheless minor part of word formation." Their marginal status manifests itself at two levels. Firstly, they are marginal in the languages in which they are found. Secondly, the may be even more marginal in the sense that some languages exhibit virtually no lexical blends. According to Bertinetto (2001: 61):

> ... not all languages are equally prone to accepting this process of word formation: Spanish, for instance, exhibits virtually no examples [...]. On the other hand, English, German and French exploit fairly often this device, which is also found to a lesser extent in Italian.

One of the informal indicators of the marginality of blending as a word formation process is a great confusion when it comes to a more precise delimitation of the scope of the phenomenon. We shall illustrate this point mainly on English, but the situation holds *mutatis mutandis* for other languages as well.

Different definitions naturally lead to the exclusion or inclusion of a large number of specific cases. In some cases the appeal is made to the fact that blending is a process that disregards morpheme boundaries. Bauer (1983: 234) thus defines a blend as a new word formed "in such a way that there is no transparent analysis into morphs." The problem with this formulation is not only that both source words in some of the items are morphologically transparent, even though

both have been reduced, but even more importantly that it is too general because it could cover clipping as well.

The received wisdom is that lexical blends are words formed from parts of two (or possibly more) other words by telescoping them, i.e. taking the extreme parts of the words involved, often by splitting morphemes. Consider some illustrative English and German examples:

(1) a. nutraceutical (→ nutrient + pharmaceutical)
     b. prosumer (→ producer + consumer)

(2) a. Hirsotto (→ Hirse 'millet' + Risotto 'risotto')
     b. KauderWebsch (→ Kauderwelsch 'gibberish' + Web 'web')

The above definition, however, leaks, even though it crucially improves on Bauer in that it mentions two or more input words. For one thing, there are also blends in which one source word, or even both source words, in fact remain intact:

(3) a. cartooniverse
     b. guesstimate

German

(4) a. WAPathie (→ WAP + Apathie 'apathy')
     b. Pharmakolympia (→ Pharmakologie 'pharmacology' + Olympia 'Olympics')

Hungarian

(5) a. adventúra (→ advent 'advent' + túra 'tour, excursion')
     b. MOLimpia (→ MOL 'Hungarian oil company' + Olimpia 'Olympics')

If we allow for one of the source words to remain apparently intact, there is no principled way of excluding other cases of combinations of a reduced first element and a full second element, and once these are also admitted as blends, due to the semantic relationship between the two elements (to be discussed presently), there is no principled way of excluding on formal grounds combinations of two reduced forms in which both elements exhibit reduction of their right-hand segment, and not even those combinations where only the second ele-

ment's right-hand peripheral segment is curtailed (i.e., what Gries (2004: 215) calls complex clippings):

(6)   a. sitcom (→ situation + comedy)
      b. hi-fi (→ high + fidelity)
      c. ag-sci (→ agricultural scince)
      d. yestertech (→ yesterday's technology)

Even a refined definition such as Cannon's (2000: 952),

> … a process of word formation in which two (or rarely, three) separate source items are telescoped into a new form, which usually exhibits overlapping and retains some of the meaning of at least one of the source items.

does not succeed in filtering out the last two cases entirely. First of all, the whole burden of the definition rests on an undefined notion of telescoping. If it is understood in the sense of intercalative formations, then infixation and discontinuous affixation may be seen as special cases of blending, or one could suppose all the three to be instatiations of a yet to be labelled type of affixation, particularly because of the unfortunate hedge *usually*: the overlap is neither necessary nor probably sufficient. On the semantic front, the definition is again vague: the two source words need not have extremely much in common in terms of their meaning.

It appears then that we are in fact dealing with a cluster of related phenomena exhibiting family resemblance. There is the core of items to which a much stricter definition applies: the input words are shortened at their seam, i.e. the end of the left-hand item and the initial segment of the right-hand item, or/and they share a phonological segment, while in semantic terms they are co-hyponyms of some third item. Cf. the following examples:

(7)   a. They have already created a *"goabex,"* a cross between a goat and the desert-adapted ibex. [National Geographic November 1979 616]

      b. The corporate folks who brought you the Walkman and the PC and sweaters in every shade found in the rainbow have hit upon a new merchandising device: the *magalog*. Part life-style book, part catalog, there are now more than 100 of these hybrids whose strategy is to reach customers directly and treat every page as a marketing opportunity. [Newsweek 15/11/1993 49]

      c. Above all, as we shall see, Third Wave civilization begins to heal the historic breach between producer and consumer, giving rise to the

'*prosumer*' economics of tomorrow. [Toffler, Alvin: The Third Wave. London: Pan Books, 1981, 24f]

It is clear that examples like these exhibit an obvious parallel with coordinative compounds.

If the two input words fail to qualify as co-hyponyms, then we have determinative-compound-like blend, with or without overlap:

(8)   a. spam (→ spiced + ham)
      b. shamateurism (→ sham + amateur)
      c. warphan (→ war + orphan)

German

(9)   a. Revölution (Revolution 'revolution' + Öl 'oil')
      b. daumatisch (Daum 'thumb' + traumatisch 'traumatic')
      c. Videoten (Video 'video' + Idioten 'idiots')

Finally, if the two input elements are in a determinative relationship and fail to exhibit phonological overlap, they may in fact be clipping compounds:

(10) Amerindian

The core type blends illustrated in (7) above would thus qualify as the most exotic or extreme subtype in morphological terms because they are subject to most stringent restrictions. Both input words must belong to the same word class. Their productivity is also clearly restricted in pragmatic terms: such blends usually have concrete referents that must be rare and therefore not too salient in the real world by virtue of denoting entities that are halfway between other entities invoked to name them. They are also at the core of the category of blends because they often exhibit diagrammatic iconicity in the sense that semantic overlap tends to be accompanied by phonological overlap. The reduction in the conceptual distance between the input words is signalled by the reduction of their phonological distance, i.e. by their fusion.

Let us clarify what we mean here by the reduction in the conceptual distance. If we have two entities in the world and somehow succeed in "blending" them we do not have the original entities any longer, we rather produce something that is halfway between them and therefore new, it inherits some features from the inputs, shared or not, but some novel and unexpected features may appear. Classic examples of this are cases of mixing two metals, both of which are rela-

tively soft, to produce an extremely hard one, or of cross-breeding two animals where the unexpected feature is as often as not the sterility of the offspring.

It is no wonder in view of this reduction of conceptual distance that accompanies this sort of blends that lexical blending has recently been recognized as one of the instances of conceptual blending or integration (cf. Kemmer 2000, 2003). Conceptual blending is assumed to be one of the most basic cognitive processes operative in many areas of human activity, from the interpretation of metaphors and metonymies, to the grammaticalization of new constructions and idioms in syntax and phraseology, respectively, to the organization of complex narratives. According to Fauconnier and Turner (1999: 76), conceptual blending allows us to 'blend' two mental spaces "to create a third that is not merely a composition of the first two but instead has emergent structure of its own." Such integration networks typically include at least four mental spaces, at least two input spaces, a generic space applying to both or all inputs, and a blended space which is the result of a selective projection from the inputs as well as of the elaboration and pattern completion based on the inputs.

In the special case of lexical blends, what gets blended is not only the concepts but the forms as well. This sort of account certainly works well for the co-ordinative-compound-like blends, whose inputs exhibit co-hyponymy. Simplifying things to a degree, we might assume that determinative-compound-like blends and most clipping compounds do not exhibit any sort of semantic overlap. It would follow that no conceptual integration takes place there. On the contrary, as claimed by Kemmer (2003) and Barlow (2000), conceptual integration is nevertheless at work here too because blends like *glitterati* can be interpreted only if both the putative input words *glitter* and *literati* are invoked together with whole ICMs (Idealized Cognitive Models) or domains of which the input words partake. The result of the conceptual blending of the two domains is not simply the sum of the source domains but is in fact very selective because only certain specific elements are chosen from the source domains and merged into a functional whole. For example, it is not the whole domain of GLITTER that is mapped: a number of concepts can be invoked in theory, some by means of metonymy and metaphor. What is actually selected in the blend is an elite group of people who *glitter* metaphorically and metonymically: in terms of their fame, beauty and prospects, and often concerning their clothes and jewellery.

In sum, some sort of integration at the conceptual level is operative in all types of lexical blends, and, what is more, it is the same type of integration or blending that is found to be a central phenomenon of human activity, and therefore also central in language. The questions we are now posed with are the following: if conceptual blending is one of the central cognitive processes, omni-

present in our daily lives, from online reasoning to arts to communication, and therefore underlying a whole range of linguistic phenomena, why are lexical blends so marginal, and why are they almost non-existant as a word formation process in certain languages?

At a very general level, part of the answer to the first question may be in the distinction between blending as a process, conceptual and morphological etc., on the one hand, and the results of the process, on the other. First of all, in process-oriented morphological models, blending as a morphological process is primarily seen as a formal operation, i.e. the focus is on its formal mechanism largely divorced from its conceptual aspects. Further, as pointed out by Lehrer (1996: 360), while the results of blending may be ephemeral and marginal, the process itself need not be. We may also add that it may be more or less central or marginal in some areas. One of the best indirect ways to go about in addressing this issue of the degree of its marginality is in our opinion to try to provide an answer to the second question above and uncover the factors that may preclude blending from playing itself out in the lexicon.

3. A cross-linguistic comparison of the productivity of blending

So far we have been claiming, somewhat apodictically, that there are striking cross-linguistic differences concerning the productivity of blending, and it is time now to substantiate our claim. It is, of course, impossible to conduct any traditional sort of contrastive analysis to determine cross-linguistic differences and similarities concerning the productivity of blending, as is the case with contrasting many phenomena in various languages (cf. numerous such warnings by Kučanda, e.g. 1982, 1986, 1989, 1994). The ephemeral nature of blends dictates the procedure here. There is no question of starting with a blend in one language and looking for its equivalents in another language, because it is almost certain that there will be none, or even worse, there will be the same blend borrowed from the source language of the contrastive analysis but unanalyzable in the target language of the analysis.

What is equally obvious at the outset is that blending is attested in all the four languages we are concerned with here, in English, German, Hungarian and Croatian, and that we have to devise alternative ways of measuring and comparing the productivity of the process. We could think of four such measures of productivity: 1. the number of new words coined by blending in a given period of time and the percentage of blends in the total of new words as well as in the total lexical stock; 2. the number of subtypes attested and currently active, as well as the relative frequency of individual subtypes; 3. the ratio of nonce-

formations and established blends; 4. an inventory of semantic domains in which blending is represented and of discourse environments in which they appear. For reasons of space we can only consider in brief the first two.

1. Computing the sheer number of new words formed by blending, either in a given period of time and the percentage of blends in the total of new words, or in the total lexical stock, is a formidable task even if we restrict ourselves to a single language. By necessity, we are forced to combine more objective data with subjective, intuitive judgements when it comes to a comparison of four languages. The fact that data on English are more readily available than on the other three languages is in its own right telling.

Cannon (1987) is a study of 13,683 neologisms that appeared in three innovational dictionaries recording new words and new meanings in English that jointly cover the period between 1961 and 1981, overlapping between 1963 and 1980 (*The Barnhart Dictionary of New English since 1963* (1973)*, The Second Barnhart Dictionary of New English* (1980), und *Webster's Third New International Dictionary of the English Language* (1961)). Out of this total, around 1% are blends proper (only coordinative-compound-like ones), and the process appears roughly as productive as back-formation or acronymy. If we, however, consider the fact that the category that he terms "shortening + word" and which comprises 4% of recorded neologisms, includes words like *technetronic* (*technological + electronic*) and *citybilly* (*city + hillbilly*), i.e. some clipped compounds and determinative-compound-like blends, the proportion of blends among the new words must be much higher.

Rot (1991: 74) claims that blending does not seem to be operative in the standard language, but that it is "hard at work in non-standard (slang)", the percentage of blended slangisms in his British material hanging around 2-3%, while American slang appears to be more fertile.

A recent informal project collecting new words in Croatian formed by subtractive word formations (including clipping and blending) that was conducted as a part of a seminar on word formation in English at the University of Osijek has come up with some 70 new words, out which only 15 were blend-like. The reason we qualify them collectively as only blend-like is that they included a number of items that were in fact blended phrases (*epidemija desnila* 'epidemics of rightism (→ *epidemija bjesnila* 'epidemics of rabies' + *desno* 'right') or *glavni uvrednik* 'chief insulter' (→ *glavni urednik* 'chief editor' + *uvreda* 'insult') so that there was only a handful of genuine blends such as *kromika* (→ *kronika* 'chronicle' + *komika* 'comicness').

It is indicative that in fact no term is established in Croatian for blending and that the process has not been discussed in standard reference works on Croatian grammar in general or descriptive accounts of Croatian word formation. Apparently, the only studies that address the phenomenon in Croatian are Brdar-Szabó and Brdar (1998) and Muhvić-Dimanovski (2001), the latter suggesting the term *kontrakcija*.

The other two languages we are concerned with here, German and Hungarian, come somewhere between English and Croatian. Since no ready-made data are available for Hungarian, we examined Kiss and Pusztai (1999), which lists 1,912 new words and meanings in Hungarian that were attested during the 1997. All in all, 30 entries could be established as exemplifying lexical blending, which is 1.56% all the neologisms listed.

As for German, we note Kemmer (2003) remarking in passing (contra Berti-netto 2001, as quoted above) that "one might think blending would be common in languages closely related to English, but in other Germanic languages compounding is dominant word-formation process and lexical blends are extremely rare." While we may concur with her claim that in no other language does blending play "anywhere near the role that it does in English," the contrast between English and other Germanic languages, German among them, may in fact be exaggerated. One of the indications of the productivity of blends in German is that there are whole series of more or less analogical blends using the same input word, e.g. *Nostalgie* has been combined with *Osten*, *Westen*, *Glasnost*, etc. to yield *Ostalgie*, *Westalgie*, and *Glasnostalgie*.

Another indicator of their productivity may be the collections of neologisms by students of German at the University of Budapest who were required in partial fulfilment of a 2nd year course requirements in 2000/2001 to excerpt 20 neologisms from an authentic German text of their choice such that the choice should exhibit at least seven different types of word formation processes (so as to preclude them from collecting only compounds and suffixations). Thus, the collection for the winter term 2000, with contributions from 50 students comprised 1,127 neologisms, out of which 53 could be established as blends. In summer term of the same academic year, 668 neologisms were collected, with 30 lexical blends. All in all, there were 1795 neologisms, and 4.62% of these, or 83, were lexical blends.

2. Adopting a looser definition of blends, we allowed the existence of three subtypes: coordinative-compound-like blends, determinative-compound-like blends and clipped-compound type. All the three subtypes are attested in the four languages, but there are obvious differences in their relative productivity

and frequency. Disregarding the cross-linguistic differences across individual subtypes, we can say that determinative-compound-like blends are the dominant subtype in all the four languages under investigation. On the whole, coordinative-compound-like blends seem to be almost as well represented as the clipped-compound type in English, German, and Hungarian. Coordinative-compound blends are virtually non-existent in Croatian, and it also appears that the clipped-compound type is only slightly less well represented than the determinative-compound-like type.

4. Motivation for the cross-linguistic contrasts

It is part of common knowledge among linguists that there was a period of time when contrastive analysis, after peaking in the 60s and 70s, fell into disrepute, due to a number of reasons. First of all, the hopes that contrastive analysis would prove a cure-all for problems encountered in language teaching were soon shattered. However, contrastive analysis failed on a more general descriptive and theoretical level too.

There were simply not enough coherent contrastive descriptions of larger chunks of linguistic systems cast within a single model, or at least compatible models, to sustain the contrastive paradigm for a prolonged period of time. These studies were only too literally contrastive *analyses*, i.e. they simply took apart their subject matter, which resulted in a series of or more or less isolated contrastive statements. If any sort of synthesis was attempted at all, it invariably boiled down to some pedagogically-oriented predictions, a considerable amount of which, if not actually falsified by error analyses, turned out to be either trivial or irrelevant for second/foreign language teaching. What was lacking in most of these classical contrastive undertakings was some sort of a unifying descriptive and explanatory account that would justify both the contrastive approach and the choice of a particular area of study as a real linguistic problem.

As pointed out in Kučanda and Brdar (1989), the cross-linguistic similarities and differences established in the course of a comparison should be related to each other and/or to other phenomena in the two languages under comparison, resulting in a sythetic account. In other words, the contrasts and overlaps should be motivated.

Cognitively and functionally oriented linguists seem to have reached a broad consensus on the issue of motivation with respect to at least two of its aspects (cf. Lakoff 1987, Langacker 1987 and 1991, Haiman 1980, 1983).

Firstly, motivation is a phenomenon exhibited by a range of linguistic structures that are neither wholly arbitrary nor fully predictable. Motivation is also seen as a matter of degree. Cf. Langacker (1987: 48) and Lakoff (1987: 346 and 493), who speak of levels of predictability and relative motivation leading to restricted predictions, respectively.

Secondly, linguistic structures seem to be chiefly motivated by interplay of external factors such as cognitive structures and communicative needs. As Lakoff (1987: 539) puts it:

> People seem to learn and remember highly motivated expressions better than unmotivated expressions. We thus hypothesize that the degree of motivation of a grammatical system is a measure of the cognitive efficiency of that system relative to the concepts the system expresses.

Bybee (1985) is of the opinion that, as far as grammaticalization processes are concerned, only cognitive processes can have any motivating force. Hopper and Traugott (1993: 67) concur with this position and suggest that communication strategies "draw upon general cognitive processes."

The magnitude of cross-linguistic differences cannot be fully motivated just by reference to these two sets of factors. Whether a given language makes use of certain resources in order to achieve specific communicative goals may also have to do with how other areas of the language in question are structured, i.e. with the shape of its current grammar (Mithun 1991: 160). This is also in line with Lakoff's (1987: 537f) characterization of motivation in terms of, among other things, global ecological location within a grammatical system.

In the remaining part of this paper we intend to show that the cross-linguistic differences in the productivity of lexical blending observed above can be motivated by the degree of the entrenchment of certain constructional schema used to form new words. Although this may at first blush appear to be an attempt at providing what generative-style language-internal motivation, we claim that it is still external motivation, for at least two reasons. Instead of drawing a high-level distinction between language-external and language-internal motivation, we would like to draw a low-level distinction between external and internal motivation with respect to the phenomenon in question itself.

First, it follows then that if we relate contrasts, and in general, motivate certain language facts, by referring to other, more or less independent language facts observable in a different subsystem, or different subsystems, the motivation link is external. In our specific case, we are not attempting to relate the dif-

ferences in the entrenchment of lexical blends to any intrinsic properties they might exhibit.

Secondly, taking a somewhat broader perspective, we point out the fact that linguistic system as a whole is also a cultural artefact. In other words, the current shape of its grammar, lexis, etc. is shaped through complex and long-lasting interaction of the human race with its environment. What we mean here by environment is not only the physical environment (in which the interaction is chiefly of the bodily type). It also includes the socio-cultural environment, where the interaction is interpersonal. In other words, the current shape of a linguistic system is in part the result of the interaction in the socio-cultural environment. This global linguistic makeup (ranging from high-level typological traits to specific low-level linguistic facts) then also counts as providing external motivation.

5. Compounding and clipping in a cross-linguistic perspective

We assume that the productivity of compounding and clipping is crucial as a structural prerequisite for blends to start appearing. We have in fact demonstrated above that lexical blends combine these two word formation patterns. This applies not only to clipped compound type but to the other two as well since they are like compounds the result of juxtaposition of two words, both of which are usually clipped at the same time.

Comparing the productivity of these two processes in different languages in general terms is a relatively easy task. We are here not interested in specific cases, e.g. which subtypes of compounds, and particularly not in which specific tokens, find their correspondents in compounds in another language. Rather, we focus on the availability of general types, and whether there are cross-linguistic correspondences in general. The following randomly chosen examples clearly illustrate that compounding is of central importance in English and Hungarian, and particularly so in German. Compound nouns in these three languages almost regularly find their Croatian equivalents either in suffixations, such as *–ište*, *-onica*, (the first two darker shaded cells in the table), or in complex words formed by a synthetic process of simultaneous composition and suffixation (lighter shaded cells), or in syntactic phrases containing premodifying or postmodifying structures corresponding to the first element in compounds in the other three languages (the remaining five darker shaded cells in the table). *Tlakomjer* is superficially quite like *vodotoranj*, i.e. it looks like a N + N compound, but its second element is just a root, and cannot function as an independent word.

English	German	Hungarian	Croatian
playground	Spielplatz	játszótér	igralište
bathroom	Badezimmer	fürdőszoba	kupaonica
washing-machine	Waschmaschine	mosógép	stroj za pranje rublja
hand brake	Handbremse	kézifék	ručna kočnica
dust cover	Staubschutz	porvédő	zaštitna navlaka
sandhill	Sandberg	homokdomb	pješčani brežuljak
typewriter	Schreibmaschine	írógép	pisaći stroj
pressure gauge	Druckmesser	nyomásmérő	tlakomjer
water tower	Wasserturm	víztorony	vodotoranj

Table 1. Some examples of compounds in English, German and Hungarian, and their counterparts in Croatian

Compounding seems to be slightly more productive in Croatian in the case of adjectives, but this is still far from what the other three lanaguages exhibit (though it is interesting that where Croatian has a compound, other languages actually may have forms that have already developed in the direction of suffixations due to the fact that the second element grammaticalized towards a suffix-like status, e.g. –*frei* in German, or –*álló* in Hungarian):

English	German	Hungarian	Croatian
yellow-green	gelbgrün	sárgászöld	žutozelen
dark-red	dunkelrot	sötétpiros	tamnocrven
water-proof	wasserbeständig	vízálló	vodootporan
bloodthirsty	blutrünstig	vérszomjas	krvožedan
calorie-free	kalorienfrei	kálóriamentes	bez kalorija
earthquake-resistant	erdbebensicher	földrengésbiztos	otporan na potrese

Table 2. Some examples of compound adjectives in English, German and Hungarian, and their counterparts in Croatian

In accounting for these differences we would like to use the concept of constructional schema. According to Langacker (2008: 167):

> Symbolic assemblies can either be specific or schematic. Specific assemblies constitute linguistic expressions (like words, phrases, clauses, and sentences). More schematic assemblies are referred to in CG as constructional schemas. These provide the basis for semantic and grammatical composition.

In other words, constructional schemas are the blueprints for assembling complex expressions acquired in the process of schematization.

It appears that the general constructional schema for compounds is in Croatian less well entrenched than in the other three languages, and this is in particular true of the more specific constructional schema for endocentric N + N compounds, when compared with N + Adj or Adj + Adj compounds. There are a number of compound nouns in Croatian but they are of the exocentric type, with a verb as the first element, as illustrated in:

(11) a. cjepidlaka 'pedant, prig, hair-splitter' (*cjep-* 'split' + *dlaka* 'hair')
     b. vucibatina 'rogue, scoundrel' (*vuc-* 'drag' + *batina* 'stick, bludgeon')

This type of compounds is very common in Romance languages (cf. Tuggy 2003, Scalise and Guevara 2006).

It is important to note that the constructional schemas for compounds in Croatian, as can be seen from (11) and the tables above, involve roots extended by a thematic suffix, either *–o* (with adjectival and nominal roots) or *–i* (with verbal roots). Similar root-extending elements can also be found in German and English (e.g. the German so-called *Fugenelement –s-*), but they are less frequently required, function at the level of low-level constructional subschemas, and have a different diachronic source. Apparently, a high-level constructional schema for compound requiring the root to be obligatorily extended, as is the case in Croatian, is a very poor candidate for the model from which a constructional schema for a prototypical lexical blend can be extended.

Clipping as a word formation pattern is, again, found in all the four languages under investigation, as can be inferred from the following examples:

(12) dorm, grad, prof, hols, exam, matric, gym, tu, frat; hanky, nappy, tux; ad, mag, caps, intro; doc, san, op

German

(13) Uni 'university', Mathe 'maths', Demo 'demonstration', Akku 'battery', Ossi 'person from Eastern Germany', Wessi 'person from Western Germany'

Hungarian

(14) gimi 'grammar school', ubi 'cucumber', pari 'tomato', töri 'history'

Croatian

(15) faks 'faculty', proof 'prof', učo 'teacher', bilja 'notebook'; zamba 'homework', grammar school', bic 'bicycle'

An important difference, however, can be observed between English, on the one hand, and the other three languages, on the other. As far as the phonological pole of the constructional schema for an English clipping is concerned, we find monosyllabic and closed structures as output, i.e. English clippings typically end in a consonant. The majority of clippings in the other three languages turn out to be in fact clipped suffixations, i.e. clipped forms to which some suffix is added which contains a prominent vowel. The constructional schema is thus disyllabic (or polysyllabic) with an open last syllable (ending in a vowel). This is relevant for us because most clipped segments that occur as the first part in blending tend to be of the former type.

In sum, we have seen that both compounding and clipping are very important and frequent in English. The former word formation pattern is also very frequently invoked in German and Hungarian, while it is only an exceptional phenomenon in Croatian. As for clippings, they are usually without suffixes in English only. The other three languages are fond of adding suffixes to clipped forms.

Assuming that these two word formation patterns, which can also be invoked in defining blends, are structural prerequisites for blending in the sense of well-entrenched model paths to follow, we might conclude that the English environment is just right for it, English and Hungarian following closely, while these preconditions are practically lacking in Croatian as far as compounding is concerned.

6. On the word formation activity of borrowed lexical elements

The lexical stock of any living language is continually being enriched by adding new elements. This can happen by recycling the existing lexemes, either by exploiting the word formation potential or by metaphorically and metonymically extending the meanings of already existing expressions. The other major possibility is to borrow expressions from other languages.

The fact that the lexical stock of present-day English is extremely rich is in part due to the centuries-old tradition of unscrupulous borrowing from a number of languages. Cannon (1987: 89) comes up with 1,029 borrowings among the 13,683 neologisms he collected from recent dictionaries. These come from as many as 84 languages, but the majority, i.e. 254 items, come from French.

Bliss (1966: 25) shows that the rate of borrowing is in fact accelerating through centuries:

	Medieval	16c	17c	18c	19c	20c
French	19	42	166	316	736	1103
Classical	89	237	371	173	328	250
Italian	-	26	48	100	90	153
German	-	2	2	4	58	240
Spanish	-	13	14	14	47	32
Other European	4	10	13	22	49	53
Non-European	2	12	56	35	97	55
Total	114	342	670	664	1405	1866

Table 3. Borrowed words in English in various periods, according to the source language (according to Bliss 1966)

In actual fact, following the Norman Conquest, words from French were entering English by the thousands, a trend which was slowed down only by King John's loss of Normandy in 1204. The importance of French as a socially prestigious language in England declined until the second half of the 14th century when it, for all purposes, attained the status of an ordinary foreign language, but imports of new words continued, although the distribution of their sources became different.

On the other hand, the other three languages we are interested in here have in their recent history been subjected to at least one period of politically and culturally motivated intervention aimed at restoring the "true spirit" of the language by purging it of foreign elements. In some case there have been several such purist cycles. German has been subjected to such enterprises since the 17th century, probably peaking in the work of Campe around the end of the 18th and the begin of the 19th century who crusaded against foreign words, replacing them with German ones. Hungarian and Croatian have both seen similar periods of heavy purges in the second half of the 19th century, their protagonists often inspiring and copying each other across language borders, as shown in Nyomárkay (1993 and 1997).

As we all know, in due time borrowed items normally adapt to the requirements of the host system, phonologically, morphologically and semantically, and thus gradually shed properties that set them apart from native lexemes. Ul-

timately, they may come to attain the same status as native lexemes and cease to be regarded as foreign by most native speakers. This process of nativization seems to be quicker in English than in the other three languages. In other words, English is more dynamic and flexible in this respect. Nevertheless, the general distinction between native and borrowed lexical items is an important one and has certain morphological, socio- and psycholinguistic ramifications.

As for the unusual morphological behaviour of borrowed elements, as well as the levelling process going on, we can adduce the case of irregular plurals of some nouns in English. Nouns of Greek and Latin origin have often kept their original plural endings. Thus *loci, larvae*, *phenomena*, *criteria* and *crises* still function as the only plurals of *locus, larva*, *phenomenon*, *criterion* and *crisis*, respectively. Some nouns like *curriculum* or *automaton* have both regular native and irregular foreign plurals, while many nouns have become completely regularized.

The distinction can also be observed to a degree in the realm of English derivational morphology. Most conspicuously, native suffixes may require the base to be native too in order to combine with it, etc. Aronoff (1976: 51f), shows that suffixes *–ity* and *–hood* are sensitive to whether the base is of Latin origin or not. The former combines with Latinate bases apart (*sanity, regularity, stupidity, productivity*, etc.) from some exceptions such as *oddity*. The latter suffix combines with non-Latinate bases, e.g. *fatherhood, motherhood, knighthood*, but again there are bases that were ultimately derived from Latin stems such as *state* and *priest* and which yield *statehood* and *priesthood*. Bauer (1983: 91f) notes that the first element of adjective + noun compounds in English is almost always a native Germanic adjective, although there are a handful of early Romance loans. Cf. the following examples:

(16) darkroom, madman, black bird, white bear, hothouse, tightrope, hardware, software, fast food

These are, however, only isolated cases. First, there are many more combinations of foreign and native material. Secondly, foreign elements are relatively quickly adopted and become active in terms of word formation. Finally, such combinations of foreign and native material are perfectly acceptable and normalsounding. They do not automatically belong into the realm of expressive morphology, i.e. they do not necessarily get attached to them some special shades of meaning marking them as jocular, derogatory, etc. (but cf. *middle-age-itis*).

The situation in the other three languages under investigation is quite different. As Mathesius (1975: 27) notes, German does not normally combine native

bases and foreign affixes, or the other way round (cf. also Plank (1981: 129ff) on lexical strata in word formation). This explains the non-existence of a complex word such as *Sterbation*. The same applies to Hungarian (17) and Croatian (18), where addition of a foreign suffix to a native base often produces slangy or jocular expressions:

(17) kitaláció 'invention'

(18) trčkitis 'diarrhea, run-itis'

As an interim conclusion, we may stipulate that the purist enterprises coming in waves over German, Hungarian and Croatian lexical stocks have left some deep marks, in a sense socio- and psycholinguistic barriers, with the effect that native and foreign lexical items are not free to interact by combining into a single word.

7. Foreign elements and blending

In this section we consider the relevance of borrowing for blending. We shall not be concerned with the fact that some English blends have been borrowed ready-made into a number of the world's languages. It is irrelevant for our purposes that the English word *smog* is now found in a vast number of languages although it may have been identified as a blend by those who first introduced it into another language. What is important is that (i) it was not blended in the borrowing language, and (ii) that native speakers of the host language are usually unaware of its being a blend in English, just like many native speakers of English nowadays.

Between such opaque borrowed blends and blends clearly formed in the host language from native material there is an intermediate ground with blend-like words involving one or two non-native elements. It is significant that the majority of the few blends attested in Croatian are of this type. Cf. some examples:

(19) kromika (→ komika 'comics' + kronika 'chronicle')

We also note a high proportion of such blends in our German and Hungarian material:

German
(20) a. Restseller (→ Rest 'rest, residue' + Bestseller)
     b. Airlebnis (→ Air + Erlebnis 'experience')

Hungarian

(21) Hülyewood (→ hülye 'dumbo, soft-headed' + Hollywood)

Some of these may be interpreted as a secondary influence of English, but at the same time this can be accounted for by the above mentioned barriers. Note that initially borrowed elements are relatively poorly adapted, i.e. they need not exhibit complete inflectional paradigms. Translated into a usage-based model, we can say that native speakers are not quite familiar and at ease with them because they have not been exposed to all their forms, and they may actually be confused when they have to produce a certain form, and actually avoid it altogether. However, when it comes to subtractive word formation processes, native speakers of languages with highly inflected lexemes, e.g. of Croatian in which most nouns are marked for gender, case and number, often by means of portmanteau morphs, may actually make virtue out of vice and in fact handle blends with foreign elements better than those involving native ones. There is simply less to curtail if anyway the paradigm is incomplete, and this can be even seen as a welcome relief. On the other hand, native elements involve full-fledged paradigms. At the same time, we should not forget that blending may also tamper with the stress patterns of words, i.e. may bring about shifts of the stress and leave otherwise stressed segments without a stress, and cause otherwise unstressed segments to receive stress, all of which may result in phonological garden paths and render blends temporarily uninterpretable because the splinters have become unrecognizable. This certainly has adverse effects for the viability of the blend in the long run. Finally, speaking in terms of a usage-based model, we should consider the reverse of the entrenchment effect: the paths not often taken will tend to become overgrown and inaccessible.

7. Concluding remarks

We hope to have adduced enough evidence to bear out our initial hypothesis that blending is a marginal word formation phenomenon and that it is even more marginal in certain languages due to two clusters of factors such as serve as functional prerequisites for the spread of blends. In the first group are certain structural properties of the languages involved, viz. the entrenchment of certain constructional schemas for two other word formation processes – compounding and clipping. We showed that there seems to obtain a correlation between the productivity of these three word formation patterns: Croatian exhibits very little compounding and only peculiar types of clipping and also has very few blends.

English seems to be on the other pole of the productivity continuum on all three counts.

The other cluster of factors has to do with the dynamics and flexibility in the lexicon, viz. the speed with which foreign lexemes are adapted and become near-native elements of the lexical stock. Our claim was that the less open and flexible a language is in this respect, the more marginal the blends that are found (if any) will tend to be.

Taking both clusters into considerations, we have part of the explanation not only for why Croatian and English are so different, but also for why should German and Hungarian pattern somewhere in the middle. While not always being terribly fond of borrowed words, they at least exhibit a lot of compounding and clippings, though mostly with suffixal extensions.

Of course, it is quite possible that there are many other factors at play to be uncovered by further research and quite certain that some of the details of our analysis can be refined, but we may have put our finger on a correlation that could meanwhile serve at least as a rough diagnostic and part of the motivation for the marginality of lexical blending. A more detailed investigation into the prosodic aspects of the constructional schemas involved promises to be a fruitful avenue of research. Needless to say, it remains to be seen whether our observations carry over to some other languages.

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O RUBNOM STATUSU KONTRAKCIJA

Usprkos u posljednje vrijeme nešto povećanom zanimanju za kontrakcije kao model tvorbe novih riječi, ta je pojava i dalje nedovoljno rasvijetljena. Gotovo se svi autori slažu da se unatoč činjenici da kontrakcije nalazimo u mnogim jezicima, radi o rubnoj pojavi. Usporedba podataka iz više jezika otkriva da postoje znatne razlike među pojedinim jezicima glede stupnja rubnosti te pojave. Cilj je ovog rada pridonijeti identifikaciji čimbenika koji motiviraju spomenute međujezične razlike odnosno otkriti funkcionalne pretpostavke za pojavu i širenje kontrakcija. Jedan skup čimbenika ima veze sa strukturnim karakteristikama jezika u smislu konstrukcijskih shema za dva druga modela tvorbe riječi – slaganje i kraćenje (apokopa). Druga grupa čimbenika ima veze s dinamikom i fleksibilnošću leksika, tj. brzinom kojom se strani/posuđeni leksemi prilagođuju i integriraju u leksik jezika primatelja. Što je jezični sustav zatvoreniji i manje fleksibilan, to su kontrakcije rubnija pojava.

Ključne riječi: kontrakcije; kontrastivna lingvistika; motivacija; konstrukcijske sheme; konceptualna integracija; tvorba riječi; složenice; apokope; jezično posuđivanje.