

# A NEW TYPOLOGY OF ENGLISH AND SERBIAN NOMINAL COMPOUNDS

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The aim of this paper is twofold: to elucidate the phenomena of *linguistic productivity* and *creativity* in English and Serbian compounds, and, mirroring the title, to offer a new, syntactico–semantic, typology of English and Serbian nominal compounds. In order to achieve this, the paper is organized in the following way: some general considerations are dealt with in Part 1; productivity and creativity are the focus of Part 2; Part 3 explores criteria serving to distinguish an endocentric binominal compound from a parallel syntactic group; Part 4 offers a tabular classification of English and Serbian nominal compounds; and in Part 5 the main points of the paper are summarized.

## 1. Introduction

One important thing to bear in mind when dealing with compounds is that they are derived words: (1) in accordance with the word–formation rules of a particular language, and (2) analogously to the already existing compounds; e.g. *seascape*, being a relatively new compound, has been derived analogously to *cloudscape*, *skyscape*, *waterscape*, *dreamscape*, *winterscape*. Admittedly, the majority of newly coined English and Serbian lexemes evolve from the application of some creative and innovative combination patterns to the already existing lexical material, i.e. through the process of lexical additions, hereafter compounding, with a prototypical compound being the result of putting together two bases which are morphologically analysable and semantically transparent or non-idiomatized (cf. Taylor 1989 for a definition of prototype).

High productivity represents a distinctive property of the compounding process, seen as a major lexical device, alongside affixation and conversion, for a more economical expression of the communicative needs of the speakers of a language. As Bauer (1983: 18; 1988: 57), Prčić (1997b: 10) and

Klajn (2002: 10) state, a word-formational rule is known as productive if it is synchronically usable in the creation of new lexemes. Put differently, and following Bauer (1988: 59–60, 64–5), the rule ‘add a derivational suffix *-th* to form a noun out of an adjective’ used to be highly productive, e.g. *warm: warmth, long: length, deep: depth*, etc., but now it is no longer such, e.g. *brown: ?brownth or grey: ?greyth*. Another example of an unproductive linguistic rule is ‘change *a* to *e* to make a plural noun’, nowadays valid only for *man/men* and *woman/women*. Furthermore, according to a widely held view, we must distinguish productivity, most obvious in the production of new forms, from creativity referring to the meaning extensions of the existing forms. In other words, when creativity is at work, the resources of a language are extended in a motivated, but unpredictable (non-rule governed), way.

It is very important to differentiate compounds from parallel syntactic groups, since compounds are commonly perceived as syntactico-semantic compressions or reduced underlying syntagmas, which correlate with full (explicit) syntagmas, sentences (cf. Lees 1960; Marchand 1965/66a,b; Kiršova 1993; Vukićević 1995). An apt illustration of the phenomenon is the highly productive English endocentric compounds of the binominal type, such as *tear gas, root vegetable and bubble bath*, where endocentric compounds as a whole denote hyponyms (subordinate elements) of their grammatical and semantic heads. As a result, the above mentioned N + N compounds can be expanded into respective underlying sentences relying on the Recoverably Deletable Predicates, first introduced by Levi (1978), and embracing the following: *cause, have, make, use, be, in, for, from* and *about*. In short, these covert predicates allow us to interpret the compounded strings of the specified nature in terms of the following explicit syntagmas or full sentences:

(1) *cause: tear gas* ← a gas causes tears; (2) *have: root vegetable* ← a vegetable has a root; (3) *make: bubble bath* ← a bath makes bubbles; (4) *use: police dog* ← the police use dogs (to catch criminals); (5) *be: fig tree* ← a fig is a tree; (6) *in: country doctor* ← a doctor (works) in the country; (7) *for: army camp* ← a camp for an army; (8) *from: mint tea* ← a tea (made) from mint; (9) *about: dream diary* ← a diary about one’s dreams;

## 2. Productivity and Creativity of the Compounding Process

As stated above, compounding is a productive word-formation process because it is regularly and systematically used in the production of new lexical

units, which explains the existence of a large number of compounds in present-day English and, to a lesser extent, Serbian. In the words of Lyons (1977: 76), productivity is also commonly interpreted as the ability of language users to produce (encode) and understand (decode) an indefinitely large number of higher linguistic units. Nevertheless, it has likewise been pointed out that productivity must be distinguished from creativity, seen as the native speaker's ability to extend the language in a motivated, but unpredictable (non-rule governed) way. When productivity is at work, new forms are produced, while creativity denotes the meaning extensions of the existing forms. Creativity is possibly most efficiently illustrated by *metaphorical* and *metonymical extensions*, for example *gold mine*, referring to a business or activity that produces large profits, or *crocodile tears*, false tears. As Kastovsky (1986: 585–6, 593–4) observes, it is essential that we also differentiate *morphological (lexical) productivity*, which produces new lexemes (compounds) from *syntactic (grammatical) productivity*, which produces new sentences and/or new grammatical forms of a lexeme. Consequently, we must be aware of *nonce formations* as well as hypothetically possible yet non-existent compounds, such as (1) *?windowbell* and (2) *?mouseleaf*, which could be interpreted as (1) a bell near the window of a house that you ring to let people inside know you are there, and (2) a leaf that mice jump on, or a leaf devouring mice, respectively. In Bauer's words (1988: 59–60, 64–5), nonce formations illustrate *individual productivity* as opposed to *societal productivity*, with newly coined lexemes being adopted and shared by the entire language community and eventually gaining the status of dictionary entries. A few relatively recent examples of societal productivity are as follows: *liposuction*, *mouse mat*, *shopaholic*, *e-mail*, *mountain biking*, etc. Both Leech (1981: 212) and Prčić (1997b: 11) point out that morphological (lexical) productivity is always restricted to some degree, which is due to the fact that a particular word-formation process (in this case compounding), does not apply whenever and wherever possible. What is more, numerous well-formed compounds are instantly discarded (e.g. nonce formations), even though they have been produced in line with the currently active compounding rules. Another important issue to bear in mind here is that a common principle behind morphological (lexical) and syntactic (grammatical) productivity is the ranking order, namely higher units consist of lower ones, which means that sentences are derived by combining word-forms, whereas lexemes (compounds) by putting together two bases. An important difference between the two, however, stems from *the principle of recursive-*

ness, i.e. while a single sentence very rarely gets repeated (except in case of quotations and proverbs), a newly coined compound slowly gains entry to the lexicon and is relatively often used again.

Finally, it must be stressed that at the level of the lexicon, perceived as a continuum embracing different lexemes, here compounds, illustrating high, restricted and low productivity, idiomatized compounds such as *lady-bird* and *pineapple* are of low productivity, in contrast to some indicative examples of high productivity, as is the case with binominal compounds such as *fruit cake*, *fruit sugar* and *fruit market*, on the one hand, and *music box*, *tool box* and *metal box*, on the other. Admittedly, here *fruit* and *box* represent highly productive compound elements, the former occupying the modifier position, and the latter that of the head. In between the two poles of the continuum, there are numerous examples with various degrees of restricted productivity.

### 3. Nominal Compounds and Parallel Syntactic Groups

We have already mentioned that compounds are built as syntagmas and can therefore be explained with their underlying sentences, *deep structures*. In consequence, *pedal boat* and *church tower*, can be interpreted as 'a boat needs pedals (to push on)' and 'a church has a tower', respectively. Bearing this transformational approach in mind, Marchand (1969: 21) states that a clear morphological distinction between compounds and parallel syntactic groups can be drawn from a different word order: we need only consider the compounds *iron-grey* and *sky-blue* in contrast to the parallel syntagmas *grey iron* and *blue sky*, respectively. The same holds for the Serbian compounds *limun-žut* (yellow like lemon) and *žumance-žut* (yellow like yolk), morphologically differentiated from the parallel syntactic groups *žuti limun* (yellow lemon) and *žuto žumance* (yellow yolk), respectively. Another criterion pertains to the presence or absence of an inflectional morpheme in inflecting languages such as Serbian. Here, the compound *Crvenkapa* (Little Red Riding Hood) can be clearly morphologically isolated from the syntactic group *crvena kapa* (red cap), due to the absence of an inflectional morpheme. Similarly, the distinction between the compound *novovernik*, a person who has recently accepted a particular religion or belief (also, a convert), and the parallel syntactic group *novi vernik*, a new member of a religious group, stems from the presence in the former of the

inflectional (linking) morpheme [- o -]. Finally, compounds and parallel syntactic groups can be distinguished on the basis of a different stress pattern, as is the case with *'woman doctor*, a doctor treating ill women, and *'glass case*, a china case, a showcase, in contrast to *woman 'doctor*, a female doctor, and *glass 'case*, a case made of glass. Nevertheless, according to Warren (1978: 31–2), Bauer (1983: 104–5; 1998: 70) and Matthews (1991: 98), this last criterion is seen as rather unreliable. Matthews, although a native English speaker, openly admits that he is often uncertain about how to stress compounds like *milk 'shake* or *'milk shake*, *office 'party* or *'office party*, *teddy 'bear* or *'teddy bear*. An additional confusion, in his words, is created by varieties concerning British and American English stress patterns. It is necessary to point out here, however, that the relevance of stress pattern is unquestionable in Serbian. Thus, stress pattern serves as the criterion for morphological isolation of the compounds *čuvàr-Ø-kuća*, bot. houseleek, *Beògrad*, the capital of Serbia, and *zlòdelo*, a crime, from the parallel syntagmas *čùvār kuća*, someone guarding somebody else's house, *bèò grād*, a white city, and *zlò dèlo*, a misdeed, respectively.

The discussion so far brings us to a tabular classification of English and Serbian nominal compounds, which will be the focus of attention in the following section.

#### 4. Tabular Classification of English and Serbian Nominal Compounds

We have provided a description of the distinction between language productivity and language creativity, on the one hand, and, on the other, have listed criteria relevant for establishing a distinction between compounds and parallel syntactic groups, a necessary introduction into the forthcoming discussion on the tabular classification of English and Serbian nominal compounds. It must be stressed that the classification of English nominal compounds provided in Table 1, has been inspired by Bauer (1983: 202–7), while Table 2, reviewing Serbian nominal compounds, with some minor modifications has been taken over from Vukićević (1995: 133–73). Both classifications stem from basic semantic relationships and morphosyntactic criteria. It is also true that when dealing with the semantic nature of nominal compounds in the two languages and their resulting categorization into exocentric, endocentric, appositional and copulative com-

pounds, English seems to prefer endocentric and exocentric compounds, while Serbian favours only those that are exocentric.

Table 1

ENGLISH NOMINAL COMPOUNDS				
classification	semantic relationship	Syntactic relationship	examples	productivity
(1) noun + noun	endocentric	gerund + noun the pattern can be interpreted as a combination of: (a) noun + noun (a more probable solution) (b) verb + noun	fishing rod shooting star	high (the most numerous subgrouping of nominal compounds)
		proper noun + common noun (a) semantic relationship is identical to the one between two common nouns (b) a process or entity is named after a person	(a) Wellington airport ∅ demonstrates a locative relationship parallel to, e.g. city museum (b) David Hume Tower Chomsky adjunction	
		two common nouns	bullet train pigtail	
	exocentric	two common nouns	skinhead	restricted
	appositional (the first element marks the sex of a person)	two common nouns	woman doctor boy-friend	restricted
		pronoun + noun	she-goat he-cheetah	
		two common nouns	jazz-rock owner-occupier	
copulative	(a) two common nouns (b) two proper nouns	party-hose Cadbury-Schwepes Rowntree-Mackintosh Bosnia-Herzegovina	low	
(2) verb + noun	endocentric	the nominal element is not the O <sub>d</sub> (direct object) of the verb	hovercraft play pit	high
	exocentric	the nominal element is the O <sub>d</sub> (direct object) of the verb; this type is commonly used for denoting people; an example of non-human denotata is the trade name <i>Xpel-air</i>	cut-throat pickpocket	marginally productive

<b>(3) noun + verb</b>	endocentric	common noun + verb; it is arguable whether the second element is a noun or a verb	nosebleed sunshine	very low
<b>(4) verb + verb</b>	endocentric		make-believe	non-productive
<b>(5) adjective + noun</b>	exocentric	it is arguable whether a given adjective + noun collocation is a compound or simply a noun phrase; adjectives that can occur here are mostly monosyllabic and of Germanic origin	highroad hothouse quicksand fast-food hard-stuff software	rather high
<b>(6) particle + noun</b>	endocentric	most commonly are hyphenated	after-hours in-crowd off-season	rather high
<b>(7) adverb + noun</b>	endocentric	there is possibly an overlap between these and those in (5), since here the adverb <i>now</i> may also be interpreted as an adjective showing time	now generation	very restricted
<b>(8) verb + particle</b>	exocentric	represent nominalizations of phrasal verbs, and it is arguable that these are not strictly compounds at all; a number of the formations are not derived from phrasal verbs (marked with a star)	drop-out drawback fallout* teach-in*	rather high
<b>(9) particle + verb</b>			output	low
<b>(10) phrase compounds</b>	endocentric	the head element is initial and the modifier is a phrase or sentence	son-in-law lady-in-waiting jack-in-the-box	non-productive
		the head element is final and the modifier is a phrase or sentence	what-do-you-think- movement a-pain-in-stomach- gesture	high
	exocentric	syntactically a very heterogeneous group	forget-me-not has-been I.O.U (< I owe you)	low
	copulative	these seem the least like compounds and the most like syntactic phrases; the conjunction <i>and</i> creates the difference between these and true dvandva compounds	whisky-and-soda pepper-and-salt	restricted

Table 2

SERBIAN NOMINAL COMPOUNDS				
classification	semantic relationship	syntactic relationship	examples	productivity
(1) nominal formative + linking morpheme [-o-]/[-e-]/[-a-]/[-u-] + noun	mostly exocentric, just a few endocentric examples	(a) nominal formative, either the leftmost or the rightmost element, equals the noun (nom.sg) by which it is motivated	nos[-o-]rog, rhinoceros kit[-o-]lov, whaling zmij[-o-]lovac, snake hunter min[-o-]bacač, mortar	high
		(b) nominal formative (nom. sg. n.) ending in [o] + a linking morpheme [-o-], the two are then reduced to just one [o], which is consequently considered a linking morpheme	grlobolja, sore throat vinograd, vineyard čudotvorac, miracle/wonder-worker	
(1.1) noun + Ø + noun		the leftmost constituent should be regarded as a noun (nom. sg.), instead of a nominal formative + a linking morpheme [-a-], due to the existence of the compounds such as: <i>brzinometar</i> , speedometer (cf. <i>brzina</i> , speed) <i>vatrogasac</i> , fireman (cf. <i>vatra</i> , fire), <i>knjigopisac</i> , novelist (cf. <i>knjiga</i> , book)	babadevojka, spinster bubamara, ladybird bubašvaba, cockroach	low, yet on the increase due to the English influence
(2) adjectival formative + linking morpheme [-o-] + noun		adjectival formative may equal the adjective (nom. m. sg.) by which it is motivated; it resembles the adjective (nom. sg. n.), because of the linking morpheme [-o-], the head element always being a noun (nom. sg.)	belokost (cf. <i>beo</i> ), ivory (cf. <i>white</i> ) zlovolja (cf. <i>zao</i> ), sullenness, moodiness zlodelo, crime	rather high
(2.1) adjectival formative + Ø + noun		compounds of this kind are of the syntagmatic nature (a descriptive adjective + a noun (nom. sg.))	vodenkonj, hippopotamus zelenkada, (bot.) narcissus Đurđevdan, St. George's Day	very low

<b>(3) verb + noun</b>	exocentric	these are also known as the imperative compounds, since the verbal modifier in the 2 <sup>nd</sup> p. sg. may be regarded as the imperative verb: compounds of the kind most often preserve the accent of the imperative through which they have been motivated, e.g. <i>lažipaukovi</i> , (zool.) Phalangidae <i>skočibube</i> , (zool.) Elateridae <i>strižibube</i> , (zool.) Cerambycidae	visibaba, (bot.) snowdrop ispičaša, drunkard gulikoža, oppressor, tyrant	restricted
<b>(4) numeral + linking morpheme [-o-] + noun</b>	mostly exocentric, just a few endocentric examples	modifier is a cardinal, ordinal or collective numeral; head-noun is in nom. sg., with the exception of four nouns in nom. pl.	jedn[-o-]rog, (zool.) rhinoceros deset[-o-]boj, decathlon dv[-o-]papkari, (zool.) cloven-hoofed ruminants, Artiodactyla prv[-o-]sveštenik, archpriest	restricted
<b>(4.1) numeral + noun (no linking morpheme)</b>		(a) modifier is always a collective numeral ending in [o]	sedmero-kut, heptagon dvoje-noge, Diplopode	
		(b) modifier is always the numeral <i>sto</i> (a hundred)	stogodišnjica, centennial, centenary stoglav, a hundred-headed	
<b>(5) pronoun + noun</b>	exocentric	head noun is always in nom. sg.	ništačovjek, good-for-nothing samokrv, murder svojevolja, wilfulness, stubbornness	very low

We will conclude this section with a few additional comments on the Serbian nominal compounds. First of all, a number of compounds can be labelled both endocentric and exocentric. Thus, e.g. *brodogradnja* has two meanings: (1) “shipbuilding” (the endocentric meaning), and (2) “naval

architecture” (the exocentric meaning: the compound as a whole does not represent hyponyms of their grammatical but rather of some unexpressed semantic heads). Similarly, *kitolovac*, “whaler,” can refer either to a (1) person hunting whales (the endocentric meaning), or (2) ship hunting whales (the exocentric meaning). Another important point that must be addressed here concerns binominal Serbian compounds and the mechanism of a non-declined noun being used as a modifier in a N + N structure. The mechanism has been latent in the language for long, mainly as a result of Turkish, German, and Hungarian influence, examples being the following: (1) *krstaš-barjak*, “a flag with a cross,” *sahat-kula*, “a clock tower,” (2) *veškorp*, “a laundry basket,” *generalštab*, “general headquarters,” (3) *remek-delo*, “a masterpiece”. Other examples of this kind are commonly found in the Serbian folklore tales and poems, such as *lepota-devojka*, “a beauty (girl),” *biser-grana*, “a pearly branch”. It must be emphasized, however, that a more extensive use of the mechanism has recently been triggered off by a growing English influence on Serbian, e.g. *čovjek-moljac*, “a mothman,” *flirt-veza*, “a flirting relationship,” which is logical enough if we bear in mind that the N + N pattern is highly productive in English.

## 5. Summing up

This paper has attempted to put forward one, basically syntactico-semantic, way of analysing English and Serbian nominal compounds. Also discussed has been productivity (spanning from high, restricted, to low) for each relevant subgroup of the kind. For better clarity and precision, creativity of compounding as a major word-formation process has been treated as well. Finally, bearing in mind that compounds can be considered as syntactico-semantic compressions, i.e. reduced underlying syntagmas, which correlate with full (explicit) syntagmas, and/or sentences, the paper represents a critical evaluation of the criteria serving to isolate a compound from a parallel syntactic group. The evaluation, offered primarily with respect to highly productive English endocentric compositions of the N + N type, build around the following criteria: (1) a different word order, (2) the presence or absence of an inflectional morpheme in inflecting languages such as Serbian, and (3) a different stress pattern.

## Notes

1. The paper is based largely on Sections 2.3 – 2.6 of my MA dissertation entitled *Endocentri?ne imeničke složenice u engleskom jeziku i njihovi prevodni ekvivalenti u srpskom* [*Endocentric Nominal Compounds in English and their Serbian Translation Equivalents*] (Krimer – Gaborović 2004).

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