

## Chapter 4

# On a subclass of nominal compounds in Bulgarian: The nature of phrasal compounds

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The paper focuses on the study of a rarity in the Bulgarian language – phrasal compounds (PCs). Although not recorded in the Bulgarian National Corpus (BulNC), such compounds have successfully infiltrated the language of lifestyle magazines and the jargon of tourism. Although it does not attempt to provide a quantitative study, this paper reviews the properties of PCs in Bulgarian against a checklist of cross-linguistically recognised properties of PCs, gleaned from the growing body of literature on this type of compound. An explanation for the appearance and nature of PCs in Bulgarian is sought in their being offshoots of the recent accommodation in the language of a novel subordinative, modifying  $[N_1N_2/N_2N_1]_N$  compound type. From lexical or “matter” borrowing, root  $[N_1N_2/N_2N_1]_N$  of a determinative type established themselves as a new strategy within compounding, recognisable as structural or “pattern” borrowing via upward strengthening, and paved the way for PCs.

## 1 Introduction

The literature on morphology has recently abounded with discussions of linguistic phenomena that bear the label *phrasal* (e.g. phrasal names - Booij 2009a, phrasal lexemes - Masini 2009, and phrasal compounds - Lieber 1992; Pafel 2015; Trips 2016; Bağrıaçık & Ralli 2015, to name but a few). Though not coterminous, the three items of interest share two properties that seriously challenge the Lexical Integrity Hypothesis: they have a naming and not a descriptive function and they contain syntactic objects, phrases, in their structural makeup. They all seem



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to pose serious questions concerning the architecture of language, the nature of compounding, the nature of the lexicon (if this is assumed to be a separate component), the essence of the syntax-morphology interface (in a modular conception of language), etc.

Without aiming at providing answers to such ambitious questions as the above, the current paper focuses on the nature and status of the non-homogenous group of compounds in which the non-head can host a constituent at phrase-level or above in a Slavonic language – Bulgarian. Acknowledging that studying the nature of an atypical linguistic element (for the specific language) will probably raise more questions than answer fundamental existing ones, the objectives of the paper are twofold: a) to analyse the properties of phrasal compounds at a stage in their development in a typologically specific language when they are considered a novelty and b) to provide a plausible scenario for the appearance of such constructions.

Phrasal compounds are recognised as characteristic of Germanic languages (Trips 2012; 2016) and opinions have been voiced that some can be found in Romance languages (at least in Italian, e.g. Bisetto 2015). They have also been discussed as standard elements of the lexicon (as syntactic or morphological objects) in Turkish and Greek (Bağrıaçık & Ralli 2015; Ralli 2013a,b), but have been deemed virtually non-existent in Slavonic languages (Ohnheiser 2015). In relation to these claims, the paper traces the appearance and features of phrasal compounds in Bulgarian in an attempt to see whether they share any characteristics with well-studied and established phrasal compounds in English and German. An explanation is sought for their appearance and nature in the language and their restricted use (in terms of domains).

In view of the set objectives the paper is structured as follows: part one reviews the findings of previous research on phrasal compounds in English and German; part two presents the adopted analytical framework; in part three the features of phrasal compounds in Bulgarian are checked against a summative list of properties of phrasal compounds in other languages; in part four an analysis and tentative explanation of the data are provided; and part five concludes.

## **2 Phrasal compounds – what we know so far**

In the literature dealing with phrasal compounds it has been unanimously recognised that they differ from root nominal compounds in that the non-head mem-

ber can be a phrase, a clause or even a clause complex<sup>1</sup> (see Trips 2012, 2016). This property of phrasal compounds seems to have attracted the greatest attention since it challenges basic postulates of standard, generative or at least modular approaches to language with the debate focusing on the interface between morphology and syntax (Bağrıaçık & Ralli 2015, Botha 1981, Lieber 1988, Ralli 2013a,b). Numerous researchers have tried to reconcile this fact with received postulates, such as the Lexical Integrity Hypothesis (e.g. Lieber & Scalise 2006), or with incessant competition between the modules of morphology and syntax (Ackema & Neeleman 2004), others have postulated the existence of two types of PCs depending on their properties and locus of generation, i.e. they recognise morphological PCs and syntactic PCs (Bağrıaçık & Ralli 2015, Botha 1981, Lieber 1988) or have postulated two distinct mechanisms of clause/phrase to word conversion, which leads to the creation of two different types of PCs – pure quotative phrasal compounds and pseudo-phrasal compounds or non-quotative PCs (Pafel 2015). Attempts have also been made to explain away the nature of phrasal compounds by lexicalisation of the non-head constituent (Bresnan & Mchombo 1995). Others have analysed these compounds from alternative perspectives (e.g. Jackendoff's parallel architecture – Trips 2012; 2016; Construction Grammar – Hein 2015; etc.) laying the emphasis on the semantics, pragmatics and usage patterns of phrasal compounds, besides the obvious structural features (e.g. Meibauer 2007; 2015).

There seems to be unanimous agreement, irrespective of the theoretical framework, that PCs have a single, unified meaning as a naming unit. This is achieved by reducing the structural complexity of PCs through downgrading, quoting or conversion to a word status. Alternatively, PCs are denied lexicalisability and are identified as metacommunicative (e.g. Hohenhaus 2007). To be even more specific, Pafel (2015) clearly states that the non-head constituent in genuine, quotative phrasal compounds is a noun. He argues that quotative phrasal compounds are morphologically and semantically regular NN compounds and they do not contain syntactic phrases. The scholar admits that non-quotative, pseudo-phrasal compounds can have only nouns as heads, while in quotative compounds the head can also be adjectival. If this criterion of the nature of the head is to be taken as diagnostic, then in Bulgarian only quotative phrasal compounds exist. This possibility will be explored in part three.

Among the general points of agreement seems to be the headedness of phrasal compounds. The prevalent opinion is that such constructions are right-headed.

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<sup>1</sup> The term *clause complex* is taken from Halliday's Systemic Functional Grammar (Halliday 1994, Halliday & Matthiessen 2014) and is considered co-extensive with the standard maximal XP extension, i.e. a CP. The term is chosen to avoid any theoretical commitment.

In her paper Trips (2012: 322) writes,

[w]hat makes these compounds so special is that the left-hand member is a complex, maximal phrase: as in the examples given above, it can be a whole sentence like an IP (or CP depending on the analysis), which clearly sets them apart from NNCs, the left-hand member of which is non-phrasal and thus an entity on the word level.

It logically follows that the head constituent is the rightmost member of the construction. However, the assumption that PCs are invariably right-headed is somewhat premature as will be shown in part three. Suffice it here to say that just as there are both left- and right-headed nominal compounds of the same type in Bulgarian, e.g. *очи-череши* [oči-čereši, ‘eyes-cherries’, *large, beautiful eyes*] vs. *зайтан-вежди* [gaytan-veždi, ‘woollen braid’, *well-shaped eyebrows*], in the same manner PCs in Bulgarian can easily have the nominal head on the left-hand side.

The last almost unanimously recognised feature of PCs that distinguishes them from subordinative (determinative, modifying) nominal compounds relates to recursion. As Trips (2012) and Trips (2016: 286) maintain, “[i]t is well-known that the rule for building determinative nominal compounds can be applied to the product of this rule infinitely [...], while such recursion is ill-formed in phrasal compounds”.

To sum up, from the growing literature on phrasal compounds the following features of PCs undoubtedly characterise them crosslinguistically:

- 1) they behave like words both in terms of distribution (syntactic behaviour) and in terms of meaning;
- 2) they have a non-disputed naming function;
- 3) they have a stereotyping effect;
- 4) while they can have a variable structural head, they are mostly nominal;
- 5) they do not tolerate recursion;
- 6) they are (mostly) right-headed.

Besides these recognised features of PCs, their status as lexicalised/lexicalisable or nonce formations has also attracted the attention of scholars, with opinions on the matter still divided (e.g. Bresnan & Mchombo 1995; Hohenhaus 1998;

Meibauer 2007; Trips 2012, 2016; etc.). The two diametrically opposed views are represented by Bresnan & Mchombo (1995), who maintain that phrases which function as constituents of words are always lexicalised, and Hohenhaus (1998), who contends that PCs are non-lexicalisable context-dependent nonce formations. In between these extremes, Trips (2012; 2016) and Meibauer (2007) admit the existence of both lexicalised PCs and those produced on the fly.

The overview presented here of findings relating to phrasal compounds cross-linguistically is far from exhaustive but it will suffice as a checklist to be used in describing PCs in Bulgarian.

### 3 The analytical framework

As Booij (2010: 93) maintains, if instead of recognising abstract rules, we subscribe to an analogy-based approach recognising constructional schemas, we could pay due attention to semantic specialisations and apply the adequate degree of granularity of analysis (generalisation) to be able to describe a wide variety of word-formation data.

Admittedly, a constructionist approach to language renders void the controversy over the distinction between compounds that are morphological formations as in Modern Greek (Ralli (2013b,a)) and compounds that are syntactic formations such as those in Turkish (Bağrıaçık & Ralli 2015; Ralli 2013a; etc.). However, the choice of this framework is not simply a matter of convenience. It is motivated by three separate considerations: first, constructions can have varying degrees of complexity and schematisation, without compromising the uniformity of pairing meaning and form characteristic of the constructicon<sup>2</sup>. Second, as demonstrated by various pieces of research, Booij's Construction Morphology (Booij 2007, Booij 2009a) has sufficient explanatory power to analyze schemas of varying degrees of complexity and abstractness. Third, as Fried (2013: 2) claims,

The constructional approach is also proving itself fruitful in grappling with various broader analytic challenges, such as accounting for seemingly unmotivated syntactic patterns that do not easily fit in a synchronically attested grammatical network for a given language, or that present a typologically odd and inexplicable pattern.

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<sup>2</sup> Within constructionist approaches to language, there is no dividing line between grammar and the lexicon. Language (or the constructicon) is conceived of as a lexicon-syntax continuum or a complex network of constructions of varying degrees of complexity held together by inheritance relations (Goldberg 2003, Hoffmann & Trousdale 2013).

For the reasons stated above, the answers to the research questions are provided in the general framework of constructional approaches to language and language change (Booij 2009b, 2010, Croft 2001a, Goldberg 2006, Hilpert 2015, Traugott & Trousdale 2013, among others) and the onomasiological approach to word-formation (Štekauer 1998; 2005), where the naming needs and active role of speakers are duly recognised. Various offshoots of constructionalism with idiosyncratic views and analytical procedures have arisen in recent years (for relevant overviews see Croft 2007, Sag et al. 2012), yet they all share a set of assumptions which allow for the non-differentiated adoption of a constructionalist analytical stance. The basic tenet of constructionalism adopted here holds that language is a constructicon, a set of taxonomic networks where each construction constitutes a node in the network that forms a continuum from the fully concrete to the highly schematic. The relations between constructions are ones of inheritance and motivation. A construction itself is a conventionalised pairing of meaning and form. The constructicon is acquired via language use and innovated via neoanalysis and analogisation (Traugott & Trousdale 2013). Both processes are localized within constructions, or more precisely in actualized constructs. A construction is instantiated in actual language use by specified constructs that are fully phonetically specified and have contextually sensitive meaning, based on their conventionalised meaning or any appropriate extension thereof. A shift in any dimension of the construct might be strengthened via propagated use across the speech community into a modified or novel construction depending on the degree of dissimilarity from the initial one(s). The general model of a construction captures constructions that vary along at least three significant dimensions: type of concept, schematicity and complexity. Type of concept specifies the conventional meaning associated with the construction in terms of its contentfulness or procedural characteristics, i.e. whether it could be used referentially or whether it encodes intralinguistic relations. The dimension of schematicity is related to formal (phonological) specificity and degree of abstraction of a token construct, and classifies constructions into substantive (fully specified), schematic (abstract), and intermediate or partial (at least one constituent is specified). The dimension of complexity captures the internal constituency of a construction and distinguishes between atomic, complex and intermediate. Within this constructicon, constructionalisation, defined as “the creation of form<sub>new</sub>-meaning<sub>new</sub> (combinations of) signs” that constitute “[...] new type nodes, which have new syntax or morphology and new coded meaning, in the linguistic network of a population of speakers” (Traugott & Trousdale 2013: 22) is achieved incrementally via constructional changes, defined as shifts along

one of the dimensions of a construction (Traugott & Trousdale 2013: 26). Constructionalisation is one of the ways in which language change is actualised. At the same time it has long been recognised that “languages can undergo structural change as a result of contact” (Heine & Kuteva 2006: 48). In the case of Bulgarian, the influx of lexical or “matter” (MAT) borrowing from English characteristic of the last decades of the 20<sup>th</sup> century (Krumova-Cvetkova et al. 2013, Radeva 2007, etc.) brought about the establishment of a new subordinative, nominal compound type, which proved fruitful ground for the accommodation of PCs. The establishment of this compound type involved the structural or “pattern” (PAT) borrowing of the abstract construction schema  $[N_1N_2]_N$ , where  $N_1$  modifies  $N_2$  or restricts its interpretation, filled out with native linguistic material exclusively.

With the understanding of constructionalisation within the constructionalist approach and the notion of grammatical replication we are able to analyse in a smooth and uniform manner the nativisation of a borrowing (more specifically lexical borrowing from English such as *бинго маниак* [bingo maniak, *bingo maniac*] and the pattern borrowing of the subordinative, modifying nominal compound construction  $[N_1N_2]_N$ ) and their constructionalisation into a new node type or a newly boosted pattern. Simply put, this framework makes it possible to identify the stabilisation of the  $[N_1N_2]_N$  pattern in Bulgarian as the constructionalisation of a compound type, a new strategy within compounding, which paved the way for the advent of phrasal nominal compounds in the language. As Arcodia et al. (2009) claim, phrasal constituents are only possible with subordinative compounds, so it naturally follows that the establishment of the determinative  $[N_1N_2/N_2N_1]_N$  compound type in Bulgarian serves as a prerequisite for the spread of phrasal compounds. Present-day  $[N_1N_2]_N$  compounds in Bulgarian (recognized as atypical of Slavic languages, but characteristic of Germanic languages) came into the language under foreign influence. In the Bulgarian word-formation literature there is unanimous agreement that the new-found instigated productivity and the fixation of the pattern in terms of both form and meaning potential have been achieved under the influence of English (Krumova-Cvetkova et al. 2013, Murdarov 1983, Radeva 2007, etc.), i.e. as the result of language contact. From an influx of lexical borrowing the pattern has grown into a structure accommodating exclusively native constituents (e.g. *чалга певец* [čalga pevec, ‘pop folk singer’], *чалга изпълнител* [čalga izpâlnitel, ‘performer of pop folk music’], *тото пункт* [toto punkt, ‘lottery kiosk’]).

The onomasiological approach to language (Štekauer 1998), and more specifically to word-formation, acknowledges the active agency of speakers in creating new lexical items. For onomasiologists the desire of members of a speech com-

munity to come up with the most appropriate (with appropriateness measured by the minimax effect, i.e. minimal cognitive effort, maximum communicative effect, operationalisable as degrees of explicitness) name for a conceptualized piece of extralinguistic reality is the driving force behind word-formation. When the conceptualisation is novel for the cultural context, borrowing is not a neglected resource. In other cases, all the resources of a language (constructicon) can be creatively employed for encoding the intended conceptualisation. It is in the minds and mouths of speakers that the establishment and use of a new name lie (with a host of factors playing a crucial role, purely conceptual, sociolinguistic, cognitive, etc., which will not be commented on for lack of space. For the interplay and different roles of the various relevant factors see Štekauer 2005).

Combining the two analytical perspectives (constructionalisation as both a mechanism and the result of language change, and MAT developing into PAT borrowing) leads to the following understanding of the appearance of phrasal compounds in Bulgarian, with the  $N$  always being the categorial head (for inflection purposes):

- (1) a.  $[X_R Y]_N$  – construction schema of nominal compounds
- b.  $[N_1 N_2 / N_2 N_1]_N$  – construction schema of determinative, root nominal compounds
- c.  $[X_{\text{phrase/clause}} N / N X_{\text{phrase/clause}}]_N$  – construction schema of phrasal compounds

$R$  – is the implicit intracompound relation between the constituents of the compound. As in English, this relationship is multifarious. It captures both modifying and thematic relations. As far as intracompound relations are concerned, Bulgarian  $[N_1 N_2]$  determinative compounds display the whole array of compound internal relations recognized in the literature (including psycholinguistic accounts, e.g. Bauer & Tarasova 2013, Gagné & Shoben 1997, Ryder 1994).

The schematic representation of productive constructions above captures the specific portion of the compounding network in which the newly established subordinative, modifying type of compound in Bulgarian found its place. The three levels of abstraction (1a, 1b, and 1c) represent the hierarchy of the nominal compound network: (1a) represents the most abstract schema of all nominal compounds whose instantiations can vary significantly in terms of constituents (e.g.  $[NN_{\text{deverbal, suffixed}}]$ : *родоотстъпник* [rodootstâpnik, ‘clan-depart-er’, *traitor*]),  $[VN]$ : *нехранимайко* [nehranimajko, ‘not-feed-mother’, *scoundrel/good-for-nothing*],  $[NN_{\text{deverbal, suffixless}}]$ : *изкуствовед* [izkustvoved, ‘art-know-er’,



*art critic/expert*], etc. (1b) represents the schema of the newly established determinative, root compound type (e.g. *чалга изпълнител* [čalga izpâlnitel, ‘pop folk performer’]) whose accommodation in the language made possible the appearance of phrasal compounds, whose generalised construction schema is represented by (1c).

Determinative and phrasal compounds differ along two parameters – the modifying constituent (noun vs. phrase/clause) and the nature of  $R$ , which in the case of  $[N_1 N_2 / N_2 N_1]_N$  compounds can be quite specific, though invariably diverse, including thematic relations between the two constituents. In the case of phrasal compounds the simplest way to define  $R$  is to acknowledge that it is a severely underspecified relationship which accounts for the meaning ‘N is a type characterised by the stereotypical properties of X’. Even this difference, however, does not pose a problem for uniform treatment of the two subtypes of nominal compounds since Bauer & Tarasova (2013) recognise a grossly semantically underspecified adnominal modification relationship in various types of constructions, even ones not restricted to different types of compounds.

In the remainder of the paper it is assumed that all the analysed phrasal compounds are instantiations of the construction schema hierarchy presented above.

## 4 Phrasal compounds in Bulgarian

### 4.1 Bulgarian in comparison to Germanic languages

Since phrasal compounds are acknowledged as characteristic of Germanic languages (more specifically English and German), and their existence is denied for Bulgarian, at the outset a rough typological sketch of the language under investigation is in order. In terms of analyticity the three languages might be ordered along a cline, with English being the one with the greatest degree of analyticity, Bulgarian occupying a middle position (with heavy inflectional paradigms for verbs, but virtually none for nouns) and German taking the last position. All three languages are remotely genealogically related as they belong to different groups of the same family. All three languages can be identified as nominative-accusative.

Applying the typology associated with syntactic harmony (Hawkins 1983), the following summative facts can be presented (see Table 1).

If the typologically relevant features are anything to go by, then one would not predict any major differences between the three languages with regard to the

Table 1: A typological sketch of Bulgarian, English and German

	Bulgarian	English	German
Canonical word order	SVO	SVO	SVO, but also SOV in some types of embedded clauses
Prepositions vs. postpositions	Prepositions	Prepositions	Prepositions Postpositions (marginally)
Modifier-head (including Numeral-Noun, Demonstrative-Noun, Possessive pronoun-Noun, Adjective-Noun)	Modifier-head	Modifier-head	Modifier-head
Genitive-noun	Both orders (G-N, N-G) possible	Both orders (G-N, N-G) possible	Both orders (G-N, N-G) possible
Head-relative clause	H-R	H-R	Both orders (H-R, R-H) possible
Case system (nouns)	No	No (barring the Genitive)	Yes
Affixation	Highly productive	Highly productive	Highly productive
Compounding	Less productive	Highly productive	Highly productive

behaviour of (phrasal) compounds in the three languages. However, Ohnheiser (2015: 1824) claims that

in Slavic languages the formation of compounds including a verbal modifier is impossible.

This would suggest that phrasal compounds containing full predication are ruled out for Bulgarian. Admittedly, as a Slavonic language, Bulgarian is characterised by more productive affixation, rather than compounding. As Olsen (2015: 911) claims,

the Romance and Slavic languages are not highly compounding languages (especially if the default case of lexical combinations of basic stems without formatives or functional categories are the focus of attention).

Yet, synthetic (e.g. *въжеиграч* [vâžeigrač, ‘rope-play-er’, *tight-rope walker*]; *факлоносец* [faklonosec, ‘torch-bear-er’, *torchbearer*]; *земевладелец* [zemevlastelec, ‘land-own-er’, *landowner*]) and coordinative nominal (e.g. *вагон-ресторант* [vagon-restorant, ‘wagon-restaurant’, *dining car*], *къща-музей* [kâša muzej, *house museum*], *страна-членка* [strana-členka, *member state*]) and adjectival compounds (e.g. *патил пренатил* [patil prepatil, ‘having suffered having suffered too much’, *experienced*], *кървавочервен* [kârva vočerven, *blood red*], *тревнозелен* [trevno zelen, *grass green*]) are abundant in the language. What Bulgarian is claimed to lack are verb compounds and root or primary nominal compounds of a subordinative, modifying type. In the nominal field (where the input and the output of the process are nouns, albeit in the input often they are deverbal nouns), composition proper resulting in nominal compounds is mostly based on thematic relations between head and non-head and yields synthetic or parasyntetic compounds.

Nonetheless, the emergence of many new composite substantives without a linking vowel between the two components in Bulgarian is a sign that the language is developing towards more pronounced analyticity (Avramova & Osenova 2003: 73) and this tendency concerns mainly the nominal system (Vačkova & Vačkov 1998: 100). Not surprisingly, it is precisely new types of nominal compounds that have been emerging steadily in the language, namely subordinative, modifying nominal compounds (with a subtype containing abbreviations as a modifying constituent) and phrasal compounds. Phrasal compounds of the type *on-the-spot creations*, *will-she-or-won’t-she-get-the-guy comedy*, etc. were in fact nonexistent in Bulgarian before the 1990s and this model of hyphenated compound phrases has certainly been imported.

## 4.2 Phrasal compounds in Bulgarian

Phrasal compounds in Bulgarian are special in several respects: a) they appear mostly in writing<sup>3</sup>; b) they seem to be text type and genre specific – at present they appear systematically in the Psychology, Friends and Advice sections of the Bulgarian edition of *Cosmopolitan*; c) they can be spelled with hyphens, in quotation marks or a combination of the two (besides, hyphenation sometimes includes the head, while enclosure in quotation marks never does) and d) they can be left- or right-headed, with left-headedness being characteristic of non-lexicalised ones exclusively (without any other correlation observed between headedness and the type of PC involved, i.e. predication vs. non-predication or quotative vs. pseudo-phrasal compounds). Concerning the PCs marked by hyphens or quotation marks, none of the phrasal non-heads are lexicalised (i.e. they are not listed in any available lexicographic source and are not attested in the BulNC). Without reading too much into spelling conventions, we have to note that quoting is perceived as a stereotyping strategy, as can be gleaned from example (22) in the Appendix, in which we have a well-formed relative clause which is quoted apart from the relativiser. The quoting achieves the effect of creating a special type or category of well-wishers (without describing well-wishers actually interested in someone's thoughts).

The very few lexicalised PCs in Bulgarian are restricted to the jargon of tourism. They are either hybrid formations or sound like loan translations (even though the specific non-head phrases are not attested in the alleged source language, English). They are recorded in specialised dictionaries in the field.

Comparing the list of Bulgarian PCs with the set of properties defined above, we get the following picture:

- 1) they behave like words both in terms of distribution (syntactic behaviour) and in terms of meaning – they can be premodified by adjectives, e.g. *направи-си-сам-проблеми-в-офиса ситуация* [napravi-si-sam-problemi-v-ofisa situaciya, 'create-your-own-problems-at-the-office situation'] много трудна *направи-си-сам-проблеми-в-офиса ситуация* [mnogo trudna ~, 'very difficult ~']; they can be marked for definiteness, e.g. *направи-си-сам-проблеми-в-офиса ситуацията* от вчера [~ situacijata ot včera, 'the ~ from yesterday']; they can be marked for plurality, e.g. множество *направи-си-сам-проблеми-в-офиса ситуации* [mnozhestvo ~ situacii, 'a lot of ~ situations'], etc.;

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<sup>3</sup> For lack of a reliable corpus of spoken Bulgarian the appearance of phrasal compounds in oral communication is not discussed in the current paper.

- 2) they have a non-disputed naming function – *вземи-му-акъла-съвет* [vze-mi-mu-akâla-sâvet, ‘blow-his-mind-away-advice’] names a specific piece of advice which prescribes an easily identifiable course of action;
- 3) they have a stereotyping effect – *напрежението ето-че-моментът-най-сетне-настъпи* [napreženieto eto-če-momentât-nay-setne-nastâpi, the-tension there-the-time-has-finally-come’] names a very specific kind of tension which everyone is liable to a long-awaited moment has finally arrived;
- 4) while they can have a variable structural head, they are mostly nominal – all examples in Table 2 are nouns;
- 5) they do not tolerate recursion – It is impossible to recursively expand in either direction any of the compounds in Table 2;
- 6) they are (mostly) right-headed – this is not necessarily the case. As will become evident from Table 2, phrasal compounds in Bulgarian have no marked headedness preference. 14 out of 29 compounds are right-headed, while 15 have the categorial and semantic head on the left. All 29 are endocentric compounds and resemble determinative, modifying nominal compounds in the language in all respects but two – the structural make-up of the non-head constituent and the relationship between the head and the non-head constituent. In the constructionist framework adopted here, these differences are of no relevance, since at the highest level of generalisation of the corresponding construction they are collapsed into a single, governing abstract schema.

Before presenting the most important features of PCs in Bulgarian in table format (Table 2), we need to comment on two issues relating to the last two properties in this list.

As in other languages, PCs in Bulgarian do not tolerate recursion in the non-head position (for other languages see above). Bauer (2009: 350) states that “[w]e do not have sufficient information to see whether recursion or lack of recursion in compounds is the default, or whether either of these correlates with any feature of compounding, though it would be something worth checking.” Recursion is excluded for all types of compounds in Bulgarian in general (e.g. \*грубопразтуриколиба [gruborazturikoliba, ‘brutally tear-down-hut’, *brutal adulterer*], \*лошовестоносец [lošovestonosec, ‘bad-news-bring-er’, *harbinger*], \*изящноизкуствовед [izyaštnoizkustvoved, ‘fine art leader’, *fine art critic*])

\*нова чалга певец [nova čalga pevec, *new pop folk singer*]). What is allowed is independent coordination within the non-head constituent only (e.g. *авто и мототехника* [avto i mototehnika, ‘technical equipment for cars and motorcycles’]). But as Plag (2003: 84) notes, this phenomenon is characteristic of both affixation and compounding and is not indicative of any peculiar features of (nominal) compounds – or as Bell (2011: 157) concludes, coordination data has no bearing on the (morphosyntactic) nature of nominal compounds. It is reasonable to propose, with Trips (2016: 286), “that this restriction is subject to extragrammatical factors like limitations of processing”. However, the fact that recursion is excluded as a possibility for PCs does not render them different from other compounds in Bulgarian (none of which permits recursion) and does not reveal that “phrasal compounds do not behave like normal compounds” as suggested by Trips (2016). Rather, at least in Bulgarian, phrasal compounds behave very much like subordinative nominal compounds. What is more, Arcodia et al. (2009: 11) note that “having a phrasal constituent is possibly a unique property of subordinate compounds.” To cut a long story short, phrasal compounds do not tolerate recursion but this does not set them apart from other nominal compounds in the language.

Just as the non-admission of recursion does not mark out phrasal compounds as unique in Bulgarian, neither do their properties in relation to headedness. Extant  $[N_1N_2/N_2N_1]_N$  compounds without a linking component are either considered appositive, as in *вагон-ресторант* [vagon-restorant, ‘dining car’], *заместник-директор* [zamestnik-direktor, ‘deputy director’], *кандидат-студент* [kandidat-student, ‘student applicant’] (Radeva 2007: 56-58), or are interpreted as a group in their own right (with a variety of labels attached to them by different authors, see Kirova 2012, Murdarov 1983, Radeva 2007, etc.) with a semantic operator of implicit comparison (Radeva 2007: 58) as in *очи-череши* [oči-čereši, ‘eyes-cherries’, *large, beautiful eyes*], *гайтан-вежди* [gaytan-veždi, ‘woollen braid’, *well-shaped eyebrows*], *снага-топола* [snaga-topola, ‘body-poplar’, *slender body*], etc.

The problems in the classification and analysis of NN compounds stem from the fact that they occur with variable semantic heads (on the parametrised treatment of the concept of head in compounding see Guevara & Scalise 2009; Scalise & Guevara 2006). In *очи-череши* [oči-čereši, ‘eyes-cherries’, *large, beautiful eyes*] and *снага-топола* [snaga-topola, ‘body-poplar’, *slender body*] the element that is being described appears on the left and the meaning of the whole suggests that it is the semantic anchor: eyes like cherries and a body like a poplar. In the exocentric *гайтан-вежди* [gaytan-veždi, ‘woollen braid’, *well-shaped eyebrows*],

it is the rightmost member that names the entity being described and the first constituent introduces the comparative attribute. In terms of categorial headedness the first two compounds have two categorial heads (as both constituents will be inflected), while in the third instance categorial and semantic head coincide. The way out of the analytical conundrum is to acknowledge that all such compounds (including the influx of endocentric subordinative nominal compounds) are determinative, modifying compounds with variable semantic and/or categorial head.

Likewise we need to allow for both left- and right-headed phrasal compounds, in which the position of the head does not affect the set of remaining properties of the respective compounds. Thus, *да-се-почувстваш-добре ефект* [da-se-počuvstvaš-dobre efekt, ‘to-start-feeling-well effect’] is right-headed, while *напрежението ето-че-моментът-най-сетне-настъпи* [napreženieto eto-če-momentât-nay-setne-nastâpi, ‘the-tension there-the-time-has-finally-come’] is left-headed but no ensuing predictions can be made as to the remaining properties of the compounds. In fact, the two compounds share all their properties – they contain fully-fledged declarative predications, they are both quotative and the head in both cases is of the same semantic type, namely Attitude.

And last but not least, Trips’s (2012) claim that the most frequent PCs (in her empirical study of PCs in English based on data from the BNC) are quotative PCs holds true for Bulgarian PCs (as evidenced in the table below). The table presents a summary of the outstanding properties of phrasal compounds in Bulgarian and their classification in accordance with recognised classificatory criteria (Pafel’s (2015) quotative and pseudo PCs, Trips’s (2016) predication and non-predication PCs and their semantic types).

Table 2: Phrasal compounds in Bulgarian

Example in Bulgarian <sup>4</sup> (semantic type <sup>5</sup> of the head of the PC)	Transliteration	Meaning	Type in relation to the predication status of the non-head (structural make-up)	Quotative or pseudo	Headedness
<i>свали-го-съвет</i> (attitude/utterance/medium conveying utterance)	svali-go-sâvet	hit-on-him-advice	full predication (imperative)	quotative	right
<i>взем-му-акъла-съвет</i> (attitude/utterance/medium conveying utterance)	vzemi-mu-akâla-sâvet	blow-his-mind-away- advice	full predication (imperative)	quotative	right
<i>завърти-му-ума- посрециане</i> (action)	zavârti-mu- akâla-posrešane	make-his head-spin-welcoming	full predication (imperative)	quotative	right
<i>промени-живота-си- предизвикателс-тво</i> (action)	promeni-života-si- predizvikatels-tvo	change-your-life- challenge	full predication (imperative)	quotative	right
<i>прочети-му-мислите съвет</i> (attitude/utterance/medium conveying utterance)	pročeti-mu-mislite sâvet	read-his-thoughts advice	full predication (imperative)	quotative	right
<i>предизвикай-го-да- говори-съвет</i> (attitude/utterance/medium conveying utterance)	predizvikay-go-da- govori-sâvet	coerce-him-into-talking- advice	full predication (imperative)	quotative	right
<i>мина кой-първо-ще- уснее-да-пъкне-под-в- пузата-на-другия</i> +(action) +(thing)	+tipâ koy-prâv-še-uspee- da-pâhne-led-v-rizata- na-drugiya <sup>6</sup> tip-ne-e-za- izpuskane-nezavisimo- ot-cenata	the-type-who-will-first- succeed-in-putting- some-ice-down- the-shirt-of-the-other type-it-is- not-to-be-missed-no- matter-the-price	full predication (interrogative)	quotative	left
			full predication (existential)	quotative	left



Example in Bulgarian <sup>4</sup> (semantic type <sup>5</sup> of the head of the PC)	Transliteration	Meaning	Type in relation to the predication status of the non-head (structural make-up)	Quotative or pseudo	Headedness
<i>тип не-е-за-изпускане- независимо-от-цената факта</i> <i>Боже-не-може-да-бъде!</i> (conceptual entity) <i>разновидност</i> <i>'Боже-сетих-ли-се-да- изключача-котлона-днес'</i> +(conceptual entity) <i>вариант</i> <i>'ей-тази-седмича- наистина-май-ще-ме- уволнят-или-зарежат- или-и-дават'</i> +(conceptual entity) <i>да-се-почувстваш- добре ефект</i> (attitude) <i>напрежението</i> <i>ето-че-моментът-най- сетне-настъпи</i> (attitude) <i>направи-си-сам- проблеми-в-офиса</i> <i>ситуация</i> (action)	fakta Bože-ne-može-da-bāde!  +raznovidnost 'Bože-setih-li-se-da- izklyuča-kotlona-dnes'  +variant 'ey-tazi- sedmica-naistina-may- še-me-uvolnyat-ili- zarežat-ili-i-dvete'  da-se-počuvstvaš-dobre efekt  napreženieto eto-če-momentāt-nay- setne-nastāpi  napravi-si-sam- problemi-v-ofisa situacija	the fact Oh-God-this-cannot-be- true!  variety 'Oh-God-did-I- remember-to-switch-off- the-cooker?'  option 'wow-this-week- I-will-really-get-fired-or- ditched-or-both'  to-start-feeling-well effect  the-tension there-the- time-has-finally-come  create-your-own- problems-at-the-office- situation	full predication (existential)  full predication (interrogative)  full predication (coordinated clause complex)  full predication ( <i>da</i> -construction)  full predication (declarative)  full predication (imperative)	quotative  quotative  quotative  quotative  quotative  quotative	left  left  left  right  left  right

Example in Bulgarian <sup>4</sup> (semantic type <sup>5</sup> of the head of the PC)	Transliteration	Meaning	Type in relation to the predication status of the non-head (structural make-up)	Quotative or pseudo	Headedness
<i>развързка за-вечни-времена</i> (action)	razvrǎzka-za-večni- vremena	denouement for-eternal-times	non-predicational (N-prep-Adj-N)	pseudo	left
<i>навика с-цигара-в-ръка</i> (property)	navika-s-cigara-v-rǎka	the-habit-with-cigarette- in-hand	non-predicational (N-prep-N-prep-N)	pseudo	left
<i>предъвкването-между- другото</i> (action)	predǎvkvaneto-meždu- drugoto	the-chewing-over- casually-among-other- things	non-predicational(N- prep-N)	pseudo	left
<i>старчащо-услужливо- дълго-нокътче</i> (thing)	stǎrčāšo-uslužlivo-dǎlgo- nokǎtče	the-sticking-out- conveniently-long- nail <sub>dim</sub>	*7 non-predicational (Adj-Adv-Adj-N)	pseudo	right
<i>иначе-любимия-човек</i> (individual)	inače-lyubimiy-a-čovек	the-otherwise-beloved- person	non-predicational (N-N-Adv-Adj-N)	pseudo	right
<i>намеќ “има нещо пomeжду им”</i> (medium conveying an utterance)	nameќ “ima nešo pomeždu im”	hint “there is something going on between them”	full predication (existential)	quotative	left
<i>колежките-кобри-по- душа</i> (individual)	koležkite-kobri-po-duša	the-female-colleagues- real-cobras-in-their- hearts	non-predicational (N-N-prep-N)	pseudo	left
<i>просто-независаща-от- него-странност</i> (property)	prосто-nezavisēša-ot- nego-strannost	a-simply-not-depending- on-him-foible	* non-predicational (N-Adj-prep-ProN-N)	pseudo	right
<i>обикаляне-без-купуване решение</i> (action)	obikalayane-bez- kupuване rešenje	window-shopping- without-buying decision	non-predicational (N-prep-N-N)	pseudo	right

Example in Bulgarian <sup>4</sup> (semantic type <sup>5</sup> of the head of the PC)	Transliteration	Meaning	Type in relation to the predication status of the non-head (structural make-up)	Quotative or pseudo	Headedness
<i>доброжелатели, които „само искат да знаят какво мислиш за бъдещето си“</i> (individual)	dobroželateli, които „samo iskat da znayat kakvo misliš za bâdšeteto si”	well-wishers who “just want to know what you are thinking about your future”	# <sup>8</sup> full predication (declarative)	quotative	left
<i>функцията „На този ден“</i> (utterance/medium conveying utterance)	funkciyata “Na този ден”	the function “On that day”	non-predicational (N-prep-ProN <sub>dem</sub> -N)	quotative	left
<i>статус „Обичам мазни, потни чишкови“</i> (utterance/medium conveying utterance)	status “Običam mazni, potni čikovci”	status “I love sleazy, sweaty old guys”	full predication (declarative)	quotative	left
<i>reach-in /roll-in /walk-in хладилници</i> (thing)	reach-in hladilnici	reach-in refrigerators	*non-predicational (V-prep-N)	pseudo	right
<i>roll-in хладилници</i> (thing)	roll-in hladilnici	roll-in refrigerators	*non-predicational (V-prep-N)	pseudo	right
<i>walk-in хладилници</i> (thing)	walk-in hladilnici	walk-in refrigerators	*non-predicational (V-prep-N)	pseudo	right
<i>море-слънце-пясък туризъм</i> (thing)	more-slânce-pyasâk turizâm	sea-sun-sand tourism	non-predicational (N-N-N-N)	pseudo	right
<i>ски-слънце-сняг туризъм</i> (thing)	ski-slânce-snyag turizâm	ski-sun-snow tourism	non-predicational (N-N-N-N)	pseudo	right

### 4.3 An interpretation of phrasal compounds in Bulgarian

In view of the fact that the two editions of the Dictionary of New Words and Meanings in Bulgarian (2001 and 2010) register nominal compounds of the determinative type with nouns and abbreviations as non-head constituents and that the only available piece of research on PCs on Bulgarian reports on a corpus harvested from printed and electronic media for the period 2004–2005, it is plausible to conclude that the development of PCs in Bulgarian runs closely behind the establishment of the NN determinative compound type.

The establishment of the  $[N_1N_2/N_2N_1]_N$  root compound type with determinative, modifying intracompound relations in Bulgarian paved the way for the emergence of phrasal compounds. Once established, the  $[N_1 N_2]_N$  schema in the constructicon of Bulgarian provided the grounds for tolerance of various kinds of linguistic elements in the  $N_1$  slot (phrases and abbreviations, e.g. *жп възел* [*žp vâzel*, *railway junction*], *ЕС лидер* [*ES lider*] ‘EU leader’, *МВР център* [*MVR centâr*, ‘centre of the Ministry of the Interior’], *СДВР шеф* [*SDVR šef*, ‘boss of the Sofia Directorate of the Interior’], etc.). In other words, the semantics of the pattern –  $N_2$  of a type somehow related to  $N_1$  – warrants the on-the-spot creation of non-lexicalised phrasal compounds.

For the time being phrasal compounds are most frequent in lifestyle magazines and in the jargon of tourism. Their establishment in the language is far from complete and results from very specific sociocultural parameters in a weak contact situation. As argued here, what resulted from contact was the establishment of the  $[N_1N_2]_N$  pattern whose successful constructionalisation led to the diversification of the construction into phrasal compounds (PCs) and abbrevia-

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<sup>4</sup>Punctuation and capitalisation are given as they appear in the original sources.

<sup>5</sup>The semantic labels used are those proposed and defined by Trips (2016: 161). It appears that they are applicable cross-linguistically and can be of value in future contrastive studies. In Bulgarian there are not (at present) PCs with heads of the type Time.

<sup>6</sup>+ The semantic labels associated with these phrasal compounds are derived from the noun which their heads elaborate, be it appositively or via a preposition. The actual semantic motivating nouns can be seen in the Appendix.

<sup>7</sup>\* These examples are based on deverbal (*-ing*) or constituents used as adjectives with an initial verbal element in the derivation. The syntactic status of the non-head constituent in the hybrid constructions is not unequivocal.

<sup>8</sup># This example stands apart from all the others in containing a fully-fledged relative clause. The relative clause is extremely strange – it is quoted and thus acquires a stereotyping/typifying effect. All deictic properties of the constituents of the relative clause are cancelled or suspended and the well-wishers are not described as actually experiencing a desire at a particular time  $t_0$  but are classified as members of a particular type or category. This example might be indicative of the way in which protosyntactic packaging or condensing leads to phrasal compounding.

tion compounds (ACs), as we have just seen with the examples above. The users of the language who utilise PCs freely constitute special small speech communities in the sense of Lipka (2002) and Hohenhaus (2005) in relation to vocabulary knowledge and use.

None of the examples analysed here has been recorded in the BulNC to date. Although this is not a fact that can be capitalised on in a conclusive way, it appears that PCs in Bulgarian do not have listeme status (to the exclusion of those found in the jargon of tourism). They appear mostly in writing, with the genres and text types restricted to the Psychology, Friends and Advice sections of popular lifestyle magazines. On the basis of these facts it could be argued that the appearance of such structures is a contact phenomenon in its infancy.

The same used to apply to NN determinative compounds that have been termed “an Anglo-Americanism in Slavic morphosyntax” (Vakareliyska & Kapatsinski 2014: 277). The authors contend that

since 1990, most of the South and East Slavic languages have independently adopted, to varying extents, English loanblend  $[N[N]]$  constructions, in which an English modifier noun is followed by a head noun that previously existed in the language, for example, Bulgarian *ekšûn geroi* ‘action heroes’ (ibid.).

Yet, as argued by Croft (2001b) from lexical<sup>9</sup> (or MAT) borrowing as in *non идол* [pop idol, *pop idol*], via hybrid formations (or loanblends) such as *екшûн герой* [ekšûn geroy, *star from an action movie*], exclusively native root  $[N_1N_2]_N$ s of a determinative type such as *ужас-тръпка* [užas trâpka, *horror vibe*] and *чалга певец* [čalga pevec, *pop folk singer*] established themselves as a new strategy within compounding (or PAT borrowing) via upward strengthening. The abstraction of a new pattern from lexical borrowings gave rise to constructional changes in two networks, namely modification and compounding, leading to the constructional-isation of a new compounding strategy. The lexical replication of item-specific borrowings, e.g. *екшûн филм* [ekšûn film, *action movie*] grew into grammatical replication as defined by Heine & Kuteva (2006: 49). This has led to the appearance of one novel type of nominal compound in Bulgarian with three subtypes, marked by an asterisk in Figure 1. The remaining two types are the bahuvrihi  $[V N]_N$  and the synthetic and parasyntetic ones  $[NV]_{+/- \text{ suff}} N$  characteristic of Slavonic languages.

<sup>9</sup> A description of the process of lexical (MAT) borrowing going structural (PAT) and the establishment of a new constructional type is provided in §5.2 below.

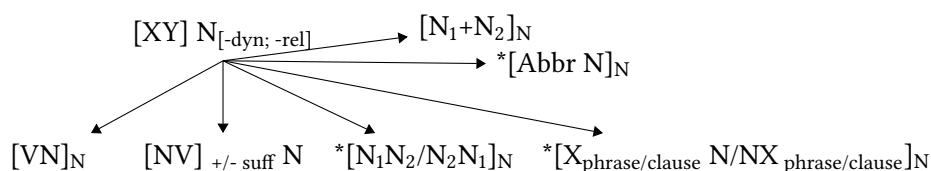


Figure 1: Types of nominal compound in Bulgarian

The constructional network of compounds is represented in Figure 1. at just two levels of abstraction and the highest node within nominal compounding can only be instantiated by one of the types it sanctions. The first node (from left to right) at the lower level of abstraction  $[VN]_N$  denotes the type constituted by exocentric nominal compounds such as *развейпрах* [razveyprah, ‘scatter-dust’, *idler*], *разтуриколиба* [razturikoliba, ‘tear-down-hut’, *adulterer*]; *загоритенджере* [zagoritendžere, ‘burn-pan’, *a person with no sense of time*]. The second,  $[NV]_{+/-\text{ suff } N}$ , is actualised by two subtypes: suffixal and suffixless synthetic compounds (which may be semantically endo- or exocentric), e.g. suffixal *гласоподавател* [glasopodavatel, ‘voice-giver’, *voter*]; *гробокопач* [grobokopač, ‘grave-dig-er’, *gravedigger*]; *данъкоплатец* [danâkoplatac, ‘tax-pay-er’, *taxpayer*]. The suffixless subtype comprises such compounds as *животновъд* [životnovâd, ‘animal-breed’, *animal breeder*]; *езиковед* [ezikoved, ‘language-know-er’, *linguist*], etc. The third node,  $[N_1N_2/N_2N_1]_N$ , branches into subordinative (root) nominal compounds exemplified by the right-headed *бинго зала* [bingo zala, *bingo hall*], *фитнес салон* [fitnes salon, *fitness centre*] and the left-headed *гора закрилница* [gora zakrilnica, ‘forest protector’, *a forest to hide out in*]. The fifth node,  $[Abbr N]_N$ , captures invariably right-headed compounds in which the first constituent is an abbreviation as in *ФБР агент* [FBR agent, *FBI agent*], *МВР акция* [MVR akciya=Ministry of the Interior action, *police operation*], *БуК части* [ViK časti, *plumbing parts*], *жп възел* [žp vâzel, *railway junction*], etc. The sixth node is a schematic representation of the construction actualising coordinative nominal compounds such as *плод-зеленчук* [plod-zelenčuk, ‘fruit-vegetable’, *greengrocer’s*] and *архитект-проектант* [‘arhitekt-proektant’, *architect-designer*].

Within this nominal network, phrasal compounds in Bulgarian bear all the hallmark characteristics that Heringer (1984: 9) ascribes to *episodic compounds*, in circulation mainly within small groups, such as the readership of the Bulgarian Cosmopolitan.

## 5 Phrasal compounds in Bulgarian: some generalisations

### 5.1 The semantics of phrasal compounds in Bulgarian

On the basis of their semantics phrasal compounds should be recognized as composites within the constructicon. As Lampert (2009: 62-63) contends,

two categories relevant for linguistic representations at all levels [...] must [...] be kept apart: First, those that result from an ‘additive’ (or: computational) combination of semantically and/or formally simplex items, yielding [...] compositions of variable complexities in accordance with combinatorial rules; second, there are composites, which cannot readily be analyzed in terms of a ‘simple’ (additive) computation of their formal constituents and/or semantic components, but only as ‘wholes’ or Gestalts.

This understanding of composites is fully in keeping with the constructionist understanding of schemas at a medium level of complexity and specificity, and captures two of the outstanding properties of phrasal compounds which warrant them a unique type status among compounds. First, they are not constituted by atomic elements and second, there is no uniform, straightforward computational mechanism which can represent the generation of their meaning (the relation between the constituents cannot be formulated in a linear, descriptive manner). The semantic generalisations concerning the meaning of PCs necessarily employ some marked mechanism, e.g. metonymy (Trips 2016), heavy pragmatic inferencing (Meibauer 2015), metacommunicatively executed stereotyping (Hohenhaus 2007), fictive interaction, encyclopedic and episodic knowledge (...) (Pascual et al. 2013). Phrasal compounds in Bulgarian display the same semantic complexities as PCs in other languages.

For Pafel (2015) quotative PCs behave exactly like  $[N_1N_2]_N$  compounds, i.e. their semantics is computable on the basis of an intracompound modification relation as in determinative nominal compounds. According to Heine & Kuteva (2009: 145) there are crosslinguistically four basic types of compound structures with recognised internal relations:

- 1) modifying (tatpurusha) compounds where  $N_1$  is a modifier of  $N_2$  (e.g. *dog house*, *бинго зала* [bingo zala, ‘bingo hall’]);
- 2) appositive (karmadharaya) compounds where the reference of  $N$  is the intersection of  $N_1$  and  $N_2$  (e.g. *singer-songwriter*, *архитект-проектант* [arhitekt-proektant, ‘architect-designer’]);

- 3) additive (dvandva) compounds where N encompasses the meanings of both  $N_1$  and  $N_2$  with the latter being distinct referents of N (e.g. *speaker-listener*, *плод-зеленчук* [plod-zelenčuk, ‘fruit-vegetable’, *greengrocer’s*]); and
- 4) alternative (bahuvrihi) compounds where the meaning of N lies outside the combination of  $N_1$  and  $N_2$  on the basis of metonymy (e.g. *hunchback*, *загоритенджер* [zagoritendžere, ‘burn-pan’, *a person with no sense of time*]).

Analysing the semantics of PCs in Bulgarian indicates that they behave like modifying compounds. The lexicalised *море-слънце-пясък туризъм* [more-slân-ce-pyasâk turizâm, ‘sea-sun-sand tourism’] names a specific type of relaxation or tourism associated with summertime and specific activities relating to the availability of all three prerequisites, sea, sun, and sand. The same semantic interpretation applies to *walk-in хладилници* [walk-in hladilnici, ‘walk-in refrigerators’] which denotes a specific type of refrigerating facility where one can walk in and pick out the required foodstuffs. The modifying relationship is fairly straightforward and these PCs look a lot like ordinary modifying nominal compounds except as regards the structure of the non-head constituent. Their semantics can be explained by what Trips (2016: 171) suggests “R(x1,x2)”, i.e. “[t]he only thing which is specified is that there is a relation between” the head and the non-head constituent. The only qualification to make is that unlike in English, in Bulgarian the type of relation involved is easily read off the compound. It is likely that the further spread and expected heightened productivity of PCs in Bulgarian the nature of the relation (R) will become as diversified and underdetermined as in English.

Non-lexicalised PCs, such as *предизвикай-го-да-говори-съвет* [predizvikay-go-da-govori-sâvet, ‘coerce-him-into-talking-advice’] or *напрежението ето-че-моментът-най-сетне-настъпи* [napreženieto eto-če-momentât-nay-setne-nastâpi, ‘the-tension there-the-time-has-finally-come’] and *направи-си-сам-проблеми-в-офиса ситуация* [napravi-si-sam-problemi-v-ofisa situaciya, ‘create-your-own-problems-at-the-office-situation’], irrespective of the variation in headedness (left- or right-headed) and the semantic type of the head element (Attitude and Action), display the same semantics, i.e. name a specified or stereotyped type of the head. The listener/reader will understand the tension in *напрежението ето-че-моментът-най-сетне-настъпи* [napreženieto eto-če-momentât-nay-setne-nastâpi, ‘the-tension there-the-time-has-finally-come’] as a specific type of tension that one experiences in the typified circumstances. The presumption that comprehension of the PC depends on the “hearer’s knowledge of context, back-



ground, stereotypes, etc., adhering to pragmatic principles such as Gricean maxims” (Meibauer, quoted after Trips 2016: 169) seems to be sufficient for explaining the functioning of Bulgarian PCs in context. However, from the speaker’s perspective, this cannot explain how PCs are produced on the fly. Adopting Trips’s (2016: 172-176) account of the semantics of predicational PCs in English provides a plausible explanation for the meaning computation of PCs in Bulgarian from the speaker’s perspective. The “IS-A” relationship and metonymy-based type-shifts account in a satisfactory manner for the semantics of predicational PCs. As Trips (2016: 174) specifies “the phrasal non-head is an utterance which undergoes one (or more) typeshift(s) either from UTTERANCE to THING [...] or from UTTERANCE to EVENT(UALITY).” In this manner the necessary stereotyping of the situation described in the phrasal non-head is achieved.

A detailed semantic analysis of PCs in Bulgarian was beyond the objectives and scope of the current paper, yet in the process of checking their properties against established compounds in other languages, an analysis of meaning generating principles was inevitable and this led to the conclusion that the elements in the modifier slot function as situational proverbs. They name situations or event types but do not describe a discourse-anchored situation. The non-predicational ones denote entities of well-specified types.

## 5.2 Can phrasal compounds in Bulgarian be the result of pattern borrowing?

The similarities between subordinative, modifying nominal compounds and PCs seem to go beyond their semantics. Like subordinative, nominal compounds, phrasal compounds have arisen as the result of language contact. As Ohnheiser (2015: 1856) has noted,

to a significant extent the increase of new vocabulary in the modern Slavic languages feeds on borrowings and loan translations or hybrid formations, a large part of which consist of *compound patterns* and compound elements of foreign origin (Ohnheiser 2015: 1856; emphasis added).

Both subordinative, modifying  $[N_1N_2/N_2N_1]_N$  compounds and phrasal nominal compounds in Bulgarian probably result from this recognised influx of foreign compound patterns.

In contact linguistics it has become common to make a distinction between direct borrowing of lexical and phonetic material and structural borrowing or grammatical replication. As Sakel (2007: 15) claims,

we speak of MAT-borrowing when morphological material and its phonological shape from one language is replicated in another language.

Similarly Heine & Kuteva (2006: 49) differentiate between lexical and grammatical replication on the basis of borrowing or not of form or phonetic substance. Grammatical replication for them is recognised when a replica language “creates a new grammatical structure (Rx) on the model of some structure (Mx) of another language” (Heine & Kuteva 2006: 49). For Sakel (2007: 15),

PAT describes the case where only the patterns of the other language are replicated, i.e. the organisation, distribution and mapping of grammatical or semantic meaning, while the form itself is not borrowed.

Whichever terminology we adopt, it appears that from the perspective of constructionalism the development of atypical constructions should be recognised as PAT borrowing or grammatical replication. Crucially, it may be the case that in borrowing constructions of medium complexity the two types of borrowing are merely successive steps in the process of constructionalisation.

When we combine the understanding of constructionalisation as a kind of language change with the typology of borrowing it transpires that the establishment of root, subordinative nominal compounds in Bulgarian is an example par excellence of constructionalisation in a contact situation. In keeping with Traugott & Trousdale’s (2013) postulations, the emergence of constructional nodes with schematic slots is what is captured with the term “grammatical constructionalisation”. In the development of  $[N_1N_2]_N$  constructions in Bulgarian exactly this process is observed: upward strengthening of a construction with schematized nodes. Importantly, Traugott & Trousdale (2013: 22) emphasise that constructionalisation is associated with the emergence of a new node in a constructional network, or more specifically “[...] when constructs begin to be attested which could not have been fully sanctioned by pre-existing constructional types.” As the compounding network in Bulgarian did not tolerate root, subordinative  $[N_1N_2]_N$ s before the influx of lexical borrowings from English (Brezinski 2012, Krumova-Cvetkova et al. 2013, Murdarov 1983, Radeva 2007, etc.), it is natural to conclude that the rapid spread of  $[N_1N_2]_N$ s in the language and their development from lexical borrowing via loanblends into fully integrated constructions with native constituents is an illustration par excellence of MAT borrowing gone PAT (Sakel 2007). The real question is whether phrasal compounds in the language follow the same scenario or whether they resulted from the further diversification of the already nativised compound pattern.

While  $[N_1N_2]_N$ s have already firmly developed into PAT borrowing (hundreds of them being found with purely native constituents and duly recorded in lexicographic reference books), PCs are still a borderline phenomenon (in view of their restricted genre and text type appearance). However, the attested PCs in Bulgarian cannot be interpreted as direct lexical borrowings or calques as no corresponding potential English sources easily suggest themselves. This suggests that the paths of development of root, subordinative nominal compounds and PCs in the language differ.

Hilpert (2015: 116) contends that

whereas in grammaticalization, the experience of a linguistic unit leads to the progressive entrenchment of a more schematic construction, situated at a higher level in the constructional network, constructional change can manifest itself in the strengthening of several more specific sub-schemas, at lower levels of the constructional network. This proposal will be called the upward strengthening hypothesis.

Following this hypothesis, the establishment of the new root, subordinative compound type in Bulgarian  $[N_1N_2]_N$  should be interpreted as the result of upward strengthening, while that of PCs is the result of constructional change. The newly established compound type acted as fertile soil in which phrasal compounds could be planted. The planting was aided by the peculiar formal and functional properties of phrasal compounds and the general meaning underspecification of nominal modification (Bauer & Tarasova 2013).

To go a step further, we can specify that both subordinative, modifying nominal compounds and PCs are the result of pattern borrowing, not process borrowing. The distinction between the two types of borrowing, according to Renner (2015), is based on the degree to which the borrowing affects the receptor or replicator language's extant constructions. Renner defines "contact-induced morphostructural change as all contact-induced morphological changes beyond the copying of a morpheme, i.e. the novel availability or increased profitability of a WF process or pattern caused by language contact" (Renner 2016). The novel availability of a word-formation process he dubs process borrowing, while the increased profitability of a word-formation process or model is recognised as pattern borrowing. The latter results in moderate structural change, with the core of the receptor language's system remaining unaffected. The borrowing of subordinative nominal compounds from English into Bulgarian did not lead to the introduction of a novel word-formation process, but enhanced the profitability of the existing but marginal  $[N_1N_2/N_2N_1]_N$  compound pattern.

Admittedly, this scenario for the appearance of PCs is in keeping with the development of nominal compounds as suggested by Heine & Kuteva (2009). It is possible that in the grammaticalisation chain of the combination of nouns another step may have to be added – after the fixation of the pattern into a compound, the modifying, non-head slot may tolerate other structural constituents which have been functionally downgraded (without any suggestions as to the nature of the downgrading mechanism) to acquire noun-like properties. This possibility does not violate or compromise the nature of compounding, since as Gaeta & Ricca (2009: 35) suggest compounds may be analyzed “by treating the properties of being a lexical unit and being the output of a morphological operation as independent”. Moreover, compounding has been recognised as a ‘pocket phenomenon’ in language (Bauer 2001; Jackendoff 2009), where the rules of syntax do not apply.

Another plausible scenario, driven by economy principles and the minimax effect in language functioning is the condensation of phrasal/clausal constituents to elements of word building. In this case, the ratio of explicitness/implicitness is manipulated, so that a large amount of descriptive information is left out and delegated to pragmatic inferencing to achieve a labelling effect (the result of stereotyping/typifying).

Both scenarios are compatible with the understanding of language as a constructicon. After all, there seem not to be any restrictions as to the size or complexity of a construction (to the exclusion of psycholinguistic considerations of processing limitations), which allows for the existence of phrasal compounds which collapse features of different traditional structural elements.

## **6 Concluding remarks**

One of the basic functions of word-formation objects, i.e. words, is the categorising function (Schmid 2007), tightly interwoven with the entrenchment of concepts. This is further supported by Bolozky’s belief that “lexical formation is first and foremost semantically based and concept driven” (Bolozky 1999: 7).

Conceding that phrasal compounds have a unanimously acknowledged naming function leads to recognising their concept-creating or at least strongly typifying function, which is cognitively speaking tantamount to establishing a category. In the words of Hohenhaus (2005: 356) “Hypostatization is a side-effect of the naming function of word-formation, whereby the existence of a word seems to imply for speakers the existence in the real world of a single corresponding ‘thing’ or clearly delimited concept.”

In a nutshell, the greatest driving force behind the (still limited) advent of phrasal compounds in Bulgarian is their type-creating power, be it metacommunicative, metonymy-driven or fictive. The pattern has been established and its instantiations share all properties of standard phrasal compounds in English and German, to the exclusion of headedness variability, which is characteristic of Bulgarian phrasal compounds only. Their smooth accommodation in the compounding network of the language can easily be explained in terms of the ratio between explicitness and implicitness which they provide as subschema instantiations of the subordinative, modifying constructional node within the compounding network.

In parallel to Ray Jackendoff and Eva Wittenberg's interlinguistic hierarchy of grammars (Jackendoff & Wittenberg 2012), we propose that there is a similar intra-language hierarchy of meaning packaging options whose choice depends on at least the following variables: genre, immediate situational context, speaker's preferences and linguistic background and the mode of interaction between interlocutors, which would determine the degree of explicitness necessitated in a given communicative exchange. Standard phrasal syntax and compounds are seen as alternative modes of packaging following different internal logics. In keeping with Jackendoff's (2009) contention that in compounds proto-syntactic combinatorial patterns prevail, we believe that the syntax of a language has only an indirect influence on the shape and types of compounds in a given language mediated by the part-of-speech system with the concomitant inflectional morphology. Proto-syntax, as the alternative name for "a simpler grammar", is characterized according to Jackendoff (2009) and Jackendoff & Wittenberg (2012: 1) as an expression system which puts "more responsibility for understanding on pragmatics and understanding of context. As the grammar gets more complex, it provides more resources for making complex thoughts explicit." Even though Jackendoff & Wittenberg define the "hierarchy of grammars" as a continuum along which the grammatical systems of languages with different degrees of complexity can be arranged, we assume that it is possible for the different resources of a single language to be arranged into a grammar hierarchy, where different patterns for packaging meaning display properties that can be arranged along the scales of complexity and explicitness. When a compound is used, the relation of what is explicitly expressed to possible interpretations is effected by pragmatics and general experiential knowledge.

Answers to the questions raised in the introduction can only be provided after a longitudinal or cross-sectional study of PCs in Bulgarian is conducted within a decade and hopefully this is a promising continuation of the ongoing research

reported here.

## **Appendix: Phrasal compounds in Bulgarian in context**

The majority of examples (21 to be precise) have been taken from Boyadžieva (2007) which presents a corpus study of Cosmopolitan BG for the period 2004-2005 is presented.

- (2) Свали-го-съвет [Cosmopolitan, BG, March 2005: 113]
- (3) Вземи-му-акъла-съвет [Cosmopolitan, August 2005: 45]
- (4) Завърти-му-ума-посрещане [Cosmopolitan, BG, www]
- (5) Промени-живота-си-предизвикателство [Cosmopolitan, BG, www]
- (6) Прочети-му-мислите съвет [Cosmopolitan, BG, September 2004: 60]
- (7) Предизвикай-го-да-говори-съвет [Cosmopolitan, BG, December 2004: 62]
- (8) Често си спретват игри от типа  
кой-пръв-ще-успее-да-пъкне-лед-в-ризата-на-другия.  
[Cosmopolitan, BG, February 2005: 72]
- (9) Тя може да те спаси в кризисни моменти – от неотложна нужда за посещение на зъболекар до внезапната поява на блуза, тип не-е-за-изпускане-независимо-от-цената. [Cosmopolitan, BG, www]
- (10) Това определено не се простира отвъд факта  
Боже-не-може-да-бъде!, харесват едни и същи ястия и филми.  
[Cosmopolitan, BG, September 2004: 53]
- (11) Ако си една средностатистическа жена, няма как стресът да не е станал второто ти Аз – без значение дали става дума за леката му разновидност ‘Боже-сетих-ли-се-да-изключи-котлона-днес’ или за язво-формирация вариант ‘ей-тази-седмица-наистина-май-ще-ме-уволнят-или-зарезат-или-и-двете. [Cosmopolitan, BG, www]

- (12) Този антидепресант повишава нивото на допамин в мозъка, като по този начин осигурява един от най-коварните ефекти на цигарите – да-се-почувстваш-добре ефект. [Cosmopolitan, BG, July 2004: 129]
- (13) Така се елиминира напрежението ето-че-моментът-най-сетне-настъпи. [Cosmopolitan, BG, September 2005: 63]
- (14) Изпускането на парата твърде скоро може да е равносилно на направи-си-сам-проблеми-в-офиса ситуация . [Cosmopolitan, BG, December 2004: 105]
- (15) Как да доведеш нещата до щастлива развръзка за-вечни-времена. [Cosmopolitan, BG, www]
- (16) Целта е да преодолееш тютюнджийската абстиненция, докато се откачиш от навика с-цигара-в-ръка. [Cosmopolitan, BG, December 2004: 104]
- (17) Едва ли си даваш сметка, до каква степен лошият режим на хранене и предъвкването-между-другото на разни дреболии пречат на диетата ти. [Cosmopolitan, BG, September 2005: 119]
- (18) Като начало, молим ви, не си отглеждайте стърчащо-услужливо-дълго-нокътче на кутрето. Поддържайте ноктите си добре подрязани и чисти. [Grazia, BG, September 2004: 49]
- (19) Забелязала ли си, че ти се иска да си купиш нещо почти веднага след скандал с иначе-любимия-човек? [Cosmopolitan, BG, September 2005: 73]
- (20) Даже в по-либералните фирми и най-дребният намек “има нещо помежду им” кара колегите-кобри-по-душа да изпълзят от леговищата си.[Cosmopolitan, BG, December 2004: 104]
- (21) Просто-независеща-от-него-странност [COSMO men, August 2005: 4]
- (22) Ако шопингът все пак ти действа като мощна доза антидепресанти, има решение и то се нарича обикаляне-без-купуване решение. [Cosmopolitan, BG, September 2005: 73]

- (23) След всички мнения какво трябва и не трябва да правиш, когато си на 20, главата ти се замайва и ти иде да се скриеш далеч от всички тези съветници и доброжелатели, които „само искат да знаят какво мислиш за бъдещето си“ (<http://www.cosmopolitan.bg/cosmo-zapovedi/11-neshta-za-koito-da-ne-se-obviniavash-na-20-18537.html>, Cosmolitan BG 2016, last accessed 14 July 2016)
- (24) Функцията „На този ден“ е създадена, само за да те излага. (<http://www.cosmopolitan.bg/svetut-okolo-teb/16-feisbuk-problema-koito-20-godishnite-sreshtat.html>, Cosmolitan BG 2016, last accessed 14 July 2016)
- (25) За съжаление дори възрастните понякога си правят детински шегички и нищо чудно да осъмнеш със статус „Обичам мазни, потни чичковци“. (<http://www.cosmopolitan.bg/svetut-okolo-teb/16-feisbuk-problema-koito-20-godishnite-sreshtat.html>, Cosmolitan BG 2016, last accessed 14 July 2016)
- (26) reach-in хладилници (Horeva, Ph.D., manuscript, Sofia University, 2015)
- (27) roll-in хладилници (Horeva, Ph.D., manuscript, Sofia University, 2015)
- (28) walk-in хладилници (Horeva, Ph.D., manuscript, Sofia University, 2015)
- (29) море-слънце-пясък туризъм (Horeva, Ph.D., manuscript, Sofia University, 2015)
- (30) ски-слънце-сняг туризъм (Horeva, Ph.D., manuscript, Sofia University, 2015)

## References

- Ackema, Peter & Ad Neeleman. 2004. *Beyond morphology: Interface conditions on word-formation*. Oxford: Oxford University Press.
- Arcodia, Giorgio F., Nicola Grandi & Fabio Montermini. 2009. Hierarchical NN compounds in a cross-linguistic perspective. *Rivista di Linguistica* 21(1). 11–33.
- Аврамова, Цветанка & Пetya Osenova. 2003. Отново по въпроса за границата между сложна дума и словосъчетание (върху материал от най-новата българска лексика [Once again on the issue of the boundary between a compound and a phrase]. *Bulgarian* 1. 68–75. [In Bulgarian].



- Bağrıaçık, Metin & Angela Ralli. 2015. Morphological vs. Phrasal compounds: Evidence from Modern Greek and Turkish. *STUF—Language Typology and Universals* 68. 323–357.
- Bauer, Laurie. 2001. Compounding. In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher & Wolfgang Raible (eds.), *Language typology and language universals*, 695–707. Berlin: de Gruyter.
- Bauer, Laurie. 2009. Typology of compounds. In Rochelle Lieber & Pavol Štekauer (eds.), *The Oxford handbook of compounding*, 343–356. Oxford: Oxford University Press.
- Bauer, Laurie & Elizaveta Tarasova. 2013. The meaning link in nominal compounds. *SKASE Journal of Theoretical Linguistics* 10(3). 1–18.
- Bell, Melanie. 2011. At the boundary of morphology and syntax. Noun noun constructions in English. In Alexandra Galani, Hicks Glyn & George Tsoulas (eds.), *Morphology and its interfaces*, 137–167. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Bisetto, Antonietta. 2015. Do Romance languages have phrasal compounds? A look at Italian. *STUF—Language Typology and Universals* 68. 395–419.
- Bolozky, Shmuel. 1999. *Measuring productivity in word formation: The case of Israeli Hebrew* (Studies in Semitic languages and linguistics). Leiden: Brill.
- Booij, Geert E. 2007. *The grammar of words*. 2nd edn. Oxford: Oxford University.
- Booij, Geert E. 2009a. Phrasal names: A constructionist analysis. *Word Structure* 2(2). 219–240.
- Booij, Geert E. 2009b. Phrasal names: A constructionist analysis. *Word Structure* 2(2). 219–240.
- Booij, Geert E. 2010. *Construction morphology*. Oxford et al.: Oxford University Press.
- Botha, Rudolf P. 1981. A base rule theory of Afrikaans synthetic compounds. In Michael Moortgat, Harry van der Hulst & Teun Hoekstra (eds.), *The scope of lexical rules*, 1–77. Dordrecht: Foris.
- Boyadžieva, Elly. 2007. Reflections on a new word-formation pattern in Bulgarian newspaper language. In Alexandra Bagasheva (ed.), *On Man and language. A festschrift to maya pencheva*, 232–244. Sofia: Sofia University Publishing House “St. Kliment Ohridski”.
- Bresnan, Joan & Sam Mchombo. 1995. The lexical integrity principle: Evidence from Bantu. *Natural language and linguistic theory* 13. 181–254.
- Brezinski, Stefan. 2012. *Bulgarian speech and writing: How to speak and write correctly*. Sofia: Iztok-Zapad. [In Bulgarian].

- Croft, William. 2001a. *Radical Construction Grammar: Syntactic theory in typological perspective*. Oxford: Oxford University Press.
- Croft, William. 2001b. Radical construction grammar: Syntactic theory in typological perspective. In Livia Körtvélyessy, Pavol Štekauer & Salvador Valera (eds.), *Word-formation across languages*, 1–29. Newcastle upon Tyne: Oxford University Press.
- Croft, William. 2007. Construction grammar. In Dirk Geeraerts & Hubert Cuyckens (eds.), *The Oxford handbook of cognitive linguistics*, 463–508. Oxford: Oxford University Press.
- Fried, Mirjam. 2013. Principles of constructional change. In Thomas Hoffmann & Graeme Trousdale (eds.), *The Oxford handbook of construction grammar*, 419–437. Oxford: Oxford University Press.
- Gaeta, Livio & Davide Ricca. 2009. Composita solvantur: Compounds as lexical units or orphological objects? *Italian Journal of Linguistics* 21. 35–70.
- Gagné, Christina & Edward Shoben. 1997. Influence of thematic relations on the comprehension of modifier-noun combinations. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 23(1). 71–87.
- Goldberg, Adele E. 2003. Constructions: A new theoretical approach to language. *Trends in Cognitive Sciences* 7. 219–224.
- Goldberg, Adele E. 2006. *Constructions at work: The nature of generalization in language*. Oxford: Oxford University Press.
- Guevara, Emilio & Sergio Scalise. 2009. Searching for universals in compounding. In Elisabetta Magni Scalise Sergio & Antonietta Bisetto (eds.), *Universals of language today*, 101–129. Berlin: Springer.
- Halliday, Michael. 1994. *Introduction to functional grammar*. 2nd ed. London: Edward Arnold.
- Halliday, Michael & Christian Matthiessen. 2014. *Halliday's introduction to functional grammar*, 4th ed. London / New York: Routledge.
- Hawkins, John A. 1983. *Word order universals*. New York: Academic Press.
- Hein, Katrin. 2015. *Phrasenkomposita im Deutschen. Empirische Untersuchung und konstruktionsgrammatische Modellierung* (Studien zur Deutschen Sprache 67). Tübingen: Narr.
- Heine, Bernd & Tanya Kuteva. 2006. *The changing languages of Europe*. Oxford: Oxford University Press.
- Heine, Bernd & Tanya Kuteva. 2009. The genesis of grammar: On combining nouns. In Rudie Botha & Henriette de Swart (eds.), *Language evolution: The view from restricted linguistic systems*, 139–177. Utrecht: LOT.

- Heringer, Hans Jürgen. 1984. Wortbildung: Sinn aus dem Chaos. *Deutsche Sprache* 12. 1–13.
- Hilpert, Martin. 2015. From hand-carved to computer-based: Noun-participle compounding and the upward strengthening hypothesis. *Cognitive Linguistics* 26(1). 113–147.
- Hoffmann, Thomas & Graeme Trousdale. 2013. Construction grammar: Introduction. In Thomas Hoffmann & Graeme Trousdale (eds.), *The Oxford handbook of construction grammar*, 1–14. Oxford: Oxford University Press.
- Hohenhaus, Peter. 1998. Non-lexicalizability as a characteristic feature of nonce word formation in English and German. *Lexicology* 4(2). 237–280.
- Hohenhaus, Peter. 2005. Lexicalization and institutionalization. In Pavol Štekauer & Rochelle Lieber (eds.), *Handbook of Word-Formation*, 353–373. Berlin: Springer.
- Hohenhaus, Peter. 2007. How to do (even more) things with nonce words (other than naming). In Judith Munat (ed.), *Lexical creativity, texts and contexts*, 15–38. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Jackendoff, Ray. 2009. Compounding in the parallel architecture and conceptual semantics. In Rochelle Lieber & Pavol Štekauer (eds.), *The Oxford handbook of compounding*, 105–129. Oxford: Oxford University Press.
- Jackendoff, Ray & Eva Wittenberg. 2012. <http://ase.tufts.edu/cogstud/incbios/RayJackendoff/recentpapers.htm>, accessed 2016-07-14.
- Kirova, Lyudmila. 2012. On a model of complex nomination entering Bulgarian via Turkish borrowings and its contemporary development. *LiterNet* 5. 1–7.
- Krumova-Cvetkova, Liliya, Diana Blagoeva, Emiliya Pernishka Kolkovska & Maya Bozhilova. 2013. *Българска лексикология* [Bulgarian Lexicology]. Sofia: Akademichno izdatelstvo “Prof. Marin Drinov”. [In Bulgarian].
- Lampert, Martina. 2009. *Attention and recombination. A Cognitive-Semantic investigation into morphological compositionality in English*. Frankfurt am Main: Peter Lang.
- Lieber, Rochelle. 1988. Phrasal compounds and the morphology-syntax interface. *Chicago Linguistic Society II Parasession on agreement in grammatical theory*(24). 202–222.
- Lieber, Rochelle. 1992. *Deconstructing morphology. Word formation in syntactic theory*. Chicago: University of Chicago Press.
- Lieber, Rochelle & Sergio Scalise. 2006. The lexical integrity hypothesis in a new theoretical universe. *Lingue e Linguaggio* 5. 7–32.
- Lipka, Leonard. 2002. *English lexicology*. Tübingen: Gunter Narr.

- Masini, Francesca. 2009. Phrasal lexemes, compounds and phrases: A constructionist perspective. *Word Structure* 2(2). 254–271.
- Meibauer, Jörg. 2007. How marginal are phrasal compounds? Generalized insertion, expressivity, and I/Q-interaction. *Morphology* 17. 233–259.
- Meibauer, Jörg. 2015. On “R” in phrasal compounds – a contextualist approach. *Language Typology and Universals* 68(3). 241–261.
- Murdarov, Vladko. 1983. *Съвременни словообразователни процеси* [Contemporary Word-Formation Processes]. Sofia: Naouka i izkustvo. [In Bulgarian].
- Ohnheiser, Ingeborg. 2015. Compounds and multi-word expressions in Slavic. In Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen & Franz Rainer (eds.), *Word-Formation. An international handbook of the languages of Europe* (Handbücher zur Sprach- und Kommunikationswissenschaft / Handbooks of Linguistics and Communication Science 40.1), 757–779. Berlin: De Gruyter Mouton.
- Olsen, Susan. 2015. Composition. In Peter Müller, Ingeborg Ohnheiser, Susan Olsen & Franz Rainer (eds.), *Word-Formation: An international handbook of the languages of Europe, vol. I*, 364–385. Berlin & Boston: Mouton de Gruyter.
- Pafel, Jürgen. 2015. Phrasal compounds are compatible with Lexical Integrity. *Language Typology and Universals* 68. 263–280.
- Pascual, Esther, Emilia Królak & Theo Janssen. 2013. Direct speech compounds: Evoking socio-cultural scenarios through fictive interaction. *Cognitive Linguistics* 24(2). 345–366.
- Plag, Ingo. 2003. *Word-formation in English*. Cambridge: Cambridge University Press.
- Radeva, Vasilka. 2007. *В света на думите* [In the World of Words]. Sofia: Sofia University Publishing House “St. Kliment Ohridski”. [In Bulgarian].
- Ralli, Angela. 2013a. Compounding and its locus of realization: Evidence from Greek and Turkish. *Word Structure* 6. 181–200.
- Ralli, Angela. 2013b. *Compounding in Modern Greek* (Studies in Morphology 2). Dordrecht: Springer.
- Renner, Vincent. 2015. *Extending the domain of contact-induced change in lexical morphology: A focus on pattern and process borrowing. Paper presented at the Workshop on Morphological Borrowing, Gothenburg, Sweden, 10-11 December 2015.*
- Renner, Vincent. 2016. *Contact-induced morphostructural change: An overview. Paper presented at the 13th ESSE Conference, Galway, Ireland, 22-26 August 2016.*
- Ryder, Mary Ellen. 1994. *Ordered chaos: The interpretation of English Noun-Noun compounds* (University of California Press Publications in Linguistics 123). Berkeley: University of California Press.

- Sag, Ivan A., Hans C. Boas & Paul Kay. 2012. Introducing sign-based construction grammar. In Hans C. Boas & Ivan Sag (eds.), *Sign-Based construction grammar*, 1–29. Stanford, CA: CSLI Publications.
- Sakel, Jeanette. 2007. Types of loan: Matter and pattern. In Yaron Matras & Jeanette Sakel (eds.), *Grammatical borrowing in crosslinguistic perspective*, 15–29. Berlin, New York: Mouton de Gruyter.
- Scalise, Sergio & Emilio Guevara. 2006. Exocentric compounding in a typological framework. *Lingue e Linguaggio* 5(2). 185–206.
- Schmid, Hans-Jörg. 2007. Entrenchment, salience and basic levels. In Dirk Geeraerts & Hubert Cuyckens (eds.), *The Oxford handbook of cognitive linguistics*, 117–138. Oxford: Oxford University Press.
- Štekauer, Pavol. 1998. *An onomasiological theory of English Word-Formation*. Amsterdam/Philadelphia: John Benjamins.
- Štekauer, Pavol. 2005. *Meaning predictability in Word-Formation*. Amsterdam/Philadelphia: John Benjamins.
- Traugott, Elizabeth Closs & Graeme Trousdale. 2013. *Constructionalization and constructional changes*. Oxford: Oxford University Press.
- Trips, Carola. 2012. Empirical and theoretical aspects of phrasal compounds: Against the ‘syntax explains it all’ attitude. In Angela Ralli, Geert Booij, Sergio Scalise & Athanasios Karasimos (eds.), *Online Proceedings of the eighth Mediterranean Morphology Meeting*, 322–346. Patras: University of Patras.
- Trips, Carola. 2016. An analysis of phrasal compounds in the model of parallel architecture. In Pius ten Hacken (ed.), *The semantics of compounding*, 153–177. Cambridge: Cambridge University Press.
- Vačkova, Kalina & Vasil Vačkov. 1998. Словообразуване и аналитизъм. Типологична обусловеност на някои словообразователни процеси в съвременния български език Word-formation and analyticity. Typological conditioning of some word-formation processes in the Bulgarian language. *Slavic Philology* 22. 95–101. [In Bulgarian].
- Vakareliyska, Cynthia & Vsevolod Kapatsinski. 2014. An Anglo-Americanism in Slavic morphosyntax: Productive [N[N]] constructions in Bulgarian. *Folia Linguistica* 48(1). 277–311.

