### Chapter 3

# Compounding in Polish and the absence of phrasal compounding

Bogdan Szymanek John Paul II Catholic University of Lublin

In Polish, as in many other languages, phrasal compounds of the type found in English do not exist. Therefore, the following questions are worth considering: Why are phrasal compounds virtually unavailable in Polish? What sort of structures function in Polish as equivalents of phrasal compounds? Are there any other types of structures that (tentatively) could be regarded as "phrasal compounds", depending on the definition of the concept in question? Discussion of these issues is preceded by an outline of nominal compounding in Polish. Another question addressed in the article is the following: How about phrasal compounds in other Slavic languages? A preliminary investigation that I have conducted reveals that, just like in Polish, phrasal compounds are not found in other Slavic languages. The only exception seems to be Bulgarian where a new word-formation pattern is on the rise, which ultimately derives from English phrasal compounds.

#### 1 Introduction

In the Polish language, there are no phrasal compounds comparable to English forms like *a scene-of-the-crime photograph* etc., with a non-head phrase-level constituent. Instead, phrases are used. For instance:

(1) a. a scene-of-the-crime photograph
fotografia (z) miejsca przestępstwa
photograph (from) scene.GEN crime.GEN
'photograph from/of the scene of the crime'



- b. a "chicken and egg" situation (N+and+N) (Trips 2014: 44)
  - i. ??sytuacja "kury i jajka" situation chicken.gen and egg.gen
     'a situation of a chicken and an egg'
  - ii. ?sytuacja "kura czy jajko?" situation chicken.NOM or egg.NOM 'a situation: "a chicken or an egg?"
  - iii. sytuacja typu co było pierwsze: kura czy jajko? situation type.GEN what was first chicken or egg 'a situation of the type – what was first: a chicken or an egg?'
- c. a "work or starve" philosophy (conjoined verbs) (Trips 2014: 44) filozofia "pracuj lub głoduj" philosophy work.IMP or starve.IMP

It can be seen, on the basis of these relatively simple examples of English phrasal compounds (PCs) that their Polish equivalents appear in a variety of phrasal and clausal forms (including more or less elaborate periphrasis). Occasionally the translation will allow for alternative renderings, sensitive to subtle lexical and stylistic differences. From the viewpoint of translation into Polish, the English orthographic convention of enclosing pre-head elements within quotation marks somehow looks more palatable (familiar) than its alternative, i.e. hyphenation. But still, a word-by-word rendering of the English PC *a "chicken and egg" situation*, i.e. as \*"kura i jajko" sytuacja is utterly impossible. As regards (1b) – the choice of the particular Polish form is not only a question of (syntactic) grammaticality but rather of semantic equivalence and faithfulness (in translation) as well as of the degree of stylistic appropriateness. The problems are then comparable to those we encounter when translating idioms.

In their "Introduction" to the special issue of STUF, entitled *Phrasal compounds from a typological and theoretical perspective*, Trips & Kornfilt (2015a: 236) point out that "there are no (comprehensive) studies [of phrasal compounds] available", for languages other than English, German or Turkish, while there are only "some brief discussions of aspects of phrasal compounds" for a few other languages (Trips & Kornfilt 2015a: 236). Clearly, in order to understand the status and scope of phrasal compounding in a cross-linguistic perspective, we need to examine the structures of a greater number of (typologically diverse) languages.

Polish is one such language for which there have been no reports in the literature concerning the category of phrasal compounds. That this is a non-issue

in Polish linguistics is further suggested by the fact that an established term like *złożenie frazowe*, equivalent to English 'phrasal compound', simply is not available in Polish, in contradistinction to terms like *derywaty odfrazowe* '(de)phrasal derivatives' or *derywaty od wyrażeń syntaktycznych* 'derivatives from syntactic expressions', which suggests that Polish word-formation does operate on phrasal constituents, but only as long as they are inputs to affixal derivation. Therefore, it is argued in this paper that phrasal compounds (of the type found in English) do not exist in Polish.<sup>1</sup> Assuming the correctness of this prediction, the following questions are worth considering:

- Why are phrasal compounds virtually unavailable in Polish?
- What sort of structures function in Polish as equivalents of English phrasal compounds?
- Are there any other types of structures in Polish, that (tentatively) could be regarded as "phrasal compounds", depending on the definition of the concept in question?
- How about phrasal compounds in other Slavic languages?

### 2 An outline of nominal compounding in Polish

Generally speaking, compounding in Polish is much less productive than in a language like English.<sup>2</sup> The majority of the relevant data are compound nouns. Compound adjectives are also fairly common in contemporary Polish, while the formation of compound verbs is completely unproductive.<sup>3</sup> Below I focus on the class of compound nouns, their structural diversity and certain formal properties. Such a delimitation of the scope of this article is dictated not only by the fact that compound nouns outnumber compounds of other types in Polish, but also by our main topic, i.e. phrasal compounds, which are nouns.

Typically, a compound noun (or adjective) in Polish must involve a so-called linking vowel (interfix, intermorph, connective) which links, or separates, the

<sup>&</sup>lt;sup>1</sup> Cf. Bisetto (2015: 395) for a similar claim concerning Italian and Romance languages in general.

<sup>2</sup> This section incorporates modified fragments from my article which priginally appeared as

<sup>&</sup>lt;sup>2</sup> This section incorporates modified fragments from my article which originally appeared as Szymanek (2009).

<sup>&</sup>lt;sup>3</sup> For the sake of completeness, it should be noted that there are a few older (often obsolete and lexicalized) compound verbs in present-day use; e.g. *lekceważyć* 'snub, disregard' < *lekce* 'lightly, little (obs.)' + *ważyć* 'weigh', *zmartwychwstać* 'rise from the dead' < *z* 'from' + *martwych* 'dead, gen. pl.' + *wstać* 'rise', etc.

two constituent stems. As a rule, the vowel in question is -o-, but there are other possibilities as well which surface in compound nouns incorporating some verbs or numerals in the first position. In the latter case, the intermorph is -i-/-y- or -u-, respectively (see Grzegorczykowa & Puzynina 1999: 458). Consider the following straightforward examples where the linking element appears in bold type, hyphenated for ease of exposition:<sup>4</sup>

(2)	Stem 1 gwiazd·a 'star'	+	Stem 2 zbiór 'collection'	>	Compound N gwiazd- <b>o</b> -zbiór
	siark∙a 'sulphur'	+	wodór 'hydrogen'	>	'constellation' siark- <b>o</b> -wodór 'hydrogen sulphide
	star·y ʻold'	+	druk 'print, n.'	>	star-o-druk
	żyw·y 'live'	+	płot 'fence'	>	'antique book' żyw- <b>o</b> -płot
	łam-a∙ć 'break'	+	strajk 'strike'	>	'hedge' łam-i-strajk
	mocz-y∙ć 'soak, v.'	+	mord∙a 'mug, kisser'	>	'strike-breaker' mocz-y-mord∙a
	dw·a 'two'	+	głos 'voice'	>	'heavy drinker' dw- <b>u</b> -głos
	dw·a 'two'	+	tygodnik 'weekly'	>	ʻdialogue' <sup>5</sup> dw-u-tygodnik ʻbiweekly'
					•

Prosodically, the compounds are distinguished from phrases by the fact that they receive a single stress on the penultimate syllable (in accordance with the regular pattern of word stress in Polish). Thus, for instance, STA•ry•DRUK 'old print' (phrase) vs. sta•RO•druk 'antique book' (compound).

Morphologically, the typical presence of the interfix (usually -o-) does not exhaust the range of formal complications. In fact, there may be no interfix at all, in certain types of compounds. In some cases, the lack of an interfix seems to be

<sup>&</sup>lt;sup>4</sup>Occasionally I will use hyphens to separate the elements of a compound, but it must be borne in mind that, according to the spelling convention, the majority of Polish compounds are written as one word, with no hyphen. Exceptions involve some coordinate structures like *Bośnia-Hercegowina* 'Bosnia-Herzegovina' or *czarno-biały* 'black and white'. Another boundary symbol, a raised dot, is used in some lists of examples to indicate the inflectional endings of words. <sup>5</sup>The intermorph -*u*- is heavily restricted in its distribution and it mainly appears after the numerals *dwa* 'two' (*dwudźwięk* 'double note') as well as *sto* 'one hundred' (*stulecie* 'century'; exception: *stonoga* 'centipede').

lexically determined. For instance, most combinations involving the noun *mistrz* 'master' as their head have no linking vowel (e.g. *balet-mistrz* 'ballet master', *kapel-mistrz* 'bandmaster', *zegar-mistrz* 'clockmaker'; but *tor-o-mistrz* 'railway specialist', *organ-o-mistrz* / *organ-mistrz* 'organ specialist'). In other cases, the omission of the intermorph seems to be due to the phonological characteristics of the input forms: if the final segment of the first constituent and/or the initial segment of the second constituent is a sonorant, the combination is likely to be realized without any intervening connective (e.g. *pół-noc* 'midnight', *trój-kąt* 'triangle', *ćwierć-nuta* 'quarter note, crotchet', *noc-leg* 'lodging, accommodation', *hulaj-noga* 'scooter' (see Kurzowa 1976: 68).

Another feature that blurs the picture is the frequent occurrence of co-formatives, i.e. morphological elements which, side by side with the interfix itself, contribute to the structure of a given compound. Thus, for instance, fairly common are compound nouns of the following structure: STEM1+interfix+STEM2+suffix, i.e. there is both an interfix and a suffix which jointly function as exponents of the category (hence the Polish traditional term: formacje interfiksalno-sufiksalne). Consequently, nos-o-roż-ec 'rhinoceros' incorporates the input forms nos 'nose' and róg 'horn' (with stem-final palatalization), followed by the obligatory nounforming suffix -ec (cf. \*nos-o-róg). The compound is then structurally analogous to its counterparts in Czech and Slovak (nosorožec), while in Russian the equivalent is simply nosorog, with no suffix. Consider a few more Polish examples:

(3)	Stem 1	Stem 2	Compound N
	dług∙i 'long'	dystans 'distance'	dług-o-dystans-owiec
			'long-distance runner'
	obc∙y 'foreign'	kraj 'country'	obc-o-kraj-owiec
			'foreigner'
	drug∙a 'second'	klas·a 'form'	drug-o-klas-ist∙a
			'second-form pupil'
	prac∙a 'job'	daw-a∙ć 'give'	prac-o-daw-c∙a
			'employer'
	gryź∙ć 'bite'	piór·o 'pen'	gryz-i-piór-ek
			ʻpen-pusher'

It may be seen that each of the compounds on the list ends in a suffix. The suffixes -ec, -owiec,  $-ist \cdot a$ ,  $-c \cdot a$ , and -ek are quite common in this function, so that they may be said to do some of the formative work, as far as compounding is concerned, together with the linking vowel.

Various other Polish compounds end in a suffix, too, which has a fundamentally different status though, since it is inflectional. However, as we shall see, it may also have an important role to play, from the point of view of word-formation. Incidentally, it will be noticed that the examples of compounds given so far are all masculine nouns, which typically have no overt inflectional ending in the nominative sg. (thus e.g.  $gwiazdozbi\acute{o}r \cdot \varnothing$ ,  $nosoroz\acute{e}c \cdot \varnothing$ ). Here the gender of the whole combination is inherited from gender specification on the head (in case it is nominal). Thus  $gwiazdozbi\acute{o}r$  is masculine because  $zbi\acute{o}r$  is masculine, etc. Yet, in quite a few compounds there is a gender-class shift, for instance from feminine to neuter or masculine, as in the following examples:

(4)	Stem 1	Stem 2	Compound N
	wod∙a 'water'	głow∙a 'head'	wod-o-głowi∙e
		[+feminine]	'hydrocephalus'
			[+neuter]
	płask∙a 'flat'	stop∙a 'foot'	płask-o-stopi∙e
		[+feminine]	'flat foot'
			[+neuter]
	czarn∙a 'black'	ziemi∙a 'earth'	czarn-o-ziem·ø
		[+feminine]	'black earth'
			[+masculine]

Thus, the compound status of <code>wodogłowie</code> (rather than \*wodogłowa) is signalled by two things: first, the presence of the usual connective -o- and, secondly, the gender-class modification, which results in a distinct paradigm of declension (cf. a few forms in the singular: <code>głow-a</code> nom, <code>głow-y</code> gen, <code>głowi-e</code> dat vs. <code>wodogłowi-e</code> nom, <code>wodogłowi-a</code> gen, <code>wodogłowi-u</code> dat, etc.). Thirdly, in fact, one could mention the characteristic palatalization of the stem-final consonant in the [+neuter] compounds above (throughout the paradigm). Due to this effect, the paradigmatic shift may be looked upon as a significant co-formative which, together with the intermorph -o-, defines the structure of the compound in question (hence the Polish term: <code>formacje interfiksalno-paradygmatyczne</code>). In fact, the shift of paradigm need not result in gender modification; for instance, the Slovak noun <code>slov-o</code> 'word' and the compound <code>tvar-o-slovi-e</code> 'morphology' are of the same gender, [+neuter], but their respective declensional paradigms are distinct. The same property is illustrated by the Polish compound <code>pust-o-slowi-e</code> 'verbosity' [+neuter] < <code>pust-y</code> 'empty' + <code>slow-o</code> 'word' [+neuter].

On some accounts, this formal type is extended to cover also masculine compounds which have a verbal root as their second element, with a zero marker of

the nom. sg. For example: Polish rek-o-pis·ø 'manuscript' < rek·a 'hand' + pis(- $a\cdot\hat{c}$ ) 'write'; likewise Russian rukopis', Slovak and Czech rukopis. Further Polish examples are given below:

(5)	Stem 1	Stem 2	Compound N
	korek 'cork'	ciąg(-ną∙ć) 'pull'	kork-o-ciąg∙ø
			'cork-screw'
	śrub∙a 'screw, n.'	kręc(-i·ć) 'twist'	śrub-o-kręt∙ø
			'screwdriver'
	paliw∙o 'fuel'	mierz(-y·ć) 'measure'	paliw-o-mierz∙ø
			'fuel indicator'
	piorun 'lightning'	chron(-i·ć) 'protect'	piorun-o-chron∙ø
			'lightning conductor'
	drog∙a 'road'	wskaz(-a·ć) 'indicate'	drog-o-wskaz∙ø
			'signpost'
	długo 'long, adv.'	pis(-a·ć) 'write'	długo-pis∙ø
			'ballpoint pen' <sup>6</sup>

Taking into account the syntactic category of the input forms which participate in the coining of compound nouns in Polish, one needs to point out that, evidently, not all theoretically possible combinations are actually attested. To generalize, one can say for instance that only noun and verb stems may appear as second-position (final) constituents (see below). Alternatively, the verbal stems in question may be interpreted as (potential) nouns, too – products of verb-to-noun conversion. Incidentally, it is enough to distinguish between the first and second constituent, since nominal compounds in Polish hardly ever contain more than two elements (in obvious contradistinction to, for example, English compounds). In particular, recursion, which is perhaps evidenced by certain types of compound adjectives in Polish, is not really corroborated by the facts of N+N combination. To sum up, we list below the major syntactic types of compound nouns, with examples involving an intermorph only:

<sup>&</sup>lt;sup>6</sup>Since adverbs do not inflect, the -*o* vowel in *długo-pis*, etc. may be interpreted not as an intermorph but rather as an integral element of the input form, at least in those cases where an adverb in -*o* exists.

(6)	Stem 1	Stem 2	Example
	N	N	ocz-o-dół 'eye socket'
			(< oko 'eye' + dół 'pit')
	V	N	łam-i-strajk 'strike breaker'
			(< łamać 'break' + strajk 'strike')
	A	N	ostr-o-słup 'pyramid'
			(< ostry 'sharp' + słup 'pillar')
	Num	N	dw-u-głos 'dialogue'
			(< dwa 'two' + głos 'voice')
	N	V	wod-o-ciąg 'waterworks'
			(< woda 'water' + ciagnąć 'pull, draw')
	Adv	V	szybk-o-war 'pressure cooker'
			(< szybko 'fast' + warzyć 'cook')
	Pron	V	sam-o-lub 'egoist'
			(< sam 'oneself' + lubić 'to like')
	Num	V	pierw-o-kup 'pre-emption'
			(< pierwszy 'first' + kupić 'buy')

However, as has been pointed out, the intermorph (interfix) need not be the only exponent of the compounding operation. It may co-occur with a derivational suffix, as a co-formative. Hence we get the following distributional pattern, illustrated below with compounds involving a noun in the head position ('plus' means presence and 'minus' means absence of an affix):

(7)	Interfix	Suffix	Example
	+	+	nos-o-roż-ec 'rhinoceros'
			(< nos 'nose' + róg 'horn')
	+	_	krwi-o-mocz 'haematuria'
			(< krew 'blood' + mocz 'urine')
	_	+	pół-głów-ek 'halfwit'
			(< pół 'half' + głowa 'head')
	_	_	balet-mistrz 'ballet master'
			(< balet 'ballet' + mistrz 'master')

As may be seen, the full range of theoretically available options is actually attested (although with different degrees of productivity). A complete formal classification would have to superimpose yet another feature, namely the presence or absence of the paradigmatic marker, often appearing in place of an overt suffix. Thus, for instance, *nos-o-roż-ec* contains the suffix *-ec* while, for example, *głow-o-nóg* 'cephalopod' has none; in the latter, the compounding operation is

manifested by a paradigmatic (gender) shift: from [+feminine] ( $nog \cdot a$  'leg') to [+masculine].

When analysed from the functional perspective, the Polish noun compounds present themselves as a highly diversified class. First, there are a number of examples of co-ordinate structures like: klubokawiarnia 'a café that hosts cultural events' (< klub 'club' + kawiarnia 'café'), kursokonferencja 'training conference' (< kurs 'course, training' + konferencja 'conference'), marszobieg 'run/walk' (< marsz 'walk' + bieg 'run'), chłoporobotnik 'a peasant farmer who works in a factory' (< chlop 'peasant' + robotnik 'manual worker'), etc. It may be argued that a combination of the type in question is semantically headed by both constituents and hence their order is potentially reversible (cf. ?kawiarnioklub, ?biegomarsz; see Kurzowa 1976: 59). A formal variant within this class are juxtapositions like klub-kawiarnia 'a café that hosts cultural events' (cf. klobokawiarnia above) or trawler-przetwórnia 'factory trawler'. As may be seen, there is no intermorph here. Instead, both constituent nouns are hyphenated and they inflect.<sup>7</sup> The type is then formally similar to so-called copulative (dvandva) juxtapositions, evidenced by proper names like Bośnia-Hercegowina 'Bosnia-Herzegovina' or Alzacja-Lotaryngia 'Alsace-Lorraine'. Here, again, both constituents may inflect (cf. Bośni-Hercegowiny, gen., Bośnia-Hercegowing, instr., etc.). Yet, in terms of headedness, the situation seems to be different here: neither constituent functions as the head.

However, the majority of Polish N+N or A+N compounds are hierarchically structured and subordinate, with the right-hand constituent functioning as the head. For example: światłowstręt 'photophobia', gwiazdozbiór 'constellation', czarnoziem 'black earth', drobnoustrój 'micro-organism'. All the examples on this list are endocentric, i.e. the compound may be interpreted as a hyponym of its head (thus, for instance, światłowstręt 'photophobia' means 'kind of phobia', etc.). Exocentric combinations are also fairly common regardless of whether or not the compound incorporates an overt suffix. For instance, nosorożec 'rhinoceros' and stawonóg 'arthropod' denote 'kinds of animals' although their second constituents make reference to horns or legs, respectively (cf. róg 'horn', noga' leg'). Other examples of the exocentric type: trójkąt 'triangle' < trój- 'three'

<sup>&</sup>lt;sup>7</sup>A mixed pattern, formally speaking, is evidenced by co-ordinate structures like *chłodziarko-zamrażarka* 'cooler-freezer' where the first constituent is followed by the intermorph -*o*- so it does not inflect; yet the hyphen is obligatory here.

<sup>&</sup>lt;sup>8</sup> Left-headed N + N compounds are truly exceptional (Grzegorczykowa & Puzynina 1999: 461); cf., however, *nartorolki* 'grass skis' when paraphrased as 'skis with (small) rollers/wheels'. In order to be consistent with the right-headed endocentric pattern, the form should rather be: (\*) *rolkonarty*.

+ kqt 'angle', równoległobok 'rhomboid' < równoległy 'parallel' + bok 'side', obcokrajowiec 'foreigner' < obcy 'foreign' + kraj 'country'. Here the head of the compound is either unexpressed, as in trój-kqt '(a flat figure with) three angles' or is vaguely symbolized by the final suffix, as in obc-o-kraj-owiec 'a person from a foreign country, foreigner'. According to an alternative interpretation, the latter example might be viewed as endocentric rather than exocentric, assuming that the meaning of 'person' is directly encoded by the suffix -owiec. Structures of the kind just illustrated are also right-headed in themselves, since the first two constituents function as a complex, right-headed, modifier with respect to the implied head of the compound.

However, in exocentric compounds with a verbal element, this element mirrors the head of the corresponding verb phrase, regardless of whether it appears in the first or second position in the compound. This is illustrated with the following examples where the verb stem appears in bold face:

(8) V + N
lam-i-strajk 'strike breaker' list-o-nosz 'postman'
lit. 'sb. who breaks a strike' lit. 'sb. who carries letters'

baw-i-dam-ek 'ladies' man' lin-o-skocz-ek 'tightrope walker'
lit. 'sb. who amuses/entertains ladies' lit. 'sb. who jumps (on) a tightrope'

According to Nagórko (2016), left-headed structures (V + N), "albeit with some exceptions, are considered dated or humorous, cf. gol-i-broda 'barber; lit. shave-beard'[...], najm-i-morda 'legal counsel; lit. hire-mug'. Therefore, the Polish language is drifting, undoubtedly because of the foreign influence, towards the right-headed type of compounding."

The examples presented so far give the correct impression that the semantic structure of Polish nominal compounds is quite diversified and, at times, fairly complex and/or ambiguous. However, due to space limitations, it is hardly possible to give a full-fledged semantic classification of the data under discussion (for details, see Kurzowa 1976 or Grzegorczykowa & Puzynina 1999). Suffice it to say that, by and large, the semantic categories that are discernible are reminiscent of those normally established in the context of ordinary (e.g. affixal) derivation of Polish nouns. Thus, one can identify, for instance, formations that are agentive (*listonosz* 'postman', *dobroczyńca* 'benefactor'), instrumental (*gazomierz* 'gas meter'), locative (*jadłodajnia* 'eating place'), resultative (*brudnopis* 'rough draft'), attributive (*lekkoduch* 'good-for-nothing'), that denote activities (*grzybobranie* 'mushroom picking'), states/conditions (*płaskostopie* 'flat foot') or inhabitants

(*Nowozelandczyk* 'New Zealander'), etc. For a detailed interpretation of the semantics of Polish nominal compounds in terms of thematic relations, see Sambor (1976).

The examples of Polish compound nouns given so far are dictionary-attested. Most of them have been in use for quite some time (including quite a few old or obsolete combinations), as they represent the native Polish patterns of compound formation. Characteristically, there are a few lexical elements that have been abundantly exploited in native compounds. Consider the following list of attested nouns, each involving the verbal root pis- 'write' as the right-hand constituent: brudnopis 'rough draft' (brudny 'dirty'), czystopis 'fair copy' (czysty 'clean'), dalekopis 'teleprinter, telex' (daleki 'far'), cienkopis 'fine felt-tip pen' (cienki 'thin, fine'), długopis 'ballpoint pen' (długi 'long'), rękopis 'manuscript' (reka 'hand'), etc.

However, the past few decades have witnessed the extension of the traditional Polish models of compound formation, mainly as a result of foreign influences and massive borrowing, especially from English. Two specific patterns, illustrating such recent developments, are worth noting here. Firstly, these are compounds involving initial combining forms and clipped modifiers. For example:<sup>9</sup>

(9) eko- ekoturystyka 'eco-tourism', ekorozwój 'eco-development' euro- euroregion 'Euroregion', euroobligacja 'Eurobond' mikro- mikromodel, 'micromodel', mikroksiążka 'microbook' pseudo- pseudoartysta 'pseudo-artist', pseudouczony 'pseudo-scientist' spec- speckomisja, specustawa 'special, i.e. extraordinary committee/law' tele- telereportaż 'TV report'

Compositions of the type just illustrated do not contain the native linking vowel. However, the use of such combining forms is facilitated when they happen to end with the vowel -o, which is identical with the Polish default connective, and hence the type now often gives rise to hybrid combinations (e.g. mikroksiążka 'microbook').<sup>10</sup>

Secondly, there are N+N compounds which are due to borrowing from English; cf. *seksbiznes* 'sex business', etc. This has already led to a partial absorption and nativization of the English pattern, as well as to its gradual spread (see next section for more examples of this type).

<sup>&</sup>lt;sup>9</sup>Further examples may be found, for instance, in Jadacka (2001: 94), Waszakowa (2015).

<sup>&</sup>lt;sup>10</sup> It appears that at least some of the combining forms in question have actually acquired the status of prefixes.

Despite the new trends and foreign influences, the formation of compounds in Polish still preserves much of its original character. The fact is that, generally speaking, compounding in Polish is much less productive than in a language like English. Besides, quite apart from the question of phrasal compounds, there are a number of structural patterns and peculiarities of English compounds that simply do not exist in Polish (or they are highly limited). To sum up this section, one can mention just a few such points of difference:

- No recursiveness (with minor exceptions); moreover virtually no N+N compounds with more than two constituents; hence:
- No structural ambiguity (cf. E. California history teacher)
- No modifier + head reversibility (cf. E. *flower garden / garden flower, radio talk / talk radio*)
- No identical-constituent compounds (cf. E. (my) friend friend)
- No plural modifiers in compounds (cf. E. parks department vs. the P. phrase  $wydzial_{\text{NOM}}$  parkó $w_{\text{GEN PL}}$ ), including phrasal modifiers with co-ordination (cf. E. [[wines and spirits] department] vs. the P. phrase  $dzial_{\text{NOM}}$  win<sub>GEN PL</sub> i spirytualió $w_{\text{GEN PL}}$ ).

## 3 Why are phrasal compounds virtually unavailable in Polish?

As far as Polish is concerned, it is hard to give any definitive reasons accounting for the lack of phrasal compounds of the type found in English. It is more obvious though why the process of Noun+Noun compounding is less vigorous and productive in Polish than in English. However, since the phrasal compounds investigated in the Germanic (and other) languages are nouns and have nominal heads, a closer examination of the peculiarities and structural restrictions governing the use of N+N composition in Polish may explain, albeit indirectly, the unavailability of the special XP+N pattern. <sup>11</sup>

The main reason why the class of N+N compounds in Polish (and Slavic in general) is not so numerous as in English is the fact that Polish grammar offers, and often imposes, alternative structural options for the combined expression of two nominal concepts. Where English frequently has a N+N compound, Polish may have (i) a noun phrase with an inflected noun modifier (usually in the genitive),

<sup>&</sup>lt;sup>11</sup>On the affinity between N+N compounds and PCs, see Pafel (2015).

(ii) a noun phrase incorporating a prepositional phrase modifier, or (iii) a noun phrase involving a denominal (relational) adjective as a modifier, as is illustrated below:

- (10) a. telephone number
  - i. numer telefon·u
  - ii. \*numer do telefon u
  - iii. \*numer telefon-icz-n·y
  - b. computer paper
    - i. \*papier komputer·a
    - ii. papier do komputer∙a
    - iii. papier komputer-ow·y
  - c. toothpaste
    - i. \*past·a zęb·ów
    - ii. past∙a do zęb·ów
    - iii. \*past∙a zęb-ow∙a

Evidently, alternative structures are often available, cf. papier do komputera vs. papier komputerowy 'computer paper'. The kind of construction may depend on a variety of factors which need not concern us here. What is important is the fact that the Polish expressions just cited are syntactic objects, and that they may involve both inflection and derivation, but not compounding. That is to say, there are no compounds like \*komputeropapier or \*telefononumer, to parallel the English counterparts. On top of this, there may be a suffixal derivative based on the modifier; see Ohnheiser (2015) for further details and generalizations concerning these options in various Slavic languages; see also ten Hacken (2013).

Consider additionally the following example where most of the structural options are actually attested, including a regular compound:

- (11) *steamship* (Polish *para* 'steam' + *statek* 'ship')
  - i. \*statek par·y (Genitive phrase)
  - ii. statek na par∙ę (N + PP)
  - iii. statek par-ow∙y (N + Relational Adjective)

<sup>&</sup>lt;sup>12</sup> According to some Polish authors (see e.g. Jadacka 2005: 120), fixed nominal phrases like pasta do zębów 'toothpaste', drukarka laserowa 'laser printer', etc. ought to be viewed as a special type of a generally conceived category of compounding: the so-called 'juxtapositions' (P. zestawienia).

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iv. parowiec (suffixal derivative; cf. E. steamer) v. parostatek (N-o-N compound; E. steamship)
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The patterns illustrated above may partly explain why the number of dictionary-attested nominal compounds in Polish is significantly lower than in English. Quite simply, certain functions that are served by compounding in other languages tend to be realized by syntactic, inflectional and/or derivational means in Polish. Analogical patterns, though in different proportions, are exploited by other Slavic languages as well.

Another factor that seems to thwart the generation of phrasal compounds in Polish is purely formal and quite general: as a rule, Polish nominal compounds may involve only two lexical constituents. Thus, by virtue of this (fairly superficial) restriction alone, composites even remotely comparable to English PCs are ruled out, since the number of lexical elements in the modifier position of an English phrasal compound is usually three or higher, not to mention the head itself. This constraint ties up, of course, with another remarkable characteristics of Polish nominal compounding: there is no recursion. By contrast, it is a well known feature of the English pattern of Noun+Noun compounding that it is recursive. In connection with the particular contrast noted here, one can speculate that, perhaps, there is some linkage here between (the possibility of) recursion and phrasal compounding, in a given language – in the sense that recursion might be a precondition for phrasal compounding.

Yet another remarkable factor is the fact that Polish does not offer any instances of literal borrowings of phrasal compounds, from languages like English or German, i.e. compositions which preserve the original lexical make up as well as the structural configuration of a PC in the source language. This seems to suggest that the characteristic structure of a PC is completely alien, from the viewpoint of Polish grammar and, accordingly, any foreign instances of PCs that need to be nativized or translated into Polish must be remodelled and encoded as prototypical phrasal constructions. This point may be illustrated with the following German examples adapted from Meibauer (2007: 250) and juxtaposed with corresponding expressions in Polish:<sup>14</sup>

<sup>&</sup>lt;sup>13</sup>There are sporadic counterexamples suggesting that both constraints mentioned here, i.e. 'no recursion' and 'only two constituents', are (rarely) violated, as in the following example often quoted in grammar books: *Zwierzoczłekoupiór* [zwierz-o-człek-o-upiór] 'animal-man-ghost' (title of a novel by the Polish writer Tadeusz Konwicki). In contrast to Noun+Noun compounds, limited recursiveness (iteration) is allowed in the case of certain types of compound adjectives in Polish; cf. (*słownik*) *polsko-angielsko-niemiecko*(-...) *-rosyjski* 'a Polish-English-German(-...)-Russian (dictionary)'.

<sup>&</sup>lt;sup>14</sup>The English glosses attached to the original German examples are not repeated after the Polish near-equivalents since they apply, by and large. However, the present-tense (1<sup>st</sup> person) form of the verb 'to buy', i.e. G. *kaufe* has been replaced by the future perfective form *kupię* in the

#### (12) German (Meibauer 2007: 250)

- a. Autokärtchen car card.dim P. autokarteczka
- b. Kaufkärtchen buy<sub>V/N</sub> card.dim P. \*kupkarteczka
- c. Kaufe-Ihr-Auto-Kärtchen buy.1.ps.sg.-your-car card.dim P. \*kupie-Twoje-auto-karteczka
- d. Kärtchen "Kaufe Ihr Auto"
  card.dim buy.1.Ps.sg. your car"
  P. karteczka "kupie Twoje auto"
- e. Kärtchen mit den Aufschrift "Kaufe Ihr Auto" card.dim with the writing buy.1.ps.sg. your car" P. karteczka z napisem "kupię Twoje auto"
- f. Kärtchen, auf denen "Kaufe Ihr Auto" steht card.dim on which "buy.1.ps.sg. your car" is written P. karteczka, na której jest napisane "kupię Twoje auto"

Meibauer (2007: 250) presents the German examples in this list as alternative modes of expression or "stylistic alternatives, some morphological, some syntactic"; cf., respectively, (12a-c) i.e. "complex words", as opposed to (12d-f), i.e. "syntactic constructions". The main focus is on case (12c), i.e. "an ad hoc phrasal compound with a CP as non-head" (Meibauer 2007: 249). Now, from the viewpoint of Polish morphology, this case (12c) is also significant, since it clearly demonstrates that a word-by-word rendering of the German PC is ruled out (as a matter of principle); cf. \*kupię-Twoje-auto-karteczka. The compound structure evidenced in (12b), i.e. a composition involving a verbal/nominal root followed by a (diminutive) noun is also rather unlikely in Polish, at least in this particular context and lexical configuration. As may be seen, what is freely available, both in German and in Polish, are various syntactic (periphrastic) modes of expression (cf. 12d-f). However, as far as Polish is concerned, the syntactic options actually emerge as the only viable choice, given the fact that - according to Meibauer (2007: 250) – a compound like G. *Autokärtchen* (cf. P. *autokarteczka*) is "underdetermined", in comparison to Kaufe-Ihr-Auto-Kärtchen. "The phrasal

Polish version as it seems more plausible in the given context. Besides, the diminutive G. form *Kärtchen* appears as P. *karteczka*, i.e. (formally) a double diminutive.

compound [Kaufe-Ihr-Auto-Kärtchen] is as explicit as the syntactic construction [Kärtchen "Kaufe Ihr Auto"], the main difference being that [the former] has a right-hand morphological head, whereas [the latter] shows a left-hand syntactic head." (Meibauer 2007: 250). Indeed, when we compare various German or English PCs and their renderings in Polish, the superficially visible difference is the reversal of the linear order of the major constituents; cf. for instance E. a "work or starve" philosophy vs. P. filozofia "pracuj lub głoduj". It must be emphasized, though, that – underlyingly – these locutions differ in grammatical status: the English expressions are compounds, i.e. lexical objects, while the Polish ones are syntactic constructions.

As has been pointed out, literal borrowings of English or German PCs are hardly available in Polish. By contrast, the English type of ordinary Noun+Noun compounding (with a non-phrasal modifier) has been partially assimilated in present-day Polish, even though this type is not consistent with the default structure of a Polish nominal composition, where the linking vowel -o- should appear between two lexical constituents.<sup>15</sup> Consider a few examples of recent neologisms and loan adaptations:<sup>16</sup>

(13) biznesplan 'business project/plan'
seksbiznes 'sex business'
seksturystyka 'sex tourism'
dres kod 'dress code'
pomoc linia 'help line'
Duda pomoc 'free-of-charge legal counselling offered, to ordinary people,
by the presidential candidate Andrzej Duda and his staff' (lit. *Duda*<surname> + pomoc 'help')

These examples clearly suggest that the English pattern of N+N compounding is gaining ground in Polish. According to Jadacka (2001: 93), Polish neologistic compounds without an interfix (i.e. a linking element) have become increasingly common in the past few decades, even though a number of relevant examples

<sup>&</sup>lt;sup>15</sup>However, as has been mentioned (cf. §2), a precedent already exists, in Polish morphology, for interfixless N+N compounds: there is the weak and now rather obsolete pattern of endocentric compositions, typically with the noun *mistrz* 'master' in head position, like in the following examples: *baletmistrz* 'ballet master', *kapelmistrz* 'bandmaster' (cf. G. *Kapellmeister*), *chórmistrz* 'choirmaster', *zegarmistrz* 'clock maker, watch maker', etc. However, this pattern is formally inconsistent: some other attested compounds with -*mistrz* do show up the regular interfix -o-; e.g. *ogniomistrz* 'artillery sergeant' (*ogień* 'fire'), *organomistrz* / *organmistrz* 'organ master' (cf. Kurzowa 1976 [2007]: 458).

<sup>&</sup>lt;sup>16</sup>Such forms are more common in Russian; cf. Ohnheiser (2015).

are not yet dictionary-attested (cf. *Duda pomoc*, dated 2015). Also, the occasional presence of native nouns in such combinations (cf. *pomoc linia*) seems to suggest that this is now, indeed, a case of pattern borrowing.

Significantly, the spread of the foreign interfixless Noun+Noun pattern of compounding in Polish has not gone as far as in some other Slavic languages, for instance in Russian and Bulgarian. According to Bagasheva (2015), Bulgarian [N N] constructions "instantiate the grammaticalization of a new compound type in the language". The Bulgarian pattern in question extends to cover also cases where the prehead constituent of a compound is an initialism (just like in English); cf. ΦΕΡ ασεμπ 'FBI agent', ДΗΚ φακπορ 'DNA factor'. In Polish, by contrast, such loan compounds are ruled out: the order of both constituents must be reversed so that the construction emerges as a phrase (here with an implicit (unmarked) genitive case on the modifying initialism); cf. P. \*FBI agent vs agent FBI, \*DNA czynnik vs. czynnik DNA 'DNA factor'. More importantly though, only in Bulgarian can we find examples of phrasal compounds modelled on the structure of English PCs (see §5 for examples).

To sum up, as we have seen, phrasal compounds of the type found in English or German are impossible in Polish, no matter whether they are actual borrowings or forced word-by-word translations, and this is regardless of whether a particular PC in the source language incorporates a phrasal or sentential prehead constituent, or just an initialism.<sup>17</sup> Incidentally, the behaviour of initialisms (and acronyms) in such constructions seems to offer a useful diagnostic here since – on the one hand – they are "lexical" because of their nounlike properties but – on the other hand – they are "phrasal" since they stand for fully fledged phrases (e.g. *the FBI = Federal Bureau of Investigation*, etc.). By using both phrasal compounds and initialisms/acronyms one can achieve greater text condensation. In English, we can actually use a construction involving two abbreviations, in the modifier and head positions; cf. *the SNP MPs* 'the Scottish National Party Members of Parliament'.<sup>18</sup> Again, no structure of this sort is possible in Polish.

Finally, it may be of interest to note that – even though phrasal prehead constituents are impossible in Polish compounds – the occurrence of phrasal bases in affixal derivation is completely unproblematic. In fact, according to the literature on Polish morphology, there are several distinct patterns of de-phrasal derivatives (see next section).

<sup>&</sup>lt;sup>17</sup>It does not matter as well whether a given PC is quotative or non-quotative in character; cf. Pafel (2015) on the contrast between quotative and non-quotative PCs in German and English. <sup>18</sup>Source of the example (spoken language): BBC Radio 4, *Friday Night Comedy*, May 15th, 2015.

# 4 Generalizing the concept of "phrasal compound": some relevant types of multi-word expressions in Polish

As has been pointed out, phrasal compounds of the kind found in English do not seem to exist in Polish. In particular, clausal and sentential modifiers appear to be completely ruled out in Polish compound nouns. But even phrases such as NP are rather unlikely in the prehead position. I have not been able to identify any convincing examples of the latter type of structure. Consider, however, the following recent example from the Internet, <sup>19</sup> which, characteristically, involves a multiword complex modifier with hyphenated constituents:

(14) elektryk-eks-prezydent-noblista pokojowy Lech Wałęsa 'electrician-ex-president-Nobel-peace(-prize laureate) Lech Wałęsa'

Superficially, i.e. orthographically, this expression may look deceptively similar to the category of phrasal compounds that we are interested in; cf. the multiple use of hyphens, conjoining the lexical items in the prehead position (which is a characteristic feature of many English phrasal compounds). However, the multiple use of hyphens certainly looks marked, odd, and eye-catching, from the viewpoint of the Polish orthographic convention. Besides, multiple hyphens are neither necessary nor sufficient as a formal diagnostic for identifying PCs, even in English (cf., for instance, Trips 2012: 323). Probably, the motivation for the multiple use of hyphens, in the above example, was to achieve greater expressiveness.<sup>20</sup> But, more importantly, it is doubtful if the expression under discussion is a phrasal compound by strictly grammatical criteria. It is not a determinative compound because the first element does not determine the second element semantically (cf. Trips & Kornfilt 2015b: 7: "PCs are always determinative compounds", according to Meibauer 2003). It is not a compound, to begin with. It rather appears that this is an instance of a non-restrictive appositional construction, using unconventional orthography (which makes a difference only in written language anyway); cf. the more usual spelling, with commas instead of hyphens:

<sup>&</sup>lt;sup>19</sup>Piotr Cywiński, Szczucie na Komorowskiego i wściekła sfora Dudy, czyli jak *Gazeta Wyborcza* plewi chamstwo i pogardę w "szczujniach", www.wPolityce.pl , 4.03.2015. The phrase in question appeared in the following context: *Bo z pewnością znajdą się złośliwcy, którzy spytają, a gdzie był rzecznik bon-tonu, savoir vivre'u, niestrudzony bojownik dobrych manier, gdy np. elektryk-eks-prezydent-noblista pokojowy Lech Wałęsa mówił o urzędującej wówczas głowie państwa Polskiego: "mamy durnia za prezydenta"?* 

<sup>&</sup>lt;sup>20</sup>On the expressive nature of phrasal compounds, see e.g. Meibauer (2013), Trips (2014).

#### (15) elektryk, eks(-)prezydent, noblista pokojowy Lech Wałęsa 'id.'

If the notion of phrasal compounding is relaxed somewhat, so that the whole compound may correspond to a phrase, and not just its pre-head constituent, then certain examples in Polish may appear relevant. Consider, first, the structure of the noun *niezapominajka* 'forget-me-not':

(16) *niezapominajka* 'forget-me-not' nie zapominaj -k -a not forget.IMP.IPFV suff. suff.INFL

However, forms like *niezapominajka* are lexicalized and extremely rare in Polish.

It should be noted as well that the English noun *forget-me-not* is explicitly assigned to the category of English 'phrase compounds' by Bauer (1983: 206-207). To be more precise, the noun in question is given as an example of "exocentric phrase compounds", together with other plant names such as *love-in-a-mist*, and *love-lies-bleeding*. According to Bauer, apart from exocentric phrase compounds, there are also dvandva phrase compounds (e.g. *whisky-and-soda*) and, finally, endocentric phrase compounds, including right-headed structures with a phrase or sentence in the pre-head position (also left-headed structures like *son-in-law*). Evidently, the group of endocentric right-headed expressions (=phrasal compounds proper) is treated by Bauer as a subclass within his broad category of 'phrase compounds'.

If we apply this broad interpretation (in terms of 'phrase compounds') to the Polish data, then it may be argued that there are, perhaps, some other relevant patterns and examples, apart from the aforementioned noun *niezapominajka*. For instance, there is the unproductive pattern of so-called 'solid compounds' (P. *zrosty*), which are directly motivated by a syntactic phrase so that they appear without an interfix. Instead, the first constituent ends with the inflectional ending required by the structure of the original phrase (see Nagórko 1998: 195, 2016; Szymanek 2009: 471).

(17) 'Solid compounds' (P. zrosty) motivated by syntactic phrases (no interfix)

Phrase > Compound

ok∙a mgnieni∙e

eye.GEN blink okamgnieni∙e (also: mgnienie oka – phrase) 'a blink of an eye'

czc·i godn·y (Adj)

esteem.gen worthy czcigodn·y

(also: godny czci – phrase) 'esteemed, honourable'

There is also a more numerous group of compound nouns made up of an adverb followed by a verbal root:

(18) 'Phrase compounds' of the type  $[[Adverb + Verb]_{VP} (suff)]_{N}$ 

Adverb Verb > Compound N

cienko pisać cienkopis ø 'fine felt-tip pen'

'thinly' 'write'

cicho dawać (w ~ j) cichodajka 'woman on the game, hooker'

'quietly' 'give' (suff. -k)

The nouns given above may be regarded as 'phrase compounds' because they mirror a well-formed syntactic constituent, i.e. a type of VP (minus the thematic and inflectional characteristics on the verb). Importantly, the second element is not an attested deverbal noun (cf. \*pis, \*dajka), unlike in some other, similar forms (e.g. dalekowidz 'long-sighted person', jasnowidz 'clairvoyant', etc.).

To take another example, there is a class of (mostly expressive, often obsolete) exocentric compounds, whose internal structure reflects that of a VP they appear to be based on, where the VP is of the type [Verb+Noun]:<sup>21</sup>

<sup>&</sup>lt;sup>21</sup>The verb governs the accusative case on the object noun; hence the ending -e in the phrasal input, as opposed to the nominative (-a) in the compound. For more examples and discussion concerning this pattern, see Kurzowa (1976 [2007]: 440).

'Phrase compounds' of the type  $[[Verb + Noun]_{VP}]_N$ (19)Verb Noun Compound N czyścić but·y czyścibut 'shoeshine (boy)' 'clean' 'shoe.ACC-PL' moczymord·a 'heavy drinker' moczyć mord·e 'soak' 'mug, kisser.acc' męczyć dusz·e męczydusz·a 'bore, nudnik' 'torment' 'soul.acc'

However, it would be a risky move if we attempted to generalize, or extend any further, the notion of 'phrase compounds'. Because then we might soon find ourselves in a point of no return, i.e. where, for instance, synthetic compounds would be treated as being fundamentally phrasal in nature, just because they correspond to a licit phrase type in syntax (V NP); cf. P. *kredytobiorca* 'borrower, lit. credit-taker', *kredytodawca* 'lender, lit. credit-giver', etc. In other words, the generalization of the concept in question must have its limits.

It is a remarkable feature of the word-formation system in Polish (and other Slavic languages) that there are several other types of "multi-word expressions" which are based on (or which involve) phrasal constituents (see e.g. Martincová 2015; Ohnheiser 2015). Traditionally, the following phenomena have been interpreted, among others, as giving rise to de-phrasal lexical units:<sup>22</sup>

#### Derived nouns and adjectives based on phrases

Consider, respectively, the examples in (20) and (21):

(20) Prepositional Phrase  $(P + Noun_{Infl}) > De-phrasal Noun$ 

bez 'without' robot-y 'work.GEN' bezroboci-e 'unemployment' do 'to' rzek-i 'river.GEN' dorzecz-e 'river basin' na 'on' brzeg-u 'rim, bank.Loc' nabrzeż-e 'embankment' pod 'under' dach-em 'roof.INSTR' poddasz-e 'attic' przed 'before' wiosn-ą 'spring.INSTR' przedwiośni-e 'early spring'

The derivatives on the above list share a characteristic grammatical property: they are all neuter gender nouns whose stem ends in a (functionally) palatalized consonant and hence they take the inflectional suffix  $\cdot e$  in the NOM.SG. (the input

<sup>&</sup>lt;sup>22</sup>See e.g. Szymanek (2010: 237) for more examples and discussion of derivations based on phrases in Polish.

noun may be MASC. (e.g. bok 'side') or FEM. (e.g. rzek·a 'river')). This characteristic pattern of inflection (together with the phonological effect on the stem-final consonant) may be looked upon as a co-formative which, apart from the preposition, spells out the derivational process in question. Accordingly, the de-phrasal nouns on the list are one instance of so-called paradigmatic derivation in Polish. However, for quite a few masculine nouns derived from prepositional phrases we do not observe any change in paradigm; for instance, podtekst 'implied meaning, subtext' and tekst 'text' are uniformly masculine (cf. \*podtekście, noun, neuter) and are declined according to the same paradigmatic pattern. Less commonly, the feminine paradigm is preserved; e.g. troska 'worry, care' – beztroska 'carefreeness'. In still other formations, the preposition co-occurs with an overt nominalizing suffix (most frequently -ek/-k·a or -nik): e.g. podnóżek 'footrest, footstool' vs. noga 'foot', narożnik 'corner (of a building, room, etc.)' vs. róg 'corner'.

The status of the nouns analysed here is complicated by the fact that the majority of native Polish prepositions have homophonous counterparts in various prefixes (the identity is not coincidental – it reflects a historical development: preposition > prefix). Therefore, some earlier studies of the data at hand stressed the prefixal character of the initial element, while others argued that the type is a specific instance of Preposition + Noun compounding. In more recent accounts (see Symoni-Sułkowska 1987: 10), a compromise solution is opted for: nouns like *podziemie* are viewed as a borderline phenomenon, between compounding and lexical derivation. Still, it is stressed that they are based on prepositional phrases; the prepositions (a syntactic category) that surface in the complex nouns acquire the secondary function of prefixes (a morphological category).

(21)	Prepositional Phrase (P + Noun <sub>Infl</sub> ) > De-phrasal Adjective			
	bez 'without'	robot·y 'work.gen'	bezrobotn·y	
			ʻjobless'	
	między 'between'	wojn·ami 'war.ɪnstr.pl'	międzywojenn·y	
			'interwar'	
	pod 'under'	ziemi∙ą 'earth, ground.ɪɴstʀ'	podziemn∙y	
			'underground'	
	przez 'through'	skór∙ę 'skin.ACC'	przezskórn∙y	
			'transdermal'	

Here, again, the status of such "de-phrasal" formations is controversial. In fact, the exact mode of their derivation has received alternative accounts. The traditional view has it that the adjective *podziemny* 'underground' in, say, *podziemny* wybuch 'underground explosion' is derived from the prepositional phrase (P+N)

pod ziemią 'under the ground' (minus inflection of the noun). Thus, the structure of the adjectival stem may be represented as follows: [[[pod]P [ziem-]N]PP -n- $|_A$ . This interpretation makes sense from the semantic viewpoint: the derived adjective and the corresponding phrase are functionally equivalent. One problem with this sort of analysis is that numerous Polish prepositions are, by and large, phonetically indistinguishable from common native prefixes. This may encourage an alternative analysis of *podziemny*: as a combination of a prefix (*pod*-) and the denominal adjective ziemny 'of earth, ground'. This analysis seems viable here since the adjective *ziemny* happens to exist as an independent word. In fact, in the majority of comparable structures a denominal adjective may be extracted. However, there are also cases like *pośmiertny* 'posthumous' where only the derivation from the prepositional phrase po śmierci 'after death' is likely, in view of the fact that the denominal adjective \*smiertny (< smierć 'death') does not exist (see Kallas 1999: 499). The third option, especially in cases like pośmiertny, would be to argue that the adjective is a product of parasynthetic derivation, with a simultaneous attachment of the prefix (po-) and the suffix  $(-n \cdot y)$ .<sup>23</sup> Details aside, the dominant view today is that we are dealing here with derivation from prepositional phrases. This view is said to be supported by the syntactic and semantic equivalence of the phrasal input and the derivational output (for details, see Kallas 1999: 500), i.e. by way of a purely formal, transpositional operation we get a lexical item corresponding to a syntactic phrase (Grzegorczykowa 1979: 71). According to some accounts (e.g. Wójcikowska 1991), derivation of adjectives from prepositional phrases is an instance of so-called 'univerbation' in Polish morphology (see below).

#### Univerbation

(22) Noun Phrase (N + Adj) > Derived Noun (id.)

kuchenka mikrofalowa 'microwave oven' mikrofalówk·a 'id.'

szkoła zawodowa 'vocational school' zawodówk·a

sklep warzywny 'greengrocer's shop' warzywniak

statek kontenerowy 'container ship' kontenerowiec

From the semantic viewpoint, the derivatives listed in (22) above are based on the corresponding NPs, which have the status of set phrases (collocations). In a way, the head noun of the phrase is replaced by a nominal suffix, like  $-k \cdot a$ ,

<sup>&</sup>lt;sup>23</sup>Parasynthetic derivation seems a viable solution also in certain cases where a prefixless adjective is actually attested; e.g. mięsień 'muscle' > domięśniowy 'intramuscular', skóra 'skin' > przezskórny 'transdermal', ziemia 'Earth' > pozaziemski 'extraterrestrial'.

-ak, owiec, (see Grzegorczykowa & Puzynina 1999: 419). Hence the process in question is described as univerbation or morphological condensation of a multiword (phrasal) term (see Laskowski 1981: 113ff).

A somewhat different type of univerbation is evidenced by the following pairs:

(23)	Noun Phrase (N + Adj) > Derived Noun (id.)				
	kuchenka mikrofalowa 'microwave oven'		mikrofal∙a	ʻid.'	
	piłka nożna	'football'	nog∙a		
	obraz olejny	'an oil painting'	olej		
	wódka żytnia	ʻrye vodka'	żyt∙o		
	telefon komórkowy	'cellphone'	komórk∙a		
	karta graficzna	ʻvideo card'	grafik∙a		

Again, on functional grounds, the derivative seems to be based on a NP, i.e. a noun modified by an attributive denominal adjective. However, in contradistinction to the previous group of examples, no nominal suffix appears in the derived noun, but rather the bare stem of the adjective; compare kuchenka mikrofalowa 'microwave oven' >  $mikrofal\cdot a$  'id.' vs.  $mikrofalowk\cdot a$  'id.'. Since most adjectives in the input phrases are denominal themselves, the product of the process is normally identical with the base-noun of the adjective (thus  $olej_N$  'oil' >  $olej-n\cdot y_A$  'of oil' / obraz olejny 'oil painting' >  $olej_N$  'id.'). However, other examples demonstrate that the situation may be more complicated (see Chludzińska-Świątecka 1979, Jadacka 2001: 137); cf., for instance, the following derivations involving nonnative adjectives: ogród zoologiczny 'zoological garden' > zoolog 'id.' or forma supletywna 'suppletive form' > supletyw 'id.'. These colloquial creations demonstrate that, in formal terms, the mechanism that stands behind the derivatives under discussion is a sort of back-formation or desuffixation (neither zoolog nor supletyw exist as basic nouns).

Incidentally, it is worth pointing out that, in the Polish literature, there is a suitable and widely used term to denote coinages of the kind just illustrated, which incorporate a phrasal constituent as their base: derywaty of wyrażeń syntaktycznych, i.e. 'derivatives from syntactic expressions' or derywaty odfrazowe '(de)phrasal derivatives'. However – as far as I know – there is no similar Polish term to denote the concept of "phrasal compounds" – złożenia frazowe sounds acceptable only as a literal rendering of the English, well-established term. The fact that, in the Polish linguistic terminology, there is just no name for the phenomenon of phrasal compounding, seems to suggest that the concept is not con-

<sup>&</sup>lt;sup>24</sup>The latter term was used, for instance (many years ago), by Kreja (1971).

sidered worth naming, i.e. that phrasal compounds either do not exist or have not been identified as yet in the Polish morphological system.

# 5 How about phrasal compounds in other Slavic languages?

Antonietta Bisetto begins her contribution to the special issue of STUF on phrasal compounds with the following generalization: "Romance languages seem to lack phrasal compounds of the kind present in some Germanic languages" (Bisetto 2015: 395). I have conducted some preliminary research on this issue<sup>25</sup>, as regards the situation in the Slavic languages, and – as far as I can see now – I think I can repeat Bisetto's generalization, with minor reservations (see below): Slavic languages – by and large –seem to lack phrasal compounds of the kind present in some Germanic languages.

My limited expertise and circumstantial evidence allows me merely to posit the above generalization as a working hypothesis. Further cross-linguistic research on this issue is necessary in order to verify this hypothesis so that it can be presented as a strong claim. A good example of the sort of research that is needed is the recent study by Körtvélyessy (2016), where the types and features of compounding (as well as affixation) in 14 Slavic languages are identified and compared. Crucially, "phrasal compounds" are not listed there among the major types of compounds in Slavic. This omission seems to imply that, to say the least, the category in question is not relevant for the Slavic languages at large (i.e. it may be inferred that either phrasal compounds do not exist in Slavic languages or they are truly marginal).

Indeed, one positive exception to this generalization may be Bulgarian. According to Boyadzhieva (2007), a recent phenomenon in Bulgarian "newspaper language" is the occasional use of structural equivalents of English phrasal compounds. They have originated as literal translations of the corresponding English constructions, but then "they have gradually become quite frequent". The analysis is based on a small sample of 23 structurally varied expressions, most of which have been gleaned from the Bulgarian edition of the *Cosmopolitan* magazine. It appears that at least some of the examples on the list closely imitate the

<sup>&</sup>lt;sup>25</sup>My thanks go to Pavol Štekauer for comments on Slovak and Czech as well as for soliciting relevant remarks from several other Slavic experts.

<sup>&</sup>lt;sup>26</sup>Instead of the term 'phrasal compounding', Boyadzhieva uses the designation 'syntactic compounding'.

structure of phrasal compounds in English (unfortunately, English glosses are not provided).

However, Boyadzhieva (2007) points out as well that the "syntactic compounds" "are felt strange and untypical for the Bulgarian language". The recent occurrence of such structures is explained as a consequence of the fact that Modern Bulgarian shows a strong tendency towards analyticity, in comparison to other Slavic languages; however, Bulgarian is said to be less analytic than English.

Phrasal nominal compounds in Modern Bulgarian are also briefly discussed and illustrated in a paper by Bagasheva (2015). The type in question, which is said to constitute a new development in the language, is considered against the broader background of innovative "[N N] constructions", i.e. interfixless compounds like *bingo zala* 'bingo hall', *biznes obyad* 'business lunch', etc. The short list of "phrasal compounds" given by Bagasheva includes the following items:

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(24) Phrasal compounds in Bulgarian (Bagasheva 2015)
вземи-му-акъла-съвет [vzemi mu akâla sâvet]

'take his mind away advice'
море-слънце-пясък туризъм [more-sluntse-pjasuk turizum]
'sea-sun-sand tourism'
семейство и приятели номера [semejstvo i prijateli nomera]
'family and friends tricks'
завърти-му-ума-посрещане [zavârti mu uma posrešane]
'take his mind away welcoming'
промени-живота-си-предизвикателство [promeni života si predizvikatelstvo]
'change your life challenge'
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Except for the Bulgarian data, I have not found any examples, from other Slavic languages, that mirror the structure of phrasal compounds of the type found in English (or German). My informants mentioned only that rather different patterns of "syntactic" compounding may be involved, for instance, in certain surnames. For example:

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(25) Czech
Skočdopole lit. 'jump into field!'
skoč do pole
jump.IMP to field
Nejezchleb lit. 'don't eat bread!'
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ne jez chleb
not eat.IMP bread
Ukrainian
Nepiyvoda lit. 'don't drink water!'
ne pij voda
not drink.IMP water
Polish
Nieznaj lit. 'don't (you) know!'
nie znaj
not know.IMP
Niechwiej lit. 'don't shake!'
nie chwiej
not shake.IMP
```

As can be seen, certain verb phrases in the imperative have been lexicalized to become proper nouns (surnames).

#### 6 Conclusion

To sum up, when we compare the patterns and principles of compounding in Polish and English, it is easy to notice that there are quite a few structural options that are attested in English only (and vice versa). In this context, it should come as no surprise that phrasal compounding seems to be just another feature of this sort, i.e. it is not to be found in Polish, just like in many other languages.

But let us repeat the vital question: Why aren't there any compound nouns in Polish of the type that is found in English?

Here are some possible reasons that may conspire to produce the effect in question:

- 1. Compounding, as a general type of process in word-formation, is much less productive in Polish than in English.
- 2. Instead of the characteristic English N+N type of compounds, there are alternative and productive means in Polish grammar (particularly 'multiword units') often used for the expression of a combination of two (or more) nominal concepts.
- 3. In contrast to English, the formation of compound nouns in Polish is not characterized by recursion or iteration. Moreover, there are virtually no

- compound nouns with more than two constituents (regardless of the category of the first element). By this limitation alone, it is hardly possible to have a complex, multi-word modifier, in the form of a phrase.
- 4. While English phrasal compounds are determinative and right-headed, in Polish, some compounds are actually left-headed, with a considerable proportion of exocentric structures.
- 5. Perhaps the unavailability of phrasal compounding in Polish is also due to typological differences between English and Polish, i.e. the fact that Polish morphology is predominantly synthetic while English morphology is (more) analytic. It needs to be determined, on the basis of data from other languages, if a correlation of this sort exists and if it is significant; in other words, does the degree of synthesis in morphology correlate with the presence/absence of phrasal compounds, in various languages? Also, what is the role of language contact and borrowing in the spread of phrasal compounding?

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### 3 Compounding in Polish and the absence of phrasal compounding

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