Are exocentric compounds really exocentric?

Réka Benczes, Eötvös Loránd University

Abstract[9]

Exocentric compounds have often been dismissed in morphological literature as semantically opaque phenomena that are not formed on the basis of productive patterns. This bias can be traced back to the widely acknowledged and applied endocentric–exocentric distinction, which is still the dominant approach toward the semantics of compounds. Nevertheless, contrary to the generally established approach, Štekauer (1998) has claimed that exocentric compounds are generated in the same fashion as endocentric ones. In his view, it goes against reason to posit separate cognitive processes for exocentric compounds, as the so-called "identification-specification scheme" underlies all naming practices.

In line with this reasoning, the paper wishes to argue that compounds that have been routinely dismissed in morphological literature as "exocentric" (and whose meaning and motivation can be traced back relatively easily to conceptual metaphor and metonymy) can indeed be traced back to productive patterns. By drawing on recently coined English compounds, the present paper wishes to argue against the traditional endocentric–exocentric typology by claiming that the distinction does not do justice to the creative wealth that is representative of English compounding, and which cuts across the "endocentric" and "exocentric" labels. For this reason the paper rejects the endocentric–exocentric distinction and introduces an alternative approach to the semantics of compounds, based loosely upon the framework of prototype theory.

Keywords: *endocentric, exocentric, metaphor, metonymy, compounding, linguistic creativity, prototypical compound, nonprototypical compound*

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1   Introduction

In his 1998 book Pavol Štekauer has already answered the question raised in the title of the paper, by claiming that "there are no exocentric compounds in English" (1998: 147). In Štekauer's reasoning, so-called exocentric compounds follow exactly the same naming process that other compounds do. Drawing on Kastovsky's (1982: 152) "identification-specification scheme", where the first element in a compound identifies while the second element specifies, Štekauer argues that exocentric compounds are generated in the same fashion as endocentric ones. It goes against reason to posit separate cognitive processes for exocentric compounds, as the identification-specification scheme underlies all naming practices.

The present paper is in full agreement with the idea that the notion of exocentrism, as well as the endo- versus exocentric distinction, is flawed and needs to be carefully reviewed. In this respect, this contribution follows in the footsteps of Štekauer's (1998) work and pioneering views. It will, however, take a slightly different approach to exocentrism by rejecting the endocentric–exocentric distinction – while keeping the notion of "headedness" intact – and introducing an alternative approach to the semantics of compounds, based on the theoretical framework of cognitive linguistics (which, nevertheless, is not entirely incompatible with Štekauer's [1998] onomasiological framework), and more specifically on prototype theory. It will be claimed here that so-called "exocentric" compounds are atypical or non-prototypical combinations – as compared to the more prototypical "endocentric" compounds.

The topic of exocentrism (and endocentrism for that matter) is quite relevant these days, as there is an increasing attention in linguistics toward word-formation processes that have been eschewed for either deviancy or marginality in the past. Such processes have been labelled by a number of terms in the literature – "extragrammatical", "marginal", "minor" or "expressive" to name a few –, all implying that the "referential domain addressed was rather fuzzy" (Doleschal and Thornton 2000: iii).[10] Deviancy and marginality, however, are no proper reasons to discard any

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[10] Note that these adjectives, however, are not mutually interchangeable; a distinction needs to be made between so-called "extragrammatical" morphology on the one hand and "marginal" morphology on the

particular word-formation pattern from a linguistic analysis. In Dressler's (2000: 8) view, only by addressing less typical processes are we able to capture "the prototypical cores of morphological grammar"; therefore, investigations pertaining to less typical processes "should be elevated to the rank of a systematic study of basic questions which are likely to illuminate research in morphology at large."

The paper will focus on noun–noun compounds in particular, this being the largest and most prevalent type of compounding in English. The structure of the paper will be as follows: section 2 will focus on the problems related to the traditional endocentric–exocentric distinction, while section 3 will present a couple of recent coinages that defy the rigid categories of endo- and exocentricity. This will be followed by a theoretical discussion and alternative proposal for the treatment of such coinages. The last, fifth section concludes.

2   Endocentrism and exocentrism

2.1 Definitional issues

According to Frege's principle or the compositionality of meaning, one of the basic tenets of formal semantics, the meaning of a sentence can be deducted from the meaning of its constituents (Kiefer 2000: 17).[11] Although the principle focuses on the semantics of the sentence (more specifically the proposition contained in the sentence), it has been extended to lower levels of syntax as well, such as phrases and words, including compounds – even though semantic compositionality can never be complete on the morphosemantic level due to the fact that all accepted words are lexicalized to a

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other hand, and these categories do not necessarily overlap (Dressler 2000). The former is outside the scope of morphological grammar, while the latter is at its boundaries. Extragrammatical morphology is thus deviant in the sense that it does not follow normal, prototypical morphological grammar, while marginal morphology is not productive.

[11] It needs to be pointed out, however, that the principle – as formulated by Frege – was rather vague on what meaning is, what can be considered as a part, and what is a combination (of these parts). Nevertheless, despite these ambiguities, the principle has had a tremendous influence on formal semantics. For a discussion and evaluation of the arguments in favour of and against the principle of compositionality, see Pelletier (1994).

certain degree (see Dressler 2005a: 271). When applied to compounding, it has often been argued that compositionality can help to distinguish between compounds (which are not compositional, such as *blackbird*, for the common species *Turdus merula* found all over Europe) and phrases (which still preserve the notion of compositionality, such as *black bird*, for any bird with a black colouring). The problem of compositionality is especially acute in the case of "exocentric" compounds, where the compound expression is not a subcategorization of the entity expressed by the head element (as in the case of endocentric compounds).

The notion of exocentricity (vs. endocentricity) originates from Bloomfield (1933), who applied these concepts from both a syntactic and a semantic point of view (here I will concentrate on only the latter) to both words (compounds) and units larger than words, i.e., phrases. Thus, in Bloomfield's view, the referent of *blue-stocking* or *red-head* does not belong to the "same species as the head member" (p. 236). These expressions are thus semantically exocentric because there is no hyponymical relationship between the head and the compound. In Bloomfield's interpretation, the semantic pattern of exocentric compounds is the following: "object *possessing* such-and-such an object (second member) of such-and-such quality (first member)" (ibid., italics as in original). Needless to say, this pattern includes only metonymy-based expressions.[12]

Since Bloomfield (1933), the term "exocentric" has been used in the morphological literature to mean either one of the following: 1) a compound that does not have a (semantic) head; or 2) a compound whose head "falls outside" of the construction – hence "exocentric" (where the prefix *exo-*, originating from Greek, means "outside"). Both of these positions have been heavily influenced by lexicalist theories of word-formation that have relied on an X-bar notation (Bauer 1990: 1), and which defined the head of a compound predominantly from a grammatical point of view (Scalise and Fábregas 2010: 110). Headedness in morphology gained further impetus

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[12] The terminological chaos that exists within compounding is well exemplified by the possessive exocentric construction (such as *redhead*). Originally, Sanskrit grammar applied the term *bahuvrihi* for this type exclusively, but later on the term was used for other types as well, or – quite generally – as a label for any exocentric compound (Scalise and Bisotto 2009: 36).

from the Right-Hand Head Rule, as advocated by Williams (1981), which claims that (at least in English) the head of a compound is the right-hand element.

Over the decades, the endocentric–exocentric distinction has managed to prevail in the morphological literature, especially in the classification of compounds. Following Bloomfield's (1933) original proposal, it has been also adopted in various forms by Spencer (1991), Fabb (1998), Haspelmath (2002), Booij (2005) and more recently Bauer (2009). Nevertheless, neither one of these classifications are identical in what further types are established alongside the endo- and exocentric types, and what compound structures they consider to belong under the various compound types.[13]

The perseverance of the endo- and exocentric categories has had a profound – and rather negative – effect on the scope of morphological research into compounding in the sense that linguistic literature has a strong tendency to focus on exocentric combinations only peripherally (if they are mentioned at all). This fact is also underlined by Scalise and Guevara (2006: 185), who claim that "references to the theoretical and/or typological treatment of exocentric compounds are *very rare*" (emphasis added). Although descriptivist approaches do make reference to exocentric combinations, these are typically more superficial than the detailed classifications of endocentric compounds (see, for example, Jespersen 1954; Adams 1973).[14]

As regards the transformational generativist account, it left the issue of exocentric compounds untouched, probably for the simple reason that the theoretical framework was unable to accommodate such combinations. This inadequacy was heavily criticized by Botha (1968), who made note of the fact that not only does Afrikaans contain a significant proportion of metaphor-based compounds (and which

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[13] Fabb (1998) proposes a three-way distinction, with the categories of endocentric, exocentric and appositional/dvanda (the latter meaning any structure that has two heads). Similar typology is suggested by Bauer (2009), who labels the third category as "coordinative" (and which subsumes both appositional and dvanda structures). Spencer's (1991) classification, however, distinguishes between appositional and dvanda (and hence has four categories). In his classification, Haspelmath (2002) adds a further, fifth category, the so-called "affixed compounds" (such as *green-eyed*), while Booij (2005) assumes exocentric compounds to follow the [VN] pattern, and thus establishes the bahuvrihi type as a separate category.

[14] An exception to this trend is Marchand (1960), who devotes a whole chapter to the classification of exocentric compounds and distinguishes five major types.

would be considered as exocentric and, therefore, would fall outside of linguistic analysis and description), but speakers have intuitions concerning the meaning of these expressions. In line with the general attitude outlined above, Kiefer (1992: 62) in his general account of Hungarian compounding considers exocentric compounds as "peripheral", and, therefore, not worthy of a proper linguistic analysis.

2.2 Defying the endocentric vs. exocentric distinction

There are evident difficulties in classifying compounds along the endocentric–exocentric distinction as first established by Bloomfield (1933). Quite often the reason why there is no head element in a compound is because it is considered by speakers to be superfluous and deductible from the context (this possibility is also alluded to by Marchand 1960: 11) – for example, a quick word search on Google easily confirms the fact that both *notebook computer* and *notebook* are used interchangeably. Therefore, classifying *notebook* as "exocentric" seems to be simply counterintuitive. The same idea is put forth by Štekauer (1998: 147) in his discussion of metonymical – bahuvrihi – compounds; he claims that such types are shortened – i.e., ellipted – versions of their full unit counterparts. Accordingly, *redskin* is an ellipted version of *redskin person* (which serves as the onomasiological base and which is as an essential conceptual foundation for any "exocentric" compound type). Regarding previous approaches to exocentric compounds, Štekauer's main criticism is that they place "the *determinatum*, i.e., the onomasiological base, outside this kind of naming unit" (p. 154; emphasis as in original), which is unnecessary.

All in all, the exclusion of exocentric compounds from a proper linguistic analysis can be attributed to the fact that such constructions have been mostly considered as 1) exceptional;[15] 2) unanalysable and opaque; and 3) not formed on the basis of productive compound-forming patterns. Accordingly, what this implies is that

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[15] Note that Bloomfield claimed that "[t]he exocentric constructions in any language are few" (Bloomfield 1933: 194).

endocentric compounds can be considered as the unmarked cases of English compounding, while exocentric compounds can be regarded as the marked ones.[16]

Nevertheless, all of the above assumptions have been refuted, which, therefore, call severely into question the premise that exocentric compounding is a marked morphological phenomenon. First, as pointed out by Guevara and Scalise (2009), exocentric compounds (especially those that are based upon metaphor and/or metonymy) are quite common in a vast number of the world's languages. In their large-scale typological study of word-formation in the world's languages, Štekauer et al. (2012: 80) found 30 languages[17] out of their representative sample of 55 that possessed exocentric combinations. These thirty languages covered all major morphological types (agglutinative, fusional, isolating and polysynthetic) and came from sixteen language families.[18] In Štekauer et al.'s (2012: 82) view, the widespread occurrence of exocentrism in the world's languages suggests "a relatively strong position of figurativeness in natural languages" on the one hand, and a tendency towards a more speaker-friendly economy of expression (as opposed to a more listener-friendly clarity of expression).

Furthermore, in some languages – such as Turkana and Kayardild – exocentric compounding is the norm, with only very few endocentric examples (Bauer 2008: 54). In Italian, exocentric compounding of the [VN] type is the most productive sort (Scalise et al. 2009: 50). With respect to the compounding pattern referred to as bahuvrihi in the literature (i.e., "person/thing that has X", where X is the property described by the compound), Bauer (2008: 55) maintains that it seems to be near-universal (see also Barcelona 2008). Bahuvrihis are relatively straightforward cognitive operations, instances of "the stylistic trick called *pars pro toto*" (Jespersen 1954: 149; italics as in

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[16] Following Waugh and Lafford (2000: 272), markedness is understood as an "asymmetric relationship between two choices" which can be found in "all areas of morphology."

[17] These languages were the following: Anejom, Bardi, Breton, Cirecire, English, Estonian, Finnish, Georgian, Greek, Hausa, Hebrew, Hungarian, Ilocano, Japanese, Jaqaru, Lakhota, Luganda, Maipure, Mandarin Chinese, Māori, Marathi, Nelemwa, Slovak, Spanish, Swahili, Telugu, Tibetan, Tzotzil, Wichí and Zulu.

[18] More specifically: Afro-Asiatic, Arawakan, Australian, Austronesian, Aymaran, Dravidian, Japanese, Kartvelian, Khoisan, Matacoan, Mayan, Indo-European, Niger-Congo, Sino-Tibetan, Siouan and Uralic.

original) or in other words a PART FOR WHOLE metonymy (Bauer 1978; Jespersen 1954; Marchand 1960). In fact, Bauer (2008: 59) is of the opinion that such compounds should be treated as endocentric. Needless to say, the ubiquity of metaphor and metonymy in compounding is by no means surprising if one considers metaphorical and metonymical thinking as a normal, everyday ability of humans. As emphasized by Langacker (1987), Talmy (1988) and Croft and Cruse (2004) among others, both metaphor and metonymy can be considered as a type of construal operation, and as such, a certain way of interpreting/conceptualizing the world around us. What this implies, therefore, is that the use of and reliance on conceptual metaphors and metonymies in word formation must also be an absolutely natural process. It has also been demonstrated by Benczes (2006) that such expressions can be analyzed remarkably well within a cognitive linguistic framework. The use of metaphors and metonymies in novel compound formation opens up a limitless supply of innovation and creativity in novel word-formation, as such expressions make use of the creative associations that exist between concepts; associations based on similarity, analogy or contiguity. Hence, Benczes proposed the umbrella term "creative compound" for any metaphorical and/or metonymical compound, and discarded the traditional "endocentric" and "exocentric" labels.

3   Recent "exocentric" coinages in English

Benczes (2006) devotes a whole chapter to the discussion of one particular type of creative compound – instances where the second constituent is metaphorically conceptualized by the first constituent. In Benczes' view, compounds based upon a metaphorical relation between the two participating constituents of the compound represent a natural, although highly creative process of word formation rooted in our ordinary – largely metaphorical – conceptual system (see also Benczes 2004). A highly representative example of the above statement is provided by the compound *helicopter parent* ("a parent who takes an excessive and overprotective interest in the life of his or her child, esp. with regard to education"; *OED*). The following analysis of the compound will be based on Benczes (2014).

According to the *OED*, the first citation of the expression is from 1989; it was added to the online version of the dictionary in 2007. There are plenty of webarticles that are concerned with *helicopter parents*, and one of the main characteristics that nearly all of the articles mention is that such parents "hover" over their children – indicating that the metaphor is still quite alive in people's conceptualisations. The image of a hovering helicopter implies that there is constant control over the child (although there is no direct interference in the child's life). Helicopters are generally noisy, so their constant presence can be a source of annoyance to those on the ground – this negative implication is also carried into the semantics of the compound, which is labelled as "depreciative" in the *OED*. The helicopter metaphor also insinuates that the child's life is conceptualised as a journey, where the child is travelling along a road (over which the "helicopter" parent hovers).

The ease by which we are able to create novel metaphorical compounds on the basis of already existing ones is exemplified by *lawnmower parent*, *bulldozer parent* and *snowplow parent* – all of which refer to parents who not just simply watch over their children's lives (cf. *helicopter parent*), but directly interfere in them by clearing all the obstacles out of their children's way (but by doing so they also deprive their children of learning to cope independently with challenges they might face in life).[19] What is fascinating about these more recent expressions is that their motivation can be traced back to the still active metaphorical basis of *helicopter parent*, i.e., parents conceptualised as vehicles. However, as parents nowadays take a more pro-active role in their children's lives, the image of a passive helicopter does not fit the bill, and, therefore, a more apt vehicle needs to be selected – hence *lawnmower*, *bulldozer* or *snowplow*. The ubiquitous LIFE IS A JOURNEY metaphor is reinforced in all three compounds – whereby the machines cut, bull-doze or clear the obstacles (respectively) out of the way for their children. All three expressions are depreciative, similarly to *helicopter parent*; however, in these cases the pejorative sense can be traced back to our

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[19] A summary of these novel coinages can be found in an article posted on the website of the American Association of College Unions International, http://www.acui.org: "Helicopters, snowplows, and bulldozers: Managing students' parents", by Mark Taylor (accessed 20 March 2013).

common knowledge of these machines – namely that they are big, sturdy and dangerous for those who get in their way (i.e., teachers, educators, etc.).

The compounds examined above are clear demonstrations of the fact that just because an expression is metaphorical, it does not necessarily have to be unanalyzable or opaque. On the contrary – not only are speakers capable of establishing and reinforcing the motivation for these expressions, but are also able to create further expressions on the basis of the same general and underlying metaphor.

Nevertheless, it might be argued that the reason why speakers have absolutely no trouble in understanding these compounds and exploiting their metaphorical potential is because they are all "endocentric" – after all, a *helicopter parent*, a *lawnmower parent*, a *bulldozer parent* and a *snowplow parent* are all hyponyms of the second (i.e., head) constituent. Consequently, in order to support the idea that the endocentric–exocentric distinction is not a viable approach to the study of the semantics of English compounding, we need to find "exocentric" compounds that are analysable and transparent for speakers. Such a case is provided by recent coinages based on the lexicalized *honeymoon* – *babymoon* ("a special holiday taken by parents-to-be before their first baby is born"), *familymoon* ("a holiday immediately after a wedding where the bride and groom are accompanied by children from previous marriages or relationships") and *mommymoon* ("a holiday taken by the new mother [without the baby] to pamper and energize herself").[20] *Honeymoon* originally referred to the first month of a marriage: the honey signifies the sweetness of new love, while the moon represents the fleeting feeling of love that will wane as quickly as the moon (*OED*). In other words, the head element of the compound is metaphorical – the love relationship is conceptualised as the moon, and the duration of the love corresponds to the moon's orbital period. The modifier element also evokes a metaphorical conceptualisation, whereby love is understood as being as sweet as honey. However, speakers seem to

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[20] *Babymoon* and *familymoon* are from a web-based collection of English neologisms (at http://www.wordspy.com; accessed 02 September, 2014). As for *mommymoon*, the expression (and the concept) was coined by the American hotel chain Loewes, as a special vacation package. Source: "The mommymoon vacation package: Ga ga or gag?" (at http://www.lilsugar.com; accessed 02 September, 2014).

have reanalyzed the meaning of *moon* as an intimate holiday following or preceding an important family event: in the case of *honeymoon* and *mommymoon*, the vacation follows the wedding, while in *babymoon* and *familymoon* it precedes the events. Therefore, even lexicalized (seemingly exocentric) compounds can become reanalysed and, therefore, remotivated by speakers and possess some degree of compositionality and analysability – fundamentally questioning their "exocentric" nature (after all, the reanalysis or remotivation of *honeymoon* in the forms of *babymoon*, *familymoon*, etc. implies that such coinages are now perceived as compositional, meaningful and hence endocentric).

4   A cognitively plausible account? Prototypical versus nonprototypical compounds

What the above discussion – and the examples – indicate is that language users do make sense of seemingly "unanalyzable" phenomena and routinely use them to create novel expressions. This raises the possibility that so-called "opaque" or "non-transparent" compounds simply do not exist, as we strive to make sense of (and place meaning into) linguistic units all the time – however complex they might be.[21]

Nevertheless, all this brings into focus the gradual nature of the semantic complexity that characterizes this type of English word-formation process, which can be well accounted for with the help of constructional schemas. Accordingly, endocentric and exocentric noun–noun compounds are based upon the same constructional schema ([NN]), but, as Langacker (2000) points out, even constructional schemas are grouped around prototypes. Within this complex network, the constructional schemas represent various degrees of abstraction, and they are linked to one another through relations such as elaboration (ranging from more general to more specific constructional schemas) and extension (ranging from non-metaphorical schemas to metaphorical/metonymical schemas).

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[21] Psycholinguistic evidence also corroborates this. For a discussion, see Benczes (2014).

Accordingly, it can be claimed that any noun–noun compound, whether endo- or exocentric, is on the same degree of elaboration; i.e., it can be characterized by the [NN] schema. However, [NN] compounds can represent various degrees of extension, depending on the cognitive operations that act upon the meaning of the expression. Therefore, the notion of degree of extension is synonymous with the concept of degree of creativity that is involved in the coinage of an expression. Consequently, creative extension can be correlated with transparency of meaning.

Metaphorical and/or metonymical compounds represent various levels of semantic transparency depending on which constituent is affected by metaphor or metonymy. The first group of compounds analysed in the previous section – *helicopter parent* and its variants – represents a type of compound which is more extended than *apple tree* (although both are on the same level of elaboration). Although *helicopter parent* would have fallen under the "endocentric" label in traditional approaches, its meaning is based upon elaborate metaphorical conceptualisations, and, consequently, falls further away from prototypical endocentric cases. *Honeymoon* and its associates are further extended in the Langackerian sense, in that the head element is reached via metaphorical conceptualizations. Nevertheless, speakers have no problems with understanding even lexicalized expressions as *honeymoon* (and even create further, analogous terms), which implies that such compounds should rather be treated as less prototypical examples of routine English compounding, and not as exceptional or non-rule-governed material.

Therefore, what is claimed here is that the endo- and exocentric distinction as a means of classification is very problematic. It is suggested instead that compounds should be placed along a cline of prototypicality, with more prototypical cases of compounding such as *apple tree* at one end of this cline, and increasingly metaphorical (and metonymical) compounds such as *helicopter parent* or *mommymoon* placed further away from the prototype.[22] This suggestion, however, does not mean that the notions of

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[22] In line with this reasoning, Dirven and Verspoor (1998) discard the traditional dichotomy of endo- and exocentric compounds and argue instead for a cline of transparency of meaning. However, they treat metaphorical and metonymical compounds as "darkened" constructions, hence semantically opaque.

"modifier" and "head" should also be discarded in the morphological literature – both are intrinsic to the semantics (and the syntax) of compounding.

At this point the question necessarily arises what exactly a "prototypical" compound is – this being central to the present argument. In line with the cognitive linguistic account of language, this paper considers categories – which also include linguistic ones – as being based upon a prototype, that is, a particular entity that instantiates this prototype: "A prototype is a typical instance of a category, and other elements are assimilated to the category on the basis of their perceived resemblance to the prototype; there are degrees of membership based on degrees of similarity" (Langacker 1987: 371). Needless to say, this definition of what a prototype is also fraught with difficulties; as pointed out by Taylor (1995: 60), similarity is one of the most challenging notions from a psychological point of view, because of its highly subjective nature. Nevertheless, it is argued here that a prototypical compound can in fact be (loosely) characterized on the basis of a couple of semantic attributes. Both Dressler (2005b: 36–7) and Schmid (2011: 121–5) offer a useful list of characteristics of prototypical compounds; the following definition is partly based on their observations.[23]

From a semantic perspective, a prototypical compound is composed of an identifiable modifier element and an identifiable head element; the role of the former is to modify or specify the meaning of the latter (i.e., there is a determinant–determinatum relationship between the two constituents; Marchand 1960: 11); and the head element is used in its primary, well-established and lexicalized sense. This implies that 1) both constituents of a prototypical compound contribute to the meaning of the whole; 2) a prototypical compound is a hyponym of the head element; and 3) the meaning of a prototypical compound is *not* based on creative, ad hoc and/or metaphor- and metonymy-based extensions of the meanings of the constituents.[24]

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[23] The idea of prototypicality in morphology is not a new one – see for example, Dressler (1989), who has also differentiated between prototypical and non-prototypical morphological processes in inflection and derivation within the framework of Natural Morphology.

[24] Due to space limitations, the paper will not discuss further aspects of prototypicality (such as structural, syntactic and phonological criteria). Nevertheless, as pointed out by the reviewer of this paper, a phonological argumentation might be convergent with the perspective applied here. Stress assignment in NN compounds is a very problematic affair, which is influenced by both semantic and analogical factors

Based on this definition, compounds such as *apple tree* or *dining table* can be labelled as prototypical compounds, similarly to the vast majority of compounds in English. However, there are also plenty of compound words that do not abide by the above-mentioned criteria. Accordingly, non-prototypical compounds can be defined as complex lexemes composed of at least two single word-like units[25] that exhibit unconventional semantic makeup. Compounds that are based upon metonymical and/or metaphorical extensions, such as *helicopter parent* or *mommymoon*, are considered as non-prototypical.

What are the benefits of applying such a definition towards compounds in English? First and foremost, it is able to accommodate *all* compound types, irrespective of their semantic makeup. This is an important improvement on previous approaches which have typically relegated non-prototypical processes to either fall outside of normal word-formation rules or fall outside of word-formation proper. Moreover, such a prototype-based account is able to point out the similarities that exist among the various types by linking them to central prototype. Such an account is cognitively more efficient – as underlined by Geeraerts (1985: 141), "the fact that marginally deviant concepts can be incorporated into existing categories as peripheral instantiations of the latter proves that these categories have a tendency to maintain themselves as holistic entities, thus maintaining the overall structure of the categorial system."

5   Conclusion

What this paper has wished to demonstrate is that not only are metaphorical and metonymical compounds a staple part of our everyday language use, but they are also analyzable (to various degrees) for language users and can serve as a basis for further, analogical coinages. This state of affairs necessarily brings forth the question of compositionality, which, especially within the realm of noun–noun compounds – can

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(see Plag 2006). A prototype-based approach (with prototypical compounds having leftward stress) might be a worthwhile line of enquiry.

[25] Note that a nonprototypical compound does not necessarily need to be composed out of morphemes that also exist individually in the lexicon – hence the expression "word-like".

only be approached flexibly. This flexibility needs to be generalized over both "endocentric" and "exocentric" compounds alike, challenging in earnest the viability of this distinction.

As the analyses of recent coinages such as *helicopter parent* indicated, speakers have no problems with understanding the metaphorical motivations of such expressions, which implies that such compounds should be treated as less prototypical examples of routine English compounding, and not as exceptional or non-rule-governed material. Therefore, the paper has argued that the traditional endo- and exocentric distinction as a means of classification needs to be abandoned, and has proposed that compounds should be placed rather along a cline of extension, with prototypical cases of compounding such as *apple tree* at one end of this cline and metaphorical (and metonymical) compounds such as *helicopter parent* or *mommymoon* further away from the prototype. Therefore, the more extended a compound, the more imaginative, associative thinking is required from the listener to arrive at the compound's meaning. Consequently, creative extension can be correlated with transparency of meaning. At the same time, extension corroborates with elaboration in establishing analogical patterns: *honeymoon* has yielded the [N *moon*] schema, which represents a greater degree of elaboration and extension than the simple [NN] schema.

The major benefit of adopting Langacker's (2000) idea of extension and elaboration on the one hand and prototype theory on the other in the treatment of the semantics of noun–noun compounds is that it manages to capture the commonalities that are inherent in them, regardless of their semantic makeup. Nevertheless, it also brings into focus the gradual nature of the semantic complexity that characterizes this type of English word-formation process. Such a conclusion, needless to say, poses further challenges for linguists, especially with regard to the interplay between extension and elaboration (and prototypical and nonprototypical compounds for that matter). Yet it is undoubtedly certain that there are indeed "no exocentric compounds in English" (Štekauer 1998: 147), as we routinely search for meaning everywhere, regardless of the semantic makeup of the composite item.

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Benczes, Réka
Department of American Studies
Eötvös Loránd University
Rákóczi út 5
Budapest, Hungary H-1088
rbenczes@yahoo.com