The Impact of Figuration on Word-formation: The Role of Figurative Language in the Production and Interpretation of Novel Analogical Compounds

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Abstract
This study investigates the role of figurative language, especially, metaphor and metonymy, in the formation and disambiguation of novel analogy-based compounds. The focus is on surface analogy, i.e. analogy created on the model of a unique concrete form, such as *bird cafeteria*, after *birdhouse*, or *mouse potato*, after *couch potato*. The data used for the study has been selected from two online collections of neologisms as well as from a dictionary of new English words. The study adopts a Cognitive Linguistics approach to explore the nature of figurative language in the models (i.e. the source words) and the targets (i.e. the new words). The aim is to find out semantic and cognitive correspondences that may help the association of the latter to the former. As a more general aim, this study intends to show the relevance of figuration to the creation of novel analogical compounds.
Keywords: metaphor; metonymy; analogical compounds.

1. Introduction

The cognitive processes underlying the formation of creative compounds in English are mainly connected with metaphor and metonymy (Benczes 2006). An instance of metaphorical compound is *big fish* [1827] 'an important or influential person' (OED3, s.v. *big*), whose left and right components respectively derive from the metaphors IMPORTANT IS BIG and PEOPLE ARE ANIMALS (Ruiz de Mendoza and Pérez 2011). An instance of metonymical compound is *white-collar* [1911], an adjective 'relating to non-manual work or workers' (OED3), and based on a PART FOR WHOLE metonymy whereby the *collar* stands for 'the whole outfit' (more precisely, the shirt worn by the employee). If this type of metaphor-/metonymy-based compounding in English has been amply studied by Benczes

(2006: 89ff; 141ff), its relationship with analogical compounds, such as *small fish* or *blue-collar*, still remains a gap in linguistic research. This study intends to fill this gap, explaining both the formation and the interpretation of novel compounds obtained via surface analogy ("Oberflächenanalogie" in Motsch 1981: 101), i.e., analogy created on the model of a precise word or word form, rather than on word families or rule patterns. Therefore, what is meant by 'analogical compound' is a compound word that is diachronically more recent than its model. The analogical compounds analysed in this study are also 'novel' in the sense that they were attested between the mid-twentieth century and the beginning of the twenty-first century.

From the formal viewpoint, surface analogy can be viewed as a proportional equation between target and model word – e.g., *big*: *big fish* = *small*: X (X = *small fish*) (Paul 1880; Bloomfield 1933), with a paradigmatic substitution of the variable part (*big* vs. *small*) (Mattiello 2016). From the semantic viewpoint, however, the figurative meaning of the model *big fish* is also recreated in the target *small fish* [1836] 'a person or thing of relatively small importance' (OED3, s.v. *small*). Indeed, *small fish* shares with its model the same metaphorical head *fish* and an antonymic modifier *small* relying on the conceptual relationship UNIMPORTANT IS SMALL (Ruiz de Mendoza and Pérez 2011).

The relationship linking the metonymical *blue-collar* [1929] 'relating to manual work or workers' (OED3) to its model *white-collar* is comparable. Indeed, like the model, *blue-collar* exhibits a PART FOR WHOLE metonymy *collar*, which stands for the 'overalls' used in manual or technical labour (Ruiz de Mendoza and Díez 2002). The modifier *blue* is semantically related to *white* – i.e., they are co-hyponyms of the superordinate term 'colour' – thus reinforcing the semantic association of the analogical compound to its model *white-collar*.

So far, analogical compounds have been studied in terms of "Family Size effect" (De Jong, Schreuder, Baayen 2000; De Jong *et al.* 2002; Libben 2006), and modifier/head families in various languages (Krott 2009). Other psycholinguistic experiments concern constituent families and their analogical basis for stress assignment in novel English compounds (Plag, Kunter, Arndt-Lappe 2007; Plag 2010), and semantic relations between components in the

interpretation of noun-noun compounds (Smith, Barratt, Zlatev 2014).

In this study, by contrast, the focus is on surface (or local) analogy, rather than on word families. The study adopts a Cognitive Linguistics approach (Lakoff and Johnson 1980; Lakoff and Turner 1989; Lakoff 1993) to explore the nature of figurative language – especially, metaphorical and metonymic extensions – in the models and the targets.

The paper is organised as follows. Section 2 discusses criteria for compoundhood in English and describes the notion of analogy (vis-à-vis rule and schema). Section 3 briefly deals with the existing literature on analogical compounds and explains the theoretical framework adopted in the present paper for their investigation. Section 4 analyses figurative language in analogical compounds, both by providing quantitative data and by illustrating the semantic associations between the models and the targets. The aim of this analysis is to demonstrate that the creation of novel metaphor-/metonymy-based compounds is facilitated and motivated by the existence of models which may trigger production and help disambiguation.

More precisely, the following research questions will be addressed:

a) Which figures of speech tend to occur in model compounds?

b) Which similarity relationships can be identified between model and target compounds?

And, more generally,

c) What is the impact of figuration on: i) word-formation (target production), ii) recognition of the model (model recoverability), and iii) disambiguation of novel compounds (target interpretation)?

Psycholinguistic experiments helping corroborate the findings of this paper will be conducted in future research.

2. Analogical compounds

Compounds, or complex words obtained via the concatenation of two or more stems, are very common in English, but often confused with phrases. According to Lieber (2005: 376f), among the criteria that have been proposed for compoundhood in English are spelling, lexicalised meaning, stress, and inseparability of the first and second

stems. Although the first three are poor criteria, disconfirmed by many instances, the latter is a more reliable (if not unequivocal) criterion. Indeed, while some compounds can accept different spellings (*daisy wheel*, *daisy-wheel*, *daisywheel*), can be stressed on the left or right stem (*blackboard* vs. *apple pie*), or can be either lexicalised or compositional in meaning (*blackboard* vs. *whiteboard*), compounds are immune to separation by a modifier: **black wooden board*.

However, the line between noun compounds and noun phrases is very labile, and nouns such as *black márket* and *black móney* can be labelled compounds in spite of their atypical right hand stress. More precisely, these are "loose compounds" (Scalise 1992), which, unlike "strict compounds", do not allow for phonological amalgamation, but exhibit inseparability and compositional meaning (cf. the Italian loose compound *spartiacque* 'watershed' vs. the strict *quintessenza* 'quintessence', from *quinta* + *essenza*). In this paper, *black market* [1727] and *black money* [1939] will be included in the analysis, in that they can function as models for novel analogical compounds, namely, *white market* [1943] 'authorized dealing in commodities that are rationed' and *white money* [1965] 'money obtained by legal means' (both OED3, s.v. *white*).

From the morphological viewpoint, analogical compounds can be accommodated within a model of analogy which distinguishes pure surface analogy both from surface analogy combined with rule and from analogy via schema. The notion of analogy comes from the term αναλογία (*analogía*), used by Greek grammarians to denote a real mathematical proportion, i.e. A: B = A': X (X = B'). Neo-grammarians inherited the word in this sense, and their leading theorist, Hermann Paul (1880), introduced the term "Analogiebildung" 'analogical formation' to describe analogical proportions, such as *eye*: *eye-witness* = *ear*: *ear-witness*. Bloomfield (1933) used the concept of (paradigmatic) substitution to further explain the concept: e.g., in *ear-witness*, *ear* substitutes *eye* in *eye-witness*. In my model of analogy (Mattiello 2016), *ear* and *witness* respectively constitute the variable and invariable parts of the analogy.

While defenders of analogy proliferated in the second half of the twentieth century (Hockett 1968; Anttila 1977), generative grammarians of the American tradition, such as Kiparsky (1974)

and Aronoff (1976), preferred more stable concepts, such as rules, allowing for generalisations, and reserved analogy for strictly local mechanisms. In fact, analogy differs from rules in various respects. First, analogy is based on concrete models, whereas rules are usually understood to be explicit and abstract, in the sense of being dissociated from any words that instantiate them (Fertig 2013: 130). Second, analogy is output-orientated, whereas rules are input-orientated (Dressler and Laaha 2012: 49). Third, in an analogical approach to word-formation, there is no concept of "potential word" (Aronoff 1983), because all words are potentially created, or possible, as long as there is an existing word that can act as model. Fourth, while in the application of a morphological rule a high number of (compatible or interrelated) constraints intervene (see, e.g., Aronoff's 1976 "unitary base constraint" and "word-based word-formation"), in analogical formations constraints are limited in number or even absent, and this reduces the possibility to predict the output. Consequently, analogy is less predictable than rules. Analogy, however, can combine with rule patterns, as in the formation of the above-mentioned compounds *ear-witness*, *small fish*, and *blue-collar*, which are based on concrete models, but also conform to compounding rules.

Pure surface analogy, by contrast, generally acts within "extra-grammatical morphology", a term used to define formations, such as blends or acronyms, "which do not belong to morphological grammar, in that the processes through which they are obtained are not clearly identifiable and their input does not allow a prediction of a regular output" (Mattiello 2013: 1). For instance, *lupper* [2013] ← *lunch* and *supper* is an analogical blend modelled on lexicalised *brunch* [1896] ← *breakfast* and *lunch*, while *ROFL* [2002] ← *Rolling On the Floor Laughing* is an acronym modelled on *LOL* [1989] ← *Laughing Out Loud*. These examples are different from analogy involving reanalysis, as in *duckwich* [1943], coined after reinterpretation of *sandwich* [1762] as a complex word (**sand* + *wich*), although the latter is neither morphologically nor semantically a compound.

Analogy via schema is still another subtype, i.e., analogy formed on prototypes identifiable as actual words (see Köpcke 1993 for schemas in inflectional morphology). Therefore, the model is still concrete and consists of either a series or a word family. The former is a word set sharing the same formation, as in *babelicious*

[1991], *bootylicious* [1994], and similar adjectives formed from the combining form *-alicious* (← *delicious*, with respelling). The concept of word family is more complex. Originally, a word family was defined as consisting of "a base word and all its derived and inflected forms that can be understood by a learner without having to learn each form separately" (Bauer and Nation 1993: 253). Later (e.g. in Bauer and Valera 2015) the concept has been extended to compounds, so as to include a word set sharing the base, or one of the stems in compounds. For instance, established *white-collar*, *blue-collar*, *pink-collar* [1975] 'relating to employment traditionally associated with women', and *green-collar* [1992] 'designating work relating to the protection or preservation of the environment' have established the pattern for the schema having *collar* as second stem (e.g. *gray-collar*, *black-collar*, *gold-collar*, etc. in Benczes 2006: 144f).

3. The previous literature and theoretical framework

The existing literature on analogical compounds mainly comprises psycholinguistic studies and experiments on the family size effect which results from semantic activation spreading from the monomorphemic word to its family members (De Jong, Schreuder, Baayen 2000; De Jong *et al.* 2002). Thus, in line with Libben (2006), novel compound words having a high family size, either in the non-head or in the head component, are easier to process than those having a low family size.

Another group of experiments deals with the effects of constituent families on stress assignment in novel English compounds. For instance, Plag, Kunter, Arndt-Lappe (2007) and Plag (2010) have demonstrated that stress assignment in noun-noun compounds is largely predictable from the stress behaviour of related compounds that have the same left or right constituent. Thus, compounds with the head *street* tend to be left-stressed (Óxford *Street*, *Máin Street*), whereas compounds with the head *avenue* are rather right-stressed (*Madison* Ávenue, *Fifth* Ávenue).

Still other experiments test the interpretation of noun-noun compounds based on prototypical semantic relations between components. For instance, Smith, Barratt, Zlatev (2014) posit that, since the default interpretation for place-food noun-noun compounds

involves physical origin (e.g. *Parma ham*), this interpretation is also activated with novel compounds. However, not all novel place-food compounds can be interpreted accordingly: e.g., *Hawaii pizza*, with pieces of ham and pineapple, has a Canadian origin.

The perspective from which analogical compounds are examined in this paper is not psycholinguistic, but pertains to Cognitive Linguistics. Specifically, for metaphor, we adopt the Contemporary Theory of Metaphor (CTM), first proposed by Lakoff and Johnson (1980), subsequently developed by Lakoff and colleagues (e.g. Lakoff and Turner 1989; Lakoff 1993), and critically discussed by Grady (1997), Ruiz de Mendoza (1997), and Ruiz de Mendoza and Pérez (2011). As for metonymy, we use the metonymic Idealised Cognitive Model (ICM) (Lakoff and Johnson 1980; Lakoff and Turner 1989), but also more recent implementations, as in Ruiz de Mendoza and Díez (2002).

In previous research (Mattiello 2016), it has been demonstrated that analogical compounds, such as *small fish* or *blue-collar*, can be described in terms of a variable part (e.g. *small* vs. *big*) and invariable part (e.g. *fish*). The part which varies in target compounds is generally semantically related to the corresponding part in model compounds. Semantic similarity includes relationships of:
a) near identity (synonymy): e.g., *poopface* [2010] 'someone who is unkind or unpleasant', modelled on *shitface* [1923] 'a despicable or hated person' (with *poop* being a slang term for 'faeces');
b) contradictory opposition (antonymy): e.g., *hot war* [1948] 'an armed conflict', modelled on *cold war* [1945] 'hostilities short of armed conflict' (with an opposition between *hot* and *cold*);
c) other contrasts (esp. co-hyponymy): e.g., *grey market* [1934] 'legal but unethical traffic', modelled on *black market* [1727] 'illegal traffic' (with co-hyponymy between *grey* and *black*).

The aim of the research conducted here is to prove that both variable and invariable parts in target compounds can share with the models the same, or related, semantic and conceptual associations involving figuration.

4. Figurative language

4.1. Methodology and data selection

The data used for this study were selected from two online

collections of neologisms – namely, *Neologisms – New Words in Journalistic Text* (1997-2012) (819 entries) and *The Rice University Neologisms Database* (2004-2014) (9,016 entries, but 6,755 after deleting overlapping items) – as well as from a paper dictionary of new English words (*Fifty Years among the New Words*, Algeo 1991). The latter is a collection of new words that appeared in 113 issues of the *American Speech* journal, in the timespan between 1941 and 1991. The three data sources provide a heterogeneous view of analogical compounds in different areas, namely, journalistic language, juvenile talk, and more general language.

The data selection was a combined process of advanced search, close reading of items, and crosschecks in the *Oxford English Dictionary*, online edition (OED2/OED3). The advanced search tool on the *Rice* website allowed for the selection of analogy as a word-formation mechanism. Close reading allowed for the selection's refining and for the identification of pertinent items in the *Neologisms* collection. Finally, checking the items in the OED was useful for learning more about their etymology, model, and figurative meaning.

The final list of new words selected includes both neologisms, i.e., novel words which are meant to enrich the lexicon, and nonce words or occasionalisms, i.e., novel words which are used only once in a text or are restricted to a small speech community, but are not established yet.

4.2. Data analysis

A quantitative analysis of the database shows that the patterns of figurative language in novel analogy-based compounds involve both metaphor, i.e., conceptual mapping from a source domain to a target domain, and (less relevantly) metonymy, i.e., reference to an entity in a schema by referring to another entity in the same schema (Lakoff and Johnson 1980; Lakoff 1993). More precisely:

a) in *Neologisms – New Words in Journalistic Text*, analogical compounds involving figurative meaning amount to 71.42%, with 60% related to metaphorical language and 40% to metonymic language.

b) in the *Rice University Neologisms Database*, the percentage of analogical compounds entailing figuration decreases to 31.25%,

with a balance between metaphors (53.33%) and metonymies (46.66%).

c) in *Fifty Years among the New Words*, more than half of analogical compounds involve figuration (52.17%), with metaphor again prevailing over metonymy (66.66% vs. 33.33%).

A finer-grained qualitative analysis of a sample of such compounds shows the metaphorical and metonymic patterns in more detail. In particular, metaphorical patterns comprise:

a) metaphor of the head: e.g., A BIRD FEEDER IS A CAFETERIA in *bird cafeteria* [2011] 'a small box provided for wild birds to feed themselves', after the metaphor A BOX IS A HOUSE in *bird-house* [1855] 'a small covered box provided for wild birds to nest in'.

b) metaphor of the modifier: e.g., SUBSIDIARY IS A DAUGHTER in *daughterboard* [1971] 'a printed circuit board on which some of the subsidiary components of a microcomputer are mounted', after PRINCIPAL IS A MOTHER in *motherboard* [1965] 'a printed circuit board on which the principal components of a microcomputer are mounted'.

c) metaphor of the whole compound: e.g., MASCULINE PHYSIQUE IS A CAKE MADE OF BEEF, as in *beefcake* [1949] '(a display of) sturdy masculine physique', after FEMALE PHYSIQUE IS A CAKE MADE OF CHEESE, as in *cheesecake* [1934] 'display of the female form, in the interest of sex-appeal'.

These patterns show that the correspondences of the metaphors in model compounds are generally reproduced in the target analogical compounds. For instance, in the metaphor in (a) there is a "central mapping" (Kövecses 2010), which functions on the correspondence between buildings for human habitation, providing shelter and comforts where children can be brought up, and boxes where birds can lay and incubate their eggs and rear their young. A parallel metaphor is in the target *bird cafeteria*, activating a correspondence between coffeehouses or self-service restaurants, where humans can eat, and food containers where wild birds can feed themselves.

The metaphor in the model in (b) is similarly replicated in the target, where the correspondence is between the non-compulsoriness and subsidiarity of some components of a microcomputer and the subordination of a daughter to her mother. By contrast, in the model, the correspondence activated is between the compulsoriness

of a microcomputer's primary components and the importance of a mother to her daughter.

The model *cheesecake* in (c) likewise reveals the existence of an underlying system of conceptual correspondences between cheesecake and female physique. In particular, this metaphor works on the basis of the correspondence between the deliciousness and softness of cheesecakes and the appeal and delicacy of female bodies. The target analogical compound exploits the same correspondence with invariable *cake*, suggesting attraction, but also triggers a conceptual mapping between strength and muscular power and young men's masculinity and virility (cf. the colloquial meaning of *beef* in the OED "flesh' (of men). Also, strength, muscular power; effort').[1]

The metonymic patterns comprise:

d) metonymy of the head: e.g., BODY PART FOR PERSON, as in *crackhead* [1986] 'a person who is addicted to crack cocaine', after *acidhead* [1966] 'a person who takes acid, esp. habitually'. In both model and target, *head* stands for 'a drug addict or drug user', which is the colloquial meaning of the word preceded by modifier (OED3).

e) metonymy of the modifier: e.g., PLACE FOR ACTION, as in *air rage* [1996] 'extreme anger or frustration felt during a flight', after *road rage* [1988] 'violent anger attributed to the stress and frustration of driving a motor vehicle'. In the model, *road* stands for the action of 'driving a motor vehicle'. Similarly, in the target, *air* stands for 'flying on an aircraft'.

A combination of metaphor and metonymy adds two more patterns:

f) metonymy of the modifier and metaphor of the head: e.g., PART FOR WHOLE / PLACE FOR ACTION + PEOPLE ARE PLANTS, as in *mouse potato* [1994] 'a person who spends large amounts of leisure time using a computer, esp. surfing the Internet', after *couch potato* [1979] 'a person who spends leisure time passively or idly sitting around, esp. watching TV'. In both the model and the target, *potato* entails the metaphor PEOPLE ARE PLANTS, and more specifically IDLE PEOPLE ARE TUBERS. As for metonymy, in the target, *mouse* is part

[1] See Ruiz de Mendoza and Pérez (2011) for the discussion of cognitive operations, such as reduction, expansion, or highlighting intervening in metaphor.

of the 'whole computer', whereas in the model, the corresponding *couch* is the place standing for the action of 'sitting'.

g) metaphor of the modifier and metonymy of the head: e.g., LEGAL IS WHITE / ILLEGAL IS BLACK + PLACE FOR ACTION, as in *white market* [1943], after *black market* [1727]. In both the model and the target, the place at which trade is conducted (*market*) stands for the 'trade' itself. As for metaphor, the metaphor *white* activates a correspondence between purity, clarity, cleanness and the integrity, honesty of trade, whereas the metaphor *black* activates a correspondence between obscurity or darkness and dishonesty, illicitness. Therefore, the variable part in the target (*white*) stands in a relationship of opposition (antonymy) with the corresponding part in the model (*black*).

More complex cases, with partial or no correlation between target and model, include:

h) metaphor vs. metonymy of the modifier: e.g., an EFFECT FOR CAUSE metonymy in *Bloody Monday* [1988], a slang compound for 'the first day of the school holidays, on which pupils who have committed an offence may be punished', corresponds to the metaphor NEGATIVE IS BLACK in *Black Monday* [1735] 'the first school day after a vacation'. In the target, *bloody* stands for the effect of punishment, whereas in the model *black* signals the negative attitude (e.g. lack of enthusiasm, reluctance) connected with the beginning of school.

i) metaphor vs. non-figurative language of the modifier: e.g., the metaphor BAD (ECONOMIC) SITUATION IS HELL in *hellseeking* [2011] 'searching for a job in a struggling economy' does not correspond to figurative language in the literal model *job-seeking* [1915] 'searching for a job'.

However, in (h)-(i), target and model exhibit similarity relationships at other levels, especially phonological (the initial cluster in *Bloody-Black*) and morpho-tactic (the second compound components *Monday* and *seeking* are shared) (Mattiello 2016).

5. Concluding remarks

This paper has studied the impact of figuration on the production and interpretation of novel analogical compounds. As for target production, a quantitative analysis of new compound words – both neologisms and occasionalisms – in existing collections has

shown the relevance of figuration to analogical word-formation (esp. compounding). In particular, more than half analogy-based compounds (51.61%) involve either metaphor (59.99%) or metonymy (39.99%), or both. As for target interpretation, a qualitative analysis has shown that the cognitive operations behind figurative meaning in both model and target compounds are similar, and generally involve: i) metaphorical language (i.e., conceptual mapping across domains); or ii) metonymic language (i.e., conceptual mapping within single domains and their subdomains).

The analysis has demonstrated that the disambiguation of a novel analogical compound depends greatly on the recoverability of its model and on the interpretation of the target according to such a model. For instance, novel analogical compounds such as *mouse potato* or *couch tomato* [1988] 'a female couch potato' can be interpreted on the basis of their model *couch potato*. Indeed, both variable and invariable parts in the target compounds reproduce the same or similar conceptual mappings that we find in the model. Conceptual mappings here involve metaphorical language (PEOPLE ARE PLANTS) activating the correspondence between plants, such as *tomato* or *potato*, and 'idle people', and metonymic language, namely PART FOR WHOLE (*mouse* stands for 'computer') or PLACE FOR ACTION (*couch* stands for 'sitting').

Therefore, in order to disambiguate the meaning of a novel analogical compound, we should, first, recover the model compound and investigate if, or analyse how, figurative language works in the meaning construction of its components (head, modifier); and, second, identify similarities in semantic associations and cognitive operations which may have originated the target compound. In general, the higher the similarity between model and target compounds, the easier the recoverability of the former and the interpretation of the latter.

References

ALGEO, JOHN, 1991, *Fifty Years among the New Words: A Dictionary of Neologisms, 1941-1991*, C.U.P., Cambridge.

ANTTILA, RAIMO, 1977, *Analogy*, Mouton, The Hague-Paris.

ARONOFF, MARK, 1976, *Word Formation in Generative Grammar*, MIT Press, Cambridge, MA.

ARONOFF, MARK, 1983, "Potential Words, Actual Words, Productivity and Frequency", in S. Hattori and K. Inoue (eds), *Proceedings of the 13th International Congress of Linguistics*, Permanent International Committee on Linguistics, Tokyo, pp. 163-171.

BAUER, LAURIE and NATION, PAUL, 1993, "Word Families", *International Journal of Lexicography* 6 (4), pp. 253-279.

BAUER, LAURIE and VALERA, SALVADOR, 2015, "Sense Inheritance in English Word-Formation", in L. Bauer, L. Körtvélyessy, P. Štekauer (eds), *Semantics of Complex Words*, Springer, Cham, pp. 67-84.

BENCZES, RÉKA, 2006, *Creative Compounding in English*, John Benjamins, Amsterdam-Philadelphia.

BLOOMFIELD, LEONARD, 1933, *Language*. Henry Holt and Company, New York.

DE JONG, NIVJA H., FELDMAN, LAURIE B., SCHREUDER, ROBERT, PASTIZZO, MATTHEW, BAAYEN, R. HARALD, 2002, "The Processing and Representation of Dutch and English Compounds: Peripheral Morphological and Central Orthographic Effects", *Brain and Language* 81 (1), pp. 555-567.

DE JONG, NIVJA H., SCHREUDER, ROBERT, BAAYEN, R. HARALD, 2000, "The Morphological Family Size Effect and Morphology", *Language and Cognitive Processes* 15 (4/5), pp. 329-365.

DRESSLER, WOLFGANG U. and LAAHA, SABINE, 2012, "The Impact of Types of Analogy on First Language Acquisition", *Wiener Linguistische Gazette* 76, pp. 48-62.

FERTIG, DAVID L., 2013, *Analogy and Morphological Change*, Edinburgh U.P., Edinburgh.

GRADY, JOSEPH E., 1997, "THEORIES ARE BUILDINGS REVISITED", *Cognitive Linguistics* 8, pp. 261-290.

HOCKETT, CHARLES F., 1968, *The State of the Art*, Mouton, The Hague-Paris.

KIPARSKY, PAUL, 1974, "Remarks on Analogical Change", in J. M. Anderson and C. Jones (eds), *Historical Linguistics*, North Holland, Amsterdam, pp. 257-275.

KÖPCKE, KLAUS-MICHAEL, 1993, *Schemata bei der Pluralbildung im Deutschen: Versuch einer kognitiven Morphologie*, Gunter Narr Verlag, Tübingen.

KÖVECSES, ZOLTÁN, [2002] 2010, *Metaphor. A Practical Introduction*, O.U.P., Oxford.

KROTT, ANDREA, 2009, "The Role of Analogy for Compound Words", in J. P. Blevins and J. Blevins (eds), *Analogy in Grammar. Form and Acquisition*, O.U.P., Oxford, pp. 118-136.

LAKOFF, GEORGE, [1979] 1993, "The Contemporary Theory of Metaphor", in A. Ortony (ed.), *Metaphor and Thought*, C.U.P., Cambridge, pp. 202-251.

LAKOFF, GEORGE and JOHNSON, MARK, 1980, *Metaphors We Live by*, University of Chicago Press, Chicago.

LAKOFF, GEORGE and TURNER, MARK, 1989, *More than Cool Reason. A Field Guide to Poetic Metaphor*, University of Chicago Press, Chicago.

LIBBEN, GARY, 2006, "Why Study Compound Processing? An Overview of the Issues", in G. Libben and G. Jarema (eds), *The Representation and Processing of Compound Words*, O.U.P., Oxford, pp. 1-22.

LIEBER, ROCHELLE, 2005, "English Word-formation Processes. Observations, Issues, and Thoughts on Future Research", in P. Štekauer and R. Lieber (eds), *Handbook of English Word-formation*, Springer, Dordrecht, pp. 375-427.

MATTIELLO, ELISA, 2013, *Extra-grammatical Morphology in English. Abbreviations, Blends, Reduplicatives, and Related Phenomena*, De Gruyter Mouton, Berlin.

MATTIELLO, ELISA, 2016, "Analogical Neologisms in English", *Italian Journal of Linguistics / Rivista di Linguistica* 28 (2), pp. 1-40.

MOTSCH, WOLFGANG, 1981, "Der kreative Aspekt in der Wortbildung", in L. Lipka (ed.), *Wortbildung*, Wissenschaftliche Buchgesellschaft, Darmstadt, pp. 94-118.

NEOLOGISMS – NEW WORDS IN JOURNALISTIC TEXT, 1997-2012, http://rdues.bcu.ac.uk/neologisms.shtml.

OED2/3 (Oxford English Dictionary Online, Second/Third Edition), [1989] 2016, O.U.P., Oxford.

PAUL, HERMANN, 1880, *Prinzipien der Sprachgeschichte*, Max Niemeyer, Tübingen.

PLAG, INGO, 2010, "Compound Stress Assignment by Analogy: The Constituent Family Bias", *Zeitschrift für Sprachwissenschaft* 29 (2), pp. 243-282.

PLAG, INGO, KUNTER, GERO, ARNDT-LAPPE, SABINE, 2007, "Testing Hypotheses about Compound Stress Assignment in English: A Corpus-based Investigation", *Corpus Linguistics and Linguistic Theory* 3 (2), pp. 199-233.

THE RICE UNIVERSITY NEOLOGISMS DATABASE, 2004-2014, http://neologisms.rice.edu/.

RUIZ DE MENDOZA, FRANCISCO JOSÉ, 1997, "Metaphor, Metonymy and Conceptual Interaction", *Atlantis* 19 (1), pp. 281-295.

RUIZ DE MENDOZA, FRANCISCO and DÍEZ, OLGA, 2002, "Patterns of Conceptual Interaction", in R. Dirven and R. Pörings (eds), *Metaphor and Metonymy in Comparison and Contrast*, Mouton de Gruyter, Berlin-New York, pp. 489-532.

RUIZ DE MENDOZA, FRANCISCO, PÉREZ, LORENA, 2011, "The Contemporary Theory of Metaphor: Myths, Developments and Challenges", *Metaphor and Symbol* 26 (3), pp. 161-185.

SCALISE, SERGIO, 1992, "Compounding in Italian", *Italian Journal of Linguistics / Rivista di Linguistica* 4 (1), pp. 175-199.

SMITH, VIKTOR, BARRATT, DANIEL, ZLATEV, JORDAN, 2014, "Unpacking Noun-Noun Compounds: Interpreting Novel and Conventional Food Names in Isolation and on Food Labels", *Cognitive Linguistics* 25 (1), pp. 99-147.