

Is it just language play? Alliteration and rhyme in novel compound formation*

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1 Introduction

We all engage in word play; it is a natural ability of ours. Right from the very beginning, when children acquire their native language, they routinely play with the sounds they learn, an activity which fosters the mastering of the speech sounds. In fact, between the toddler and adolescent years children go through distinct stages of wordplay, which are directly related to proficiency in both language and literacy (Crystal 1996, Geller 1985). Later on, wordplay and—more generally—language play emerges on all sorts of levels; just as it forms an everyday part of interpersonal communication (see, eg Dienhart 1998), it is also a common feature of the media, of advertisements or of fiction. Crystal (1998 : 1) alludes to this phenomenon as the “ludic” function of language and points out that—due to the prominence of the communicative aspect of language use (ie that we use language primarily to communicate information)—this area has been mostly ignored in linguistic inquiry, even though it should “be at the heart of any thinking we do about linguistic issues.”

Perhaps one of the most conspicuous examples of language play is the innovative, witty and often funny conceptualization that novel compounds such as *street spam* (‘advertisements posted on telephone poles, traffic lights, and other public areas’; source: www.wordspy.com; henceforth Wordspy) or *snail mail* (‘the physical delivery of mail, as by the postal

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service, considered as slow in comparison to electronic mail; a letter, etc, sent by post')¹ exemplify. Such compounds are based on conceptual metaphors and metonymies and their humour lies in the unconventional application of these cognitive mechanisms. Interestingly, these compounds are also often motivated by some sort of phonological analogy (which is understood here as structural similarity to phonological form), such as alliteration (as in the case of *street spam*) or rhyme (as in the case of *snail mail*), which greatly enhance their ludic potential.

With a few exceptions (Marchand 1960, Thun 1963, Allan 1986 : 250f, Katamba & Stonham 2006 : 305), alliterating and rhyming compounds have been more-or-less ignored in the linguistic literature, even though they have always been around in the English language. As Beal (1991 : 140) points out, their preponderance can be well detected in periods of the English language when there was an upsurge in linguistic creativity and the use of colloquial forms was licensed in written texts, as opposed to periods when rigid, conventional, rule-based usage was preferred. Hence, alliterating and rhyming compounds thrived in Chaucer's time, the Elizabethan era and during the Romantic movement. There has also been a steady increase in their use from the end of the twentieth century onwards, thanks to the media: increasingly witty, playful and inventive expressions need to be coined to catch (and hold) our attention. In fact, novel expressions often foreground the form (ie the alliterating, rhyming pattern) to the extent of backgrounding the intended message or meaning of the compound itself. Chovanec (2008 : 219) rightly remarks that the "creative appropriation of forms of language sometimes erupts into wanton word play".

Much has been said about the role of analogy in language — Varro, for instance, made note of it as early as the first century BC. Analogy has also played a significant role in historical linguistics, identified as one of the main means of change. It drew major interest in the American descriptivist tradition (especially Bloomfield 1933), but later on was mostly neglected by generative grammarians (Blevins & Blevins 2009a : 2; for an overview with references, see *ibid* and Itkonen 2005). Recently, however, it has been receiving increasing attention (see Bybee 2010, for example), especially within the area of word-formation. Much of the literature on the subject, nevertheless, focuses on the semantic and syntactic aspects (see, eg Booi 2010, van Jaarsveld et al. 1994, Krott 2009, Ryder 1994), leaving the topic of phonological analogy mostly neglected (though see Wang 2005, for a discussion of "reduplicated" forms, including rhyming and alliterating strings in English). Yet evidence suggests that phonological constraints

¹ All definitions are from the *OED*, unless otherwise stated.

can influence and govern syntactic, semantic and morphological aspects in English: Schlüter (2005), for instance, has demonstrated that the rhythmic alternation of stressed and unstressed syllables determines the structures of words, phrases and sentences. Bauer (2003 : 159) has also noted that relationships between words may rest on so-called “resonances” (which term he borrowed from Hockett 1987): “hearing one word makes you think of another because of some similarity between the two.” Resonance can be based on phonological similarity, such as alliteration, assonance, rhyme and similarity in syllable number or stress pattern.

Within this vein, what I wish to demonstrate in the paper is that when coining new and highly creative expressions based on metaphor and metonymy, the choice of the composite words can be heavily influenced by phonological analogy. In my view, phonological analogy serves a number of important functions, both semantic and pragmatic: (1) as an attention-seeking device it enhances emphasis; (2) helps to decipher the meaning of a novel expression; (3) aids a novel expression’s acceptability and long-term retention; (4) signals an informality of meaning; and (5) helps in the creation of a “social bond” between the participants of a speech situation.

The structure of the argument is as follows: §2 outlines the reasons for inventing novel words, with a focus on metaphor- and metonymy-based compounds. §3 provides a detailed analysis of the three major types of phonological analogy that have been identified in the paper—alliteration, rhyme between constituent₁ and constituent₂, and rhyme with an already existing compound —, as well as the various combinations of these within a cognitive linguistic framework. §4 discusses the results, while the last, §5 concludes.

2 Inventing new words

People invent new words all the time. In most of the cases this is done to create a name for a completely new category, such as *filter bubble* (‘search results, recommendations, and other online data that have been filtered to match your interests, thus preventing you from seeing data outside of those interests’; source: Wordspy). The expression emerged with the advent of tailored internet advertisements (its earliest citation is from 2010), where the words/expressions that we search for in the search engines provide clues as to what might be of interest — and, ultimately — sellable to us. Yet new words also emerge for reasons other than naming. Both Hohenhaus (2007) and Lehrer (2003) point out that new words are often coined for attention-seeking or foregrounding and are especially prominent in newspaper or magazine articles and advertisements. The reason

for this phenomenon is simple: the goal is to attract the reader's attention (and, in the case of ads, to ensure memorability). Attention-seeking is best achieved via witty, creative wordplay that is often based on puns and deliberate breaking or bending of rules (Wang 2005). However, as underlined by Lehrer (2003 : 370), the underside of creativity is that such words often need more effort on the side of the reader/hearer to interpret. Why then do we engage in novel and creative word formation? According to Lehrer, the answer lies in the satisfaction that we feel when we are able to figure out the meaning of a novel expression. This feeling reinforces within us a positive attitude toward the "speech event and possibly toward the speaker and the referent of the neologism. If a positive attitude is created, this will reinforce the speaker's intention if the goal is for the hearer to remember the item (and maybe buy the product)" (ibid), and, ultimately, to create a "social bond" (Malinowski 1923 : 314). In their list of social and discourse functions for humour and wit, Long & Graesser (1988 : 57) also note that sometimes witty, creative language is not used to maintain discourse management or social control, but is "generated for fun as social play", in order to build up a "comraderie", "strengthen social bonds" and "foster group cohesiveness".

2.1 Creative compounds

Undoubtedly, the most common and handy process for creating new words is compounding. So much so, in fact, that compounding is the most common word-formation method used in the languages of the world (Guevara & Scalise 2009). Why is this so? The reasons are straightforward: compounds are like mental shorthand in the sense that maximum information is packed into a minimally complex form. This wealth of meaning and economy of form, however, is made possible by the vast array of possible semantic relationships that can exist between the constituents of a compound. What is more, compounds can also be affected by metaphor and/or metonymy. As emphasized by Benczes (2006) and Guevara & Scalise (2009), metaphorical (and/or metonymical) compounds are extremely common in language, and, as demonstrated by Benczes (2006), 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. Compounds that utilize metaphor and metonymy make use of the creative associations that exist between concepts; associations based on similarity, analogy or contiguity. Following Benczes (2006), metaphorical and/or metonymical compounds will be termed here henceforth as "creative compounds".

One of the most interesting questions that arise with regard to novel creative compounds is why do people coin them at all. More specifically, why do we think up expressions that are based on more associative, inventive and creative thought processes, and which, presumably, take up more time in their comprehension than their more transparent versions (Libben et al. 2003)? Lehrer (2003), quoted above, has pointed out the significance of the positive effect that the “solving” of innovative, creative novel words and expressions have upon us. In addition, Benczes (2010) has also outlined a number of reasons for the phenomenon of creative compound formation: Here, I will mention three of these which are crucial for the present study as well:

1. Metaphorical and metonymical thinking is a normal, everyday ability of humans; so much so that that even 3-year-old children are able to interpret metaphorical compounds (Gottfried 1997). Furthermore, both metaphor and metonymy can be considered as a type of construal operation (see, eg Langacker 1987, Talmy 1988, Croft & Cruse 2004), 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 (more specifically, in compounding) must also be an absolutely natural process.
2. If compounds are generally taken to be “compact”, in the sense that they are able to express complex ideas in an economical manner, then metaphorical compounds are doubly so. First, such compounds — just like any old compound — are also able to express intricate notions in a compact form. Second, they do this in a very “vivid” manner (Gibbs 1994 : 125), as metaphorical imagery is able to carry much more information than literal language, thanks to the rich and vivid images.
3. Last but not least, the metaphorical imagery that such compounds exhibit helps us better remember them than non-metaphorical ones. Bauer (1983 : 142) alludes to this property of metaphorical compounds as their “positive mnemonic effect”.

3 Unravelling the meaning: Phonological analogy

The problem that creative compounds pose, however, is that they are intricate thought puzzles that defy the usual three-level categorizational hierarchy, where the subordinate term is usually a composite of the basic level term and a modifying element, such as *kitchen sink* or *cheese sandwich* (Ungerer & Schmid 1996, Kövecses 2006). After all, a *wall wart* (‘the blocky

plug/transformer combinations used with modems, telephones, and other consumer electronics'; source: Wordspy) is by no means a type of wart (although it does have to do with walls), yet there are plenty of such novel expressions emerging all the time. The question necessarily arises: what can help the reader/hearer to unravel the puzzle that such a compound represents? Two answers come to mind: first of all, the context in which they appear. It is not uncommon for texts to provide a gloss or definition for the compound, ensuring that the reader fully understands the meaning of the novel expression. It should be noted, nevertheless, that when a definition or gloss appears for the novel expression in the text, then there is no satisfaction felt in solving the meaning (as pointed out by Lehrer 2003, see above).

The second key that can help us figure out the meaning of novel creative compounds is phonology — more specifically, phonological analogy to already existing forms. For example, *brain gain* ('an increase in the number of highly skilled intellectual and technical workers due to those workers relocating from a less favourable environment'; source: Wordspy) is a play on the lexicalized compound *brain drain* ('the emigration of highly trained or qualified people, regarded as detrimental to a country's economy or society'). The fact that both compounds have the same phonological makeup save for the first vowels in the head component is by no means accidental. Thanks to the phonological similarity, when coming across *brain gain*, the reader/hearer can also access *brain drain*, which considerably helps the unravelling of the meaning of *brain gain*.² From a cognitive linguistic perspective, *brain drain* is a metaphor- and metonymy-based compound, where the modifying element, *brain*, stands for intelligent people (via the DEFINING PROPERTY FOR CATEGORY conceptual metonymy), while the head element, *drain*, is based on a complex metaphor system where highly skilled individuals are conceptualized as resources (via the RESOURCES ARE SUBSTANCES (FLUIDS)) metaphor), and the countries which possess this resource are conceptualized as containers (via the LOCATION OF THE RESOURCE IS A PHYSICAL CONTAINER metaphor). In order to obtain this resource, it has to be removed from the container (OBTAINING THE RESOURCE IS PHYSICALLY REMOVING THE SUBSTANCE FROM THE CONTAINER). The meaning of *brain gain* is based on the same metonymy and metaphor system: *brain* stands for intelligent people, while *gain* is a manifestation of the ACQUISITION OF RESOURCE IS OBTAINING/

² Furthermore, in both compounds the modifying element (*brain*) rhymes with the head (*drain* and *gain*, respectively). See §3.2 for a detailed analysis of this type of analogy.

ACQUIRING SUBSTANCE metaphor. The meaning of *brain gain*, therefore, is relatively easily available to us once we can access the meaning of *brain drain* as well.

Phonological analogy, therefore, can be a useful mechanism in comprehending novel coinages. Nevertheless, it is hypothesized here that phonology also plays a significant role in the creation of novel compounds: whoever coined *brain gain* was probably influenced by the already existing form of *brain drain*. Therefore, phonological analogy influences both the *production* and the *comprehension* of novel creative compounds. In the following, the paper will examine how exactly phonology constrains the formation of creative compounds. Three major types of phonological analogy have been identified: alliteration, rhyme between constituent₁ and constituent₂, and rhyme with an already existing compound. These three major types also occur in combination with one another, resulting in seven subtypes—all of which will be analyzed in detail in the forthcoming sections.

3.1 Alliteration

Alliteration has been in use in the English language for a very long time—as far as the written record is concerned, it dates back to Old English poetry, such as *Beowulf*, the most substantial epic poem of the period (Sanders 1994:20). Turning to everyday speech, Wales (1989:18) makes note of the fact that alliteration shows up regularly in popular idioms (eg *dead as a doornail*), while Lindstromberg & Boers (2008) remark that it appears frequently in lexical chunks (group of words commonly found together). More recently, Gries (2011) examined two types of multi-word units, V-NP_{DirObj} idioms (such as *bite the bullet*) and the *way*-construction (such as *find one's way*), and has shown that both types show strong alliteration effects. Unsurprisingly, it is also a quite common phenomenon in compounds, whether lexicalized or novel. According to Beal (1991:141), alliterative compounds “are almost always slangy, playful forms, which may well have always been used in colloquial English”. An example for a “playful”, yet fully lexicalized alliterative compound is *belly button* (‘navel’). Benczes (2010:222) hypothesizes that the reason why *belly* is selected in *belly button* to stand as the modifier, and not *tummy* (which is not only synonymous with *belly* but is also similarly informal), is due to alliteration. Compare, however, *tummy trouble* (‘stomach pain’, cf www.tummytrouble.com).

co.uk), which is not **belly trouble* — most probably for the same reason as above.³

As far as novel expressions are concerned, *Lexus lane* ('a highway that is normally restricted during rush hour to vehicles carrying multiple passengers, but that can also be used for a fee by single-occupant vehicles'; source: Benczes 2006 : 149–151) can be analyzed as a metonymy-based expression. Through the CONTROLLED FOR CONTROLLER metonymy, *Lexus* (the vehicle controlled by the driver) stands for the driver (the controller of the vehicle); and by the MEMBER OF A CATEGORY FOR A CATEGORY conceptual metonymy, *Lexus* (the brand of an expensive car) stands for any brand of expensive car. As Benczes (2006 : 151) points out, the ironic connotation of the compound can be traced back to the fact there is no point in creating restricted lanes if the toll does not stop wealthy drivers congesting it. It is interesting to note that the first constituent of the compound is *Lexus*, even though it could have been any other luxury car name. Benczes hypothesizes that the selection of the constituent was motivated by phonological criteria, overriding other possible (and non-alliterating) candidates.

Alliteration, which is also referred to as "initial rhyme" (Wales 1989 : 18) is a very handy tool for foregrounding the initial sounds to achieve emphasis and to aid memorability (for a similar view see also Lea et al. 2008, Lindstromberg & Boers 2008). Both of these qualities are important when coining a new expression: the more attention (via alliteration) a creative compound gets, and the easier it is to memorize, the better chances it has to go into wider use. Moreover, the alliterated syllables are also often the stressed ones, and as such, represent a rhythmic pattern (Wales 1989 : 15). This rhythm (and rhyme-like quality) can be further strengthened by the identical number of syllables in the respective modifier and head constituents (thus further enhancing both emphasis and memorability): see, for instance, *street spam*, where both the modifier and the head consists of one syllable, or *belly button*, which has two syllables each. All in all, when coining such compounds the selection of both the modifier and the head is — in all probability — heavily influenced by phonological constraints. I agree with Gries (2011 : 504), who maintains that when such alliterating expressions are created, it is due to the alliterating effect that the expression is "fun to produce and easy to memorize" (ibid) — which is further accen-

³ Note that euphemisms for "travellers' gastrointestinal disorders" are also based on alliterating patterns — cf *Banjul belly*, *Basra belly*, *Bali belly*, *Tut's tummy*, etc — to name but a few. Source: www.wolfstad.com/2007/01/international-euphemisms-for-travellers-gastrointestinal-disorders (8 November 2012)

tuated and complemented by the rich (and often humorous) imagery that metaphorical and metonymical compounds possess.

3.2 Rhyme between constituent₁ and constituent₂ (“rhyming compounds”)

Often, the head element of a compound expression rhymes with the modifier, as in *backpack*, *bigwig* or *hotshot*, to name just a few of the lexicalized units. Such compounds are dubbed as “rhyming compounds” in linguistic literature (for a full discussion, see Benczes 2012). Marchand (1960: 355) observed that rhyming compounds have always been on the increase in the English language “in such environments as are not governed by restraining literary tendencies or social codes.” Needless to say, present-day language customs, which heavily concentrate on the internet and the media, perfectly fit Marchand’s description as ideal environments for the emergence of rhyming compounds. A prime example for this phenomenon is *snail mail*, which emerged after the appearance of e-mail. The compound emphasizes the fact that regular mail is much slower than e-mail, and manages to achieve this in a quite humorous manner. This jocular effect can be traced back to the metaphor and metonymy on which the compound itself is based on. First of all, the modifier, *snail*, stands for slowness, via the DEFINING PROPERTY FOR CATEGORY metonymy (as the salient property of a snail is its slowness). Moreover, there is a metaphorical relationship between the head and its modifier, where the former is metaphorically construed as the latter. In this case, we have a man-made, complex object (mail) conceptualized as an animal (snail). Needless to say, the selection of the modifier element, *snail*, was most probably influenced by its rhyme to *mail* — after all, there are other animals as well which are notoriously slow, such as the tortoise (fabled by Aesop as well). The inherent humour of the expression lies in the clash between the phonological similarity of the component nouns and their very apparent conceptual dissimilarity.

Rhyme—similarly to alliteration—creates emphasis (that is, it draws attention to the expression) and also eases memorability (that is, it is easier later on to recall the expression from memory). However, what *snail mail* clearly shows is that rhyme also plays a significant role in intensifying the meaning of a compound. The rhyming feature lends it a more playful quality that is in perfect line with the meaning. In short, informality of form stands for informality of meaning: the compound is strictly informal in its usage. Moreover, rhyme is also a source of enjoyment; consequently, a rhyming compound most probably sounds more pleasing to the ear than a non-rhyming one. Note that creative compounds are in themselves often

humorous (thanks to their imagery), a feature which is well underlined by the playfulness of rhyme.

3.3 Rhyme with an already existing compound

Often, creative compounds rhyme with an already existing (creative) compound. It is hypothesized here that this analogy helps the hearer/reader to uncover the meaning of the novel expression by foregrounding the source compound. Such an example is *grass ceiling* ('a set of social, cultural, and discriminatory barriers that prevent or discourage women from using golf to conduct business', source: Wordspy): when coming across the expression, it is inevitable that the more lexicalized compound *glass ceiling* ('an unofficial or unacknowledged barrier to personal advancement, esp. of a woman or a member of an ethnic minority in employment') also comes to mind, thanks to the close phonological resemblance between the two. *Glass ceiling* is an instantiation of the CAREER IS AN UPWARD JOURNEY metaphor: reaching a socially higher position is understood as upward physical movement in the course of a journey (see Kövecses 2010:252). The compound brings forth the idea that the journey has an end point for women, the "ceiling", while no such end point exists for men—therefore, their career path is unlimited. The fact that the ceiling is made of glass implies that women are able to "see" the possible path that their careers might follow (but, due to the limiting "ceiling", they are, nevertheless, unable to go ahead and do so). The novel coinage of *grass ceiling* ties into the meaning of the source compound, as it also refers to the limited opportunities in business for women as opposed to men, but it places this limiting factor unto the golf course. This specification of meaning is accomplished by the modifying element, *grass*, which metonymically stands for the golf course (via the MATERIAL CONSTITUTING AN OBJECT FOR THE OBJECT metonymy).

The idea that the meaning of a novel compound is reached via accessing a more lexicalized expression is in full agreement with the commonplace claim within cognitive linguistics that word meanings are encyclopaedic (for a discussion, see Langacker 1987:155–158). As Langacker points out, "concepts presuppose other concepts and cannot be adequately defined except by reference to them" (1987:147)—therefore, we routinely and automatically search for connections between words, and make use of these in the comprehension of novel ones.

3.4 Rhyme of constituent₁ with constituent₂ plus alliteration

The combination of alliteration and rhyme in creative compounds has a rather powerful effect, and are thus often employed together. For example,

duvet day ('a company-approved day off that employees can take if they feel too tired to work') would not sound as effective if the modifying element would be *pillow* or *bed*, even though both could be possible candidates, as the metonymies that underlie the compound's meaning do not necessarily require *pillow* (just something that is associated with sleeping). What are these metonymies exactly? First of all, *duvet* stands for sleeping, via the OBJECT INVOLVED IN THE ACTION FOR THE ACTION metonymy. Next, a further metonymy is required, whereby sleeping can stand for relaxing, thanks to the ACTION FOR RESULT metonymy (after all, employees are not required to sleep on *duvet day*; they can simply relax, which, nevertheless, might involve sleeping as well). Evidently, the metonymies that operate on the compound's meaning would just as easily work with *pillow* or *bed*, but *?pillow day* or *?bed day* does not sound as good as *duvet day*, where the rhyme, combined with the alliteration, makes the compound roll off the tongue very easily, thus paving the way for long-term retention and easier recall.

Needless to say, rhyme and alliteration also show up in metaphor-based creative compounds as well. Such an example is the already cited *wall wart*, which is not a fully rhyming compound, since the constituents differ with regard to the final consonant (but are, nevertheless, similar with regard to the initial consonant and the vowel). Such cases of imperfect rhyme are referred to as "half-rhyme" in stylistics (Wales 1989:39). *Wall wart* is based on personification, whereby a house is conceptualized as a human face: the windows are the eyes, the door is the mouth, and the walls correspond to the skin. Within this conceptual metaphor, warts map onto unattractive elevations on the surface of the wall. In fact, this conceptualization can be traced back to one of the general meanings of *wart*, as given by *Webster's*: 'an imperfection, failing, flaw, etc'. This meaning is based on the OBJECT FOR EFFECT metonymy, whereby the physical wart (the object) stands for the unpleasant effect it causes. In the compound *wall wart*, the metonymy (OBJECT FOR EFFECT) and the metaphor (HUMAN PROPERTIES ARE THE PROPERTIES OF INANIMATE THINGS) complement one another, thereby strengthening the overall effect of the expression — which, similarly to *duvet day*, is further emphasized by the combination of rhyme and alliteration.

3.5 Rhyme with an already existing compound plus alliteration

An intriguing compound that has alliterating consonants and rhymes with an already existing one is *Baby Bills* ('nickname for the resulting companies should the US government decide to break up Microsoft into smaller units');

cf *Baby Bells*: ‘the companies created after the breakup of AT&T’s telephone monopoly’; source: Wordspy). The compound can be traced back to both metonymy and metaphor: the head element, *Bills*, can be analysed as an instantiation of the HEAD OF AN INSTITUTION FOR THE INSTITUTION metonymy, whereby the company’s CEO, Bill Gates, stands for the company he owns. At the same time, thanks to the modifier element *Baby*, the resulting smaller companies after the breaking up of Microsoft are conceptualized as miniature—baby—versions of Bill Gates, which is a metaphorical process that is based on personification. The novel compound is formed on the analogy of *Baby Bells*, which can be analyzed by more-or-less the same metonymy and metaphor (in this case the head element is based on the inventor of the telephone, Alexander Graham Bell, who at the same time was one of the shareholders of the first telephone company, the American Bell Telephone Company, which later on evolved into the American Telephone and Telegraph Company, ie AT&T; Huurdeman 2003). As long as the hearer/reader is familiar with *Baby Bells*, it is relatively simple to work out the meaning of *Baby Bills*, too. The rhyme brings to mind the more familiar *Baby Bells*, whose metaphorical and metonymical conceptualization—which is more-or-less similar in the case of *Baby Bills*—leads to the meaning of *Baby Bills*.

It is an interesting feature of *Baby Bells* that the head element is, nevertheless, slightly misleading with regard to the overall meaning of the compound, since the company that was broken up into smaller units was AT&T, and not the Bell Telephone Company. It is highly probable that the selection of the head element was governed by phonological reasons (ie alliteration), which ultimately overrode the semantic ones. *Baby Bills*, in this respect, is semantically more transparent, since here the metonymical link between Bill Gates and his company is more straightforward.

3.6 Rhyme with already existing compound plus rhyme of constituent₁ with constituent₂

A prime example for a creative compound that exhibits double rhyme in the sense that the constituents rhyme with one another *and* the compound as a whole rhymes with an already existing expression is *brain gain*. As already discussed at the beginning of §3, *brain gain* has been formed on the phonological analogy of *brain drain*. This phonological similarity provides the hearer/reader considerable help in working out the meaning of *brain gain*, which—along with the source compound—is also an instantiation of the RESOURCES ARE SUBSTANCES (FLUIDS) metaphor. While in the case of *brain drain* highly skilled professionals are conceptualised as resources

that are removed from a container (ie their native countries), *brain gain* represents the mirror conceptualization of this process, whereby highly skilled professionals are viewed as resources that are obtained by another country/container (via the ACQUISITION OF RESOURCE IS OBTAINING/ACQUIRING SUBSTANCE metaphor). The meaning of *brain gain*, therefore, is accessible with the help of the more lexicalized *brain drain*.

3.7 Rhyme with already existing compound, rhyme of constituent₁ with constituent₂, plus alliteration

One such coinage that combines all three phonology-based analogies, viz rhyme with an already existing compound, rhyme of constituent₁ with constituent₂ and alliteration is *Fleet Feet*. The term is not a real compound in the sense that it is not a common noun but a brand name; *Fleet Feet* is a company that specializes in running gear. Nevertheless, it has been included in the paper for two reasons. First, *Fleet Feet* is a composite of common nouns; therefore, the constituents — and the composite as a whole — follow the same linguistic rules and patterns as the compounds that have been analysed in the preceding sections. Second, for a brand name to be successful, it has to be witty, creative, attention-grabbing and easy to remember, and these are exactly the same qualities that the creative compounds examined in this paper also possess. All in all, *Fleet Feet* must have been coined on the basis of the same creative use of language as *belly button*, *glass ceiling* or *duvet day*.

Unfortunately there is no information on the company's website (www.fleetfeetsports.com) on how the brand name was coined; therefore, similarly to the other compounds analysed in the paper, we can only rely on hypotheses. The modifier, *fleet*, is a less common (literary) adjective, meaning 'swift, nimble'. In fact, the brand name as a whole might have been based on the expression *fleet-footed* ('swift in movement').⁴ If this is indeed the case, then the brand name is metonymical: the instrument (fast feet) stands for the action (running). However, the head element is used in the plural, not the singular (cf the singular use of *foot* in the idiom itself). It is possible that the plural use was motivated by (1) its rhyming quality with the modifier; and (2) with an already existing composite, namely *Fleet Street* (used to refer to the British national newspapers and the journalists who work for them). Here, there is no semantic connection between the source expression (*Fleet Street*) and *Fleet Feet*, but since the latter is a brand name

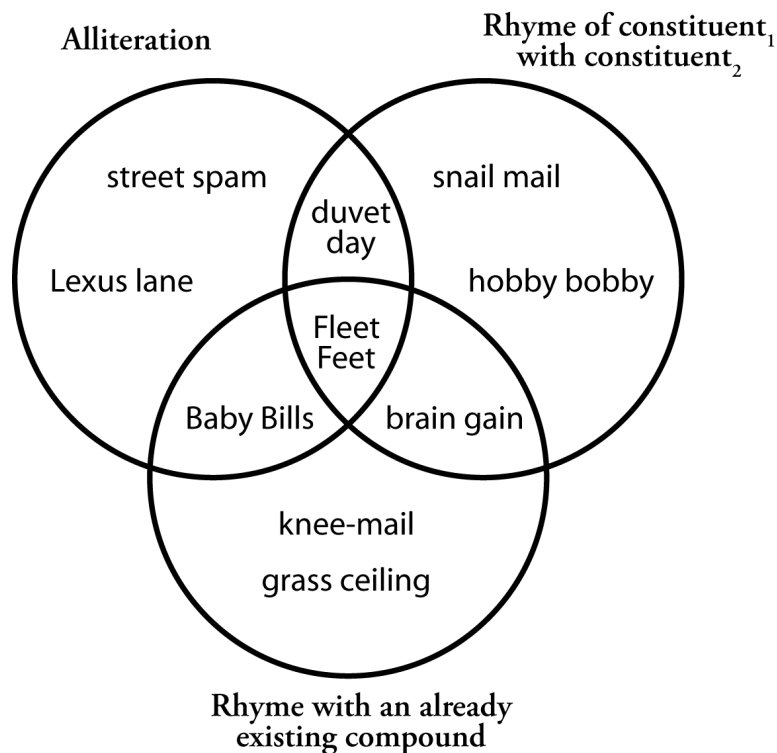
⁴ According to the *LDOCE*, the expression *fleet of foot* also exists, meaning 'fast at running'.

(and not a common noun), it is not absolutely necessary for the source to provide clues as to the meaning of the novel composite. Nevertheless, the double rhyme, along with the alliteration, considerably improve the memorability of *Fleet Feet*, which is the ultimate goal of any brand name.

4 Discussion of results

Based on the above data, it can be hypothesized that phonological analogy can strongly motivate the formation of novel (creative) compounds. Three possible patterns have been identified: alliteration, rhyme of constituent₁ with constituent₂, and rhyme with an already existing (creative) compound. These three major types of phonological analogy can also be combined with one another; the types and subtypes of phonological patterns can be depicted as a series of interlocking sets (see figure 1).

figure 1: The types and subtypes of phonological analogy in creative compound formation.



If phonological analogy does motivate the formation of novel creative compounds, then the question necessarily arises *why* we rely on this method of compound formation. On closer inspection, a number of reasons come to mind. First of all, both alliteration and rhyme are very effective in foregrounding an expression to achieve emphasis (Wales 1989 : 18). Coupled with the rich metaphorical and metonymical imagery that creative compounds possess, which in itself is also a potent attention-grabbing device, alliteration and rhyme act like exclamation marks in the sense that they help to direct our attention via the form to the content. Second, alliteration and rhyme play a significant role in helping the reader/hearer decipher the meaning of the novel expression by phonologically linking it to the source lexeme. This reasoning is in line with the results of Gries (2011 : 507), who, in his study of alliteration in multi-word units, came to the conclusion that “the perception of phonological similarity may aid the identification of semantic/conceptual constituents/poles”. Third, alliteration and rhyme further enhance the “positive mnemonic effect” (Bauer 1983 : 142) of creative compounds; phonological similarity to lexicalized units aids the acceptability ratings of a novel expression (Bybee 2010 : 60–61). Fourth, both alliteration and rhyme lend a more playful, informal quality to the compounds, which—as in the case of *snail mail* for example—is in agreement with the informality of the compound’s meaning. Therefore, alliteration and rhyme signal an informality of meaning. Fifth, the deliberate use of alliteration and rhyme in novel compound formation is not only enjoyable to produce for the speaker, but also requires the “active participation” of the hearer/reader in appreciating them (Chovanec 2008 : 222–223). Consequently, alliterating and rhyming creative compounds can assist in the creation of a “social bond” (Long & Graesser 1988 : 57, Malinowski 1923 : 314) between the participants in a speech situation. Creative compounds are in themselves witty and innovative, as the imagery or conceptualization that they are based on is often original, humorous and unconventional. Coupled with alliteration and rhyme, the effect is very powerful. This playful—ludic—function of language is severely underestimated by linguists, claims Crystal (1998), even though language play serves an important social function by helping to break the ice and creating a sense of inclusion.

5 Conclusion

When people play with language, they often invent new words or expressions, bending and (sometimes) breaking the rules of language in the process. This ludic activity is especially evident in novel metaphorical and metonymical compounds that are based on unconventional and often hu-

morous conceptualizations. Interestingly, these compounds are also often motivated by some sort of phonological analogy, that is, structural similarity to phonological form, which manifests itself as either alliteration or rhyme. The paper has identified several patterns of phonological analogy, and has argued that its use in the formation of metaphorical and metonymical compounds serves a number of important functions, such as foregrounding the expression, helping the hearer/reader to decipher the meaning, aiding the acceptability of the novel expression, signalling informality, and breaking the ice between the participants in a speech situation.

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