KONRAD ŻYŚKO

ANALYSABILITY/COMPOSITIONALITY PARAMETER OF WORDPLAY

Abstract. We apply the notions of analysability and compositionality (as proposed by Langacker 1987; 1991; 2000a; 2000b; 2008) to the study of wordplay. Our claim is that some instances of such creative use of language require to “decompose” non-compositional units, i.e. render non-composite structures composite so that they can be thought of as being assembled from their components in accordance with regular compositional principles. This sort of decomposition allows for alternative composite arrangements (catalogue—cat-alogue, insects—in-sects, penguin—pen-guin, etc.) to emerge. It must be highlighted that the reader comprehends the conventional meaning in the first place and it is only then that the context of the usage-event forces a plausible re-interpretation.

What is more, it appears that the notion of analysability can be also applied to wordplay based on idiomatic language (Gibbs 2010). It commonly involves some underlying conceptual metaphor and metonymy as its motivational force, hence this sort of language may be conceptualized on two planes, a virtual one and an actual one, where the profile shift between the two (when placed in the context suiting both planes) may foster wordplay.

Finally, since the values of analysability/compositionality are of a gradable character, it is possible to establish the A/C hierarchy for wordplay, which starts with bigger chunks of language set in context, i.e. discourse units, and goes through sentence and phrasal units, down to compounds and blends etc. Consequently, it seems plausible to represent analysability/compositionality of wordplay as a similar sort of continuum.

Key words: cognitive grammar; analysability; compositionality; wordplay.

The notions of analysability and compositionality,¹ as proposed by Langacker (1987; 1991; 2000; 2008) assume that meanings of lexical items are, to a cer-

¹ Langacker’s idea of compositionality should be distinguished from the principle of compositionality as proposed by Frege (1892) (the so-called Frege’s Principle), which states that the meaning of a complex expression is determined by the meanings of its constituent expressions.
tain degree, decomposable. Analysability is concerned with the extent to which a composite structure is construed in relation to its components, so that their contribution is recognised. In other words, analysability deals with how component structures influence the composite structure. Hence, worker ([work]-[er]) is a word that is highly analysable, as the morpheme -er provides information about the agentive role of the word (worker as ‘someone who works’), whereas father ([father]) is hardly analysable (it is not ‘someone who faths’, as father is a one-morpheme word). Compositionality is viewed as the “the degree to which composite structures can be thought of as being assembled from their components in accordance with regular compositional principles” (Langacker 1991, 546), thus being an “essential feature of language, enabling us to create and understand an endless supply of new expressions” (Langacker 2008, 167–8). Thus, both notions (analysability and compositionality), although distinct, seem to be related, which is why they are frequently referred to as A/C parameters or A/C criteria. The ability to compose larger structures from smaller components is guided by schemas and constructional schemas.

For example, the meaning of the Polish derivative pisarz ‘writer’ conforms to the constructional schema [PIS-[ARZ]]/[pisarz], consisting of the semantic and phonological poles. Compositionality is a matter of degree: the Polish derivative baranina ‘lamb (meat)’ is practically completely compositional because the grammar of Polish contains a constructional schema [BARAN-[INA]]/[baranina] which sanctions the two morphemes: baran- and -ina. In contrast, malina ‘raspberry’, although it does contain a segment ina (which is not a morpheme!), is not compositional, as there is no constructional schema of the *[MAL-[INA]]/[malina] type. (Kardela 2012, 101)

and the rules used to combine them. However, this idea has been undermined, as it does not acknowledge that the meaning evoked by a word is a function of linguistic context in which it is embedded. Texts may "evoke contextual factors or knowledge structures not evoked by their individual components, i.e. that they are gestalts with emergent properties unlike those of any of their parts" (Kwiatkowska 1998, 199).

Similarly, swimmer, baker, actor suggest a strong awareness of the constituents (they are highly analysable), whereas the analysability of computer, propeller and ruler is somewhere lower on the scale, and finally trousers, finger, grocer, or hammer are non-analysable to the language user (Langacker 1987, 297; Lederer 1998). However, Langacker (2000) claims that -er in father can be treated as a quasi-morpheme that indicates a kinship term, and hence places it among other kinship terms such as mother, sister, brother. Still, the problem of different meanings attached to particular morphemes can be viewed from the prototypicality perspective, i.e. the meanings of a morpheme form a continuum, with a prototypical example and peripheral ones (cf. Kardela’s research (1992) on the Polish diminutive suffixes -ek and -ina). On the criteria of such prototypicality, see Kardela (2006).

For more on analysability and compositionality in terms of Polish morphology see Kardela (2000; 2004; 2012).
On the other hand, English lexical items such as cranberry, or mulberry are compositional, as they make use of the constructional schema involving [BERRY] yet are not highly analysable, as they are made up of a bound morpheme that cannot be assigned an independent meaning or grammatical function. Similarly:

Most speakers will agree that English and horn are components of English horn, and that eaves and drop are components of eavesdrop; that is, the participation of these words in the construction is clear even though the nature of their participation is not. In other cases, the participation itself is not clear: for instance, few speakers think of halter as saliently composed of halt and -er, and fewer still would recognize the morphemes rue and -th in the ruth of ruthless. (Tuggy 2006, 115)

Just as the participation of some components in the construction may be elusive, it may be also possible to “decompose” non-compositional units, i.e. render non-composite structures composite so that they can be thought of as being assembled from their components in accordance with regular compositional principles (Langacker 1991, 546):

Far-fetched as this analysis may seem at first glance, the composite reading of history to yield herstory is a well-known attested example, as is the analysis of peddler in terms of a composite, which, in turn, is the pre-condition of the reading of to peddle as a back-formation involving the deletion of a presumed component [...] (Lampert and Lampert 2010, 36).

Decomposition as an operation on language could be viewed as a productive channel for wordplay formation, examples of which are presented in the following section.

WORDPLAY AS (NON)COMPOSITIONAL ITEMS

Such a far-fetched analysis, as previously mentioned, could be adopted in the comprehension of wordplay. Consider the following example offered by Chiaro (1996, 37):

Seagoon: A penguin please.
Sellers: Certainly, I’ll look in the catalogue.
Seagoon: But I don’t want a cat, I want a penguin.
Sellers: Then I’ll look in the penguin-logue.
The item “catalogue,” derived from the Greek *katalogos* (“a list,” “register,” “enrollment”), can be viewed as compositional mostly for those with a command of Greek (*kata* “down”; *legein* “to say,” “count”). However, for the English wordplay to emerge the word “catalogue” is rendered compositional, as it is made to activate the domain of ANIMALS (“cat”). Once the components of the composite are recognised and the cognitive pattern in the form of compositional schema (ANIMAL+logue) is established, the rule of *emergentness* (Talmy 2007) allows for alternative composite arrangements, such as “penguin-logue,” “tiger-logue,” “monkey-logue” etc. According to Langacker (1987, 71), expressions such as penguin-logue can be accounted for by linguistic creativity, which amounts to the computation of a novel, transitory linguistic standard, on the basis of which the target can be categorised.

It can thus be assumed that, in wordplay, a given set of conventional, even non-compositional linguistic units can be disintegrated in an ad hoc manner to compute a novel standard (Langacker 1987, 439). In other words, wordplay may involve the decomposition of non-compositional formations into compositional ones. Such practice seems to apply in the following examples:

1) *When is a door not a door? When it’s ajar.*
2) *Why there are no ants in the church? Because they’re insects.*
3) *What kind of bird can write? A penguin.*
4) *What do you call an alligator in a vest? An Investigator.*
5) *I finally got rid of that nasty electrical charge I’ve been carrying. I’m ex-static!*
6) *The one who invented the door knocker got a No-bell prize.*
7) *A bicycle can’t stand on its own because it is two-tired.*
8) *What do you call a Spanish man who’s lost his vehicle? Carlos.*

Once the rules of compositionality are revisited, *ajar* can be viewed as being composed of “jar,” just as *insects* can be read as being composed of “in” and “sects,” etc. In other words, the compositional schema of *ajar, insects* or *Carlos*, is re-conceptualised according to the following pattern:

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4 This kind of compositionality is in line with the idea of recombinance, as proposed by Talmy (2007). Recombinance, a transient mechanism of a dynamic character, is defined as the assembling of discrete units into a new higher-level unit with its own identity.

5 The creation of such new constructions has been termed as schematisation by Noël (2007). See also Bybee (2014).

While the phonological pole (P) remains constant, what is subject to change, due to the decomposition of the schema, is the well-entrenched, conventionalised semantic pole (S) that is decomposed into two separate, and hence new, compositional schemas.

It must be stressed that the reader comprehends the conventional meaning in the first place, and it is only then that the context of the usage-event forces a plausible re-interpretation (script-switching). In other words, as Kardela (2010) observes, the reader makes an attempt to judge the contribution of each of the component parts to the overall meaning of the word (analysability) and to provide a constructional schema to the whole composite structure (compositionality). This could be accounted for from the perspective of the Current Discourse Space as proposed by Langacker (2008).

Let us consider yet one more example of wordplay by Pepicello (1989, 209):

\textit{Why can you not starve in the desert?—Because of the sandwiches there.}

In line with Krikmann (2006, 49), the first script of the joke is based on a neutral context and therefore seems to be easily accessible, while the activation of the second script depends on the context and is thus much harder to access. Once the first script fails to be relevant, the alternative interpretation is enforced. An example of such processing is: \textit{The first thing that strikes a stranger in New York is a big car.} (Raskin 1985, 26). According to Raskin, the sentence is processed in such a way that firstly the meaning of the word “strikes” indicates surprise, yet it is followed by the activation of the collision once “a big car” is put in the picture. The resulting ambiguity, which stems from the two meanings active at the same time, or rather the resolution of the ambiguity, has a humorous potential.

\textit{Compare some other examples: Misfortune: the kind of fortune that never misses; Longevity: the condition of being very tall; Bibliography: holy geography (Pepicello 1989: 208): What kind of ears does a train have? Engineers (Chiaro 1996, 66): Is a polygon another name for a dead parrot? (Ermida 2008): What’s a baby pig called? A piglet. What’s a baby toy called? A toilet.}
Fig. 2. Current Discourse Space for *Why can you not starve in the desert? — Because of the sandwiches there.*

Obviously, *sandwiches* does not conform to the constructional schema consisting of the noun schema [sand] or the schemas [which] + [is], as the unit is an eponym and derives from John Montagu, Fourth Earl of Sandwich, who used to eat slices of cold meat squeezed between bread.\(^9\) This being the case, the reader needs to find a new interpretation for the word *sandwich* which can be achieved by disintegration performed by means of running a specific blend, i.e. the conceptual network which incorrectly assumes the presence of the three compositional schemas. The emerging extra-quality of the blend is the element of irony/humour/surprise. Kardela (2012: 102-103) states that “this additional “humorous”/“ironical” sense does not reside in the expression itself, it must come from sources other than the “literal meaning”—apparently it must result from the speaker-hearer discourse “transactions.”\(^10\)

\(^9\) Naturally, the name *Sandwich* is analysable in the sense it is made up of the components *sand* and *wich*, the latter apparently a variant of the Old English *wic* “dwelling place,” “town.” This form in turn could be seen as a borrowing from Latin *vicus* “group of dwellings,” the presence of which is also evidenced in the form *vicinity* (OED).

\(^{10}\) Irony is believed to have the potential to induce humorous effects (Attardo 1991; 1994; Partington 1998; Dynel 2013). This is because of the resolution of the incongruity between the literal meaning of an utterance and the hearer’s cognitive model of reference.
According to Gibbs (2010), the notion of analysability can also be applied to idiomatic language. For instance, although not highly analysable, the phrase *pop the question* may allow for a deduction that the noun *question* refers to a marriage proposal whereas the verb *pop* refers to the manner of uttering it. On a similar note, the noun *law* in *lay down the law* refers to the rules of conduct in some situations and the phrase *laying down* is used to refer to the act of invoking the law. Hence, idioms such as *pop the question* or *lay down the law* are relatively analysable because each of their components, to a higher or lower degree, contributes to their overall interpretations (ibid. 706). When individual parts of idioms do not contribute to the figurative meaning of the idiom, they are unanalysable (e.g. *kick the bucket, shoot the breeze*) (Gibbs and Nayak 1989; Nunberg, Sag, Wasow 1994, Gibbs 2010), which has some serious consequences for their syntactic behaviour as they are hardly subject to any modifications. However, it must be remembered that analysability is a matter of degree—the more salient the semantic contribution of the individual parts of an expression are, the more analysable the expression is.\(^{11}\) According to Gibbs (2010), in some abnormal cases of analysability, the figurative referent of an idiom (e.g. *carry a torch*) requires knowledge of conventionalised metaphors (in this case, of torches used as descriptions of warm feelings). What is more, some idioms are asymmetrical, in that some of their parts are more analysable than others.

The metaphor of *spill in spill the beans* is simpler than that of *beans*. That is, it is easier to draw an analogy between the action of spilling something physically and that of revealing a secret (compare *let slip or drop* as in *drop something into a conversation* and *spill one’s guts*) than it is to draw an analogy between beans and secret (Gibbs 2010, 706–7).

\(^{11}\) Gibbs claims that the phrase *fall off the wagon* (meaning “to start drinking alcohol again”) is less analysable than *pop the question* because the meaning that *fall* contributes to *fall off the wagon* is not as salient as the meaning that *pop* contributes to *pop the question*. However, it is worth noting that even unanalysable phrases are always motivated. The OED acknowledges *on the water wagon* from 1904, meaning “to abstain from hard drinks.” The Encyclopedia of Word and Phrase Origins states that in the late 20th century, in the period of the Prohibition, water carts were drawn by horses to wet down dusty roads in the summer. Men who vowed to stop drinking were frequently alcoholdically thirsty, yet would rather climb aboard the water cart to get some water than start drinking alcohol. That is how the expression “I’m on the water wagon” (although some dictionaries evidence *cart* instead of *wagon*) was conceived, which gave rise to *fall off the wagon*. 
This is in line with the conceptual metaphor theory as proposed by Lakoff and Johnson (1980), one of its assumptions being that there exists the general tendency of meaning transfer where concrete things and situations (e.g. the body, spatial relations) serve as the source domains for more abstract target domains (e.g. social interactions, causal relations, etc). That is why it is quite unusual to find expressions such as *divulge the information* to mean ‘spill the beans’, as in *The waiter divulged the information all over my new suit* (Gibbs 2010). It is rather that English speakers understand *spill the beans* as ‘reveal the secret’ because of some underlying conceptual metaphors, such as *THE MIND IS A CONTAINER* and *IDEAS ARE PHYSICAL ENTITIES*, along which the concepts of minds, secrets, and disclosure are structured (Lakoff and Johnson 1980). However, once the metaphorical sense relations (relatively low analysability) are ignored, the idiomatic expressions could be conceptualized literally (relatively high analysability), and in a particular context may form fertile ground for wordplay to emerge:

9) *I usually take steps to avoid elevators.*
10) *Jill broke her finger today, but on the other hand she was completely fine.*
11) *For a while, Houdini used a lot of trap doors in his act, but he was just going through a stage.*
12) *He didn’t tell his mother that he ate some glue. His lips were sealed.*
13) *We were so poor when I was growing up we couldn’t even afford to pay attention.*
14) *I wondered why the baseball was getting bigger. Then it hit me.*
15) *The first thing that strikes a stranger in New York is a big car.*

It seems that wordplay is fostered by the tendency for language speakers to conceptualise abstract concepts as if they were physical entities (Gibbs 2006; Lakoff and Johnson 1999). For instance, we conceive of ideas as physical entities that can be grasped, chewed, swallowed, digested, or spat out in line with the conceptual metaphor *IDEAS ARE PHYSICAL ENTITIES* (Wilson and Gibbs 2007, 721). Consequently, the fixed phrase “take steps” in *I usually take steps to avoid elevators* is driven by the conceptual metaphor *ACTION IS SELF-PROPELLED MOTION TOWARD A DESTINATION*. Once again, it seems that wordplay is centred on the shift from the metaphorical extension to the literal sense. Such a shift, which could be also described in terms of change of profiling from the virtual plane to the actual plane, is followed by an increase in analysability and the loss of the original subjective content (Lan-
gacker 1987). Therefore, it could be concluded that a construal grounded on virtual plane entails a lower degree of analyzability than one grounded on the actual plane. Once again, it appears that the Current Discourse Space may account for such a mental process through which the wordplay is created:

![Diagram of Current Discourse Space (CDS)](image)

Fig. 3. Current Discourse Space as related to the analysability of wordplay.

It would seem that the wordplay is based on a profile change performed by the conceptualiser (S/H) in the direction from the virtual plane to the actual one, or potentially the other way round. Such a shift entails a change in the analysability of a linguistic expression, which is realised only in an appropriate context (the immediate linguistic environment). A linguistic context that allows for the construal of conceptualisations grounded both in a virtual and actual plane exerts a significant influence on the dynamic process of meaning construction in all of the seven wordplay examples. Hence on the other hand may profile the domain of IDEA (contrasting opinion) or the domain of HAND, going through a stage may involve the conceptualisation of TIME (a particular temporary unpleasant time in one’s life) or THEATRE (the raised area in a theatre), his lips were sealed may activate the domain of SECRECY or BODY PART (lips being glued together), pay attention may profile the domain related to CONCENTRATION or MONEY, it hit me or it strikes me may profile PHYSICAL CONTACT or an abstract REALISATION.
Such a profile shift on the part of the conceptualiser seems to be integrated with a change of the linguistic expressions’ quality understood in terms of analysability levels, where the virtual plane is characterized by a relatively low analysability, and the actual place is characterized by a relatively high analysability.

A/C CLINE: FROM PROTOTYPES TO PERIPHERAL CASES

Langacker (2009, 238–9) puts forward a list of expressions which, according to him, are successively less analysable: antagonist > complainer > lecturer > teacher > computer > rover > ranger. It would seem that analysability is indirectly proportional to conventionality, with the more conventionalised expressions being less analysable. In other words, once an expression is used repeatedly, to the point of being entrenched in the minds of speakers and conventional in a speech community, it is subject to a gradual loss of analysability.

I am always aware of a complainer being someone who complains, but I do not always think of a computer as something that computes, or a rover as something that roves. The analyzability of frequently used expressions tends to diminish over time. (Langacker 2009, 239)

The abovementioned assumptions could help to posit the compositionality-analysability generalisation which states “[t]he lower the degree of compositionality the greater the role of context-based analysability in the interpretation of an expression’s meaning” (Kardela 2012, 307). This is based on the view that language offers a compositionality cline with more and less compositional formations.

The analysability/compositionality hierarchy starts with bigger chunks of language set in context, i.e. discourse units, and through sentence and phrasal units goes down to compounds and blends, which are quite frequently the constructions on which wordplay hinges. While formations such as black bird or taxi-driver, just as skyjacking and car jacking, are compositional and analysable, examples such as stoolgazing, gaybourhood, motormobilia, fantabulous seem to be lower on the scale as they involve “relations only partly based on syllabic segments” (Kardela 2012, 311). Furthermore, the quite conventionalised chortle or Chunnel seem almost non-compositional.
Our claim is that not only does wordplay exhibit varied compositionality features, but also that the lower on the scale an item is, the more prototypical instance of wordplay it seems to be. Hence, homonyms could be regarded as relatively low-compositional, and low-analyzable, and require a relatively high level of context-based recognition, whereas polysemous and vague items are somewhat higher on the scale, as there is a general, subsuming schema that could be provided for them, and hence they are semantically close to each other. Furthermore, items whose meaning construction involves some decomposition of the existing schemas are lower on the scale than blends, as the latter, even though they exhibit a great amount of variability, are usually morphologically more complex, and less conventionalised. Finally, wordplay based on sentence units proves to be comparatively highly compositional.
and analysable as it is formed in operation with larger chunks of language that involve a re-analysis performed in the process of conceptual blending.

It would appear that wordplay is quite a complex phenomenon, which ranges from singular lexical items to whole sentence units. It must be remembered, however, that the proposed compositionality cline does not claim to be of an exhaustive character. Rather, it deals with a selection of representative cases. Finally, it should be pointed out that each of the categories delineated is subject to a greater or lesser variability (consider, for instance, blends), which might further expand the cline.

CONCLUDING REMARKS

It can thus be concluded that notions of analysability/compositionality may help to provide an account for the way wordplay is construed. Whether through the decomposition of non-compositional formations into compositional ones, or through a profile shift from a virtual to an actual plane, wordplay appears to be integrated with a shift in analysability levels. Finally, wordplay instances may be arranged on a compositionality cline with polysemes, homonyms, and vague items at the bottom of the scale (low compositionality), blends somewhat higher on the scale, and blended phrasal units (high compositionality) at the top of the wordplay scale. Our claim is that the lower examples on the scale (i.e. those based on homonymy and polysemy) are closer to the prototypical instances of wordplay, whereas the higher examples on the scale could be viewed as more peripheral ones.

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ANALIZOWALNOŚĆ I KOMPOZYCJONALNOŚĆ GIER SŁOWNYCH

Streszczenie


Pojęcie analizowalności oraz kompozycjonalności może zostać zastosowane także w przypadku gier słownych opartych na użyciu idiomów (Gibbs 2010). U podstaw tego typu gier leży często zaskakujące przejście z płaszczyzny wirtualności (tego, co metaforyczne) do płaszczyzny rzeczywistości (tego, co dosłowne). Ponadto autorzy chcą wykazać, że wartości analizowalności oraz kompozycjonalności mają charakter stopniowy, a nie absolutny. Oznacza to, że grom słownym można przypisać pewną hierarchię, tzn. można zestawić je, zaczynając od tych opartych na niskiej analizowalności i kompozycjonalności jednostek leksykalnych, a następnie stopniowo przejść do tych o coraz wyższej analizowalności i kompozycjonalności.

Streścił Konrad Żyśko

Słowa kluczowe: gramatyka kognitywna; analizowalność; kompozycjonalność.