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## Seeing the unknowable: How metaphors break the fourth wall

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In the theatre “breaking the fourth wall” refers to when an actor steps out of scene and addresses the audience to comment on and give her perspective of the scene. Metaphors, in a way, also break the fourth wall. For those who know how to read them, they offer commentary and perspective to their audience. In this talk, I will examine the information that metaphors provide, drawing upon psycholinguistic studies as well as text-based analyses of two very different genres: a children’s picture book and political speeches. The psycholinguistic studies will argue that mapping principles provide insight into why particular metaphors are used in certain instances, and demonstrate the usefulness of such principles by showing that different types of novel metaphors present clear differences in reading times, comprehensibility, acceptability, as well as in areas of brain activation. I will also show how the visual metaphors in a children’s picture book provide insight into the illustrator’s worldview about life and death. In addition, I will examine the ideology among Chinese political leaders by comparing the source domains invoked for the concept of “democracy” in speeches of political leaders from China, Hong Kong, and Taiwan. Given that each of these regions practices democracy to a greater or lesser degree, compiling and analyzing the data allows for a better understanding of how politicians utilize conceptual metaphors to sway their citizens’ viewpoints. In sum, I hope to show that metaphors break the fourth wall by allowing us, as metaphor researchers, to examine the assumptions and worldview of those who use them.

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## Cues of possible metacommunicative awareness (MCA) in relation to metaphoricity in talk: A multimodal perspective

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As part of the move toward analyzing metaphoric expression in terms of its multimodal realizations (e.g., Forceville & Urios-Aparisi 2009), scholars with a linguistic bent have been turning to video-recorded talk as data for analysis. This has been providing novel insights for metaphor studies, with attention being paid to the often substantial communicative role played by the visually perceptible forms of speakers' gestures (see Cienki 2013 and Cienki & Müller 2008 for overviews), not to mention the obviously visual communicative function of sign-language users' signs (e.g., Taub 2001; Wilcox 2000).

Greater physical effort (Laban & Lawrence 1947) is involved in the production of some of these behaviors more than others, due to opposition to forces of gravity or inertia; we can know this by observing the spatial extent or location in which, or the speed or tension with which, the gestures or signs are produced (Cienki & Mittelberg 2013). Such cues of effort, not to mention other co-verbal behaviors, such as speakers' use of marked intonation contours or prominent changes in voice amplitude, or signers' use of highly tense non-manual (e.g., facial) expressions, can be observed empirically and can provide possible indications of producers' awareness of their own communicative behaviors (e.g., Müller 2008b), e.g., via muscular proprioception, or aural or visual perception of them. Rather than making claims that would entail assumptions about language users' intentions, this talk espouses analysis of qualities of bodily behaviors that are known to involve a marked change (usually an increase) in the exertion of effort, which thereby may serve as cues of metacommunicative awareness (MCA) -- producers' greater awareness of how they are communicating in the moment.

MCA is a phenomenon that can presumably occur during the expression of potentially any kind of idea, but for scholars of language, analysis of MCA cues can be useful for studying how various forms of reference, rhetorical devices (forms of framing, argumentative strategies, etc.) and tropes (esp. metaphor) are used in discourse, particularly with respect to the dynamics of their use. Considering metaphor as a case in point, we can see how the study of possible cues of MCA supports claims about metaphoricity as both a graded phenomenon (varying in degree along several qualitative parameters) and a dynamically variable one (with the qualitative degrees varying along temporal scales) (e.g. Cameron & Maslen 2010; Gibbs & Cameron 2008; Kyratzis 1997; Müller 2007, 2008a; Stibbe 1996). This applies both in relation to the deployment of metaphor and in terms of producers' potential consciousness of using it. Examples of this to be considered in the talk include the dynamics of expressive anticipation, the overlapping use of multiple time scales of expression, and the co-construction of multimodal metaphoric expressions by interlocutors.

## Mini-narratives of masses of water in representing displaced Ukrainians

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The objective of this paper is to discuss different textual realisations of the mini-narrative (Musolff, 2006, 2015, Cameron, 2010:11) which portrays masses of water moving toward the land. This mini-narrative often appears in discourses on migration and is represented by several vehicles, e.g. waves, tides, flood, flow that pour/rush. Many scholars treat the metaphor as an indicator of dehumanising attitudes toward migrants and a manifestation of threats to the host community. The metaphoric story is interpreted as an analogy between masses of water and migrants. Such an analogy invokes a default outcome -- mass destruction in the terrain which maps to the destruction of the host society (Pauhl and Wodak 2012: 206; Van Dijk 2012: 26; Musolff 2015: 45; KhosraviNik, Krzyzanovsky, Wodak 2012: 289-291).

A corpus assisted discourse analysis was used to check whether data in Russian are consistent with a conceptual scheme retrieved from analysis of English samples. A corpus of texts in Russian was compiled from official media publications and public discussions on the fate of displaced Ukrainians fleeing the conflict zone. It consists of publications in the Russian mainstream media (over 44.000 words), Russian public fora (around 21.000 words), Ukrainian mass media releases in Russian (over 28.000 words) and Ukrainian public discussions in Russian (over 20.000 words). Contextual patterns in Russian show that the conceptual scheme "masses of water" can suggest different perspectives. On the one hand, the narrative triggers anticipation of destruction. This default outcome has its manifestation in the corpus. At the same time, numerous instances of an alternative development within this mini-narrative were found. The alternative description focuses on the efforts of the robust community to withstand the ordeal. In other words, the scenario of potential destruction was incorporated into the megascripts "actions of capable people" and "heroic actions on resisting a calamity".

The findings suggest that metaphor scenarios as framing devices are subjects to contextual changes. The ideological underpinning of texts, i.e. praise of humanitarian efforts versus objectification of interethnic prejudices, may trigger semantic adjustments in the textual realisation of a cognitive scheme. The default outcomes and agents which form a cognitive base of the scenario can be suppressed or serve as a premises for a further thematic development. The focal points in the conceptualisation of the situation as well as the structure of correspondences between the metaphor topic and vehicle can be reconfigured.

*Keywords:* metaphor; scenario; dehumanization; migration; frame shifting; discourse

# The applications of CMT in the multidisciplinary analysis of interpersonal communication

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The role of Conceptual Metaphor Theory (CMT) in both person perception and social interaction research has been an area of increasing interest over the past decade (Landau, Robinson & Meier (eds.) 2014). A general conclusion of the numerous theoretical and experimental studies in this field is that CMT appears to contribute to our understanding of the individual's interaction in their social environment, providing an insight into one's schemas, accessible knowledge, physical experience and the metaphors emerging from the complex relationships of these.

From a principally literary viewpoint, Eric Tourette (2012) presented an interpretation of the seventeenth-century moralist writer, François de La Rochefoucauld's model of interpersonal communication, assigning prime importance to the psychological concept of egology in the (re-)construction of the self and its social reality. Defined as an "a ludicrously centripetal form of communication" directing all attentional efforts towards the self and its reinforcement, the notion of egology appears to go beyond text-specific literary analysis, with its potential applications expanding to pragmatics, social, and political discourse studies. Indeed, the objective of the proposed research is to provide an interpretation of the linguistic and extra-linguistic metaphors which construct, maintain and express the egological space (paper in press) the individual occupies and inhabits during interpersonal communication.

The research addresses the following interrelated questions: By what means is that space occupied, that is, what are the linguistic and extra-linguistic metaphors constructing and reflecting that space? What can be the psychological and pragmatic scaffolding behind it, in other words, how does framing and the activation of schemata act on the construction of this egological space (Lakoff 2014; Meier et al. 2014 [In: Landau, Robinson & Meier (eds.) 2014])? How does it re-organize our conventional notions on illocutionary force? And, finally, what are the potential pragmatic, social and political implications of the functioning of such a closed, self-centred system in every instance of communication? Framed within a CMT perspective, the initial, chiefly theoretical considerations proposed by Tourette may have their practical benefits in other interdisciplinary fields researching social interaction, such as psychology or applied discourse analysis.

*Keywords:* CMT; interpersonal communication; egology; framing; schemata; pragmatics



## Metaphor processing in French as a third language

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This communication aims at presenting results from an ongoing research protocol where the heart of the issue lies in the relationship between foreign language metaphor processing and cognitive control. Empirical psycholinguistic data from Norwegian learners of French as a foreign and third language may give us insight into the role of working memory and inhibitory control in interpreting three categories of foreign metaphors: conventional (populism takes root in Germany), fixed (Turkey and Russia have to bury the hatchet) and novel (Donald Trump is a pumpkin).

This communication is dual. First, it aims at providing insight to metaphor in foreign language learning and teaching. Danesi (1992) stressed that metaphor processing in SLA is essential considering its role in nativelike achievement. The ubiquitous nature of metaphor (Lakoff and Johnson, 1980) indicates that learners of a foreign language are bound to be exposed to linguistic metaphor on a regular basis. However, observation (classrooms and manuals) shows that metaphor is represented as a purely literary phenomenon. Paradoxically, communicative methodologies used across Europe stress the need to rely on authentic documents such as newspapers in order to promote communicative competence in learners. If they are taught that metaphors are encountered principally in the literary genre, are learners then equipped at treating linguistic metaphors abundant in journalistic discourse?

Second, this communication examines the role of working memory and inhibitory control in foreign language metaphor processing. Olkonieni et al. (2016) recently emphasized the role of high or low working memory capacity in first language metaphor processing whereas Chiappe and Chiappe (2007) stressed the role of inhibitory control. Together, these studies shows that processing novel metaphors in a first language is dependent on cognitive control. In foreign language metaphor processing, no studies have as of yet determined the role of working memory or inhibitory control.

We aim to present findings from an ongoing psycholinguistic research protocol using a self-paced reading paradigm and a multi-choice task with 8 conventional vs. 8 fixed metaphors derived from journalistic discourse vs. 8 completely novel metaphors. It shows that Norwegian subjects are overall capable of correctly interpret lexicalized metaphors whereas novel metaphors and fixed expressions are more challenging. The relationship between working memory, inhibitory control and foreign metaphor processing is yet to be revealed as it requires more subjects. Putting metaphor in the heart of neurolinguistics

*Keywords:* foreign language metaphor processing; working memory; inhibitory control; SLA

# Figuratively framed political statements: Combinatory effects of metaphor and hyperbole on political persuasion

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Politicians use figurative language like metaphors (Bougher, 2012) and hyperbole (Weber & Wirth, 2014) to frame political issues. These metaphorical frames (e.g., wave of immigrants) and hyperbolic frames (e.g., that's the worst thing that ever happened) can steer the public's attention, thought and behavior (e.g., Charteris-Black, 2006; Weber & Wirth, 2014). Current research on figurative framing has mainly focused on the impact of metaphorical frames (e.g., Bougher, 2012) and focused less on hyperbole. Additionally, political statements can comprise multiple types of figurative language such as metaphor and hyperbole simultaneously (e.g., tsunami of immigrants). The theory of figurative framing hypothesizes that such combinatory figurative frames can establish persuasive effects that reach beyond the impact of frames containing one type of figurative language (Burgers et al., 2016). Combinatory figurative frames contain multiple rhetorical operations, which should make it relatively hard to challenge the frame and increasing its persuasive power (Burgers et al., 2016). We provide a first empirical test of this hypothesis on combined figurative frames (metaphor, hyperbole) influencing political persuasion.

We expect combinatory frames to be most persuasive, followed by metaphorical and hyperbolic frames, and non-figurative frames. However, we expect persuasive effects to only occur for participants with a political affiliation that matches the nature of the political statement. For cases with a mismatch between the message's statements and participants' political affiliation, we expect a boomerang effect (Meirick & Nisbet, 2011), in that combinatory frames are least persuasive. To test our assumptions, we conducted a series of between-subjects experiments in which participants read a short political statement about either Dutch immigration policy or EU-policy framed with (1) metaphor and hyperbole, (2) metaphor only, (3) hyperbole only, or (4) non-figurative language. Subsequently, participants completed an online survey measuring political persuasion, political affiliation, and several control variables.

With this research we test the impact of different figurative frames on political persuasion. We argue that metaphors can persuade people towards a certain standpoint, but when people's political affiliation mismatches the political statement, the effects of figurative language might backfire and steer people's opinion further away from the political statement. By taking into account the role of political affiliation as potential moderator, we aim to provide insight into why some people are affected by figurative language and some are not. Currently, materials are pretested. Data will be collected in April 2017 and results will be presented at the Metaphor Festival 2017.

*Keywords:* figurative framing; metaphor; hyperbole; experiment; political persuasion

# Language is a beautiful creature, not an old fridge: Direct metaphors as corrective framing devices

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Direct metaphor has been widely studied from the cognitive perspective, but its functions in the communicative dimension (Steen, 2010) are still less understood. This study investigates direct metaphor as a tool of metaphorical framing (Ottati et al., 2014; Ritchie & Cameron, 2014) in discourse, by examining a corpus of British newspaper texts on the topic of language and language change. The analysis of direct metaphors is sufficient to point to major ideologies of language and communication in the observed media context, which echo broader anxieties over social change, social organization and control. Most notably, unlike the meanings stressed in existing studies, the vast majority of direct metaphors are here found to serve the specific role of relational argumentation. This function is achieved through a kind of "corrective framing", which explicitly juxtaposes two conflicting representations through an "A is B and not C" type of metaphor. The findings are discussed with respect to deliberateness, metaphorical framing, resistance to metaphor and rhetorical goals in discourse. It is hypothesized that corrective framing is among the major functions of direct metaphor in public discourse, which can influence public opinion in ways different from other metaphorically created representations.

*Keywords:* deliberate metaphor; corrective frames; metaphorical framing; direct metaphor; language ideology

## Introducing FILMIP: A method for metaphor identification in moving pictures

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One of the biggest and also greatest bulk of research within the cognitive linguistics field is the analysis and identification of figurative language. In this respect, several methods have been designed in order to identify metaphor in discourse such as MIP, the Metaphor Identification Procedure (Pragglejaz Group, 2007) which was later improved (MIPVU) by Steen et al. (2010) taking into consideration the communicative function of metaphors. If we diverge from the written discourse, and within the same line, we have VisMip, the Visual Metaphor Identification Procedure (Šorm & Steen, submitted), a seven-step method for identifying metaphorically used visual units in pictures. The method allows scholars resolve whether certain images are interpreted through the construction of metaphorical comparisons.

Relying on all these empirical methods, the present study aims at introducing FILMIP, a procedure conceived to help researchers identify metaphors in moving pictures -- TV ads particularly -- assuming the VisMip's seven steps and transforming them into a dynamic version.

These dynamic steps take researchers first into establishing a general understanding of the ad by defining its denotative and connotative meaning, taking into account all the verbo-visual pro-filmic elements (Rossolatos, 2014) as well as a required identification and description of modes (Forceville, 2006, 2009, 2014). After the proper analysis of these first steps, scholars must then find discordant filmic units, deciding whether they are topic incongruous (filmic units that are discordant with the general topic of the video) or property incongruous (units that are discordant with the expected filmic representation of those units). Finally, the researcher should dispose which filmic units should be replacing those discordant ones in order to re-establish the lost congruity within the video, and test whether each substitution can be integrated within the topical framework of the ad by some form of comparison. If these replacements are successful, then the video can be marked as metaphorical. For a better understanding of the method, the seven steps have been described analyzing one TV commercial that has been marked as metaphorical.

The aim of the present communication is to introduce a method that may constitute a reliable tool than can be used by scholars interested in different areas of study: semiotics, cognitive linguistics, discourse analysis, or even brand communication.

*Keywords:* metaphor identification procedures; metaphor identification; MIP; MIPVU; VISMIP; FILMIP; multimodality

## The cup: Metaphor and symbol

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Ek sny die brood ("I cut the bread")  
en drink die wyn ("and drink the wine")  
en hou my hart van gode rein ("and keep my heart pure from gods")

With its clear intertextual reference to the Bible, the above quote illustrates how entrenched the symbols -- the bread and wine -- of the Eucharist are in Afrikaans. In metaphoric expressions with *beker* ("cup"), the container refers in a typical metonymical pattern to the content (wine, poison, blood, etc.). This paper explores the role of the conceptual mechanisms of metaphor and metonymy in the realisation of the powerful symbolic meaning of "cup". The study is corpus-based. An Afrikaans corpus of 46.5 million tokens was used. KWIC lines containing verbs denoting drinking ("drink", "swallow", etc.) were analysed to identify metaphoric expressions where drinking verbs and "cup" appear together.

As could be expected, given the cultural significance of the image, KWIC lines revealed that the Afrikaans translation of the Bible served as a rich source of metaphoric expressions, but they were also found in everyday colloquial Afrikaans: *om die bitter beker tot op die droesem te ledig* ("to empty the bitter cup to the dregs"). Two categories of metaphor (Newman 2009) originating in the bodily experience of drinking, namely *EMOTIONAL OR SPIRITUAL PAIN IS DRINKING* and *EMOTIONAL OR SPIRITUAL NOURISHMENT IS DRINKING* served as entry points for the analysis. In the complex realisation of the cup symbol, metonymy offers a pathway of access to the universal *CONTAINER* metaphor.

Linked to these metaphors, two strong visual images stand out: on the one hand the overflowing cup of abundance where the cup is a vivid symbol of "a glorious life, prosperity, joy and ease" (Magennis, 1985) and on the other hand the death-bringing cup. This last image is linked to Jesus' passion and death, culminating in the ritual of the Eucharist -- the context in which the cup attained its symbolic meaning, where death leads to redemption in a complex revitalisation of the age-old metaphors. In the creation of the metaphorical and symbolic meaning(s) of "cup", metonymy as a powerful conceptual mechanism behind the semantic structure of language played a crucial role by way of the classic metonymical relationship (the vessel stands for the content).

The ancient symbols of the cup of redemption/death still live on in modern-day colloquial Afrikaans, reflecting the metaphoric nature of our embodied cognition.

*Keywords:* cup; metonymy; symbol; embodiment; corpus; based; Afrikaans

## The effects of metaphorical frames on voters' political opinions: A meta-analysis

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In migration debates, refugees have been metaphorically described as dangerous bodies of water (Dutch right-wing politician Geert Wilders: "asylum tsunami"), poisoned candy (Donald Trump Jr.: "skittles that would kill you"), and nasty insects (former UK prime minister David Cameron: "swarm of people"). Previous research suggests that metaphorical frames play an important role in political debates (Bougher, 2012). Political actors often explain concepts that are abstract by comparing them to more concrete concepts (Lakoff, 2002). However, previous research provides conflicting evidence for the effects of metaphorical frames on voters' political opinions (Steen, 2015): both big, small, and no effects have been found. One of the main reasons is a lack of scholarly consensus about whether metaphorical frames have direct or indirect effects on voters' political opinions, meaning that metaphorical frames are always persuasive (direct) or only under certain conditions (indirect).

Some scholars argue that metaphorical frames have direct effects on voters' political opinions, because metaphorical frames automatically and unconsciously guide the way that voters reason about the political issues under discussion (e.g., Lakoff, 2002; Thibodeau & Boroditsky, 2015). In contrast, other scholars argue that metaphorical frames have indirect effects on voters' political opinions, because differences in the characteristics of voters (e.g., political knowledge, previous exposure to the political issue) change the persuasiveness of metaphorical frames (e.g., Reijnierse, Burgers, Krennmayr, & Steen, 2015; Hartman, 2012; Kalmoe, 2014) and/or the processing route determines whether metaphorical frames change voters' political opinions (Steen, 2015).

This study aims to determine which of the approaches (that is, direct-effect approach or indirect-effect approach) is correct in explaining the effects of metaphorical frames on voters' political opinions. To this end, we use a meta-analysis, because this method enables us to combine the results of multiple studies by calculating a weighted effect size. We first searched for relevant studies published between 2000 and 2016 in journal articles, book chapters, doctoral dissertations, and conference papers in nineteen electronic databases. Next, we coded the studies for variables ranging from experiment characteristics (e.g., study topic) and participant characteristics (e.g., student sample) to reported effect sizes of the measured dependent variables.

The results of the statistical analyses will be presented at the conference. The findings of the study will contribute to our understanding of the necessary conditions for metaphorical frames to influence voters' political opinions, for instance regarding migration. Take-home message: Do metaphorical frames have direct or indirect effects on voters' political opinions?

*Keywords:* metaphorical frames; political opinions; voters; meta-analysis

## Conceptualizations of the EU in public discourse

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The aim of the present article is to explore conceptual means and discourse structures employed in public discourse (political and media) regarding the European Union, especially in the wake of more recent developments -- increasingly popular nationalist discourse, and proposed perspectives on the future EU. The analysis looks at metaphor use and framing from the perspective of metaphor theory, highlights cases of resistance to metaphor, and blends in elements of critical discourse analysis, to show how these interact to communicate ideological perspective or rejection thereof. The study shows that nationalist discourse conceptualizing the EU relies on a system of intertwined oppositions, increasingly mentioning "the other", and that the way in which suggested alternatives for a future EU are conceptualized has similar divisive effects; the dividing union, the colony state, and the reverse gear, all become conceptual framings of the EU. In conclusion, the analysis reveals trending conceptualizations of the EU supported by metaphor theory and discourse analysis, and emphasizes the imperative need for responsible (re)framing on the public stage. Fear-based discourse is not and should not become acceptable policy, and by disclosing with telling examples how metaphor and framing work, linguistics can play a revelatory role in this matter.

*Keywords:* metaphor; discourse; framing; conceptualization; nationalism; EU

## Lifting the curtains: Metaphor in visual language

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The Rembrandt small-scale painting, *The Holy Family* (1646, Kassel, 46,5 x 68,8 cm), presents the evangelic theme from an almost profane perspective. The painting shows a scene in a trompe-l'oeil. Two pillars sustain an arch where the proposed image opens up. In addition, a curtain seems to hide part of the scene, as if it were left ajar so that the observer could contemplate the image itself. The curtain seems to not only restrict a fictitious landmark, but also a historical recollection. In medieval religious art, the velum formed part of the complete image of the altar and represented the mystery behind the ritual. In this Rembrandt's painting the use of the curtain seems to vanish. Is it a fictitious protection from censorship of sensual images? Rembrandt's curtain reveals the sacred but also a paradox: the trompe-l'oeil invites the observer to enter, contextualize and recognize that he is in front of a metapictorial deception, and also that there is something to be unveiled behind the curtain, such as a metaphorical element or a metapictorial accessory. What would happen if the observer, fooled by the optic illusion, wanted to lift the curtain?

If metaphor is primarily a matter of thought and only derivatively a matter of language, in a visual representation, juxtaposed or merged depictions of two different objects or actions are designed to encourage viewers to infer an implicit conceptual link. For this reason, Arthur Danto regards the metaphorical nature of artworks as a cognitive co-operation. Besides, the power of art is based essentially on something that must be experienced or felt. Unveiling the picture, as the metaphorical movement of the curtains in Rembrandt's work, provides an example of a historical dimension of the painting. Understanding art means grasping the metaphor that it always contains. As a matter of fact, metaphor is not a communicative tool of equivalences or identities but a mental transposition, an analogy recognized by socio-cultural comprehension. From the given example, in order to recognize a visual representation as a metaphor or as a just cognitive aspect of common ground knowledge, would it be needed a cultural degree that depends on the subject's time-space variations?

*Keywords:* metapicture; cognitive co; operation; visual representation.



## Metaphorical conceptualization of face in the Georgian language and culture

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The paper examines metaphorical conceptualization of face in the Georgian language and culture from the perspectives of face/politeness theories, cognitive linguistics (conceptual metaphor theory; frame semantics), discourse analysis, cultural studies. The empirical data embrace samples of spoken and written discourse genres, dictionary data.

The observations have shown that the universal conceptual metaphor Negotiated Public Image is Face is evidenced in the Georgian language and culture: the concept of face is conveyed by the metaphorical use of the following lexical units: saxe (face), piri (face from the compound pirisaxe, literally meaning -- mouthface), piri (mouth), shubli (forehead). When used metaphorically each of these lexical units can display a range of different aspects of the concept of face. The paper: (a) presents the frame analysis of the units in question; (b) discusses them from the standpoint of conceptual metaphor theory; (c) explores discursive functions of the given lexical items.

The Georgian culture (which is honour-based rather than law based, group, collective rather than individualist, egalitarian) associates face with the notions of honour, dignity, pride, honesty, conscience, sincerity, friendliness; these human qualities are of particular relevance for the construal of the social person, their maintenance is considered essential in communication: sheinarchuno/dakargo adamianuri saxe -- to save/lose human face; piriani (from the noun piri -- mouth) with the metaphorical meanings never breaking one's word, honourable, reliable. By contrast, the disregard of the accepted norms of behaviour leads to the feelings of shame, embarrassment, guilty conscience (misasvleli piri ar maqvs -- I can't show my face here again). The metaphorical expressions with shubli (forehead) have proven to be of particular relevance: for Georgians forehead reflects the qualities of honour, dignity, honesty, conscience; hence those lacking the given qualities are referred to as: shublgarecxili (literally -- having washed-out forehead, metaphorically -- shameless), shublis dzarghvis gatskveta (to have one's forehead nerve broken i.e. to have no honour, dignity, conscience).

Being representatives of the extrovert culture Georgians highly value sincerity, honesty and friendliness as expressed in human relations and interaction: (a) pirs achveneb -literally, shows one's face to sb., metaphorically -- talks sweetly to sb., gives sb. a welcome; (b)pirnateli/shublnateli -- having a radiant face/forehead i.e. honourable, honest, sincere. By contrast, the expression pirbadis tareba (to wear a veil) shows that being reserved, distanced is not much approved of in interactions, in informal interactions, in particular.

*Keywords:* metaphorical conceptualization; face; Georgian language/culture; frame

## Expressions of solidarity and the delegitimisation of evil: A cognitive study

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During the times when good news is bad news and bad news is good news (Aleksandrowicz, 2010: 17) much political and ideological opportunism occurs following particular tragic but broadcastable events (Guerlain, 2015, on-line). Many column inches are filled with the news of terrorist attacks and include strong emotive outpourings of witnesses, reporters, politicians and political analysts. In his article entitled Paris Massacres: Terror, Grief and Political Analysis, Professor Pierre Guerlain of l'Université Paris Ouest Nanterre, remarks: "The time for grieving always comes first and the collective emotion of pain and solidarity has to occupy the whole emotional and public space for a while". It is, therefore, hardly surprising that in the aftermath of any atrocity perpetrated against defenseless civilians reactions of shock and outrage, as well as those of solidarity, dominate social and mass media.

This paper sets out to analyze the language of emotive reactions expressed by bystanders, survivors and, in particular, political figures in on-line press releases and articles, in the wake of terrorists events in Great Britain, Germany, Belgium and France. The linguistic expressions have then been identified as literal, metaphorical or metonymic using, in particular, cognitive tools such as ICMs. Additionally, various expressions have been examined by means of KWIC-concordances taken from two large corpora: the BNC and the English TenTen corpus, as well as the on-line linguistic watch engine GlossaNet: glossa.fltr.ucl.ac.be. These tools allow further contextual and structural analysis of the selected expressions.

The qualitative data has been arranged into two major thematic categories: expressions of solidarity and condemnatory language, delegitimising both the perpetrators and the ideology that spawned them. Apart from gaining insight into the nature of language employed in the expression of emotion, one of the key aims of this study is to determine the connections between the social, emotive and intercultural components mediated through particular linguistic behaviours.

The language material studied offers many conclusions regarding verbal reactions to the threat of global terrorism. It shows that the language employed by politicians is strewn with vague concepts and generalisations. It is also the language of in-group solidarity in that it vilifies the attackers and delegitimizes evil acts.

A tragedy affecting one country is by no means experienced in isolation as many other nations will offer messages of solidarity expressive of grief and pain.

*Keywords:* metaphors; metonymy; terrorist attacks; language of solidarity

# Metaphor in judicial decisions: The nature of metaphor in Dutch and English supreme court rulings

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Metaphor has been studied in a wide range of communicative settings, including education, politics, science, journalism, literature, business, advertising and healthcare. One area that remains largely unstudied, however, is legal discourse (cf. Urbonaité, 2015; Imamovi?, 2013). This is unfortunate, given the potential of metaphor to "determine which arguments are valid in legal reasoning" (Ebbesson, 2008: 260). The level of abstraction in legal writing is so high that metaphor can help judges make abstract concepts and argumentation accessible. As a result, metaphors may affect the outcome of legal proceedings.

In this paper we present a first study that investigated the nature of metaphor in judicial decisions. It compared the use of metaphor in four Dutch and four UK Supreme Court rulings to test the following expectations:

1. UK Supreme Court rulings contain more metaphors than Dutch Hoge Raad rulings since the English and Dutch legal systems interpret the principle of legality differently.
2. Substantive law rulings contain more metaphors than procedural law rulings since procedural law is less abstract and less likely in need of clarification.
3. Civil law rulings contain more metaphors than criminal law rulings since the principle of legality plays a more important role in public (criminal) law than private law and judicial decision-makers in public law case are thus more concerned about figurative language leading to ambiguity and vagueness.

From each of the eight rulings, 1,000 words were taken randomly from the total number of words and analysed for linguistic metaphor using MIPVU (Steen et al., 2010). The identified metaphors were then further analysed in terms of their conventionality and the source and target domains involved.

The results confirmed our three main expectations, and revealed that most metaphors can be related to three dominant mappings: LEGAL ARGUMENT IS WAR; THE LAW IS A PERSON; and THE LAW IS A BUILDING. Only 91 MRWs were identified (1.14%). Legal metaphor may therefore not be frequent, but further research is needed to determine how it affects our understanding of the law and "its power to convince and convert" (Fuller, 1930-31: 380).

*Keywords:* legal metaphor; MIPVU; Dutch Hoge Raad; UK supreme court; judicial decisions; court rulings

## Journey to democracy: A case study of Taiwan's national leaders' speeches

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In this study, we analyze how political convictions are expressed through the metaphors of national leaders in Taiwan during its authoritarian period (1940s-1996). By comparing speeches from one party domination to the direct presidential election in 1996, we found the diverging uses of the identical source domains for DEMOCRACY by the presidents -- Chiang Kai-shek (CKS, 1955-1975), Chiang Ching-kuo (CCK, 1978-1988), and Lee Teng-hui (LTH, 1989-1996, though Lee's presidency remained until 2000) -- reflect the changing meaning of "democracy".

We adopt the socio-cognitive approach to collective identity (Koller 2005; 2012) to test out how the three national leaders in Taiwan then positioned themselves with regard to the legitimacy and sovereignty of modern China after the founding of the People's Republic of China, the creation of alignments with the U.S. during and after the Cold War period, and the "economic miracle" in the 1980s, through the use of conceptual metaphors. Using the Taiwan Presidential Corpus (Huang and Ahrens 2008) as the data, we adopt a corpus approach so as to provide a systematic analysis.

Among the metaphors used, the JOURNEY, BUILDING and WAR domains were employed by the three presidents and their usages reflected changing political agenda. Regarding the JOURNEY metaphor, CKS and CCK presented democracy as the "direction" and "goal" for modern China. In comparison, LTH shifted the focus from the democratization of China to that of Taiwan. Concerning the DEMOCRACY IS BUILDING metaphor, CKS and CCK used "democracy" as a hollow word without real contents, while LTH specified what realized the "construction of democracy" in Taiwan.

The DEMOCRACY IS WAR metaphor in CKS's speeches topped other metaphors, taking 47% of the metaphorical expressions for "democracy", while it dropped to 6.97% in LTH's speeches. The special historical and personal background of CKS motivated his unique use of this metaphor: it was mainly realized through the use of "revolution" in his speeches, i.e., "revolution of democracy", which represented the dynamic dimension of the metaphor. In contrast, CCK and LTH showed a comparatively static dimension of this metaphor by using the "camp of democracy". The metaphors for the concept DEMOCRACY indicated changing ideologies: CKS's use of these metaphors not only discloses his China-centric mentality but also reflects his use of "democracy" as a slogan-like word without any real content. CCK mainly followed CKS's idea in using these metaphors. However, LTH adapted different ideas to his usage that changed the focus from China to Taiwan.

*Keywords:* war; building; journey; democracy; Taiwan

# Edible body parts: The source domains fruits and vegetables in Spanish, French and English

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The metaphorical conceptualization of body parts as fruits and vegetables is anything but rare and not limited to just one language: Heads are conceptualized as cabbages, breasts as melons, vaginas as figs and penises as bananas, to only name a few (cf. Hines 1999 and López-Rodríguez 2014). However, most of the research on fruit and vegetable metaphors has come from literary studies (e.g. Allen 2003) or anthropology (e.g. Spang 2011). My research aims at contributing to the discussion from a cognitive semantic point of view taking into account Spanish, French and English.

What are the metaphorical differences between the different conceptualizations of body parts as fruits and vegetables in the three languages? To answer this question, I compiled a dictionary-based corpus of 180 Spanish, French and English metaphors for the head and sexualised body parts containing 45 fruit and vegetable metaphors. Research on these body parts is particularly interesting since they are the core of intellect and sexuality respectively and so are very likely to be conceptualized in a number of different ways, whether expressively or euphemistically. I analysed the expressions based on the Cognitive Metaphor Theory by Lakoff/Johnson 1980.

The major findings showed that only in French is the head conceptualised in terms of fruit, whereas in all three languages vegetable metaphors exist. Sexualised body parts are significantly more often conceptualized as fruits and vegetables in Spanish and French compared to English. Additionally, sexualised body parts are more often conceptualized as fruits. The metaphors of female sexualised body parts as fruits and vegetables outnumbered those of male sexualised body parts by far. Apparently, the head is mainly conceptualized as a vegetable for the similarity in shape and size (cabbage), metaphorically hiding the intellectual capacity. The vagina, however, is conceptualized as fruit for the similarity in shape and sweetness (fig), metaphorically highlighting the vagina as a source of male pleasure and hiding aspects like reproduction and a woman's lust. Raising awareness for such language use, which is discriminatory for the "owner" of the respective body part, is a crucial step in explaining and understanding the manipulative power that language has over the way we think (cf. Wehling 2016).

The metaphorical conceptualizations of the head and sexualised body parts as fruits and vegetables degrade the respective "owners" by depriving them of their intelligence or their sexual lust.

*Keywords:* Spanish; discrimination; body parts; vegetables; fruits; metaphor; French; English

## Scientific metaphor and argumentation

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The role of metaphor in scientific reasoning and argumentation is not clearly understood. Argumentation theorists often adopt a rhetorical conception of metaphor which regards it as a figure of speech or a stylistic device, but this is an inadequate conception in science. The problem is that many metaphors are theory-constitutive: they are not figurative ways of saying what could have been said in more scientific language; rather, they are the actual scientific language itself. This is why theory-constitutive metaphors in science, such as the computer metaphor of the brain, should not be understood as stylistic devices, but rather as scientific models. This conception is based on the pivotal relation between metaphor and analogy.

Understanding scientific metaphor exclusively as analogy, however, is not adequate for an argumentation theoretical conception of metaphor either. The problem is two-fold: first, reconstructing scientific metaphors exclusively as traditional arguments by analogy fails to take into account the specifically explanatory functions of scientific metaphors. We should want this issue of function to be reflected in our argumentative reconstruction. Second, reconstructing scientific metaphor as traditional forms of argument by analogy leaves us unable to account for certain observations about how actual arguments for and against scientific metaphor play out. Specifically, it cannot account for the way in which scholars may sometimes accept the analogy involved in the metaphor, yet reject that it provides sufficient support for a computational understanding of the mind.

I argue that reconstructing the computer metaphor of the brain as an abductive inference to the best explanation solves both of the above problems. Theoretically, such reconstruction is in line with what considerations of genre would have us expect: insofar as some scientific metaphors function as explanatory models, and insofar as scientific explanations are abductively inferred, some scientific metaphors are abductively inferred. Empirically, such reconstruction allows us to explain real-world arguments about the computer metaphor of the brain: an argument by analogy may serve to establish the computer metaphor of the brain as a candidate for explanation, but it cannot in and of itself establish it as the best explanation. This would explain the seeming contradiction that discussants can accept that there is an analogy between brains and computers yet still reject the computational explanation of the mind. Therefore, reconstructing certain scientific metaphors as based on abduction is warranted theoretically as well as empirically.

*Keywords:* metaphor; scientific metaphor; argumentation; abduction: computer metaphor of the brain

## A corpus study on metaphor use in aphasic conversations

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AphasiaBank is a computerized database of interviews between persons with aphasia (PWAs) and clinicians. Specifically speaking, it has used a standardized protocol to collect narrative, procedural, personal, and descriptive discourse from 290 PWAs, as well as 190 control participants. (MacWhinney & Fromm, 2016). My study aims to compare distribution of metaphor within word class and categorization of metaphor between English-speaking fluent aphasia group, nonfluent aphasia group and control group. Only utterances on free speech task, viz., speech or communication, illness story and important event, are selected and analyzed.

A. Kaal (2012)"s research on metaphor in conversation revealed distribution of metaphor per word class in conversation, and my analysis tends to find out distribution of metaphor in conversation of aphasic and healthy groups. There are data from 10 participants in each group, 5 males and 5 females. The length of each transcript is similar to the mean length of the comparison database. Identification of metaphor follows the procedure of MIPVU (Steen et al., 2010), and distribution is probed into to see how metaphors are expressed through seven word classes. Moreover, some typical aphasic metaphorical expressions can be categorized as "human body is a machine", "disability is losing a possession", "disability is less than whole", restitution metaphor, journey metaphor, etc. There may be some differences in metaphor framing between these three groups.

*Keywords:* metaphor; aphasic conversations; word class; categorization

## Metaphors' analysis in the digital age: How to interpret reality in 'Pinterest'

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In the last decades, the Internet has had an enormous presence in the communication field (forums, e-mails, chats, social networks, etc.). This fact has had an exponential impact on the academic and linguistic fields, since today's digital world has instigated researchers to investigate users' interaction with digital genres (i.e. "Cybergenres") (Shepherd & Watters, 1998).

In the field of linguistics, recent works (Navarro, 2008; Navarro et al., 2008; Navarro & Silvestre, 2009; Girón-García & Navarro, 2014; Girón-García & Navarro, 2015) suggest that digital navigation patterns may be guided. However, there is not much research done on the role of semantic frames and metaphors (Porto, 2007). For this reason, we aim at studying the role of semantic frames (Fillmore, 1982; 1985) and metaphors (Lakoff, 1992; Steen, 2007) in the configuration of coherent Cybergenres.

Accordingly, the present study consists of: (a) Analysing the most frequent lexical units in the social network "Pinterest"; and (b) Showing and outlining the semantic frames that these lexical units depict. We identify several terms such as search, boards (create board, create secret board), pins, save pin (like, send, tried it, read it, get more pins from), likes, followers, following, etc.), in "Pinterest" following these steps considering MIP: Firstly, we establish the basic and contextual meanings of the terms. Then, we describe the semantic frames of both basic and contextual meanings. Finally, we define their frame elements by establishing if the contextual meaning contrasts with the basic meaning and can be understood by comparison with it; should this be the case, do we consider a term to be metaphorical.

To conclude, the expected results help to unravel the role of metaphorical frames as knowledge configurations that provide coherence to cybergenres per the lexical units considered.

*Keywords:* Pinterest; lexical units; literal and contextual meanings; semantic frames; metaphors; script



## Metaphors in Esperanto: Negotiation of meaning in a transcultural setting

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Esperanto is the most successful attempt to plan a language for communication across nations, as it is a living language since its launch, in 1887. The main aim of the language is to let speakers having different mother tongues to understand each other on a neutral basis. Esperanto is neutral in the sense that it does not belong to a specific ethnic group or nation, and potentially it is everybody's language. Since 1887, Esperanto speakers formed a community of practice, i.e. a social grouping which identifies itself through a shared practice (in this case, Esperanto) and the discourse around that practice. All Esperanto speakers are at least bilingual, belonging to speech communities that can be culturally very distant: for instance, Brazilian, Chinese, Dutch. The Esperanto community of practice forms a distinct culture of its own by a continuous process of transcultural negotiation of meaning. Based on a collection of values and norms of behaviour, Esperanto speakers find a transcultural way to understand one the other, during their meetings and through their publications and other cultural artefacts.

A key domain in this process of negotiation of meaning are metaphors. In general, metaphors are strongly connected with national habits and specific cultural reference. Ludwik Lejzer Zamenhof (1859-1917), the founder of Esperanto, already understood that, in order to create a stable community, Esperanto needed not only a shared grammar and lexicon but also a cultural basis, that he identified in a form of humanism called Homaranismo. Therefore, one of his main concerns was to provide an Esperanto version of proverbs as the ground of this humanistic culture. His main publication on the subject, *Proverbaro Esperanta* (1910), is based on a comparative study made by his father Markus Zamenhof, that put in parallel proverbs in Russian, Polish, French and German.

This contribution analyses that book through the lens of contemporary Esperanto after more than one century of use. The aim is to clarify what worked in Zamenhof's proposal and what not, and above all why. This analysis is put in contrast with the process of negotiation of meaning in nowadays Esperanto community, performed mainly through original and translated literature. The main thesis is that the preferred metaphors are either endogenous, referring to the already existing Esperanto culture, or relatively universal, i.e., not too much linked with a specific culture of the world, in order to guarantee intercomprehension among Esperanto speakers of different origin.

*Keywords:* Esperanto; metaphor; negotiation of meaning; transcultural setting; intercomprehension; community of practice

## On one case of asymmetric metaphorisation in the Turkic languages: In the context of semantic universals and ethnomental specificity

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The applying of the traditional method of morpheme reconstruction to etymological analysis in turkology does not enable to get adequate results in many cases. E.g., it is stated that the root of the word *salaq* ("stupid") in the Turkic languages expresses the same meaning as the root of the verb *sal(maq)* ("drop"). However the idea that these words have originated from the same semantic nuclear is out of the question.

We have approached the problem with the methods of morpheme reconstruction, of cognitive analysis and of comparative contrasting.

We proceed from the peculiarities of the cognitive perception of space by the Turkic peoples and conclude that the word has derived from the original Turkic word *sol* ("left side"). The thing is that in the Turkic languages, like in many other languages, the terms of orientation acquire positive or negative meaning.

Thus, the superimposed positive meanings in the Russian *pravaya* (*storona*) ("right side") are "correct", "right (party)", "true", "rule", "regular", etc., cf. also the words *pravil'naya /storona/* ("correct side"), *pravda* ("truth"), *pravilo* ("rule"), etc. Cf. the words *right*, *rightly*, etc. in English, [*yəmin*] in Arabic. The situation is similar in the Turkic languages. E.g., *sağ* 1) "the right (side)"; 2) "live, alive"; *sağlam* "healthy", *sağlıq* "health", *sağ ol* "thank you" (literally: "be healthy"). Let us compare: *sol* "left (side)", *solmaq* "увядать" (about flowers), "fade", "wither" (in the Old Turkic, *solmaq* "diminish", "decrease", "disappear"), *solaxay* "1) "left-hander"; 2) (figurative) "against"; "defying", *solak* 1) "left-hander"; 2) (figurative) "defying" or "incapable", "unstable".

The similar etymological interpretation is proposed in respect of the origin of the words *doğru* "true", *doğrudan* "really". The root of these words is the verb *doğmaq* "give a birth". The modern analytic approach, unlike the traditional method of morphemes reconstruction, enables to see the connection of the primary root with its modern semantic content and to state that in this case the semantic transitions are the following: *doğmaq* > *gün doğan yer* "the place where the sun is born" > *sağ tərəf* "right side" > *haqlı tərəf* "the right party".

As one can see, acquiring metaphorical meanings by words that denote space in the Turkic languages was based on universal conventions and at the same time demonstrated national specificity, i.e. new semantic transitions.

*Keywords:* the right and left sides; metaphorisation of words denoting space; the Turkic languages; etymology; semantic transitions

# Metaphor in political discourse: New perspectives on the analysis of deliberate metaphor

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The starting point of this project is a research in which we applied Steen's three-dimensional model of metaphor analysis to biographical interviews conducted with Belgian politicians, each describing at length their personal career within the political dynamics of their country. Using this model, we made a distinction between the three different levels described by Steen: (i) the linguistic level (direct vs. indirect metaphors), (ii) the conceptual level (novel vs. conventional metaphors) and (iii) the communicative level (deliberate vs. non-deliberate metaphors). This research particularly put an emphasis on the latter level, that is deliberate versus non-deliberate. This allowed us to differentiate conventional ways of speaking from novel and original ways of speaking about Belgian politics. This past research constitutes the starting point of the current project.

One of the main aspects of Deliberate Metaphor Theory is that metaphor is used as metaphor between speaker and addressee, hence pushing the language users to pay attention to the source domain as a separate domain of reference (Steen, 2017). Metaphors convey certain representation of the topic at hand, but not all metaphors are equal in terms of conveying these representations: metaphors which are perceived as metaphors are more likely to activate and thus ratify certain properties of a particular representation, whereas metaphors which constitute the type of language use that people usually deploy to talk about certain topics will not have the same effect. This research aims to further contribute to the ongoing debate on deliberateness by means of metaphor analysis in a large political discourse, and thus by taking a bottom-up approach to metaphor analysis.

The purpose of this extensive analysis is to create lists of candidates/indicators that allow us to differentiate metaphors based on the extent to which these metaphors might activate and thus ratify certain properties of a particular representation, and thus, the extent to which these metaphors might be deliberate. As proponents of an interdisciplinary approach combining linguistics and political science, we firmly believe that political discourse is the ideal type of discourse to achieve this. Political discourse is the type of discourse that is situated in a space of what we could call "conflicts" between representations of topics and issues, thus lending itself quite naturally to the use of metaphors that are likely to highlight and activate certain properties of particular representations. As stated by Thompson (1996): politics without metaphors is like "a fish without water".

*Keywords:* Deliberate Metaphor Theory; metaphor analysis; corpus analysis; political discourse

## Metaphor and context in anti-proverbs: From a relevance-theoretic account

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In numerous anti-proverbs, the meaning of a metaphorical proverb is narrowed by putting it in a context in which it is to be interpreted literally (Hrisztalina Hrisztova-Gotthardt et al.(eds.)(2014:335). In this paper, I will mainly discuss how the following anti-proverbs can be interpreted metaphorically or literally in the specific context in the framework of relevance theory (See Wilson and Carston 2006).

(1) When one door shuts, another opens -- which means that you live in a drafty house.

(2) The early bird gets up to serve his wife breakfast in bed. -- Safian 1967:35

In (2) the husband is depicted as "the early bird" who diligently works in the morning, preparing breakfast for his wife (Litovkina 2014:34).

(3) All the world's a stage, and every father plays a supporting role. -- Escar 1968:784

(4) When a wicked married man dies he gets out of the frying pan and into the fire. -- Adams 1969:347

Life with some wives is for their husbands like permanent torture by being fried alive in "the frying pan" of matrimony. Getting "into the fire" of hell might be a relief and an "escape" from such a marriage for the wicked man (Litovkina 2014:42).

(5) Biting dogs seldom bark.

The reworked proverb Biting dogs seldom bark can explain the behavior of silent bosses who spoil the confidential reports of their juniors, while in talk, they remain very polite and sweet (J.S.Anand,et al.2013:8).

(6) Killing two stones with one bird.

In (6) the word "killing two stones" intensifies the sense of waste of resources, where the sympathy lies with the scarce resources, not with the bird which has been killed. This statement also brings about the inhuman credentials of the corporate world. (J.S.Anand et.al.2013:17)

Metaphor and literal interpretations in anti-proverbs can be explained by an ad hoc concept construction in the framework of relevance theory (=lexical pragmatics).

*Keywords:* anti; proverbs; relevance theory; metaphor; context

## Constructions and image-schema preservation in metaphoric extension: A historical-comparative analysis of pay in Greek and English

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This presentation constitutes a comparative analysis of the historical development of the terms *pleróno* and *pay* in Greek and English, respectively, both being embedded as relations meaning PAY within the long-analysed COMMERCIAL FRAME (Fillmore 1985). The analysis is founded on the long-standing hypothesis that the image-schematic gestalts immanent to the conceptualisations of linguistically coded terms are preserved through the various processes of semantic extension that take place, otherwise known as invariance hypothesis (Lakoff 1993). Hence, the present analysis compares the constraints that the distinct image-schematic origins of *pleróno* and *pay*, originally meaning FILL and PACIFY, respectively, have imposed onto the metaphoric evolution of the terms. It is shown that the image schemas that are operative in the conceptual constitution of them are these of CONTAINER and BALANCE, respectively, corresponding to the original meaning of the terms. Consequently, a comparison follows between the terms, regarding two aspects: the semantic listing of elements within the frame-semantic structure of each of them, on the one hand, and the grammatically expressed constructional encoding of these elements, on the other. Subsequently, some asymmetries between the two terms' constructional paradigms are comparatively given, such as the presence or lack of preposition in the expression of the GOOD semantic element:

- John payed for the car

- O Gianis plirose to autokinito

DET John pay.3rd PRS.PAST DET car.ACC.SG.

"John payed for the car"

The asymmetries found in the two terms' constructional paradigms are correlated to the constraints imposed on their evolutionary paths by the image-schematic structure underlying their semantic frames. Conclusively, it is shown that, although the situational ontologies may very well appear identical in terms of the semantic listing of their frame-semantic elements, the perspectival construal over these ontologies is distinct. Entrenched grammatical realisation constitutes a second level of perspectivisation over the conceptual make up of a frame, which runs parallel to the lexically-based perspectivisation over it and reveals the range of possibilities for metaphoric extension.

*Keywords:* image; schemas; constructions; invariance hypothesis; metaphoric extension

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## Rhetorical and metaphorical characteristics of education and tourist brochures

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In our report "Rhetorical and metaphorical characteristics of education and tourist brochures" we consider the place of rhetoric in the space of humanities and the discourse of tourism, define genre peculiarities of educational and tourist brochures, describe the place of metaphors of education, explain the brand new metaphor of knowledge promotion. We describe the specifics of rhetorical-reflexive analysis applied to the discourse of education, demonstrate examples of a detailed analysis of the use of expressive means in discourse of education and discourse of tourism, discuss comprehension techniques and how they are used in a text of education brochures.

Authors of texts of the discourse of tourism or education -- are a kind of "rhetoricians". Prior to what is normally referred to as "communication", at pre-communication stage", i.e. before drafting a text of the discourse of tourism or the discourse of education, its author, as a rhetorician, would try to answer three basic questions: what to say (what information to bring to recipients' attention and how much information)?; how to say (by what means of expression would best reflect certain piece of information)?; where to say (which section of a brochure best fits certain piece of information)?

Thus, as we speak of rhetoric of discourse of tourism and rhetoric of discourse of education, and consider their manifestations in tourist and education brochures, we look into ways to efficiently communicate with the reader (persuade), induce positive emotions and attitudes, that could lead to a visit to a certain travel destination or applying to the educational institution described? Or even changing one's regional identity.

We believe that the perception of learning in general is quite metaphorical. Before our research there used to be three types of metaphors of education: knowledge acquisition metaphor, participation metaphor, and knowledge creation metaphor.

Analysing texts of education brochures that are at the crossroads of the discourse of tourism and the discourse of education, allows to highlight yet another type of education metaphor -- knowledge promotion metaphor. Now the focus is on the process attracting a person as a recipient of knowledge (a student) to the place where knowledge could be given (school, community, city, country). Visualization of knowledge promotion metaphor becomes part of a broader process -- metaphorisation, which, based on metaphors and other tropes (epithet, synecdoche, metonymy, etc.) contributes to inducing recipient's reflection during his or her perception of the text of an educational brochure.

*Keywords:* rhetoric; rhetorical; reflexive analysis; discourse of education; discourse of tourism; knowledge acquisition metaphor; participation metaphor; knowledge creation metaphor; knowledge promotion metaphor

## Describing figurative semantic networks of English prepositions in a bilingual dictionary

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While English prepositions have a wide variety of meanings, those apparently unrelated meanings have been derived from one basic meaning of each preposition mainly through metaphor and metonymy. However, when those meanings are defined in dictionaries, splitting the whole body into smaller numbered senses is unavoidable; the result is an impression that each sense is totally independent from all others. This is a serious problem especially for beginning to intermediate EFL learners who often learn the vocabulary through word-for-word translations and do not have enough input to be able to inductively grasp the overall pictures of words.

Since the image of the basic meaning of a preposition can be discerned in all its senses, at least to some degree, it would benefit learners if we were successfully able to devise an effective description in a dictionary which would help them understand that all senses of a preposition are somehow connected to its basic meaning. However, in reality, comprehensive explanations of the derivational relations among the senses are not given in ordinary learners' dictionaries. In this context, I described the semantic networks of prepositions in a commercial English-Japanese bilingual dictionary for beginning to intermediate EFL learners so that they could not only easily find the sense they are looking for in large entries, but also understand the connections between senses and grasp the overall picture of the meanings of prepositions. The strategies that I took are based on the framework of cognitive linguistics that is highly useful and promising in explaining the semantics of polysemous prepositions.

This presentation will explain the framework on which I based my description, briefly overview the treatment of the polysemy of prepositions in dictionaries, and report on my attempt to put the ideas into practice. It is true that totally objective and agreed description of the semantics of any word is practically impossible, but I made efforts to explain the figurative links between senses as simply and clearly as possible and realize a consistent description of the semantic networks of prepositions while guaranteeing easy searchability in a dictionary. One-sentence take-home-message: It is meaningful and feasible to show the figurative semantic networks of English prepositions to EFL learners in dictionaries.

*Keywords:* English prepositions; polysemy; figurative semantic networks; dictionary; lexicography

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The publication of Lakoff and Johnson's "Metaphors we live by" has triggered a number of research devoted to the metaphorical analysis of various spheres of human life. Considering conceptual metaphor as a new means of cognition, scholars have been using it to understand more abstract domains like emotions, human relations, politics, economy, etc. Education is an integral part of human social life, while the process of Higher Education is arguably the most challenging and demanding stage and more than other stages is connected with understanding and cognition. The current research is conducted in order to find out metaphorical models which university students use to describe educational aspects of their studies.

Research design is based on phenomenological model which is aimed at revealing students' study experience at university through the metaphors they apply to describe it. Study groups were organized to obtain the research data. Each study group had from four to six participants. After a short introduction to the topic of the research, students were asked to brainstorm and generate conceptual metaphor models which, in their opinion, best describe aspects of educational process at their university, mapping these notions in terms of a source domain. Students were not limited with a number of metaphorical models they could generate, so each group produced from two to four models. Study groups were working independently from each other.

After we conducted 20 study groups, we analyzed the obtained research data and found 32 conceptual models of metaphors. First, it has been found that patterns of metaphorical models repeated themselves, so different study groups have produced same conceptual metaphorical models. However, within these repeated models different aspects of target domain were mapped differently in source domain. Second, we counted the frequency of generated metaphorical models. The most frequent one is "Studying at University as Living in a State", where different forms of state structure were described, ranging from serfdom state to totalitarian and democratic ones.

Having analyzed the results of our research, we can conclude that the patterns of metaphorical models are finite. We state that the frequency of implemented metaphorical models depends on the studying courses students have, i.e. the subjects they study influence the way they conceptualize the surroundings. All the obtained models can be classified into three groups: positive, negative, and neutral. We will be pleased to present a detailed report at Metaphor Festival 2017.

*Keywords:* conceptual metaphor; metaphorical modeling; mapping; source domain; target domain; higher education



## Being marked with the cross: An analysis of the crusader metaphor in Da'esh English language periodicals

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Da'esh, also known as the Islamic State, is like any other societal institution in its use of rhetoric and language to further its goals and the narrative that both enables and self-justifies ongoing conflicts in the Middle East and around the world. According with the group's goal of promoting this narrative, Da'esh has published fourteen issues of an English language periodical, Dabiq, which utilizes a combination of first-hand accounts, religious text, and calls-to-action to construct dichotomous narrative of good and evil, Da'esh and the Crusader respectively.

This study utilizes a modified form of the Metaphor Identification Process, proposed by Steen et al. (2010), to analyze fourteen Dabiq publications and evaluate 573 instances of the lexical item crusade and its derivatives which constitute the metaphors AN ENEMY ATTACK IS A CRUSADE and OTHER IS A CRUSADER. These metaphors are then considered within Conceptual Metaphor Theory with a focus on the socio-historical context in which these occur, pulling from contemporary accounts of the effects of context on metaphor (Kövecses, 2015). Following from this framework, this study shows that the Crusader metaphor is an instance of socio-pragmatic othering of primarily Euro-American and allied countries and their citizens within the context of contemporary Middle Eastern conflicts. The study also demonstrates how structured metaphor in this corpus operates in a religious context alongside metaphors regarding morality, such as SECULARISM IS BAD, and parallel with the Da'esh metaphor used to understand their own military actions, WAR IS JIHAD. Addressing how the data constructs narrative, this analysis establishes that the Da'esh usage of the Crusader metaphor seeks to culturally ground ongoing Middle Eastern military conflict within the historical context of the central Medieval religious wars.

Thus, through a metaphorical analysis of Da'esh's English language periodical Dabiq, it is evident that the Crusader metaphor plays a central role in othering enemies and dissidents, romanticizing conflict, and re-orienting contemporary international relations within the socio-historical context of the Middle East. Therefore, it is crucial that the structured cognitive framework of the Crusader metaphor be considered objectively within its historical and religious context to facilitate a more in-depth understanding of its cognitive linguistic reality.

*Keywords:* religious metaphor; religion; modality; international relations; phenomenology

## Measuring metaphor consistency across time: A discourse model

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This paper proposes a model to measure long-term metaphor consistency in a discourse. In the model, maximum consistency is given when metaphors record the same source domains, the same scenarios (Musolff 2006, Semino et al. 2016) and the same lexical realisations across time, while the absence of any continuity for source domains, metaphor scenarios or metaphoric expressions signals minimum consistency. In between these two extremes, we find high consistency, in which the source domain stays the same across time and either scenarios or metaphoric expressions do as well. Low consistency is given when only the source domain stays consistent, but metaphor scenarios and lexical realisations differ.

By way of illustration, the model was applied to a diachronic study of 30 pamphlets written by British Quakers between 1659 and 2010 and addressed to the general public. The data were manually analysed for metaphoric expressions referring to religious topics, using the metaphor identification procedure proposed by the Pragglejaz Group (2007) to identify relevant linguistic metaphors. In a second step, the linguistic metaphors were categorised by what source domains they draw on. In naming the source domains, care was taken to follow the textual evidence as closely as possible, e.g. "the Holy Spirit being ... an all-sufficient ... Teacher" would be allocated to a source domain "TEACHER". The final step involved identifying scenarios that the source domains contribute to; in the above example, this would be one in which the Holy Ghost teaches human learners.

Utilising the notions of genre and discourse community along with metaphor domains and scenarios, the analysis shows that among 19 metaphor domains that occur in texts from at least two different centuries, just under 60 per cent are highly or maximally consistent, with domains of maximum consistency being the largest group. One example of maximum consistency would be the "BODY" source domain contributing to a scenario that casts a community of believers as a body and is realised in the metaphoric expression "body" across the time span (e.g. "men ... become united to Christ, and living members of that body, of which He is the head"). The changing purposes and forms of the pamphlet genre and the evolving socio-historical contexts do not diminish this long-term metaphor consistency.

The final part of the paper discusses how the model can be further tested for its robustness.

*Keywords:* metaphor consistency; metaphor scenario; religious discourse

## Sight metaphors in office hours' consultations: do lecturers and students align?

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When we communicate with each other, we share metaphors. Repeating them, expanding on them or handing them back and forth creates discourse coherence and shared understanding (Cameron & Maslen, 2010; Carter, 2004). In educational contexts, shared understanding between teachers and students is essential for successful learning. However, metaphorical language has been shown to be a stumbling block for non-native speakers. As a consequence, students who follow instruction in their non-native language may not understand or misunderstand their instructors (Littlemore, 2001, 2003; Littlemore, Chen, Barnden, & Koester, 2011). This can be a challenge to creating common ground and shared knowledge. This talk uncovers metaphorical alignment (or the lack thereof) in office hours' consultations in a university context, using metaphors of understanding is seeing as a case study.

In order to examine if understanding is seeing metaphors provide common ground, I make use of the annotation tool Wmatrix (Rayson 2008). It annotates each word in a text semantically. The tool is applied to the European Corpus of Academic Talk (EuroCoAT) (MacArthur et al., 2014) and sight lexis is retrieved. In a second step, metaphorically used sight terms are identified using the MIPVU procedure (Steen et al. 2010). By directly comparing subsets of corpora via a "keyness" analysis, which determines if a semantic field in one corpus is over- or underused in respect to the other corpus, the tool provides a quick way into the data.

An analysis of the key semantic fields shows an imbalance in the use of lexis related to the domain of sight between lecturers and students, suggesting that students and lecturers are not always "on the same page". Not only do lecturers use sight terms more frequently, they also use metaphorical sight terms in different and a wider range of meanings than the students. A close analysis of the discourse shows that metaphorical alignment between lecturers and students is rare.

While native speakers repeat each other's metaphors and toss them back and forth (Littlemore et al. 2012), this is not the case in conversations between (near) native and non-native speakers.

*Keywords:* academic talk; English as a lingua franca; sight metaphors; alignment

## Visual metaphor: Semantic similarity and ground for comparison

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In research of processing visual metaphors, it is unclear which pragma-semantic principles underlie the establishment of metaphoric interpretation. In this research we investigate the role of semantic similarity and the availability of a ground for comparison.

The relation between two similar visual objects (henceforth, visual hyponyms), like an apple and a cherry, will not be interpreted metaphorically. For semantically dissimilar objects, like an apple and a pill, viewers will need a ground for comparison to make a metaphorical interpretation (henceforth, visual metaphors). Two dissimilar objects without a (commonly shared) ground for comparison, like an apple and a television, will hamper interpretation (henceforth, unrelated objects).

We expect differences in response latencies between the object pairs: visual hyponyms faster than visual metaphors; metaphors faster than unrelated objects. These expectations are not trivial: viewers might dismiss a relation for unrelated objects immediately, rendering shorter response latencies. In addition, we expect that viewers will have the same interpretations of the visual hyponyms, more divergent interpretations of visual metaphors, and difficulties with interpretations of unrelated objects.

The stimuli consisted of 36 sets of juxtaposed visual objects. Semantic similarity between the objects was calculated using an online tool employing WordNet. After a pretest, 27 object pairs remained. They were distributed over three different versions, with the same objects in different pairs. In a within-participant-design, each respondent saw nine object pairs: visual hyponyms, visual metaphors, and unrelated objects. Participants were asked online to watch a picture with two objects and then press a key. Response latencies were measured. Next, respondents described the relation between the exposed objects in a few words. This procedure was repeated for the other object pairs.

The pretest (N = 27) indicated that response latencies were shorter for visual hyponyms than for visual metaphors. Responses were faster for both kinds of object pairs compared to unrelated objects. The main experiment (N = 64) showed similar results. Open recall descriptions converged more for visual hyponyms than for visual metaphors, and less for unrelated objects.

Respondents recognize semantically similar visual objects quickly, and need more time for semantically dissimilar objects. Finding a ground for comparison takes more time if it is not commonly shared. Moreover, longer response latencies correspond with diverging interpretations of the relations. Besides semantic similarity, conventional knowledge of grounds for comparison is used in visual metaphor recognition.

*Keywords:* visual metaphor; cognitive elaboration; semantic similarity; ground for comparison; response latencies

## Testing the validity of metaphor use and variation on the Chinese internet market

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The relationship between metaphors in advertising and consumer behaviour has long been qualitatively examined in the field of marketing science from the perspective of business efficiency (Ward 1990, Zaltman 1995, Bremer 1997), but not much attention has been drawn to the quantitative patterns of metaphors to their effect in terms of cognitive salience and linguistic variability (Feng 2014). Recent study focuses on the relationship between the multimodality of metaphors and their effects by applying corpus data (Pérez-Sobrino 2016), but there is no clear boundary defined for both variables in interaction.

This study limits metaphor targets to Chinese internet market by focusing on three different goods i.e. black tea, glutinous rice and lipsticks. It examines the quantitative relationship between metaphor variations and sales volumes. It is hypothesized that when other conditions being equal, sales volume is sensitive to metaphor use and variation.

Firstly, it measures the coverage of metaphors in description; that is: the total number of metaphors divided by the total number of words. Secondly, it evaluates the creativeness of metaphors with reference to external corpus data from BCC (2016) and internal variation; that is: the weighted average corpus frequency of all metaphors in one description and the frequency of a metaphor in one description divided by the frequency of the same metaphor in all descriptions. Thirdly, it examines the figure-ground organisation of metaphors by applying the graphic software Da Vinci; that is: the average font size and colour complexity of metaphors in one description divided by the same measurement of all words in the same description. Fourthly, it calculates the cumulative sales volume divided by the elapsed time since the metaphor launch.

The sales volume data and metaphor variation data are extracted from the website Taobao, a Chinese internet market, from November 1st to 3rd 2016. Each good has two similar brands, each of which has 6 different sellers of different sales volumes and product descriptions but similar price, review and logistics.

The findings are multi-faceted. To sum up, different products have different patterns of metaphor variations to sale volumes in term of their significance listed in the table attached. These results indicate that comparatively, it is insignificant to create unfamiliar metaphors for black tea, to adopt foregrounded metaphors for rice and to extensively use metaphors for lipsticks. The inconsistency and peculiarity of metaphor use in online business communication suggests high variability and relativeness of figurative language delivery.

*Keywords:* sales volume; metaphor variation; internet market

## The function of metaphor in moral imagination

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I aim to elucidate the function of metaphors, including metaphorical language, in moral deliberations. Such deliberation is conceived of as dramatic rehearsal of imaginative alternative scenarios in problematic situations. Using empirical research results from cognitive science, especially embodied simulation and simulation semantics, it is possible to give an account of moral imagination as sensorimotor/somatosensory simulations.

By approaching metaphor as a cognitive construct (CTM, Contemporary Theory of Metaphor) that enables us to give meaning to ideas and concepts using the "meaning of the body", we understand and give meaning to phenomena in the world that are not directly known in a primary spatial way like up-down, front-back, on-off, center- periphery, or as interacted with physical objects in our life-world. Corporeal logic, structures, gets grafted onto abstract concepts, so they can be made sense of. We get a feeling of understanding.

The meaning of the body in a sense of how our embodied mind generates meaning even before full self- consciousness has developed, makes it possible to give an account how aesthetic and emotional aspects of meaning use metaphors and play a role in our (moral) reasoning. This imaginative enactment engages parts of the brain used for perception and action, repurposing those evolutionary older networks to create simulations in our minds.

Finally I put forward the thesis that the use of metaphors is both epistemically justified and pragmatically useful in moral imagination as deliberation because it engages our pre-objective habitual meaning-making and meaning-giving cognitive faculties to make sense of our moral experience. This makes metaphors "true" in the way William James intended, as "what works better for us" to gain new insights and make connections between those aspects in our experience that were problematic before. I also contend that we are more likely to enact simulations of alternative scenarios highlighted by the metaphors used in discourse or media.

The conclusion is that metaphors trigger, steer, influence, and frame the cognitive-conative-affective simulations that are enacted in a process of moral deliberation. This has an impact on considered propositions for eventual moral judgment as what to do. Such a metaphorical "affordance effect" is even present in people who are consciously aware of the influence of metaphors in deliberation.

*Keywords:* metaphor; morality; imagination; simulation; evolution; deliberation; embodiment; cognition; affordance

## A chemical model for metaphor: Polystability and polysemy

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When driven beyond equilibrium conditions, some chemical reaction systems display a variety of dynamical behaviors. Depending on the part of parameter space to which we drive the reaction system, we may observe stability, metastability, or instability. The behavior of such non-equilibrium systems depends strongly on the boundary conditions of the laboratory setting that we create for them. One and the same reaction system is capable of existing in multiple dynamic regimes, depending on the context we set up for it. Metaphor displays similarly dynamic capacities in the context of language and thought.

The context-dependent polystability of non-equilibrium chemical systems mirrors some aspects of the linguistic potency of metaphor. To take a relatively simple case, some chemical systems exhibit bistability, a condition in which the system can assume one of two entirely different dynamical regimes given the same set of conditions (i.e., temperature, flow rate, initial concentrations of chemical reagents, etc.). The analogy between bistable chemical systems and the polysemy of homonyms is obvious. Based on the observations noted above, a bistable chemical system may be considered as the chemical analog of lexical polysemy. Furthermore, by coupling two or more non-equilibrium reaction systems, richer dynamical features exhibiting polystability, polyrhythmicity, and so on, may arise. I propose that such coupled systems suggest a new chemical model of metaphor. This chemical model of metaphor suggests an extension of the interaction view of metaphor, whose bidirectional reflexivity may yield new insights about both metaphor and chemistry.

Examining the details of the relevant chemistry and further elaboration of the reaction system analogy serve as the basis of a chemical model of metaphor, which may suggest new insights about how metaphors function. A coupled systems model of metaphor is fruitfully explored in the domain of non-equilibrium chemistry.

*Keywords:* metaphor; non; equilibrium; coupled systems; chemistry; polysemy; bistable; polystable

## Diary of a possession: Satanism as literary poiesis

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Satan is sad because he is condemned to a memory whose sum is always a defeat: the expulsion from paradise, the guilty rebelliousness before our Father's shrugging, the arrogance of the Good Son rejecting that stone in the desert. But he's sad only if he wants to return "home", like an old lady saving pennies for the last catamaran over the Styx. An infertile sadness, since the rebel who wishes to go back home longs for conformity. If, on the other hand, when wandering through the wild, alone as each and every man, he discovers that there is no return -- no other place -- and that the stone has no door to a miraculous rescue, it opens the possibility for an endless gestation of midways which are, ultimately, the way of human existence.

The stone metaphor, as a symbol of the ultimate inaccessibility of the wilderness, present in countless poems throughout the ages in the western world, has its roots in the figure of Satan at the desert, tempting Jesus to turn a stone into bread to kill his hunger, as reported by Saint Matthew in the gospels (4: 1-11). Satan represented a rupture in the way we interpret the image of the stone, which was seen as a divine abode - as reported, for example, in Jacob's dream in Genesis 28: 10-22. By analysing the images of stones and their respective metaphorical meanings in selected works by poets Wysława Szymborska, Ivo Barroso, João Cabral de Melo Neto, Roberto Piva, Paul Celan and Wallace Stevens, we intend to delineate an idea of Satanism as a form of literary poiesis.

Satan, in fact, offers the stone to Jesus -- as opposed to directly feeding him bread -- precisely as a way of demonstrating the impossibility of "access" to the stone, which means, in other words, the wilderness mystery's insurmountable permanence. This acceptance of the mystery is at the center of the process of artistic creation, whose purpose is not in the utilitarian or catalogable knowledge of the world (which would mean access to the stone, or to put it arrogantly: science); but in the very fruition of the mystery, in its presence and experience. Ultimately, we are the beauty we can milk from an oblivious stone, the rest is science and subsistence.

*Keywords:* Satanism; poiesis; poetry; temptation in the wilderness



# Metaphor as a depolitization language device: The case of the refugee crisis in the Spanish press

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The refugee crisis in Europe is one of the most complex issues on the public agenda. However, the narrative articulated by the Spanish newspapers shows that there was not a diversity of ways for framing the issue. This single view can be identified through the analysis of metaphorical expressions, considering that they are one of the discursive devices with a greater ability to influence and mould the perception on public affairs (Burgers et al, 2016).

The present research analyses the coverage made by the three main Spanish newspapers (La Vanguardia, El País and El Mundo) of the refugee crisis and of the EU's answer to its worst humanitarian crisis, which was to stage an emergency summit in Brussels on September 2015. The sample of this study is made by 60 information and opinion articles published between the 14 September 2015 and the 17 September 2015, from which a corpus of 166 metaphorical expressions was composed. These metaphors were identified by looking at three different target domains: migration (1), Brussels summit (2) and internal relations within the European Union (3).

Results show that four principal source domains were used to conceptualize the before-mentioned target domains: nature/weather, mechanics/physics/container, religion/belief and journey/way/movement. For instance, the political situation was referred as "una oleada incesante" (an unceasing wave) -- La Vanguardia --, "una riada sin freno" (a flood without control) -- El País --, "Hungría ha echado el cerrojo" (Hungary has slid the bolt) -- El Mundo --, "Safo es el escenario de un éxodo humano de proporciones bíblicas" (Safo has been the scene of a human exodus of biblical proportions) -- El Mundo -- or "El camino del refugiado en busca de asilo es una odisea" (the refugee's path in search of asylum is like an odyssey) -- La Vanguardia --. The presence of these source domains indicates the framing of the refugee crisis as something out of control, especially regarding the use of nature/weather and mechanics/physics/container.

These metaphorical expressions linked to uncontrollable natural elements and to a political action that does only involve a physical containment of these natural phenomena show that the Spanish press has tended to depolitize the conflict. We believe that depolitization "impedes opportunities for action" (Muntigl, 2002: 48). Therefore, the analysis of the coverage the Spanish newspapers did on the EU refugee crisis shows that there is a main narrative that depolitizes the conflict, which is centred in the effects of the emergency situation and not in their causes.

*Keywords:* metaphor; refugee crisis; Spanish press; media discourse; depolitization

## Supporting or rejecting populism? Identifying the Spanish media discourse on Donald Trump's election through metaphorical framing

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In the last decade populism has been rising across the West, but the recent election of Donald Trump as the president of the United States is seen as the turning point regarding the popularization and success of neoliberal and nationalist discourses around the globe. What once was an isolated message is now on the basis of some important parties in Europe (FN in France, FPÖ in Austria and PVV in the Netherlands) or has determined recent events such as the Brexit, where the UKIP was instrumental.

In Spain there have been some attempts for covering the extreme-right political spectrum, which have come from newly-created political parties like VOX, an organization developed by former members of the People's Party (PP) that promotes populist claims. However, despite the rising of the above-mentioned parties in Europe, nor VOX neither other similar organizations have succeeded in electoral terms.

Because media act as "the main source and focus of a society's shared experience" (McNair 2007:18), it is interesting to focus on the way they reported on a candidate that represents what the Spanish electoral system seems to reject. Therefore, the present study aims to determine which was the positioning of three Spanish newspapers with different editorial policies (La Razón, El Mundo and Eldiario.es) on Trump's election. In order to check if the narratives they elaborated were closer to populism or if they refused it we have codified all the opinion and information articles between 7 and 10 November 2016. And we have done it by following a Critical Metaphor Analysis and Metaphorical Framing approach, which let us set discourse positions through the identification, interpretation and explanation of metaphorical expressions.

Results show that whereas Eldiario.es is directly opposed to all what Trump's success means (Trump is another piece of populism gears), La Razón and El Mundo underline the reasons that have taken him to be elected president of the United States and blame Hillary Clinton and the Democrats for their mistakes during the campaign (Trump has cornered Clinton with scandals -- La Razón). Hence, despite the diverse ideological background of the three analysed newspapers, there seems to be a consensus in the Spanish press when it comes to oppose a discourse centred in populism, racism and misogyny.

The analysis of the coverage the Spanish newspapers did on Donald Trump's election shows that there was a shared narrative based on the consensus against the success of populism.

*Keywords:* populism; metaphorical framing; media discourse; Trump

## The pattern of extended metaphor across centuries: A cognitive diachronic study

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My aim is to have a closer look at the benefits of a cognitive diachronic approach to use of extended metaphor across centuries. As a way of thinking, extended metaphor has existed since Old English throughout the course of the history of the English language. A diachronic approach reveals the stability of the pattern of extended metaphor.

When dealing with my empirical material, I have relied on the method of identification of figurative meaning in discourse (2001, a book by the author of this Abstract). I follow Gibbs who claims that "all language interpretation takes place in real time ranging from the first milliseconds of processing to long-term reflective analysis" (1979). I have also used the method of interpretative empirical case studies to cope with texts of the previous centuries.

Empirical study allows me to draw generalisations about patterns across centuries and various types of discourse, seeing sameness in difference. The stylistic pattern is a reproducible and dynamic element of thought and the system of language.

A diachronic approach reveals the stability of the pattern of extended metaphor. As a diachronically recurring element, pattern is inherently stable. The pattern is viewed as part of the mental lexicon. Use of extended metaphor is one of the resources to convey sustained human experience. It gives freedom and space for creativity. Extended metaphor is a stylistic pattern, involving a string of sub-images sustained and tied together by the base metaphor, creating a cohesive network of associative metaphorical and metonymic bonds. The metaphorical sub-images are linked metonymically by associations of contiguity. Hence, metonymy is an integral part of extended metaphor by definition. Extended metaphor features an extension of figurative thought, like:

Or artow lyk an asse to the harpe,  
That hereth soun, whan men the strenges plye,  
But in his minde of that no melodye  
May synken, him to glade, for that he  
So dul is of his bestialitee?'  
(1380 Chaucer, Troilus and Criseyde)

Thus, diachronic studies reveal that extended metaphor defines as an entrenched figurative pattern and a way of thinking. It is characterised by diachronic stability across centuries and viewed as a structure of thought that is reproduced in novel creative instantiations. In the cognitive stylistic view, extended metaphor forms a pattern of both thought and language that is stored in the long-term memory of the language user. Change is constant!

*Keywords:* extended metaphor; a stylistic pattern; associations of contiguity; a cognitive approach; a diachronic study

## Metaphor use and functions in meditation discourse

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Contemplative practice underlies the spiritual development of major religious traditions. This practice has lately spread over a wide variety of areas in Western society. One clear case is the introduction of mindfulness meditation in clinical psychology. Previous studies on mindfulness meditation discourse suggest that Idealised Cognitive Models (Lakoff, 1987) not only guide the discourse of participants but may also play a key role in shaping the meditative experience.

Here we approach the linguistic (metaphorical) dimension of meditative practice in the Buddhist Tibetan tradition. Particularly, we analyse texts by the 14th Dalai Lama (1991) and Sogyal Rinpoche (2002) where the notion of meditation is explained to non-expert readers and the basic processes involved in meditation are described. With the help of qualitative data analysis software ATLAS.ti, we aim at unravelling the metaphorical ICMs that underlie that discourse. We take into account both non-deliberate and deliberate uses of metaphor (Steen, 2017; Steen et al. 2010), together with the main discursive functions of metaphor (Goatly, 2011).

First, source and target domains are identified and classified, as well as their relevant mappings. Secondly, linguistic evidence is provided of metaphorical models that help construe the conceptual representation of meditation. The findings allow for a comparison of traditional Buddhist models with those already identified within the context of mindfulness meditation.

According to our data, metaphorical deliberate (and also non-deliberate) use not only pervades the discourse of meditation but it also appears to be a crucial and indispensable strategy for conceptualization of this cognitive domain.

All in all, an analysis of metaphor usage seems to be a fundamental tool for building bridges between discourse and direct experience, and it may be especially useful to provide a more profound understanding and experiencing of meditative practice.

*Keywords:* metaphor; discourse; metaphor function; meditation; mindfulness

# On the eloquence of intelligence metaphors in terms of eating concepts in Japanese

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In Conceptual Metaphor Theory, conceptual correspondence between IDEAS and FOOD is recognized as a conceptual metaphor "IDEAS ARE FOOD". This paper abstracts the metaphor system which represents "the process of intellectual activity" in terms of "the process of eating behavior" from the IDEAS ARE FOOD metaphor and compares the system in English and Japanese. The purpose here is to show the eloquence of the eating-intelligence metaphor system in Japanese. The conceptual correspondence between eating and intelligence in English is shown below (examples are shown in the presentation):

EATING PROCESS: ① [[CHEWING]] → ② [[DIGESTION]] → ③ [[ABSORPTION]]  
INTELLECTUAL PROCESS: ① [[THINKING]] → ② [[UNDERSTANDING]] → ③ [[ACQUISITION]]

As shown here, the concepts of chewing, digestion and absorption are systematically used to represent the intellectual process in English (Note here that "swallowing" is used to represent "acceptance", "belief" or "suppression" in English). In short, the metaphor system in English can be characterized in turning a spotlight on phases of "decomposition" toward the absorption of the essence of foods. In comparison with the cases in English, eating concepts are more precisely utilized in embodying intellectual activities in Japanese. The eating-intelligence correspondence in Japanese is shown below (examples are shown in the presentation):

EATING PROCESS: ①[[SOSYAKU]] 'CHEWING' →②(KAMIKUDAKERU) 'CRUNCHEd' →③[[ENGE]] 'SWALLOWING' →④(HARA-NI OTIRU) 'FALL INTO STOMACH' →⑤[[SYOUKA]] 'DIGESTION' →⑥(KONARERU) 'WELL DIGESTED' →⑦[[KYUUSYUU]] (ABSORPTION)  
INTELLECTUAL PROCESS: ①[[THINKING]] →②(SIMPLIFIED) →③[[UNDERSTANDING]] →④ (WELL UNDERSTOOD) →⑤ [[FULL UNDERSTANDING]] →⑥ (MASTERED) →⑦ [[ACQUISITION]]

As shown here, concepts of chewing, swallowing, digestion, absorption and states derived from these activities are closely employed in the metaphor system in Japanese. It is pointed out that the metaphor system in Japanese precisely makes use of the "chain structure" of eating behavior, which enables us to explain the extent and degrees of understanding in great detail.

This paper shows eloquence of the eating-intelligence metaphor system in Japanese comparing with those in English. The paper also reveals that elements utilized within a conceptual domain are different from language to language even when we use the same conceptual domain to embody a certain concept. The importance of examining metaphors at the sentence level is shown here. In order to clarify the power and value of a metaphor, it is beneficial to pay attention to "expressiveness" of the metaphor, going beyond the viewpoint of "conceptual mapping".

*Keywords:* expressiveness of metaphors; English and Japanese; eating; intelligence

## On the “deliberateness” of ego-moving metaphors in Japanese

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In research on spatiotemporal metaphors, two types of motion metaphors are usually distinguished: Ego-moving and Time-moving. Gentner, Imai, and Boroditsky (2002) suggest that the Ego-moving metaphor is more natural for English speakers between the two. In Japanese, however, it has been pointed out that the Ego-moving metaphor such as in (1a) is often unnatural when used in a simple sentence, while the Time-moving metaphor as in (1b) is quite natural.

(1) a. Kurisumasu-ni tikazuitekita. [Christmas-DAT approach.come.PST] "We are approaching Christmas."

b. Kurisumasu-ga tikazuitekita. [Christmas-NOM approach.come.PST] "Christmas is approaching."

In this way, we can find peculiar features in spatiotemporal metaphors in Japanese. Then, what motivates the appropriate use of the Ego-moving metaphor in Japanese? This paper aims to answer this question by presenting examples of time metaphors in terms of locomotion of speakers in Japanese.

In order to clarify the conditions for appropriate use of the Ego-moving metaphors in Japanese, this paper claims that we should consider communicative intentions of time expressions. We take up three examples to support our view. First, the Ego-moving metaphor is acceptable in Japanese when referring to "the speakers' state" in accordance with time passing. This is partly exemplified in (2).

(2) Kurisumasu-ni tikaduku ni-turete, kimoti-ga ukiukisitekita. [Christmas-DAT approach with spirit-NOM excite.come.PST]

Second, the Ego-moving metaphor is acceptable when referring to "the speakers' location on the time line" as a result of his/her motion as in (3).

(3) a. Syussann-yotei-bi-ni itatta. [an expected date of birth-DAT reach.PST]

b. Natsuyasumi-ni haitta. [summer vacation-DAT enter.PST]

c. Simekiri-o sugita. [deadline-ACC pass.PST]

Third, the Ego-moving metaphor is acceptable when referring to "the speakers' active locomotion" toward his/her personal goal as in (4).

(4) a. Nyuusi-ni mukatte issin-ni susunde iku. [entrance exam-DAT toward intently proceed go]

b. Kekkonsiki-ni mukatte issyo-ni ayunde iku. [wedding-DAT toward together walk go]

These examples suggest that the Ego-moving metaphor is also appropriate in Japanese when focusing on the speakers' state, location or activity along with elapsing of time. In other words,

the Japanese Ego-moving metaphor is appropriate when we "deliberately" express the conditions of ourselves with time passing.

It is difficult to explain constraints on the Ego-moving metaphors in Japanese from the perspective of "conceptual mapping". We need to pay attention to communicative aspects of time expressions to solve this problem. Thus, "deliberateness" is the key to appropriately describe spatiotemporal metaphor system in Japanese.

*Keywords:* ego moving; Japanese; spatiotemporal metaphor; deliberateness

## Why verbal and visual metaphors are different: Three possible answers

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Visual metaphor is nonverbal manifestation of metaphorical thought, where one or both concepts of the metaphor (the target and the source) are depicted in images. Although several studies have tried to explain the nature and structure of a visual metaphor, similarities and differences between verbal and visual metaphors are still not very clear yet. In this study, we explore the differences between verbal and visual metaphor by highlighting three issues related to necessary conditions for a metaphor.

First is the issue of structure and representation. A metaphor requires representation of two distinct concepts. In verbal modality they might be connected, in an overt way, with "copula" (ex. "Man is a wolf") or, in a more general, covert way, with a word whose figurative meaning departs from its literal, most basic one. In both cases, the syntactic structure binds two concepts to indicate presence of a potential metaphorical interpretation. In visual domain, however, there is no such binding structure to connect two concepts metaphorically. Creators of visual metaphor heavily rely on different spatial-physical arrangements such as "homspatiality" to indicate a metaphorical relation between two concepts.

The second issue is related to the identification of target and source. In a metaphor, the target and the source should be clearly distinguishable. In this regard, verbal metaphors are blessed with the linguistic structure, which helps in making a distinction between the source and the target of the metaphor. But there are no such accepted reading structures in visual domain to indicate the target of the image. Thus the selection of the target and the source primarily depends on the subjective manipulative ability of the creator and the context in which the metaphor is to be interpreted.

Finally, the third issue is related to the directionality. Metaphors are directional as features follow from the source to the target. Features are detectable as the target and the source are clearly distinguishable in verbal modality. Moreover, features in verbal modality are imagined providing the possibility of multiple interpretations. Images, on the other hand, are bound by explicit perceptual features such as color, shape, contrast, etc., which restrict the imagination on one hand and anchor the interpretation by manipulating them.

Based on our analysis, we conclude that the major differences between verbal and visual metaphor comprehension can be attributed to the difference in the perceptual processing and structure of visual and verbal modalities.

*Keywords:* verbal metaphor; visual metaphor; differences



# The effect of metaphorical expression and “action-emotional state” description on emotional evaluation

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This study investigates how expression type (literal or metaphorical) and topic description type (action or emotional states) affects emotional evaluation of expressions. Previous study suggested that metaphorical expression seems appropriate to explain emotional states rather than action (Fainsilber & Ortony, 1987). However, it is still unclear in what aspect metaphorical expression is appropriate to explain. Here, we hypothesized that metaphorical expression is appropriate to express emotional state rather than action in a point that it is well discriminated from one emotion and the other in valence-arousal dimensional space

To test this hypothesis, we collected 368 examples of different expression types and topic description types and four emotion types (relaxed, joyful, angry, and sad). Each of these emotion type corresponds to one of quadrants in Affect Grid (Russell et al., 1989). Forty undergraduates rated the emotion of expressions using an Affect Grid consisting of a two-dimensional valence-arousal space.

Analysis of variance for each of dimension in Affect Grid (valence, arousal) results showed that participants rated (i) more positively in positive valence expression (joyful and relax) and more negatively in negative valence expression (angry and sad) on expression of emotional state than expression of behavior, and (ii) higher arousal in joyful and lower arousal in relax on expression of behavior than expression of emotional state. Furthermore, linear discriminant analysis showed there was no significant difference between literal and metaphorical expression in correct discrimination rate.

Our main finding of results suggested that explaining emotional state using literal is the best way if we want listener to understand emotion correctly using valence-arousal dimensional space. Also, in terms of literal expression and metaphorical expression in correct discrimination rate based on valence-arousal dimensions, we found that metaphor is discriminated correctly as well as literal expression.

*Keywords:* comprehension; action; emotion; literal; metaphor

## The elephant in the (oval) room: How the art of political dialogue broke down

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The US political parties' animals and various other metaphorical and comedic characterizations of factions have long been part of public debates. Such, often humorous, reflections serve to highlight ideological differences and open doors to constructive debate and mutual criticism. But when discussion breaks down through eliminating dialogue comeback at an early stage, the possibility for opinion-changing debate deteriorates.

The research presented here utilizes critical discourse analysis (CDA; vid. van Dijk 2015, van Leeuwen 2008) as a prism through which deliberate metaphor (Steen 2010, 2015) is qualitatively observed, in order to dissect discourse and paint a picture of American political life at a point in (turbulent) time prior to and post 2016 Presidential elections. We begin by identifying the phenomenon that is metaphor using MIPVU, while marking it in its three co-existing dimensions: thought, language and most importantly -- communication. The corpus is gathered from online media, i.e. articles, news segments and comment sections where the language of both political elite and vox populi can be scrutinized. Since this language is highly evocative, and reiterations of certain phrases are purposely made, this all points to evident perspective changes (Steen 2010); however, where significant, we do not ignore instances of non-deliberate metaphor in the process. The aim is to shed light on those metaphors in discourse which possibly play a part in shutting down sensible political dialogue.

The findings show that such expressions as basket of deplorables, animals who voted for X, draining the swamp and soft versus tough America, which have all been used as attacks and counterattacks against opposition, do not show true openness to debate but instead assert authority with indifference. Moreover, they are leading, and have possibly already attributed, to the loss of bi-conceptualism (Lakoff 2011), to the significant reduction in ideological common points, and even to a certain fading of the current Common Ground (van Dijk 2002, 2004; cf. Clark 1996). What follows is that the American public (political and civilian) has appropriated the figurative language which is bringing about alienation and further distancing between the opposite sides of the political spectrum.

*Keywords:* deliberate metaphor; political discourse; metaphor in discourse; CDA

## How human are machines? Multimodal metaphors in a scientific film about robotics

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Metaphors provide scientists with ways to interpret, present and manipulate data within particular scientific disciplines, in interdisciplinary as well as in extra-scientific contexts. Metaphorical reasoning is a basic ingredient in doing science because the conceptual power of metaphors provides scientists with efficient ways to explain phenomena and, at the same time, influences the recipients' perception and attitude to the problem. In the globalized technical progress oriented world a movie is one of the most important media for knowledge transfer. A film as a multimodal medium has several channels available to actualize the metaphors.

My current research is conducted using multimodal analysis, interpretative analysis and grounded theory by taking the example of the film "The Human Machine" produced by the German Research Association to the topic "Robot developing". It provides the models of the explication of metaphor in different modes (verbal, visual and non-verbal sound), focusing on their peculiarities and impact on metaphor identification, its construal and interpretation. It is argued, that non-verbal sound creates the emotional contextualization for the science communication (which is normally achieved in other kinds of discourse with verbal stylistic devices). The research includes suggestions about the using metaphorical concept DEVELOPING A ROBOT IS A TEACHING PROCESS. Consequently the robot is described by metaphors of cognition, feelings and perception based on embodiment. The metaphors of mental or emotional state of the robot are supported by post-production tools/means in order to reinforce the effect of the human nature of the machine. It is outlined that metaphors occur not randomly but they construct a metaphorical narrative scenario.

Anthropocentric metaphorical concepts in robotics make a great contribution to the social acceptance for the technical progression by applying acknowledged values and appealing to recipient on the denotative and connotative levels.

*Keywords:* embodiment; narration; scientific films; multimodality; robotics

## The role of food metaphor in Russian English and polish idioms

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Food plays essential role in our life and eating and drinking are universal human activities which are fundamental, life-sustaining elements for human existence. One can expect that they would constitute important sources for metaphorical imagery. Gastronomic sphere is generally used as one of the central source domain in conceptualizing the world and human activities. Feeding is defined by what is generally human nature, characterized by a spontaneous automatism. A well-known saying "We are what we eat" in a way sums it up.

The food image/concept is recognizable, tangible and understandable. Those images are stored in our mind as vivid gestalts or frames of food preparation and consumption. Food triggers a whole spectrum of senses: visual, gustatory, somatic, olfactory, and even auditory ones. The food names, its shapes, tastes and smells are often mapped to human body parts (turnip to head, ginger to red hair) as well as human character (sweet, bitter, etc.). The schema SOMETHING IS FOOD shows the motivated elements from the food domain that are mapped to elements in the target domain. (Eg. he is cool as a cucumber, she is red as beet root, life is just a bowl of cherries).

In some cases those elements are connected with certain emotional and physiological states like hunger, appetite, pleasure or anger, etc. It makes the food metaphor exceptionally relevant while describing different phenomena from the different spheres like material, psycho and mental abstraction. Therefore food metaphor is extremely effective in human communication, especially when used in idioms and collocations. However, in different languages various elements are used as a source to denote similar metaphorical targets. Conceptual structures could be different in various cultures, but Lakoff's idea that metaphors are matters of thought and not merely of language works well in the case when the same source would appear inside idioms of both languages.

The analysis of some metaphorical expressions and idioms cross-culturally will give us an idea which ones are typical and unique for a given culture and which overlap cross-culturally, sharing the same conceptual structures.

*Keywords:* food metaphors; conceptual structures; mapping; source and target domain

## Compassion metaphors

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Compassion is a distinct emotion, consisting of self-compassion and compassion for others. Drawing upon the findings of the psychological, sociological and cognitive researches on the emotion of compassion in the past decades, this paper intends to identify and analyze compassion metaphors concerning the kinds of compassion within the framework of Deliberate Metaphor Theory with the data from BNC and BCC(BLCU Chinese Corpus). And varieties of self-compassion metaphors and metaphors of compassion for others have been found in the deliberate application for the transmission of compassion.

As regards the self-compassion metaphor, it transmits the emotions of self-kindness, common humanity and mindfulness. We have found that the first category of self-kindness metaphor consists of POSSESSION OF A NEW LIFE FOR SELF-KINDNESS, CLEANING THE HEART FOR SELF-KINDNESS, FULLNESS OF HEART FOR SELF-KINDNESS, and so on, which have been deliberately applied in order to extend more cares and tenderness to ourselves for survival and comfort in times of failures. Common humanity metaphors tend to show our feelings of the full-acceptance of the painful or distressing past and the clear awareness to hold the failures or mistakes with a kind sense of shared humanity, which mean the mappings from the source domains of UNIVERSAL IMPERFECTION, UNIVERSAL OBSTACLES IN THE JOURNEY OF LIFE and BROAD HEART OR MIND to the emotion domain of common humanity for our own well-being. And the deliberate application of mindfulness metaphors can facilitate our acceptance of the present moment without any distractions of self-judgments or worries or any other negative impacts from the past or future, which means the mappings from the source domains of EVEN HEART, PUTTING DOWN, and ATTRIBUTION OF THE FATE TO THE HANDS OF THE GOD OR HEAVEN.

As regards the metaphors of compassion for others, we have found that they can transmit concerned attentions with the motivations of the focus on others and a desire to reduce their sufferings, which further highlights the morality of compassionate behaviors.

Compassion is a distinct universal human emotion and this paper is dedicated to the identification and analysis of compassion metaphors from the perspective of DMT. It is expected that much more subtler details could be found in the categorization of the metaphors of compassion both in terms of the specific contexts and within different cultures.

*Keywords:* self-compassion; compassion for others; metaphor; DMT

## Criteria for political metaphorology

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This paper sketches the basic methodological principles and key criteria for "political metaphorology" -- that is, the systematic, theoretically sophisticated, and linguistically and historically sensitive study of political metaphors in political theory, the history of political thought, and intellectual history. The role of metaphors in shaping political thought has been noted, but so far there are no systematic methods for studying them on these fields. Therefore it is pivotal to ask: how should metaphors be studied so that their political point would be highlighted and so that their analysis would advance our comprehension of political thought maximally?

On the basis of a reconsideration of modern metaphor theory, philosophical metaphorology, conceptual history, and earlier forms of non-political metaphorology in the humanities, I will suggest several methodological criteria and illustrate them with examples drawn from the history of political thought. Political metaphors, I posit, must be read contextually, because metaphors often gain their exact meaning from the intellectual, semantic, pragmatic, ideological, historical, etc. contexts in which they are used. Hence they should not be read in terms of the continuity of supposedly transhistorical substances, but functionally with regard to uses, intentions, aims, and argumentative functions -- also taking into account possible discontinuities behind apparent uniformity.

Political metaphorology should mostly be exegetical and produce new knowledge on individual authors in light of their metaphors rather commenting on the metaphors themselves in light of the authors in question. Further, political metaphors are prone to be used in an antagonistic manner against particular ideological positions or rival metaphors, and they must accordingly be read with keen eye for such implicit contestation. Political metaphorology must also be structural in the sense of pertaining to structures of thought and particularly interlinks between different argumentative modes rather than only their verbal expression or the propositional content of individual claims. Last, the approach has to be sensitive to plurality and complexity, since the same argumentative functions are often served by several metaphors, and metaphors also tend to interact with other metaphors and to thereby mutually reinforce each other.

Politics has to do with historical, contingent, and conflict-ridden matters, and a contextual method sensitive to intentions, uses, and functions is therefore absolutely required in order to do justice to the political aspect of metaphors. Equipped with the criteria suggested here, we are in a better position to comprehend the shortcomings of earlier initiatives and thereby proceed toward such an approach.

*Keywords:* metaphor; methodology; politics; history of political thought; political theory; intellectual history; philosophy; conceptual history

## Metaphors and the perceived reasonableness of argumentation

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When asked what would be the first thing to happen if he was in power, Dutch right-wing politician Geert Wilders responded that he would close down the borders, because "the tsunami of Islamisation has to stop" (my translation, de Volkskrant, 2006). By means of this water metaphor, Wilders vividly implies that vast numbers of Islamic migrants are currently entering the Netherlands, resulting in a catastrophe.

Wilders's use of metaphor illustrates its rhetorical potential: metaphor can highlight (or hide, as the case may be) particular aspects of the argumentation that may make the standpoint at issue seem more (or less) reasonable. However, the extent to which metaphors do this has not fully been determined. While Thibodeau and Boroditsky (2013) claim to have experimentally shown that metaphors in natural language substantially influence our reasoning, while Steen, Reijnierse & Burgers (2014) question Thibodeau and Boroditsky's results.

In their article, Steen, Reijnierse & Burgers nevertheless point out "The fact that our results do not correspond with the results of Thibodeau and Boroditsky suggests the need for establishing more precise boundary conditions under which metaphors do or do not impact reasoning". This paper is aimed at establishing such boundary conditions.

Experimental research was conducted on metaphors used as a premise in the argument ("You should not stop exercising when starting a diet, because you shouldn't turn the heater up with all the windows open either"). By means of questionnaires, native English speakers were asked to evaluate the reasonableness of sound and fallacious arguments, in which metaphors were used, in hypothetical dialogue fragments. Only deliberate metaphors were included in the arguments to prompt respondents to perceive the metaphors as metaphors. A repeated measurement design in combination with a multiple message design was used to generate a generalizable set of deliberate metaphors. Additionally, the claims made by means of these metaphors were pretested to make sure they, in principle, did not differ in acceptability -- thus, enabling the ascription of any variation in perceived reasonableness to their argumentative use.

The experimental results show how the use of deliberate metaphor in single argumentation influences sound and fallacious arguments; the results establish more precise boundary conditions under which metaphors impact the perceived reasonableness of argumentative discourse. Consequently, this research can be seen as a fundamental step in systematically determining the affects of metaphors in argumentation.

*Keywords:* perceived reasonableness; argumentation; metaphor

# A quantitative corpus linguistic study on the metaphorical profiles of happiness concepts in Indonesian

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Metaphor of emotion has been a central topic since the inception of the Conceptual Metaphor Theory. Yet, most studies hitherto focused on emotion as a generic category, e.g. HAPPINESS, despite being expressible by more than one term, e.g. joy, happiness, pleasure, etc. Recently, an increasing emphasis has been placed on metaphors for specific emotion concepts under an overarching emotion category (e.g. Stefanowitsch, 2006).

My research investigates the metaphorical profiles of five terms referring to HAPPINESS in Indonesian as expressed in deadjectival nouns with ke- -an affixes, and in root forms: kebahagiaan, bahagia (for BAHAGIA); kesenangan, senang (SENGANG); kegembiraan, gembira (GEMBIRA); keceriaan, ceria (CERIA); and keriang, riang (RIANG). The specific aims are (i) to identify the strongly attracted metaphorical source frames for these concepts, and (ii) how the mapping of the synonyms within these frames reveal each synonym's metaphorical construal. To that end, I bring together insights from (i) metaphorical pattern analysis (MPA) (Stefanowitsch, 2006), (ii) Frame-based, MetaNet approach to metaphor (e.g. Dodge et al, 2015), and (iii) multiple distinctive collexeme analysis (MDCA) (Stefanowitsch & Gries, 2009). The data come from the Indonesian Leipzig Corpora Collection, Indonesian Web as Corpus of Sketch Engine, and ten Indonesian newspapers retrieved via Webcorp. I analysed (i) 1000-random citations for each of the nominalised ke- -an forms, and (ii) combined 593 tokens from all root-nominal forms. Metaphorical patterns for each synonym are categorised for the source frames evoked. The frames are mainly sourced from the MetaNet's repository. Frequencies of the frames are weighted with MDCA to determine their attraction to the specific HAPPINESS concepts.

The results reveal a schematic distinction between HAPPINESS (i) as "intense emotions", and (ii) as "aspirations". Bahagia and senang could belong to the "aspiration" cluster: the top-three attracted frames for bahagia are MOTION TO A LOCATION, CAPTURING, and ACCESS TO A LOCATION. Meanwhile, senang strongly attracts PURSUE, GAIN POSSESSION, and TASTE, inter alia. The remaining three synonyms could represent the "intense" cluster as they strongly attract frames conveying "intensity". For instance, gembira attracts HEATING FLUID and RELEASE LIQUID, while ceria and riang strongly attract the CONTAINING frame, among others.

The results demonstrate that metaphors interact with near-synonyms referring to the same emotion in a way that intra-domain, metaphor-usage variation is revealed. This variation further accentuates the distinctive metaphorical conceptualisations for each synonym within the lexical fields representing the same emotion target domain.

*Keywords:* emotion; synonym; metaphorical pattern analysis; metanet; collocation analysis; conceptual metaphor theory; happiness; Indonesian



# Conceptual Metaphor Theory and its relevance to the study of metaphors in poetry

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The current paper relates to the research I am conducting for my dissertation and taps into people's processing of conceptual metaphors in poetry. Lakoff and Johnson have famously stated that metaphor is pervasive in everyday life, not just in language but in thought and action. The main claim of Conceptual Metaphor Theory (CMT) is that we automatically and unconsciously use conceptual cross-domain mappings to get a better understanding of abstract concepts that we encounter. Building on works of Kövecses (2009; 2015) and Forceville (1999) my paper explores whether CMT is relevant to the study of how people create and process metaphors in poetry.

Using Think Aloud Protocols, I will ask a group of people to reflect on the ways they interpret metaphors in selected poems. Furthermore, I will ask the authors of my selected poems to share their experiences on how they construct metaphors. Lakoff and Johnson claim that "concepts that are used in metaphorical definitions to define other concepts correspond to natural kinds of experience"; experiences that are product of our bodies, our interactions with our physical environment, and our interaction with other people within our culture (1980: 117). To explore whether poets also draw on their "natural kinds of experiences", I will use online interviews which address questions like: What are the origins of the metaphors that you use? What are the factors that influence your construction of metaphorical concepts? Is it a very intentional or unintentional process?

In my analysis I will compare the responses of the readers to the reflections of the authors to detect similarities or differences between the production and reception of metaphors in poetry. I expect that personal experience, our relationships with others, and the interaction with the environment play a crucial role in our engagements with figurative language. Eventually, I hope that my paper can prove that CMT may shed new light on metaphor production and comprehension within the context of poetic narratives.

*Keywords:* conceptual metaphors; Conceptual Metaphor Theory; metaphors in poetry

## On metaphorical views, dynamite, and doodlings: Functions of domain adjectives in metaphorical domain constructions

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This paper offers a systematic investigation of the role of adjectives in metaphorical domain constructions (MDCs) within the framework of Deliberate Metaphor Theory (DMT; e.g., Steen, 2011, 2015). MDCs consist of a metaphorical noun that is modified by a non-metaphorical adjective pointing out the target domain of the noun, such as "budgetary anorexia" and "economic crash". While metaphorical domain constructions are considered a typical manifestation of deliberate metaphor in the literature (e.g., Nacey, 2013; Steen, 2016), detailed analyses examining whether this is indeed the case are lacking. In this paper, we therefore investigate to what extent MDCs count as potentially deliberate metaphors.

We examined the role of domain adjectives in all 187 metaphorical domain constructions in the VU Amsterdam Metaphor Corpus (VUAMC). MDCs were identified manually. Potentially deliberate metaphors were identified by means of the Deliberate Metaphor Identification Procedure (DMIP; author citation).

Results yield three different functions of domain adjectives. First, domain adjectives can function as a signal of potentially deliberate novel metaphor, pointing out a new target domain meaning of the metaphorical noun (e.g., "fiscal thicket"). Second, they can serve as "domain differentiators", disambiguating or specifying the target domain of a non-deliberate conventional metaphor (e.g., "economic mess"). Third, they can signal potentially deliberate conventional metaphors (e.g., "political dynamite"). Overall, 8.5% of all MDCs in the VUAMC count as potentially deliberate. In the majority of cases, MDCs thus do not count as potentially deliberate.

These analyses can be related to the three-dimensional model of metaphor presented in DMT (e.g., Steen, 2011, 2015). At the dimensions of language and thought, domain adjectives always point out the target domain of the metaphor they modify. Yet, this does not necessarily imply that such adjectives also signal the fact that the noun they modify is used as a metaphor in communication between language users, making it a case of potentially deliberate metaphor.

The present paper provides new insights into both the position of MDCs as a typical manifestation of potentially deliberate metaphor, and into the role of domain adjectives in MDCs. These findings serve as a case in point to illustrate that taking a top-down approach to data may lead to the erroneous identification of certain metaphors as potentially deliberate, yielding "false positives". We argue that bottom-up analyses of MDCs are needed to determine in which specific contexts MDCs count as potentially deliberate.

*Keywords:* metaphorical domain constructions; metaphor signaling; deliberate metaphor; domain adjectives; discourse

## Concreteness ratings, meet metaphoricity

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Concreteness ratings (e.g., Brysbaert et al. 2014; Paivio et al. 1968; Spreen & Schultz 1966) are widely used in disciplines such as psycholinguistics (e.g., Ferreira et al. 2015), and cognitive linguistics (Dunn 2015). One important feature of such rating studies is that participants rate words in isolation -- i.e., without information about the intended meaning of the word (but see Gilhooly & Logie, 1980). Yet, many words have more than one meaning, one of which may be more concrete than the other(s).

We connect this issue with metaphoricity, because metaphors typically align an abstract meaning to a more concrete one, within the same word. "Deluge", for instance, can mean "heavy fall of rain" (non-metaphorical, relatively concrete) or "lot of things happening" (metaphorical, relatively abstract). While rating, different participants may refer to different meanings of the polysemous word, yielding a single, conflated, concreteness score (e.g., for "deluge",  $M=3.48$  on a 5-point Likert scale in Brysbaert et al. 2014). This issue potentially reduces the validity of the concreteness scores. In this paper, we therefore investigate to what extent the concreteness scores of words differ when different meanings (metaphorical versus non-metaphorical) are triggered.

In a small-scale study, we collected new concreteness ratings for 90 nouns that have both a metaphorical and a non-metaphorical meaning. Each of the 230 participants in our study provided concreteness ratings for all 90 nouns, half of which were presented with a metaphorical definition, and half which with a non-metaphorical definition. We calculated average concreteness scores for the metaphorical as well as the non-metaphorical meanings of all nouns.

Results demonstrate that, for most nouns in our dataset, the average concreteness scores were significantly higher for the non-metaphorical meaning than for the metaphorical meaning of those nouns. For some cases, no difference in degree of concreteness was found between the two meanings. A clear case in point is "millipede" which refers to an insect with many legs in its non-metaphorical meaning, but can also be used -- metaphorically -- to refer to a vehicle with many wheels. In this case, both meanings were rated as (relatively) concrete ( $M=6.56$  and  $M=6.35$ , respectively).

We conclude that metaphoricity critically affects the perceived concreteness of a word. We therefore suggest that it is useful to take this variable, as well as other types of polysemy, into account in future concreteness rating studies.

*Keywords:* concreteness ratings; empirical methods; metaphor

## Resistance to metaphor in British public bill committee debates

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This paper studies metaphor use in British Public Bill Committee debates by focusing on the way in which argumentatively employed metaphors, in the form of figurative analogies, are countered by means of argumentation. In these legislative debates, legislators sometimes frame their arguments in metaphorical terms. These so-called figurative analogies can mislead legislators into taking wrong decisions with regard to the acceptability of a bill by oversimplifying the issue under discussion. This suggests that resisting figurative analogies by putting forward argumentation aimed at countering them is a crucial and necessary skill for legislators in order to come to a well-informed decision about the acceptability of the proposed legislation.

It is the goal of this paper to explore the phenomenon of countering figurative analogies in authentic legislative debates, and to show that resistance to figurative analogies is a complex phenomenon comprising various types of criticisms to different types of metaphor. To this end, we analyse case studies of resistance to figurative analogies found in the British Public Bill Committee debates on the Education Bill 2010-11 by making use of the three-dimensional model of metaphor (Steen, 2011a) and the pragma-dialectical theory of argumentation (Van Eemeren, 2010). These two theories provide diverging, yet complementary and compatible perspectives on the phenomenon of resistance to metaphor; the metaphor theory allows for studying the linguistic, conceptual and communicative properties of the metaphors that are employed argumentatively in figurative analogies, and argumentation theory enables analysing the argumentative properties of the figurative analogies and the resistance against them. The innovative combination of a metaphor theory and an argumentative theory as proposed here is particularly well suited for the purpose of this study, because it permits approaching metaphor and argumentation from a comparable view of discourse events as genres (Steen, 2011b) or argumentative activity types (Van Eemeren, 2010).

*Keywords:* metaphor; figurative analogy; argumentation; legislative debates; resistance to metaphor

## Why are metaphors used in psychotherapy?

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This paper addresses the role of metaphors in therapy sessions. More specifically, we investigate metaphors used by the therapist in order to allow the patient to see the problem from a different point of view. For example, when a patient is discouraged by starting a new job, the therapist tells him to consider it as "a stepping stone". A therapist usually introduced a metaphor in order to indicate an alternative possibility, especially when patient's mind became stereotypes and rigid (Siegelman 1990). In the same line, Lenrow (1966) explains that an appropriate metaphor allows the patient to observe his way of judging situations. The first aim of this study is to examine the characteristics of these metaphors and more precisely their function at a communicative level. The second aim is to investigate what are the effects of these characteristics on the patient with respect to the degree of lexicalization of the metaphor (Sperber & Wilson 1995).

Our corpus consists of transcripts of therapy sessions by twelve different therapists from the data published online by Alexander Street Press. It comprises thirty English therapy sessions (368 pages) in which various topics are discussed. The method used for identifying linguistic metaphors in my corpus is called MIPVU (Metaphor Identification Procedure VU University Amsterdam) (Steen et al., 2010). This method permits to detect each discourse unit that may be interpreted as a metaphor.

Our first results reveal that these metaphors are characterized by a positive value, which means that they are used in order to decrease the patient's problematic situation. It is as if the therapist put a positive image "over" the patient's problem. A second characteristic of using metaphors in therapy is that after hearing the therapist's metaphor, the patient needs to confirm the appropriate choice of the metaphor by uttering a kind of feed-back through expressions such as: yeah, exactly, correctly. These expressions are usually immediately expressed (in the same turn-taking). In conclusion, this study focuses on the therapist's ability to create a metaphor, which helps to modify the patient's negative mind. These metaphors have become an interesting instrument to investigate for therapists because they are visual and concrete.

*Keywords:* metaphors; psychotherapy; MIPVU

## Battery for the assessment of figurative language in youth: The psychometric conclusions from pilot study

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The data analysis shows that dyslexic's features of language prove a huge range of language problems (Krasowicz- Kupis, 2009, Snowling, 2000; Snyder, Downey 1997). Except phonological aspects of language deficits, children with dyslexia are also in deficit of language utterance form and on semantic, pragmatic level. There are few tools to measure figurative language. Generally, there are only set of experimental trial. Due to, few number research of ability to understand metaphors by dyslexic youth, the attempt to develop standardize battery MeRCI (Metaphors: Recognition, Comprehension, Interpretation) has been taken. MeRCI registers pragmatic language among teenagers. The theory assumptions, adopted during tool structuring, refer to R. W. Gibbs' model of figurative skills (1994, 2012).

MeRCI battery consists of two parts, measured ability to use: 1) proverbs, 2) metaphors/idioms. Each part has three types of tasks, which check level of a) recognition, b) comprehension, c) interpretation, forms of metaphorical language. The structure of MeRCI battery was multistage. Firstly, it was made a profound analysis of textbooks, which the proverbs and the phrasemes were chosen in. Secondly, the basis of 400 items was compiled included frequency of using forms of figurative language. After that, all items were evaluated by competent judges in terms of transparency and level of difficulty on a 0-3 scale. The set of pilot study consists of 180 items. The studies were carried through randomly chosen group of 100 students from middle schools. There were also students with dyslexia, diagnosed during psychological testing. Polish language was the first language for all the selected subjects. The research was realized in four sessions lasted 45-minutes, and two 90-minutes sessions.

In a result of conducted analysis of reliability (alfa Cronbacha), there were removed more than half of items from the MeRCI battery. Eventually, the MeRCI battery consists of 60 items: 30 proverbs, 30 metaphors/idioms. MeRCI battery characterizes of high reliability (alfa=0,82 for majority of items), which shows method's internal coherence. The further stage will be the MeRCI battery's standardization in order to elaborate age norms.

The construction of battery for measuring language ability on abstractive level is multistage process, which should consult cultural factors. It is really crucial, because they have influence on recognition, comprehension and interpretation forms of figurative language .

*Keywords:* figurative language; dyslexia; youth; recognition; comprehension; interpretation; metaphor

## Metaphors we save the planet by

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Due to increasing over-consumption, gas emission and waste resulting in disastrous consequences for the world population, critical changes should be made to slow down or prevent ecological destruction. These changes presuppose not only producing more efficient green products, but forming a different society living by different stories. The problem is that these stories are so deeply rooted in people's minds, that changing them seems to be a challenging task. Stories we are told by economists, advertisers, environmentalists employ powerful metaphors that make our societies think about environmental issues in a particular way.

An ecolinguistic approach taken in the current research aims to reveal how metaphors as special types of frames (Burgers, Steen 2016) can challenge the stories we live by and change people's perspectives of such issues as climate change, global warming and pollution: EARTH IS A SPACESHIP, CLIMATE CHANGE IS A TIME BOMB, CLIMATE CHANGE IS A ROLLERCOASTER, or CLIMATE CHANGE IS AN ANGRY BEAST. Some researchers claim we need both the clever technologies, wise policies to respond to environmental crisis and less anthropocentric metaphors (Garrard 2012). By looking at metaphor as a multimodal phenomenon, I will examine print advertisements and try to show how metaphor-rich texts we are exposed to can cause us to act in a more responsible and sustainable way.

In this respect, central to the examination of discursive and visual data is the fact that ads tend to represent a product or service promoted as being in a relationship with nature. In this case the text works at least on two levels of analysis and sometimes may be classified as environmentally damaging. We have become so accustomed to horrifying pictures featuring our planet that we treat them as something taken for granted. So, by creating a powerful and vivid metaphor advertisements should dramatically reframe environmental issues and make people think about them as problems pressing to be solved.

The question is what stories we should tell about who we are, and what it means to be human? Which stories are beneficial and which are destructive?

*Keywords:* climate change; metaphor; multimodal; frames; reframing

# Understanding European data privacy law: Applying cognitive linguistics to conceptual change in the digital age

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The quest for how legal concepts generate and reproduce themselves is one of the most intractable and difficult to answer. This is even more true when old concepts are used to understand new realities, such as digital privacy. Traditional views notwithstanding, some legal scholars have looked at the development of jurisprudence along the lines of network theory. However, the methods utilised to trace the power of precedents on courts still struggle to capture intricate, if not more subtle, conceptual change and lack focus on the intertextual links through precedent networks. This paper investigates the conceptual links throughout the precedent chain using the guiding hand of cognitive linguistics; namely, conceptual metaphor to explore the intertextual and conceptual justifications judges make to interpret older concepts to those new realities.

This paper utilises computer-aided coding methodology (Kimmel 2012) to explore the use of metaphor to build conceptual structure concerning data control in EU law, focusing on the recent "Safe Harbor" case in the European Court of Justice. The goal is to answer the question: how can metaphor analysis help clarify the transfer and interpretation of legal concepts throughout a chain of precedent and understand the concepts through which data privacy via traditional privacy are built?

The scaffolding on which the law's abstract concepts are built is taken apart to reveal the underlying, non-abstract components of how ideas link together and affect conceptual transformation. The paper outlines the process in which precedents utilise and combine distinct and dominant strands of spatial metaphors in the precedent network leading up to the decision in the Schrems case and how the blending of these frames allow judges through availability of dominant metaphors to justify their interpretations to circumstances that have a tentative fit in older legal concepts.

The paper provides a test case for metaphor processing in law as well as proof of concept for larger automated processes of metaphor coding in the legal realm. It argues for a supplement to the traditional method of legal category building and holds out an extended arm from the world of cognitive linguists to the conceptual mores that is law.

*Keywords:* metaphor; legal linguistics; law and language; conceptual blending



## The interaction of multimodal metaphor and metonymy in death announcement posters

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The aim of this study is to employ the cognitive linguistic paradigm to analyze multimodal metaphors and metonymies in death announcement posters in Iran. The data for the study consists of 2000 death announcement posters gathered from different cities in the extensive country of Iran. In order to identify the relevant visual and verbal metaphors, Forceville's (2002, 2005a) method and the metaphor identification procedure of the Pragglejaz Group (2007) were used. The framework used here is a revised version of Max Black's (1979) interaction theory, which was complemented by much of Forceville's (1994, 1996, 2002, 2005, 2008) works. Two major questions are addressed in this study: how multimodal metaphors and metonymies interact, and how this interaction can lead to creating meaning in the death announcement posters in Iran. The analysis shows how some major conceptual metaphors of death such as death is god's mercy, death is a journey, death is a flight, death is sunset, the memory of a dead person is alive, and so on are manifested in visual and verbal discourse. In death announcement posters, these visual and verbal elements are dependent upon each other and combine into conceptual blends with visual and verbal modes as their input spaces.

*Keywords:* conceptual metaphor; metonymy; blending; multimodal manifestations; posters

## From the literary to the linguistic: The power of metaphors

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The relevance of a text over a work today is due to a radical reversal from the semantic(literary) to the syntactic (linguistic) reading .This has created the greatest challenge in today's reading. The unconscious of a text lends new readings and every new reading is due to the transformation which language makes. Language creates reality and does not reflect reality which takes us to the next premise that there is no point outside language from where language can be viewed objectively. The legacy that language leaves us with today is the chain of metaphoric links in the unconscious of a text which can catch the readers' unconscious at any moment. This ontological encounter makes metaphors a pretty dangerous weapon since it has the power to outstrip conventional reason.

While teaching literature, I was often intrigued with the numerous readings a single canonical text has lent me in every new reading. I would like to share my reading of Shakespeare's "The Tempest" whose dangerous use of puns has given him an astonishing status among the other dramatists. His puns which move very elusively within the unconscious of the text which has demolished the boundary between text and reality. My reading of the above text has revealed a Catholic code with Prospero as the Catholic priest and his ability to administer sacraments to a whole congregation. Act I brings a ship of sinners to this island which is served by Ariel the spirit and perpetually disturbed by Caliban who according to Prospero is the unredeemable sinner. Act II prescribes the sacrament of confession and repentance, Act III is the Banquet Scene where Heavenly "Manna" is given to the penitent sinners. The fourth act befriends them with God and with fellow human beings through the token of reciprocation of peace. Fifth act is a reversal of Act I where the tempestuous seas are now calmer and heavenly.

Indeed Shakespeare has made a powerful use of the metaphor of a tempest and a new insight namely that of the Catholic Mass which the text gives out as one of its deconstructive readings is really astonishing. This has prompted me to believe that a metaphorical reading is indeed a deconstructive one too.

*Keywords:* unconscious of the text; elusive puns; language creates reality; language transforming itself; deconstructive reading

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Metonymical expressions relating emotions to facial display are embedded in an embodied experience where the observable physiological changes of a particular emotion stand for the emotion: THE PHYSIOLOGICAL EFFECTS OF AN EMOTION STAND FOR THE EMOTION (Lakoff and Kövecses, 1987). In this paper, the focus is on metonymical expressions referring to emotions in Northern Sotho[1], in which the lexical item "face" appears. The question is whether the distinct syntactic patterns involving "face" metonymies point at a scripting of emotions that is different from the typical Anglo-American scripting in which control over emotions is emphasized.

The study is corpus-based, utilizing an unannotated 7.4 million corpus as primary data source.

Kidron and Kuzar (2002) point out that control is a central issue in the conceptualization of emotions. Emotions are encoded through different linguistic scripts, signalling different degrees of control. An analysis of 1 489 KWIC lines in which the lexical item sefahlogo "face" is used in metonymical expressions referring to emotions, reveals two distinct linguistic patterns. In the first, "face(s)" appears as the object of a sentence, preceded by a causative verb, with a human subject as agent, i.e. "someone makes his face do something, e.g. bow down, wake up". In the second, "face(s)" appears as the grammatical subject of mostly intransitive verbs. The first pattern suggests that the experiencer has control over the emotion represented by the metonymical expression -- apart from the inherent notion of agentivity linked to the human subject, the causative nature of the verb confirms that the subject has control over the event.

In the second pattern, "face" is used as the subject of the sentence, followed by a mostly intransitive verb: Sefahlego sa gagwe se be se fodile "Her face was calm" -- the "face" metonymically representing the experiencer of the emotion. There is an important difference between the two patterns. In the first set, the experiencer of the emotion is implicitly present in the frame of the discourse, being the subject of the causative verb. In the second set of examples, the experiencer is absent, being metonymically represented by a body part. In the latter case, this could signal a lesser degree of control over emotions and inclines more towards the folk theory of emotions, according to which humans are perceived not to have control over the experiencing of emotions.

[1] Bantu language (S32) spoken by 4.5 million speakers in South Africa

*Keywords:* metonymy; control over emotions; emotional scripting; bantu language; metonymies involving face

## Time as a visitor in Japanese children's songs

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The aim of this study is to show a subtype of Moving-Time metaphor: time as a visitor in Japanese children's songs. In most research, motion metaphor of time is distinguished at least two types: Moving-Time and Moving-Ego. Some researchers try to give a unified explanation to these two, arguing that the movement of time is construed subjectively by a moving ego. However, some motion verbs in Japanese are not used to describe subjective motion, which presents a limitation of the Moving Ego-centered view. According to Ogami, Moving-Time metaphor can be divided into "approaching" and "visiting". Examining the data from Japanese children's songs, I support the Ogami's idea and compare Visiting Time with Approaching Time.

The expressions including words related to time (e.g. spring, summer, autumn and winter) were extracted from famous children's songs. The expressions are then analyzed from the perspective of cognitive linguistics with a focus on the following three points (i) which the mover is, i.e. time or a human, (ii) where the time heads for, and (iii) what the time does after the arrival. When seasons were described as a visitor, they show the contrastive characteristics with Approaching Time as shown below.

(i) mover

Approaching Time: a human

Visiting Time: time (see the example (1).)

(ii) destination

Approaching Time: a deictic center

Visiting Time: various places such as mountains (see the example (2).)

(iii) after arrival

Visiting Time: staying in the surrounding nature (see the example (3).)

(1) Haru-yo koi. Hayaku koi. (...) Mii-chan-ga (...) ommo-e detai-to mat-teiru.

"Come, spring. Come quickly. A girl called Mii-chan has been waiting, saying that she wants to go out."

(2) Haru-ga kita. Doko-ni kita. Yama-ni kita. Sato-ni kita. No-ni-mo kita.

"Spring has come. Where has it come? It's come to the mountains, to the villages, and also to the fields."

(3) Tsuta-no happa-ga makka-dana, momiji-no happa-mo makka-dana. (...) Kimi-to Boku, makka-na aki-ni kakomare-teiru.

"The leaves of vines and maples are red. You and I are surrounded by red autumn."

In Japanese children's songs, time is often described as an awaited visitor who comes up to where living things live. People recognize the time passage metonymically from the surrounding nature. This type of metaphor can be distinguished from subjective construal of Ego Moving metaphor, i.e. Approaching-Time metaphor.

*Keywords:* metaphor; time moving; ego moving; subjective motion; approaching versus visiting

## From bodily synchrony to understanding: The case of metaphors about feelings

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Discussing metaphorical utterances about feelings, tastes and music, Pugmire (1998:100) points out that the classificatory scheme for these experiences in a language may be less fine-grained than the experiences it is called upon to record. "The niceties of the experience", then, "can't be put into words because there aren't the words for them in their full specificity" (1998:91). Consequently, a central concern is whether metaphorical utterances used to convey feelings correspond to a proposition that could have also been phrased directly, making the metaphor dispensable, or not. Pugmire's conclusion is that, while that is sometimes the case, a direct alternative to metaphorical expression is not always available. Instead, metaphor lends "an oblique public character to feelings" while feelings can be "completed in metaphor" (1998:97,101; emphasis added). But if they do not rely on recognition of the speaker's intention (Grice 1975), then how do metaphorical utterances about feelings become meaningful?

According to Pugmire, a metaphor that successfully evokes the speaker's experience of a feeling for the hearer necessitates that the hearer possess a similar experience that he may draw on to correctly interpret the speaker's metaphorical utterance. This claim finds preliminary support in experimental research on bodily synchrony. Researchers on synchrony point out that moving "in synch" is an important foundation of social interaction because periods of temporal coordination lead to enhanced sociality. Stable patterns of coordination (in-phase and anti-phase synchrony) have been shown to increase liking, facilitate person perception, enhance altruistic behavior and cooperation and, crucially, blur self-other boundaries (Lumsden et al. 2012:746). In addition to the influence from behavioral synchrony to psychology, an effect in the opposite direction, i.e. an influence from psychological qualities to behavioral synchrony, has also been found. This experimental line of work "provide[s] evidence to colligate low-level motor behavior with higher-order social cognitive processes" (Lumsden et al. 2012:749). Most interestingly for our purposes, it raises the possibility that, by blurring the boundaries between self and other, coordinated behavior (a type of shared experience) may sustain the type of "joint thinking" needed for hearers to pick up the inferential trail of speakers' thoughts and amplify them beyond the speaker's intention.

Shared experience, then, may indeed provide the springboard for successfully partaking of another's inchoate thought, when rational (Gricean) inference is unable to do so.

*Keywords:* bodily synchrony; feelings; Gricean inference; intention recognition

## Metaphoricity in proverbs: A corpus study of the proverb "a leopard cannot change its spots"

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Are proverbs metaphorical? Turner and Lakoff (1989) define proverbs as commonly metaphoric in nature. However, Mieder, the greatest paremiologist today, seems to be in conflict with himself stating (1985): "Proverbs are short, generally known sentences of the folk [...] in a metaphorical, fixed and memorisable form", but "there are plenty of common proverbs [...] which are not metaphorical" (Mieder, 1989:20). According to Conenna & Kleiber (2002) and Villers (2014), metaphoricity is a facultative criterion of proverbs, not a defining one. In this paper we want to study the metaphorical behaviour of a proverb: a leopard cannot change its spots.

In order to find how this proverb is used or alluded to we have queried the SketchEngine corpus EnTenTen. This procedure helped in determining the existence of variants of this popular adage. A query on the string A leopard cannot change its spots alone would not show much; Steyer (2015) advocates the search for key word lemmas extracted from the prototype form of the proverb. Hence, a modified query, of the co-occurrence of the lemmas leopard, change, and spot within a span of ten words, yielded us many variants.

The search revealed that leopard is used both in singular and plural, change in all tenses and even spot is not confined to the predictable plural. The proverb is used with and without negation, and often in an interrogative form: Can a leopard change its spots? A change in the determiner from its to his and even her was found (Theresa May - the leopard who changed her spots). The usage suggests that the proverb is mainly metaphorical, but it can also be de-metaphorized: New species shows leopard can change its spots (scientists discovered a new species of leopards in 2007: the Borneo clouded leopard).

Our findings show that a proverb can be used in many different ways in context and in many different forms. The metaphoricity of this particular proverb can be more or less specific, from the general meaning No human being can change his nature to a group of human beings (like thieves, liars, or terrorists etc.) to one specific person. A question we will try to answer is how flexible a proverb can be before we have to say this is not a variant of the actual proverb any longer.

*Keywords:* proverbs; metaphoricity; variability

## Deliberate metaphor in ancient Greek prose: Allusion and genre interaction as a sign of deliberate metaphor use

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For the study of metaphor in ancient Greek, as in other dead languages, the contemporary theory of metaphor (Lakoff & Johnson, 1980; Lakoff, 1993) poses considerable difficulties: for lack of data from everyday language users, it is hard to determine whether metaphors are conventional or novel, and experiments into thought processes of ancient readers are impossible. Metaphors in classical poetry have ever remained the object of scholarly attention, but in prose they tend to be dismissed from literary analysis because of their supposed conventionality. Without disregarding contemporary metaphor theory, Deliberate Metaphor Theory (DMT: most recently Steen, 2017) offers a new angle to approach the metaphors in ancient Greek prose. Its focus on the role of metaphor in communication instead of thought offers a way to bypass the question about conventionality, as both conventional and non-conventional metaphors may be used deliberately (e.g. Steen 2008: 225). This paper further explores the benefits of DMT for the study of metaphors in ancient Greek prose with a case study from Herodotus' Histories (fifth century BCE), focusing on two possible signals of deliberate metaphor use: allusion and genre interaction.

When Herodotus describes how Persian kings bridged and crossed rivers, he repeatedly uses ζευγνύμι (zeugnumi), "to yoke", instead of the regular word for "to bridge", γεφυρόω (gefuroō). The metaphor already appears as one of the central images in Aeschylus' Persians (Petrounias 1976). Because of its prominent position in an influential tragedy, there are two reasons to consider the metaphor deliberate. First, allusion may be one of the signs of deliberate metaphor use (Steen 2010). Second, I argue that the familiarity of the metaphor from a text in a highly metaphorical register like the Persians alerted Herodotus' audience to the metaphor as a metaphor. Its appearance in a different, less-metaphorical register like Herodotus' prose would have made the word even more conspicuous, similar to the conspicuousness of "literary" images in abstract contexts (Steen 2016).

With this example I aim to show that DMT is a helpful tool to further our understanding of metaphor use in ancient Greek prose. Additionally, the study of Herodotus' Histories, a work that offers a prose text interacting with metaphors from poetry, may provide DMT with new insights into the role of allusion across different genres in the determination of deliberate metaphor use. In short, Deliberate Metaphor Theory can bring the supposedly dead metaphors in ancient Greek prose back to life.

*Keywords:* historiography; prose; ancient Greek; genre interaction; allusion; Deliberate Metaphor Theory; communication; Herodotus

## Creative and constructive language production: Linguistic co-creation of health campaign slogans on Facebook

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New opportunities for researching language production (and particularly metaphor production) in natural settings have emerged through online co-creation, which enables audience members to become active contributors to pro-social campaigns (Zwass, 2010). A recent campaign by the Dutch Cancer Foundation aimed to set non-smoking as the social norm by asking audience members on social media to produce and share a metaphor through completing the slogan "Smoking is sóóó..." with something old-fashioned (e.g. Playstation 1). We explore whether linguistic cues (presence of metaphor flags like "so" or "sóóó"; Steen et al., 2010) and online quality cues (e.g., number of likes) impact the production of such slogans.

To answer this question, we conduct a production experiment with a 3 (metaphor flags: absent, "so" or "sóóó") x 3 (none, few, or many Facebook likes for previously posted slogans) between-subjects design, in which audience members co-create slogans for Facebook in a controlled research environment. We present participants with different linguistic cues in the opening of the slogan and different cues of the online environment to study how they influence the ending of the slogan and lead to creative and constructive slogans.

The experiment is currently being conducted and results will be presented at the conference.

*Keywords:* language production; slogans; metaphors; social media; cocreation; health communication



# The pleasure of visual metaphor: A dual-process perspective pitting fluency theory against the optimal innovation hypothesis.

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An intriguing aspect in advertising research on visual metaphor is the relation between cognitive processing and experiencing pleasurable feelings. Two contradictory theories describe this relation. Reber et al.'s (2004) processing fluency theory assumes that the more fluently the perceiver can process an object, the more aesthetic pleasure he experiences. However, the work by Giora et al. (2004) inspired by Berlyne (1971) shows a preference for more innovative stimuli, coined as the Optimal Innovation Hypothesis. Pleasurable feelings can thus be induced by simple stimuli (Reber et al., 2004) or by more challenging stimuli (Giora et al., 2004).

These contradictory theories may be aligned in the dual-process theories (Graf & Landwehr, 2015) which distinguish an automatic, fluency-based response to simple stimuli from a more cognitively mediated, controlled response to challenging stimuli. Exposure time may work as a pivot between these two mechanisms (Jakesch et al., 2013): a short exposure time triggering an automatic processing mechanism and a longer exposure time triggering a controlled processing mechanism.

We tested this assumption with different exposure times and visual metaphors varying in complexity. We used the structure of visual metaphor (Phillips & McQuarrie, 2004) to operationalize its complexity: juxtaposition (showing source next to target), fusion (showing source and target integrated) and replacement (in three variants: only showing the source, showing the source in the target context, showing the target in the source context). We carried out three experiments (n=109, n=122, n=164 respectively, mainly students) with Visual Metaphor (juxtaposition, fusion, and replacements) as within-subjects factor and Exposure Time (100ms, 1000ms, 5000ms) as between-subjects factor. Our DVs were aesthetic pleasure, felt fluency, and actual comprehension.

The results showed a similar pattern in all three experiments. At 100ms, the differences between the metaphor types were minimal, showing no clear indication of an automatic mechanism that would yield a preference for the fluently processed juxtaposition ads. At 5000ms, aesthetic pleasure was highest for the visual metaphors that were innovative and felt as fluent: the fusion ads. Visual metaphors that were less innovative (juxtaposition) or felt as less fluent (replacements) were enjoyed less.

We conclude that the fluency theory and the optimal innovation hypothesis seem to be no rivals but rather team players. Even with ample time, people enjoy those visual metaphors that are innovative and felt as fluent to process at the same time.

*Keywords:* visual metaphor; pleasure; processing fluency; optimal innovation

## Metaphors in different types of arguments

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In contemporary metaphor research, metaphors are not seen as merely linguistic expressions to embellish a speech, but as mappings in thought between two domains (Lakoff & Johnson 1980) which can be expressed in language and can have particular communicative functions in discourse (Steen 2017). This paper examines a specific function of metaphor, namely its function as an argument to support a standpoint. Until now, not many argumentation theoretical accounts of metaphors exist. Studies that do take an argumentative perspective usually only consider metaphors as some kind of analogy arguments (e.g. Hastings 1962; Schellens 1985; Garssen & Kienpointner 2011; Santibáñez 2010). In addition, in such studies the distinction between deliberate and non-deliberate metaphors (Steen 2008) is lacking, while this distinction is crucial for understanding the communicative function of metaphor in discourse.

In this paper, an inventory is made of the theoretically possible uses of deliberate metaphor in argumentation, using pragma-dialectics as a theoretical starting point and Steen's Deliberate Metaphor Theory (2017). The pragma-dialectical theory provides a model for a critical discussion which describes all the moves that are relevant for solving a difference of opinion. It also provides an overview of argument schemes that enable the analysis of metaphors in different types of argumentation. Based on the analysis of various real and hypothetical examples, this paper shows that metaphors can be used to express various kinds of relations in argumentation, such as causal and symptomatic relations. The use of metaphors often results in complex argumentation, as metaphors can express both such a particular relation and an analogy at the same time. Metaphors can thus be relevant contributions to a discussion, not only as analogy arguments, but also in other types of arguments.

Combining the pragma-dialectical approach to argumentation with Deliberate Metaphor Theory allows for a more precise account of argumentative metaphor use and offers a framework for analysing (and evaluating) metaphors. In this paper it is concluded that metaphors are not merely presentational devices, but substantial arguments. Moreover, metaphors can be part of analogy, causal and symptomatic argumentation, either at the main level or at a subordinate level.

*Keywords:* argumentation; analogy; deliberate metaphor; pragmadialectics

## Thinking about pictorial metaphor comprehension: A study of the genre

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An advertisement makes people buy a product [1], [2] and a political cartoon makes a critic of politics often using humor[3]. The current study investigates the creation of metaphor in both genres.

At first, twelve native French students in psychology should indicate if an animal refers to a positive or a negative feeling. There were 24 animals (e.g. the ant, the bear, the camel, the chameleon, the cicada, the elephant, the fox, the gazelle, the leech, the magpie, the monkey, the mouse, the ostrich, the parrot, the pig, the raven, the rooster, the saint-bernard, the shark, the sheep, the snake, the tiger, the turkey, and the wolf). Then, participants were asked to select an animal and were invited to write an essay on four topics: two advertisements (e.g. Renault and BMW) and two political cartoons (e.g. about Trump and Obama). They should refer to the animal they choose to write their essay. For instance, if they chose a fox to write an essay about Obama, they should use metaphors of the fox (i.e. being smart as the fox) as much as possible. Finally, participants should imagine what does the advertisement, and the political cartoon look like choosing between three types of pictorial metaphors[4] (e.g. contextual metaphor, simile, or hybrid), which one was the best to depict each genre visually. For instance, a hybrid consists imagining Obama with a body of an animal. Considering the aim of both genre, our expectations were that political cartoons are judged more negatively while advertisements are judged more positively. Besides, French advertisements often show cars in context; we assume that contextual metaphors are preferred for advertisement. About political cartoons, we assume that comparisons are preferred.

Results show that advertisements are judged more positively, than political cartoons. The judgment of political cartoons is balanced. Indeed, Trump is judged more negatively while Obama is judged more positively. It is also interesting to notice that when the essay refers to a positive feeling, metaphors are put forward by property attribution (e.g. powerful, nice) whereas when the essay refers to a negative feeling, metaphors are mostly conceptual (e.g. he flies over his opponent, he jumps on his target).

Considering the genre of the metaphor, different types of pictorial metaphors are preferred. Besides, when essays are positive, the metaphor is focused on property attribution while when essays are negative, the metaphor is focused on conceptual metaphor.

*Keywords:* metaphor; genre; advertisement; political cartoon

## Grounding metaphorical concepts in action

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Conceptual knowledge is embodied, namely, via our body we are able to realize abstract concepts and to modulate abstract reasoning in general (Gallese & Lakoff, 2005; Cuccio et al., 2013, Barsalou, 2016). Many concepts, as changes, states, causes, purposes, are cognitively grounded on the metaphorical mapping of embodied concepts related to concrete domains (e.g. Force, Movement and Space), which are linguistically codified by verbs. We analyze general action verbs, which refer to cognitively different physical actions ("primary variation") and to abstract concepts (e.g. "To push over the limit") or nonphysical events ("marked variation").

The research focuses on the categorization of metaphorical uses of 20 high-frequency Italian general action verbs within the IMAGACT framework ([www.imagact.it](http://www.imagact.it); Moneglia 2014; Panunzi et al. 2014). The IMAGACT multilingual ontology identifies the action categories referred to by general action verbs by means of prototypical scenes (1,010 scenes in total). The predicates marked variation was categorized with respect to the type of marked use (metaphors, metonymies, idioms) (Goossens, 1995; Brown, 2014). Each type was then related to the scenes in the verb primary variation and, when possible, to one cognitive metaphor in Lakoff's tagset (Lakoff et al., 1991).

Marked uses correspond to 37% of the total occurrences of action verbs, 60% of which are based on conceptual metaphors. Moreover, almost 90% of marked uses connect to a prototypical scene. The process of highlighting the relevant semantic features, allowing the metaphorical use of a verb, identifies a clear relation between concrete and abstract uses of the same predicate (Moneglia 1998, 1999). Since a general action verb could refer to cognitively different physical actions and have different action-schemas (i.e. "Mary pushes John off the wall"; "John pushes the bottom"), we found that action event schemas generate different metaphorical concepts or modulate various declinations of the same one:

- 1) "L'oratore spinge su un tema" / "The speaker pushes on a topic";
- 2) "Anna spinge avanti l'azienda" / "Anna pushes the company forward".

General action verbs play a central role throughout human cognition. The semantic mapping from the verb concrete and physical sense to the abstract and metaphorical one is activated by specific features of verb primary meaning, which allow the metaphorical projection of embodied concepts, via use of action schemas (Narayanan, 1997). We claim that, in the action verb domain, metaphorical transfer operates via the action schemas and the semantic parameters or features identified by the primary variation of a predicate.

*Keywords:* action verb metaphors; primary and marked variation; action schemas; action ontology; cognitive metaphors

## Resistance to violence-related metaphors for cancer

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In discourse about cancer people often make use of violence-related metaphors -- it is not uncommon to speak of cancer patients fighting or battling their disease and cancer being an enemy that needs to be defeated. Yet these metaphors are also resisted. They are criticized, for instance, for evoking images of aggression and carrying the suggestion that those who lose their battle with cancer, did not fight hard enough (see for example Harrington 2012: 409; Harpham, 2007; Reisfield & Wilson, 2004). On the other hand, research findings also indicate that these metaphors should not be considered negative by default; a number of studies have shown that violence-related metaphors may in fact help cancer patients deal with (certain aspects of) their disease (e.g. Gibbs & Franks 2002; Semino et al. 2015).

In this paper it is argued that violence-related metaphors that are used in relation to a cancer patient's personal "fight" against their disease fulfill different functions than those that are used in relation to the effort of finding a cure for cancer (the "war on cancer"), and, accordingly, that the appropriateness (or: acceptability) of these metaphors may be judged differently depending on what exactly they refer to in terms of the target domain. Put differently, it is the starting point of this paper that it can be insightful to make a distinction between these differences in use for the purpose of understanding the (type of) resistance that is elicited by these metaphors.

The paper first explores the differences between violence-related metaphors referring to the attempt to find a cure for cancer and those that are used in relation to the individual cancer patient's struggle to become cancer free. It addresses the fact that violence-related metaphors are also used for other target domains than the domain of cancer, which raises a number of basic questions about the motivations for resistance to such metaphors. Then, specific examples of resistance to violence-related metaphors are discussed along with the suggestion that actual instances of resistance may be divided into two main categories of use on the basis of two particular characteristics of the contested metaphor. The findings are substantiated by means of the pragma-dialectical approach to argumentation (Van Eemeren & Grootendorst 2004) and the three-dimensional model of metaphor (Steen 2008).

*Keywords:* metaphor; argumentation; resistance; public discourse

## Metaphors in simplified discourse: A corpus study of news texts for children

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Text simplification is the process of meaning preserving reduction of discourse complexity aiming to adapt text for specific reader populations, e.g. children, language learners. The idea has been around since "My Weekly Reader" and Palmer's work (1932) and has recently attracted attention of the computational linguistics community. While lexical simplification is often addressed in automated simplification systems (Siddharthan, 2014), studies on metaphors in this context are lacking. This is surprising considering that metaphors cause difficulties in text comprehension and developing metaphor interpretation competence is a complex process (Winner, 1997). Since automated systems are trained on simplified text corpora, understanding patterns of metaphor simplification could help improve simplification models.

In this study, we analyze metaphors in news texts professionally simplified for different grade-levels (newsela.com). Since the editors' guidelines only instructed to avoid vivid metaphors, e.g. "paint into a corner", we would like to find out whether/how linguistic metaphors are simplified and, ultimately, whether systematic properties of simplified metaphors can be identified. Our research questions are: What modifications do metaphors undergo? Are modifications different between grade-levels? From the Xu et al.'s (2015) corpus, comprising 1131 documents automatically aligned with four simplified versions, we sampled 200 source sentences across all documents (to avoid effects due to specific editors' decisions). In the sampled sentences we identified indirect (prevalent type) verb and noun metaphors using the MIPVU procedure (Steen et al., 2010). We looked for the corresponding lexical unit(s) in the least (V1) and most (V4) simplified versions (grade-levels 8-9 and 3-4, respectively), since between those we expect most differences, and tagged the metaphor as "preserved" ("same-metaphor", "other-metaphor", "paraphrased-with-metaphor") or "dropped" ("metaphor-dropped", "metaphor-changed-to-non-metaphor", "paraphrased-without-metaphor").

In V1, of the 147 instances tagged, 84% were "same-metaphor" (6 "other-metaphor" occurrences) and 8% were "dropped" (most "metaphor-changed-to-non-metaphor"). In V4, of the 114 instances tagged, 52% were metaphors (69 "same-metaphor" and 8 "other-metaphor") and 30% were dropped (23 "metaphor-changed-to-non-metaphor", 11 "metaphor-dropped"). We are currently annotating further 300 sentences and analyzing linguistic features of the preserved vs. dropped metaphors.

Overall, in professionally simplified discourse, 1) most metaphors are preserved, 2) more metaphors are dropped for lower grade-levels, 3) dropped metaphors tend to be changed to non-metaphors.

*Keywords:* corpus study; simplifying metaphorical language; text simplification

## Examination of conceptual metaphors in Turkish language using combined electrophysiological and haemodynamic measurements

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How does our brain understand the "Love is a journey"? Psycholinguistic studies have suggested important theories (Indirect approach, Direct approach, graded salience hypothesis) about the difference between metaphor and literal languages. According Lakoff, the metaphor is not only a linguistic material but also the basis of abstract thought (Lakoff and Johnson, 1980) (Lakoff, 2014). In this sense, the metaphor language is thought to be built with the neural basis of thought, and it provides a suitable ground for the study of abstract thought.

Five healthy participants were enrolled in the study. Exclusion criteria is neurological and psychiatric diseases. EEG(Elektroensephalography) combined fNIRS (Functional Near Infrared Spectroscopy) method used.

Data Acquisition; ERP(Event Related Potentials); Digital 13 channels (Fp1, Fp2, F3, Fz, F4, C3, Cz, C4, P3, Pz, P4, O1, O2) scalp EEG records recorded over the scale 10-20 international system. fNIRS; Measurements were conducted with the NIRStar (NIRX, LA) using two separate 22-channel arrays of optodes (eight sources/emitters and seven detectors on each array). Sentence Preparation; Taking reference to the conceptual metaphors defined by Lakoff, conventional metaphor, novel metaphor, literal and anomalous sentences in Turkish language prepared.

The Coulson and Petten (2002) paradigm revised and used in accordance with the Turkish language structure. Participants asked to read through the sentence to decide whether the sentence is meaningful. Thus, the reaction times the participants recorded. Neuropsychological evaluation was conducted in 5 axis: attention and executive functions, memory, visuo-spatial functions, language and mood states. Digit Span, Stroop Test, Similarities and Comprehension tests were utilized to assess attention and executive functions; Verbal memory processing scale (SBST) for verbal memory and Wechsler Memory Scale Visual Subtest (WMS/G) tests for non-verbal memory functions. Also patients were subjected to Rey Complex Figure Test and Recognition Trial (RCFT); Benton Naming Test, Line Orientation Test; Boston Naming Test, Beck depression scale tests.

ERP analyzes performed at a sample rate of 250 Hz using the BrainVision Analyzer 2 (Brainproduct, Munich, Germany, 2.0.4 Version) program. The power spectrum of the four conditions (literal, conceptual metaphor, novel metaphor, anomalous sentences) calculated separately. P200, N400, P600 amplitude and latency differences examined. The oxyhemoglobin and total hemoglobin changes for four conditions calculated by analysis of NIRS data.

The neural correlates of the Turkish metaphors will be investigated in parallel with the findings of the metaphor literature.

*Keywords:* EEG; Lakoff; conceptual metaphors; metaphor comprehension; NIRS

## Metonymy about product

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Metonymy is considered an essential cognitive tool we live by and serves as a reference point (Langacker, 1993: 30) to provide mental access to another conceptual entity. Apart from well-known PRODUCER FOR PRODUCT, NATURAL SOURCE /Material FOR PRODUCT, PLACE FOR PRODUCT, INSTRUMENT FOR PRODUCT and lesser-known EMBLEM FOR PRODUCT (Urios-Aparisi, 2009: 102-103) metonymy, other types of metonymy involving PRODUCT can resort to such semantic entities as user, platform, appearance, model, container, mode of production, sales method, alternative name, abbreviation, slogan and sound. As to APPEARANCE FOR PRODUCT, it can cover metonymys related to pattern, packaging, colour, logo and advertising slogan. Moreover, metonymy about product can work together with the two main types of metonymy put forward by Radden & Kövecses (1999). It is found that product can get involved in constitution metonymy, reduction metonymy, action metonymy, causation metonymy, control metonymy, possession metonymy, container metonymy and place metonymy. Besides, more than one kind of metonymy can be available in sentences involving product metonymy.

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