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What’s not right about metaphor processing?

Anjan Chatterjee

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Since Broca, Wernicke, and Lichtheim, the idea that the left hemisphere specializes in processing language is well accepted. In the late 1970s and 80s the right hemisphere began to be viewed as playing a unique role in language processing, specifically for figurative language. This view was bolstered by the hypothesis that the right hemisphere specializes in coarse coding of semantics, a specialization that is plausibly relevant for the mapping of one concept to another when understanding metaphor. Data in support of this hypothesis have been mixed, in large part because of conceptual and methodological limitations of earlier studies. To overcome these limitations we developed new well-controlled matched metaphor and literal sentence stimuli. Armed with these stimuli, we conducted functional neuroimaging studies in healthy people, and studies of patients with focal brain damage and neurodegenerative disorders. Supported by these results, we challenge the received wisdom that the right hemisphere plays a privileged role in metaphor processing.
One of the most fundamental capacities of language is the ability to express what speakers see, hear, feel, taste, and smell. Without the ability to express perceptual content, language would be utterly useless. It turns out that metaphor is one of the key components that helps speakers to express their perceptions. Expressions such as "smooth melody" and "sweet music", often called "synesthetic metaphors", perform mappings across sensory modalities. It has been proposed that these metaphors are governed by a hierarchy of the senses, where touch, taste and smell words are used to describe sights and sounds, but not the other way round. I will use this as a test case to demonstrate that asymmetry in metaphorical mapping does not exclusively depend on differences in concreteness. Moreover, I will show how freely available lexical data can be used to statistically model metaphorical asymmetry as a multidimensional phenomenon where asymmetries are shown to arise from multiple different factors. These findings have wide-ranging implications for metaphor research in general, as they invite us to rethink what we mean by asymmetry in metaphorical mapping, and as they relate to the embodied foundations of metaphor research.
Uruguayan Spanish metaphors with the verb ‘dar’: a study on change and social distribution

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Introduction

People use figurative language to be more cooperative and efficient when communicating. Specific metaphors change through time, with effects on semantic and conceptual change. The aim of this research is to test the change and social distribution of some metaphors in Uruguayan Spanish. We tested figurative expressions for Uruguayan metaphors based on the Spanish verb ‘dar’ (give): DAR MANIJA (TO WIN D) IS TO MANIPULATE, DAR PALO (TO LA Y A BOUT) IS TO BE DEMANDING and DAR BOLA (TO PASS BALL) IS TO PAY ATTENTION.

Methods

The data were collected by an online questionnaire. 267 informants participated by selecting the metaphors meaning from a multiple scale response set and indicating how often the perceive they utter and hear the figurative expressions.

Findings

By using MCA as a visual exploratory statistical tool, the study identified privileged associations for grounding metaphorical thinking and its social life: Cultural Immersion and Metaphorical Proficiency were proposed as dimensions for explaining the evolution and social distribution of the metaphors.

Conclusions

Even though MCA seems to be a useful tool for understanding and modeling the metaphors' vitality, the short percentage of the variance explained by the founded dimensions suggest introducing additional categories in order to obtain a more adequate proportion of this variance.

Take-home message

The Cultural Immersion and Metaphorical Proficiency visually model a proportion of the change and distribution of metaphorical thinking.
Metaphor use in CLIL textbooks: a move analysis

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Introduction

The use of metaphor in academic language, both oral and written, has received a great deal of attention as it is considered that its high informational value and its abstract subject matter provide a natural environment for metaphor (Berber Sardinha, 2015). However, pre-university educational contexts have typically been left out of the picture (Littlemore, 2017). The present paper focuses on a specific L2 educational context, Content and Language Integrated Learning (CLIL).

Methodology

Using two CLIL textbooks (Social and Natural Science) from year 5 of Primary Education in Spain, I identified, following MIPVU (Steen et al, 2010), the open class metaphors used in 6 different lessons while at the same time I delimited the different sections in which the lesson were consistently structured (following Parodi’s 2010 model).

Findings

The results show that the interaction between metaphor and textbook move is statistically significant ($\chi^2 = 20.837; \text{df}=6; p<.002$; Cramer’s V 0.043). Thus, while the sections more closely related to practical work - Analyse & Organise, Project or Revise - show underuse, the Content section, considered by Parodi (2010) the nucleus of a chapter, shows neither overuse nor underuse, and the remaining sections - Getting started, Read & Discover and Fragile World - show a moderate overuse.

Conclusion

Overall metaphor can also be said to play a significant role in CLIL textbooks, although it is far from reaching the same relevance it has at university levels, which would explain why the overall average density is not high (10.5%) and why the sections related to practical work show underuse. It is, however, important to note that there are other sections, particularly at the beginning of the lessons where there is greater metaphor use, probably the result of a concomitant rhetorical effort to relate the content being explained to other domains.
The cognitive utility of flawed metaphors and their rectification

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While there have been many studies regarding the role of metaphors in higher cognition, most of them have focused either on conceptual metaphors well-established in public discourse, or on very successful - or otherwise spectacular - individual examples, such as in historic case studies of scientific discovery. In a series of ongoing exploratory case studies using qualitative analysis of verbal reports and video recordings, I am investigating the function and properties of metaphors generated spontaneously by pairs of subjects working on a complex spatial transformation and problem solving task in the domain of iterated mental paper folding. Through its deliberate openness, length, and difficulty, this task requires subjects to repeatedly find new and more efficient representations - ranging from kinaesthetic and visuospatial imagery to symbolic notions. Strikingly, in many cases subjects' metaphors are not as well-thought-out as established metaphors, but rather display copious flaws and idiosyncrasies. Yet, even if a metaphor is flawed, it does not have to be discarded. Instead, it can still be of use, e.g. by highlighting unknown aspects of the target domain, or by heuristically guiding the construction of new, more apt metaphors. Accordingly, based on these case studies, this talk will discuss (a) different kinds of flaws metaphors can exhibit, (b) rectification strategies which can be adopted, and (c) their cognitive utility. The take home message of this talk will be that by paying more attention to idiosyncrasies, flaws, and their rectification, we can learn more about the cognitive mechanisms of metaphor production and application.
EU, UK and metaphor: a bilingual diachronic study

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The relationship between the United Kingdom and the European Union (or EEC) has been complex and fraught, which made press reporting of the relationship a rich source of interesting linguistic tropes. This presentation reports initial findings of a corpus assisted discourse analysis of metaphors UK and French press, with particular emphasis on metaphor.

The UK data is drawn from The Times and the French data from Le Monde. The material covers six key events: Britain’s first application to join the EEC in 1961, Britain’s second application in 1967, the successful application of 1973, the first UK referendum on membership in 1975, and the referendum of 2016.

The study uses keyword analysis to examine the distinctive lexical patterns in each diachronic period, using AntConc (Anthony, 2009) The top ten keywords for each event were analysed in context for metaphoricity, using the Pragglejaz (2007) metaphor identification procedure (MIP) and metaphors in concordance. Close to 5,000 keyword-in-context (KWIC) concordance lines were considered for each language.

Results reveal that the EU and UK use very similar metaphors (POLITICS IS WAR, NEGOTIATIONS ARE DOORS). However, a metaphor that particularly characterized the French discourse was the idea that MIGRATION IS LIKE THE SEA, with migrants coming in waves, and floods/affluxes of refugees. The English corpus highlighted the REFERENDUM IS LIKE A BATTLE metaphor, as well as the idea of POLITICS IS A GAMBLE. Preliminary results have brought to light a distinctive example of metaphor in the French data, where the use of ‘le serpent’ or ‘the snake’ is used metaphorically as an economic term to describe an agreement to maintain different currencies within a narrow trading band. A detailed analysis will outline how this metaphor combines elements of the generic container metaphor with more is up, future is to the right and the image metaphor of a snake.
A crosslinguistic and corpus based critical metaphor analysis of ‘democracy’

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Originally a Greek word, made up of demos (the many, the people) and kratos (to rule), democracy refers to the regime of the few ruling with the consent of many. Despite its well-accepted definition, democracy undertakes different modalities as it travels, and is practiced differently by diverse socio-cultural groups. This corpus based study concentrates on the metaphorical conceptualizations of the concept of democracy in Turkish and American English to find out how this socio-political term is conceptually represented in the minds of Turkish and American speakers. The database consists of 4000 samples that were extracted from four different corpora: TNCv3.0, TS Columns, COCA, and NOW. Critical Metaphor Analysis (Charteris-Black, 2004) was employed in the identification, explanation and interpretation of metaphors. Findings indicate various linguistic metaphors that can be grouped under several source domain categories including CONFLICT, PHYSICAL ENTITY and LIVING ORGANISM as the most frequent source domains. Although the two languages have similar conceptual frameworks, they differ in terms of the frequencies of the source domains and the variety of the linguistic metaphors they contain. The most prototypical metaphor in Turkish is DEMOCRACY IS A DESTINATION, whereas it is DEMOCRACY IS WAR in American English, embodying two different worldviews of this concept. The study proposes that the way the concept of democracy is composed has a role in manipulating people's perception of the type of a democracy they are ruled by. Metaphors have a subliminal role, hence are significant tools in uncovering the underlying ideology of language users.

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Picturing the Wastescape: visual metaphors of trash in the discourse of zero-wasters

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This paper examines discourses associated with zero-waste, a grassroots environmental movement which has emerged in recent years. The individual goal of reducing waste production and fighting against plastic pollution is supported by the identification with a community whose discourse is characterised by a rich metaphorical language. This study focuses on visual metaphors in zero-waste and anti-plastic campaigns published online. Following Forceville's (1994, 2002, 2009) definition, a visual metaphor is identifiable as the replacement of an expected pictorial element by an unexpected one, giving rise to hybrid images in which elements from different conceptual domains are fused together (Carroll 1994). I hypothesise that even though similar metaphorical concepts occur in both the verbal and the visual mode as part of the semiotic repertoire of zero-wasters, the mapping of non-compatible features from source to target domain will be more salient when expressed visually. To verify this, visual and verbal data is extracted from personal weblogs, non-profits websites and educational platforms and compared in order to highlight similarities and differences between the two modes. Visual metaphors are verbalised and analysed through identification of their conceptual domains, mappings and entailments, with a focus on the connotations attached to the source domain. One of the most vivid images which we encounter is that of the wastescape, a landscape where natural elements are replaced by plastic trash, a landscape of literal and figurative waste streams. This and other anomalous images are employed by zero-wasters to emotionally engage their readership while urging them to align with the movement values. Materials are being analysed at present. The visual analysis of waste metaphors paired with their verbal counterparts will hopefully shed some light on the rhetorical effects of metaphorical language within the zero-waste community. What impact can visual metaphors have on our perception of trash?
Satirical news as a hybrid genre: A cross-linguistic comparison with regular news and fiction

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Satirical news (e.g., The Daily Show; The Onion) is an inherently figurative genre because it uses tropes such as metaphor and irony to critique political news (Kreuz & Roberts, 1993). By combining regular news with political fiction, satirical news is also a prime example of a hybrid genre in which two or more genres mix (Baym, 2005; Simpson, 2003). Because satirical news reports on current affairs like regular news and relies on imagery and play like political fiction, some scholars argue that satirical news comprises register elements of both genres (Simpson, 2003). Other scholars however argue that, in satirical news, these genres have become indistinguishable (Baym, 2005). Therefore, an important question is whether satirical news has its own, unique register, or instead exploits conventions of existing registers. This study aims to contribute to this theoretical debate by empirically comparing dimensions of cross-linguistic variation in satirical news, regular news, and political fiction. Our corpus consisted of almost 10 million words of transcripts of 15 American satirical-news shows (e.g., The Daily Show; Last Week Tonight), 11 evening-news shows (i.e., ABC’s World News Tonight; CBS’s Evening News; NBC’s Nightly News), and 14 political-fiction television series (e.g., Designated Survivor; House of Cards) broadcasted in 2018 to provide the most contemporary findings possible. Using the register-analysis method by Biber (1988, 1995), we identified three dimensions of cross-linguistic variation: (1) involved vs. informational discourse, (2) evaluative vs. non-evaluative discourse, and (3) reflective discourse. Preliminary results suggest that satirical news resembles regular news but not fiction in how evaluative (dimension 2) and reflective (dimension 3) the discourse is. However, with regard to dimension 1, satirical news seems to take elements of both regular news (informational discourse) and political fiction (involved discourse). Hereby, this study improves our understanding of which linguistic characteristics differentiate satirical news from related genres.
Metaphor between ad hoc concepts and perceptual symbols

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We will try to develop an interpretative model about deliberative metaphors (Steen 2015) – such as ‘love is fresh fruit’ produced in conversational contexts. To do this we will put in dialogue Relevance theory (henceforth RT, Sperber & Wilson 1995, Carston 2002) with Perceptual Symbol Theory (henceforth PST, Barsalou 1999): we will show the limits of the relevance-theoretic account of metaphor and how they could be overcome through Barsalou’s notion of mental image. On the one hand the relevance-theoretic account of metaphor reduces the studies of metaphors to contextual pragmatic processes that work on a linguistic-propositional level; on the other hand, it excludes non-propositional contents – such as mental images – from its domain of analysis. On the contrary PST considers that utterance comprehension (including metaphors) consists in the formation of a multimodal mental image: thus, PST accounts for non-propositional contents – such as mental images – but it does not show an equally developed system for the analysis of the linguistic-propositional level. We hypothesize that both levels of analysis are necessary in comprehending metaphorical utterances: we will try to integrate RT with PST to develop an hypothesis on metaphor that: - Assuming a radically contextualist hypothesis, it considers the meaning of an utterance as the result of a pragmatic modulation on lexical item and so it deflates the literal-metaphorical distinction and their gerarchic relation. - Nevertheless it explains the variety and richness of language uses: even if it considers metaphor as the result of contextual modulation, we should account for its ability to ‘put things before senses’. To do this we believe that it is necessary to hold together a linguistic-propositional level and an imagistic level of analysis (Bolognesi & Lievers 2018): in particular, we intend to maintain the pragmatic modulation processes proposed by RT, enriching them with the central role of non-propositional contents theorized in PST.
The metaphorical dimension of making in the visual arts

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This paper argues that working with art materials can generate novelty through metaphor, and that these metaphors can provide new epistemological resources for visual arts research. In visual sociology, Gauntlett demonstrates that working with art materials enables a freedom of construction and formation that helps the makers to produce objects that embody novel, insightful metaphors about their lives. I go beyond the sociological study by (a) showing how the generative aspect of making can be attributed to the metaphorical nature of material, and (b) developing themes of ‘collision’ and ‘demand’ from Max Black’s and Paul Ricoeur’s theories of metaphor to illuminate the process whereby the manipulation of material in art produces novelty. Material can be metaphorical in four ways: (1) material cannot be described without reference to a perceiver; (2) material, as something that is manipulated in art, has to be considered in relation to the other materials that it will be acting upon or with; (3) in handling the material, the handler is also, if not equally, acted upon; and (4) in representational art, the manipulation of materials creates particular effects that call for description in terms drawn from the represented subject. These operate through collision and demand to suggest lines of enquiry for visual arts research, illustrated with reference to Vija Celmins’s charcoal drawing Night Sky #19 (1998). The benefit to visual arts research is that material is shown to be an independent source of epistemic enquiry, beyond the dominant conceptions of material as a vehicle for self-expression and the means to achieve certain kinds of effect.
Among mother hens and team captains, industrious artisans and investigators: analysis of the health care professionals’ metaphors

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Introduction
To understand the health care professionals' living the ordinary work and level of wellbeing, the symbolic language of metaphors has been experimented among a heterogeneous group of 386 providers of care, who were invited to represent their professional role through metaphors.

Methods
The participants were mostly physicians with different specializations, and their metaphors were analysed in their meaning and frequency and grouped in the most recurrent categories.

Findings
Common images and transverse among the specializations were identified. The most common group was portrayed by the helpful and protective carer (20%), represented through maternal animals or family member figures, followed by the guide and mentor (13%), through sportive or maritime captains, or traveling companions. The third most frequent category depicted the ordinary dedication and the complexity of the professional role (12%), through hard-working animals or artisans, investigators or mediators. Finally, participants used less frequently images of heroes (9%), positivity, as shining lights or fresh air (7%), or the ordinary load, as overflowing vases (6%). 33% of healthcare professionals did not answer nor used metaphors to portray their role.

Conclusions
Metaphors revealed to be a powerful and effective tool to express the inner meaning and most intimate experience of being a health care professional. Nevertheless, the percentage of not respondents could reveal a difficulty in using other languages of care besides the clinical terms, which could correspond to lower skills of communications with patients. Further analysis on possible correlations with gender, age and specializations could contribute to better understand the level of wellbeing within a care team, and their confidence with other languages of care.

Take home message
Metaphors can contribute to the analysis of the care team climate and health care professionals' wellbeing, highlighting the risk of burn out.
Emotional reactions to irony and metaphor

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Basic research into functional figurative language production/comprehension, as well as more documentative work identifying and deconstructing figurative language forms in various human cultural products has not deeply addressed behavioral expressions that frequently accompany figurative language production and comprehension. And when such expressions are measured and discussed, they're often handled with subjective reports provided by speakers/hearers, rather than from more objective empirical techniques. Finally, these expressions can provide new insights into underlying figurative language cognition as different models of figurative language usage and comprehension offer differing predictions for when and what kinds of expressions should accompany encounters with figurative language. The following paper reports the results of two empirical human behavioral studies analyzing the facial expressions of emotions that accompany figurative language comprehension, specifically verbal irony and metaphors (the latter embedded within idioms and puns). The findings can open new means of understanding figurative language cognition as well as new routes to improving figurative language research.
Deliberate metaphors used in English economic and financial press articles and their (un)translatability into Romanian

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Introduction
The present paper explores the implications of the use of deliberate metaphors in economic and financial press articles for the process of translation into Romanian.

Main argument
There has been considerable interest in the pervasiveness of metaphor in economic and financial discourse since Lakoff and Johnson (1980) developed their theory of the conceptual metaphor. Thus, literature has largely acknowledged that metaphors play an essential role in the description, explanation, understanding and interpretation of economic and financial phenomena. Taking into consideration the recent addition of a new communicative dimension to the traditional cognitive-linguistic framework and the introduction of a distinction between deliberate metaphors and non-deliberate metaphors (Steen 2011, 2016), the present paper carries out a qualitative analysis and investigates whether those metaphors which are used deliberately in the ST are rendered as metaphors into the TT or not. Steen (2014) contends that metaphors do not pose serious problems for translators as verbatim translations are generally possible, however he acknowledges that cultural differences can make the translation process more problematic. Thus, the analysis focuses on these particular situations. The analysed examples have been taken from a corpus of 80 articles published by The Economist between 2011 and 2013, which was compiled to investigate the translation of metaphors into Romanian. Initially, metaphors were identified using the MIPVU procedure (Steen et al., 2010), then the DMIP procedure (Reijnierse et al., 2017) was applied.

Conclusions
The analysis reveals that translators need to have a thorough understanding of metaphor not only as a linguistic or cognitive phenomenon, but also as a communicative phenomenon if they aim to render the ST effectively into the target language and culture. The present paper highlights that the communicative dimension added to the study of metaphor needs to be extended to the process of translation of metaphor as well.
Metaphor interpretation, analyticity, and compositionality: a view from atomism

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Introduction
There seems to be a consensus that the key to understanding [(1) My lawyer is a shark] is to go beyond the literal interpretation of shark by virtue of its ontological features or properties, which are used as predicates of lawyer or simply to enrich the proposition that (1) expresses. This view underlies in particular theories which postulate that metaphor interpretation relies on new categorization, conceptual mapping, or the building of analogies (e.g., Glucksberg, 2003; Lakoff, 2015; Bowdle & Gentner, 2005). These theories ultimately rely on feature decomposition to legislate over how thoughts in the listener's mind may capture speaker's intentions. We argue against this theoretical framework and instead propose a view of lexical-semantic representation that is essentially atomistic.

Main argument
Most theories have shunned the analytic/synthetic distinction that decomposition entails. Moreover, given that most feature-based models have not been clear on what they take to be the constituents of the proposition that an expression deemed metaphorical expresses, they run into trouble with the nature of compositionality. We take as essential for understanding the building blocks of metaphor interpretation that “classical” compositionality must ensue, whereby the meanings of the lexical-semantic constituents are atomic, not molecular (viz., not bundles of features). As such, we take metaphor interpretation to rely primarily on a compositional, literal form during early processing, with the metaphorical interpretation being triggered inferentially rather than being driven by constituent features. We discuss data from eye tracking, self-paced reading, and crossmodal experiments ([references omitted]), which support an early, literal propositional representation that is compatible with classical composition, with the metaphorical interpretation arising as a function of pragmatic inferences during the early moments of metaphor processing.

Conclusion
We take metaphor interpretation to rely on atomic – not molecular – constituents, classical compositional processes, and inferential pragmatic processes, thus doing away with analiticity.
The King of Pain: Examining the effect of metaphor conventionality on embodied simulation and state empathy in pain communication

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Metaphors are thought to improve the efficacy of pain descriptions because of their ability to evoke empathy through the process of embodied simulation (e.g. Gibbs, 2006). However, neuroscientific studies suggest that conventional metaphors are processed differently than novel metaphors (e.g. Diaz et al., 2011). Building mainly on Ritchie's (2006) Context-Limited Simulation theory, Semino (2010) assumes that conventional metaphors will elicit less empathy because they are merely processed by association with other linguistic expressions absent of any embodied simulators. Conversely, novel metaphors elicit more empathy because of a rich simulation including primary (sensory) and secondary (affective) simulators. These hypotheses, however, remain to be supported by empirical evidence. An experiment will be conducted in May in order to clarify the difference in embodied processing between novel and conventional metaphors. About 80 participants will be divided into two groups (novel-conventional). Each group will read a short testimony of a patient suffering from a depression, one comprising a novel and the other a conventional metaphor. Participants will then be asked to perform a free association task (FAT) and a lexical decision task (LDT) to search for a semantic priming effect of the source domain of the metaphor in the testimony. Finally, the empathic response will be measured with the State Empathy Scale (Shen, 2010). First, we expect more embodied simulators in the responses to the FAT of the novel group. Secondly, participants should be able to identify adjectives from the same source domain as the metaphor better and faster in the novel-condition during the LDT. Finally, we expect a higher state empathy in the novel group. These findings would indicate that novel metaphors have a higher empathic potential than conventional metaphors due to a richer embodied simulation. These findings could help improve health communication by endorsing novel metaphors as the real king of pain.
Metaphor translation: Man vs machine

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Although research in Translation Studies often mentions metaphor, it rarely includes the state of the art in Metaphor Studies, such as the three-dimensional model of metaphor (Steen 2008), systematic attention to genre and register variation (e.g., Deignan et al. 2013), or the use of reliable identification methods such as MIPVU (Steen et al. 2010). Studies often aim to determine “translatability” or “equivalent” expressions (see Schäffner 2017), or suggest standardized translation procedures for specific types of linguistic metaphor, such as Newmark’s (1988) procedures for dead, stock, cliché, recent and original metaphors. This paper examines how human and machine translators handle different types of metaphor in literary and news texts, focusing on which types are difficult to translate for whom and why. This provides a useful starting point for a reconceptualization of our methods and models for metaphor translation. The examples demonstrate that student translators in particular have a tendency to normalize metaphor in literary texts, while they retain cliché metaphors in news texts as though they were novel creations. Since Machine Translation (MT) retrieves the most suitable candidate based on big data and neural algorithms, it may in fact provide a valuable resource for human translators in terms of finding genre/register-specific metaphor translations. Ultimately, the comparison will show that Man need not fear the Machine when it comes to metaphor translation. Nevertheless, the comparison between human and machine output sheds some interesting light on how human translators behave towards metaphor, and the system of norms, beliefs and biases that drives their decisions.
Political satire (a form of political humor; Young, 2014) plays an important role in our society, by inviting citizens to get more involved in politics (Waisanen, 2018). While the effects of satiric news have been widely studied (Young, 2014), few scholars have focused on the linguistic content of these satirical shows. In this theoretical paper, we present a typology of linguistic content elements that deal with the presentation of humorous information in political satire. This typology starts from the assumption that humor is often couched in the form of a direct metaphor (Veale, 2013). A direct metaphor makes an explicit cross-domain mapping in language (Lakoff & Johnson, 1980/2003; Steen et al., 2010), for instance: (1) ‘Hype is kind of a big excitement that has a deep emptiness at its core, like New Year’s Eve or the Democratic Party?’ (Hassan Minhaj, 18-11-2018). We propose that such humoristic-direct-metaphors can fulfill the same functions as political satire, which are (a) being humorous (Baym, 2004; Veale, 2013), (b) educating its audience (Baym, 2004; Gentner, 1982), and (c) critiquing structures of power (McClennen & Maisel, 2014; Whaley & Holloway, 1997), resulting in a typology of four forms of humoristic-direct-metaphors: - Humoristic-direct-metaphors - Explanatory humoristic-direct-metaphors - Evaluative humoristic-direct-metaphors - Explanatory-evaluative humoristic-direct-metaphors To illustrate, see example (1) again, a humoristic-direct-metaphor that fulfills all functions of political satire by being: (a) potentially humorous, because of the unexpected comparison between the definition of a hype and the Democratic Party, (b) explanatory, through defining hype, and (c) evaluative, because it contains an indirect negative opinion about the Democratic Party. Overall, this typology gives us a better understanding of the linguistic content that is provided through satire, and can serve as a base to make predictions about which specific kind of humoristic-direct-metaphors lead to which specific kind of responses in which specific kind of people.
Heart metaphors in the Greek parliament

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The domain of the human body constitutes a concrete source to uncover abstract target domains, and this is supported by CMT and embodiment theory (Lakoff, 1987; Gibbs, 2006). The heart is one of the body organs that are commonly used, but with different associations that depend on culture and language (Kövecses, 2006; Sharifian et al., 2008). The importance of metaphor in political discourse has been widely discussed (Musolff, 2003; Charteris-Black, 2014); it is additionally claimed that the politician's gender can affect metaphor use (Charteris-Black, 2009). The aim of the research is to examine the way heart is conceptualised and expressed in the Greek parliament and whether this can be linked to the politician's gender. A corpus of 1,733,898 words was created, by using the speeches delivered in the Greek parliament during the last three months of 2018. After entering the file into AntConc (Anthony, 2018), and employing as keywords καρδία* and καρδιά* (‘heart’ in Greek), the total number of concordance hits provided by the software was 65. MIPVU (Steen et al., 2010) was then applied, and the total number of expressions to be examined dropped to 54. The data revealed that the heart metaphors being used were not limited to the HEART IS A CONTAINER conceptual metaphor, and that there is a difference in the way male and female MPs use heart metaphors. Moreover, although the Greek culture is influenced by the idea of Cartesian dualism that sees the heart as the locus of emotions, there are corpus examples of the heart being linked to thinking. In addition to building a politician's rhetoric style, the research findings suggest that the different ways in which metaphorical expressions with the heart are manifested in Greek parliamentary speeches seem to be linked to the MP's gender/sex, and they can also reflect the locus of thinking.
Metaphors portraying the right-wing Dutch politician Geert Wilders in political cartoons

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Introduction
Geert Wilders has long been Holland’s most controversial politician. The controversies surrounding this extreme-right wing politician resulted in many political cartoons, a genre rich in visual and multimodal metaphors (e.g. El Refaie 2003). This is not surprising, as metaphors are efficient means to quickly present a specific perspective on a given topic, including emotions, valuations, and attitudes inhering in that perspective (e.g. Musolff 2016). Visual and multimodal metaphors in cartoons are thus highly visible and reflect much-debated views on political issues. Building on Lakoff and Johnson (1980) and Author (xxxx), the paper analyzes cartoons metaphorically portraying Wilders and other Dutch politicians, the underlying assumption being that charting repeatedly used source domains will give a good idea of this politician’s public image.

Methods
The corpus consists of the 391 cartoons featuring Wilders and other Dutch politicians in 12 yearbooks of the best Dutch cartoons in the period 2006-2017. Research questions are: (1) how often is Wilders portrayed/mentioned compared to other Dutch party leaders? (2) how often is Wilders portrayed metaphorically (cf. figure 1, 2) compared to other Dutch party leaders? (3) is Wilders systematically portrayed in terms of a limited number of source domains, and if so, which are they?

Findings
Wilders is portrayed inordinately often compared to other politicians, both literally and metaphorically. Some source domains were used exclusively for Wilders, but other domains were not – demonstrating that interpretation depended on the unique spatio-temporal context of the cartoon’s appearance.

Take-home message
Analyzing visual and multimodal metaphors in cartoons is a rewarding and insightful tool to tap into politicians’ public image, but any conclusions need to take into account several medium-related specificities.
The figurative visual language of virtual product design: The semiotics of colour and shape in smartphone app icons

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A product’s colour and shape convey crucial information about what the product is, what it does, and how well it performs (Kumar & Noble, 2016). Similar to figurative messages in advertising (Forceville, 1996; Littlemore & Pérez-Sobrino, 2017), colour and shape can function as a figurative, visual language that conveys messages to the consumer about the product (Heath, 2012). This study presents findings from a corpus analysis of 250 smartphone app icons from the Google Play Store. It was found that apps that require more active user engagement, such as productivity apps (e.g. ad-blocker, alarm clock) or fitness apps (e.g. pedometer, workout) used warmer colours (red, yellow, and orange), in line with these colours being figuratively associated with arousal (Labrecque & Milne, 2012; Sokolik, Magee, & Ivory, 2014). Squares and circles were abundant in app icons. These shapes resemble structures in our environment - from buildings to buttons - that compartmentalise our lives and encourage engagement respectively (Kress & Van Leeuwen, 2006). Many messaging apps used speech bubbles, which act as visual conduit metaphors, framing online communication as a physical transference of messages (e.g. ‘trying to get your thoughts across’ and ‘giving you an idea’; Reddy, 1979). Overall, colours tended to play attention-grabbing, aesthetic, and symbolic roles that created visual contrasts and coherence, and served as brand, category, and function identifiers (Creusen & Schoormans, 2005). Shapes conveyed information about the app’s category, function, and ergonomic value, relating to objects and structures in our environment. While colour appears to be used as a means to attract smartphone users and complement figurative messages about the app, shape seems to convey more specific information about the app’s capabilities through the representation of more familiar, concrete forms.
Rethinking linguistic and conceptual metaphor in discourse: The rise of metonymy

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Introduction

Metonymy is so difficult to pin down that widespread negligence thereof has become symptomatic of many scholarly inquiries into figurative language. Rectifying this negligence is paramount in ensuring valid and meaningful analyses. This talk will propose (1) adjustments to the MIPVU to include linguistic metonymy identification and (2) approaches to conceptual metaphor (CM) classification to allow for more focused and comparable research of figurative language in discourse.

Main Argument

(1) Currently, the MIPVU only considers metonymies in the context of personifications while other types of metonymy are ignored. This simplification of figurative language allows for high reproducibility/IRR rates, but comes at the cost of the overall validity of the analysis. Therefore, a metonymy identification procedure modified from Biernacka (2013) is presented to address this issue. (2) Thereafter, CM identification will be discussed. It will be proposed to use both high and low levels of abstraction to group CMs in a meaningful and comparable way. First, with the example of depression metaphors, recommendations based on previous research are given as to how to group the re-occurring conceptual metaphors in few distinctive groups (Movement, Person, Fight, Downwards Trajectory). Second, by proposing to move from A IS B CMs (e.g. LAWYERS ARE SHARKS) to narrower A IS PART OF B metaphtonymies (e.g. LAWYERS ARE SHARKS and SHARKS STAND FOR PREDATORY BEHAVIOR), a more nuanced/meaningful approach to figurative language in discourse can be effected. This opens new research avenues, as will be illustrated through data from alcoholism/addiction discourses and through computationalized approaches to evaluative metaphors.

Conclusion

By rectifying the negligence of metonymy in linguistic and conceptual metaphor analyses, doors will be opened to more meaningful and focused research.
A corpus-based study on metaphor use by people with aphasia

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Introduction
Instead of a disease, aphasia is a combination of diverse symptoms of brain damage, and it affects the production or understanding of speech and the ability to read or write. In spite of language disorder, metaphor may be still helpful comparative devices meant to explain something unknown in an aphasic context. In English texts, metaphors relating to aphasia, such as aphasia as battle/tragedy/restitution/thief/gift..., have been detected and discussed (Mitchell et al., 2011).

Methods
This research tends to go through English and Mandarin data in the database AphasiaBank[1], and analyse metaphor use by PWA (people with aphasia) and the healthy controls from linguistic, conceptual and communicative perspectives, according to Steen (2008, 2011)'s three-dimensional model of metaphor. It explores to how to apply MIPVU (Metaphor Identification Procedure VU University Amsterdam) to these data, perform quantitative and qualitative analyses on metaphor in language and thought, within non-fluent, fluent aphasic and the control groups and discuss communicative functions of these metaphors in aphasic settings.

Findings
In English data, metaphors do not distribute equally in every word class per group; in all word classes, there is the highest portion of metaphors in the healthy control group; the one in fluent aphasic group is lower; and the metaphor percentage in non-fluent aphasic group is the lowest; the results also reveal a consistent tendency that indirect metaphor is the main type in every group.

Expected outcomes
Through this study, differences in metaphor use between PWA and the control group can be revealed, and aphasia-related metaphors in form, thought and function can be scrutinised and analysed. After doing analyses on Mandarin data, it is expected that similarities and dissimilarities can be found when comparing with results on English excerpts.

[1] https://aphasia.talkbank.org/
Exploring moving time and moving ego metaphors through the lens of Marathi

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The Conceptual Metaphor Theory (CMT) offered a means of viewing temporal metaphors in the spatial domain in various ways, two of which are Moving Time (MT) and Moving Ego (ME). Grady (1997) established the existence of primary (universal) and secondary (non-universal) metaphors and suggested that MT and ME could be considered the former kind. However, when applied to Marathi and other Indian languages, the ME metaphor does not seem to exist quite as universally within the language's domain as is suggested, while MT does. The aim of this study is to propose that while MT might indeed be a primary conceptual metaphor, ME may not be, since it does not seem to exist beyond specific constraints and in specific contexts. It makes use of contrived examples from native knowledge of the language for both MT and potential ME metaphors and provides information regarding whether such constructions are acceptable. From the examples and the arguments made, it is evident that the ME metaphor does not exist in Marathi within the spatio-temporal domain in the same way as it does in English and other languages. Hence, this paper offers evidence against the apparent primary nature of the ME metaphor, suggesting a revision in the way it is viewed. It is thus indicated that Marathi is one language (among others) which offers evidence to contradict the claim that the Moving Ego conceptual metaphor is a primary or universal one.
Find oneself and lose oneself; Opposites or not? A corpus analysis

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Introduction
The results of a corpus investigation suggest that the following statement made by Lakoff needs re-examination, “Given that lose and find are opposites, why isn’t I found myself in writing the opposite of I lost myself in writing?” (1996, p. 100). This investigation has revealed various meanings for each expression, two types which construe direct semantic opposition.

Methods
A 6-step corpus method coined the Metaphor Identification Method for Reflexives (aka MIPR) was designed and used to objectively identify reflexive construction metaphors utilizing collocational evidence.

Findings
The reflexive expressions, find x-self and lose x-self construe four metaphoric variants, two of which display direct semantic opposition. The first is the manifestation (or lack of) of a 'deeper Self', i.e., the True-Self Metaphor (Lakoff, 1993), and the second is the Self-Aware event (Grossman, 2017), which construes an agent's perceptual Self-Awareness. Corpus evidence of reflexive event collocations from the COCA and BNC supports this analysis.

Conclusions
The "Metaphor Identification Method for Reflexives" was able to identify various reflexive construction metaphors, including semantic opposition of metaphoric find x-self and lose x-self. Specific types of collocations, coined "Obligatory Reflexive Adjuncts", were critical for evidential support of this analysis. Take-home message: Collocational data is invaluable to verify metaphoric construal within the reflexive construction.

References
Multimodal metonymy in Chinese promotional films

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Introduction

Metonymy is a cognitive rather than a verbal process (Panther & Thornburg, 1999; Littlemore 2015). Multimodality scholarship makes increasingly clear that metonymy occurs not only in language, but also in visuals, sound, and music (Author 2007, 2009). But multimodal metonymy has hitherto almost exclusively analyzed static images, mainly print advertising (Downing & Mujic, 2011; Maalej, 2015; Pérez-Sobrino, 2016, 2017). Studies focusing specifically on multimodal metonymy in moving images are still rare (Yu 2009, 2011). This paper studies multimodal metonymy in five Chinese bilingual (Chinese + English) promotional films, distinguishing various subtypes. We will argue that the analysing metonymy requires awareness of the importance of cultural background knowledge.

Main Argument

Following Ruiz de Mendoza Ibáñez (2000, 2007) and Pérez-Sobrino (2017), this paper charts small differences in interpretation by Chinese and Western audiences in the promotional films from the perspective of multimodal metonymy. It also explores how the various modes contribute to the identification of multimodal metonymy and what other tropes may occur in combination with it. Moreover, we will give an idea of the similar and differential way metonyms are likely to be construed by a ‘typical’ Chinese viewer and a ‘typical’ non-Chinese viewer.

Conclusions

Our findings suggest that the promotional clips present many metonyms of the type ‘phenomenon X stands for China/Chinese city Y/Chinese culture’; that multimodal metonymic complexes are widely used in these promotional clips; that multimodal metonymy is often combined with personification and hyperbole; and that viewers with different cultural backgrounds will not construe exactly the same metonyms.

Take-home message

Metonymy can be cued by the sonic and musical modes no less than by the verbal and visual mode and the presence or absence of specific cultural background knowledge will influence the uptake and/or interpretation of the metonyms.
Art, metaphors and symbols in Italian heritage: The role of images in Sardinian artworks

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The expressiveness of an artistic symbol can be metaphorical, such as to allow a migration from the domain of the emotional states experienced by humans to the properties of art (Goodman, 1968). The art of William Turner has a metamorphic power that John Ruskin identified in the “metaphorical” rendering of the sea (a wave turns into an iron glove or a marble column). The famous volcano Fuji, depicted by Hokusai in his red clothes ‘bloodthirsty’, violates the rules of representation and in it we can observe different tropes (metaphor in absentia, hypallage, hyperbole) (Minguet, 1979). In a visual metaphor (Forceville, 2002; Ojha, 2015; Šorm, Steen, 2018) we can find a relationship of specific similarity of pictorial language: the characteristics in common between vehicle and tenor can concern both the content and the expression plan (Polidoro, 2008). Visual features map properties through juxtaposition (Ojha, Gola, Indurkhya, 2018; van Weelden, Maes, Schilperoord, 2018), and visual forming can convey a more or less distinguishable meaning. The question is: to understand the innermost meaning of some works, we can weave an iconological approach (Panofsky, 1955), semiotic (Greimas, 1970) with recent studies about metaphor and art (Kennedy, 2008) and on unconventional pictures (Freedberg, 2009)? The answer we propose concern the analysis of metaphorical language applied to art and in particular to the symbolism of artistic production. The objects analyzed refer, specifically, to the iconographic heritage of Sardinia, which, being an island, is rich in uniqueness, symbologies and archaisms that are not found elsewhere and represents a field of research at the same time circumscribed and complex as much as the art’s expression. Images and forms have a complicated personality, which demands the same attention and the same rights of language in connection to the metaphorical nature of our imaginaries and conceptual worlds (Mitchell, 2007).
Metaphors and coping

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Metaphors are seen as crucial tools for communicating about sensitive topics such as illness and death. Previous research on the use of metaphors in health care has often focused on usage by health professionals, but several researchers have stressed the importance of understanding the patients' own use of metaphors. In our talk, we report results from a study of how metaphors used by patients with advanced cancer can be understood to express different coping strategies. Our study is grounded in Conceptual Metaphor Theory (Lakoff & Johnson 1980). The data consist of a corpus of blogs written in Swedish by patients with advanced cancer. Metaphors were identified using a modified version of the MIP procedure (Pragglejaz group 2007), and grouped into domains. We combined corpus searches with qualitative analysis in which we interpreted metaphor use against the backdrop of literature on coping. We introduce Gibson's (1979) concept of affordances to discuss the potential of metaphor domains to allow different kinds of coping. Our hermeneutic approach enables us to show that the three most pervasive metaphor domains in our material, battle, journey and imprisonment, are different regarding the opportunities for coping that they afford: the journey and imprisonment domains are more flexible than the battle domain in terms of the different kinds of coping strategies that are afforded. We also find that personification has a special role to play in relation to coping. Careful attention to the metaphors used by patients can improve communication in health care, but also enhance understanding of the role language plays in coping processes. By highlighting the relation between metaphor and coping, our analysis provides a way to discuss coping strategies based on the patient's own writing. An analysis of metaphors can thereby elaborate and enrich commonly used psychological instruments, such as the COPE scale.
How does metaphor influence human reasoning: A case study on moving TIME

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Studies found that the employment of different sources may influence listener's/reader's attitude towards a topic and hence sway them into a decision (Boers, 1997; Thibodeau, 2017; Thibodeau & Boroditsky, 2013); the way and extent such metaphorical framing wields its influence should be further scrutinized (Steen, Reijnierse, & Burgers, 2014). Our study assessed reader's responses after reading time metaphors respectively in moving-time and moving-ego construal.

Participants were 87 college students in Taiwan (48 females, 39 males, aged 20~26). They were asked to read two passages of human history. In the ME (moving-ego) version, stories were presented as ‘Humans moving into new age’ whereas the MT (moving-time) version depicted the same stories as ‘Ages coming to humans.’ After reading, participants were requested to select one picture that went together with what they read. For those who read the ME version, 54.5% chose a picture with a moving train, and 45.5% opted for a walking traveler. Contrastively, for the ME group, 83.7% selected the moving train. When asked about whether humans can solve environmental problems, the ME group gave significantly higher scores than the MT group (t = 2.17, df = 85, SD = 0.26, p<0.05).

The results indicate that readers could imagine TIME as moving vehicle or moving ego in correspondence to the linguistic metaphor they read. The effect of the metaphorical framing was influential to some degree: ME readers believe in human control of the future, although it is not necessarily for the good; MT readers feel less control, which is consistent with the lower agency conveyed by the moving time construal.
Visual and multimodal interaction of metaphor and metonymy in print advertising

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Introduction

Conceptual Metaphor Theory’s central idea that metaphor is a figure of thought rather than a figure of language (Lakoff and Johnson 1980, 1999) has led both gesture scholars (e.g. Müller 2008; Cienki and Müller 2008) and visual communication scholars (e.g. Forceville 1996, 2016; Forceville 2009) to examine non-verbal and multimodal manifestations of metaphor. The verbal trope of metonymy has similarly been theorized from a conceptual point of view (Barcelona 2000; Dirven and Pörings 2002; Littlemore 2015), but the implications of this work for visual studies have only begun to be examined (e.g. Forceville 2009).

Main argument

It is proposed to explore the interaction of metaphor and metonymy in the visual and multimodal realm of print advertising, using Ruiz de Mendoza Ibáñez and Díez’ (2002) typology, and building on Pérez-Sobrino’s (2017) applications of this typology. The aim is to see if, and if so, how, all patterns of this typology can be applied in these ads; and to investigate a number of Iranian and Dutch advertisements in which metaphor and metonymy interact. Analyzing ads from two cultures will enable us to demonstrate how cultural background knowledge (e.g., Kövecses 2015; Musolff 2016; Forceville 2017) is essential for understanding metaphor-metonymy interactions.

Conclusions

It is concluded that both types of metonyms can occur visually and multimodally. Furthermore, Ruiz de Mendoza’s four types of interaction of metaphor and metonymy also translate well to multimodal advertising, as do metonymic complexes. Ads were analyzed from two different cultures. The findings demonstrate that in order for any message to reach its audience, an enormous number of facts, beliefs and attitudes need to be recruited by the envisaged audiences.

Take-home message

From a conceptual point of view, metaphor and metonymy are not just a matter of language and can be explored in various modes and media.
Effects of rhetorical figures and language intensity on click-through rate of news headlines

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Introduction

News users’ selection of news has become more and more important since news is presented online. Counting clicks on hyperlinked headlines (divided by the views on the webpage: 'click through rate', CTR) makes it possible to assess readers’ preferences directly. For instance, it appeared that headlines containing forward referencing generate more click through rate. Forward referencing comprises a set of formulations such as deictic phrases (This woman escaped a disaster), or interrogative words (How the accident took place), expressing an unidentified referent or event that can only be found by reading the news item after the click. In the current research the effects of forward referencing features on CTR are compared with the CTR-effects of other headline characteristics, such as schemes (rhyme and alliteration), tropes (metaphor, irony, puns), language intensity (hyperbole, superlatives) and negative formulations. The research question is: which headline characteristics generate more CTR compared to other headline characteristics?

Methods

We coded a set of 4000 headlines from Dutch quality newspaper website NRC.nl. The set includes the results of A/B tests: original and alternative formulations of headlines were simultaneously exposed to different viewers, and their CTRs compared between headlines. Twenty-five stylistic variables were identified in each headline, and the relations between occurrence of variables in A/B headlines and their CTR differences were calculated by means of regression analysis.

Findings

The regression results were optimized by omitting variables not contributing to the model's explained variance. Forward referencing, negativity and language intensity showed small effects on CTR, but rhetorical figures not at all.

Conclusions

Although rhetorical figures are considered to be effective markers of attention, the NRC test data did not show effects on CTR. Instead, readers’ headline selections suggest that attractive news is emphasizing negativity and sensation.
Metaphor, gender, and sexuality: A genealogical perspective

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It is becoming increasingly clear that metaphors of gender and sexuality are central to present-day populist and xenophobic discourse. It may legitimize or delegitimize particular social orders as 'natural,' and which may include alarmist verbal and visual metaphors of 'the rape of Europe' by non-Western immigrants and asylum seekers, or calls for 'masculine' forms of politics and argumentation by some populist leaders.

Critical Discourse Analysis (CDA) and Cognitive Metaphor Theory (CMT) have greatly helped in analyzing this discourse and these metaphors; yet, CMT may not have realized its full critical potential. In particular, I will argue that, in assuming a level of directly meaningful embodied experience, CMT risks taking the gendered body as a natural given, and thereby conceding too much ground to political discourses appealing to a natural biological order of things. Recent research in gender theory, Queer Theory and the history of sexuality has shown how crucially the body and bodily experience are themselves the site and object, and indeed the product, of social processes, and in particular of power. Biological sex, that is, is no more a given than social gender roles; and the body, rather than simply being a natural object, has a history.

Hence, one may gain some new insights by further questioning levels of experience often assumed to be natural and directly meaningful, and by taking a more consistently historicizing approach than is customary in CMT. Thus, in this talk, I hope to discuss some ways in which the insights of CMT and the history of sexuality may be brought to bear upon each other. Rather than focusing on abstract theoretical questions, I hope to clarify and illustrate my points with some examples of metaphors of gender and sexuality from classical Greece and pre-Qin China.
This study examines how metaphors of gender attributes vary across contrast, concession and causal conjunctions in open speeches of forty-two thousand tokens collected from twenty weddings in Shanghai 2018. 211 evaluative metaphors for brides and 158 for grooms are categorized in terms of semantic typicality and conjunctive functions. Metaphors for atypical gender representations e.g. pillars for brides and vases for grooms, are frequently found in contrast clauses, whereas typical ones e.g. angels for brides and knights for grooms, tend to appear in causal clauses. Meanwhile, cross-gender metaphors are triggered in the main clauses with concession adverbials where conceptual mappings for traditional gender traits reside. The significant correlations between the changing social projections of gender roles and the crossing discourse functionality of metaphor roles indicate the effect of rhetorical forces on the reorganization of conceptual structures. Given that cross-gender interpretations can be either oxymoronic or hyperbolic, metaphor offers a linguistic cushion to resisting the impact of traditional ideologies on public gender narrations in modern China.
Moving from fight metaphors to limitations metaphors in heart disease; how to align patients, caregivers and physicians?

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Introduction
Metaphors vehicle illness perception, in patients’ and caregivers’ experiences, and in the physicians’ explanation of the disease. Conventionally, illness metaphors are related to fighting, while metaphors of the heart generally refer to love and bravery.

Aim
Metaphors of Heart Failure (HF) were collected from patients’, caregivers’, and physicians’ points of view, to understand the symbolic perception of HF.

Methods
From June to November 2018, HF specialists’, patients’ and caregivers’ metaphors were collected from 21 Italian HF hospitals, through an online platform. Metaphors were clustered by three independent readers using the Grounded Theory, with NVivo 10 software.

Findings
82 patients (75% males, average age 68), 61 caregivers (83% women, average age 55), and 104 HF specialists participated in the project. Researchers identified seven metaphor clusters: limitations, nature, threat, unexpected, emotions, fight, slowness. Physicians’ metaphors of HF referred mainly to nature, especially to malignant nature (“snake”) and only 10% to fight (“never-ending battle”); unexpected events and threat (“the Damocles sword”) were rare likewise limitation. Patients used metaphors referred to the limitation in 70% of cases (“bicycle with flat tires”), and to nature (“autumn”) in 15% of cases, whereas fight was almost absent (2%). Caregivers’ metaphors referred to nature (“flood”) and slowness (“slow pace”) as well as emotions (“panic”). No metaphors of fight in caregivers.

Conclusion
From our results, HF is not related to metaphors of war but to life and death, and decaying nature. A possible explanation is that the heart is something consubstantial with the human being, differently from cancer which resembles an invasion. Life limitation of patients was not aligned with the mindset of physicians who were more concerned about the possible risks (malignant nature, threat). Slowness metaphor of caregivers was a burden complaint. In conclusion, an alignment among the three players is warranted to improve HF care.
‘Future is rose color’ but what color is the future?

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Introduction
The Japanese language has phrases such as ‘rose-color future’ (bara-iro-no mirai), ‘rose-color days’ (bara-iro-no hibi), or ‘rose-color life’ (bara-iro-no jinsei). These are conventionalized metaphorical phrases that mean a state of being full of hope or happy experience. However, it is not completely clear what color it is when used metaphorically, because actual colors of roses range from white to pink, red, yellow, or even light blue. Technically, rose-color (‘bara-iro’) is defined by Japanese Industrial Standard Committee (JIS) as the color with ‘Hue=1R, Value=5, Chroma=13’ in the Munsell color system, which is vivid red. The question is, what color is imagined when Japanese speakers talk about future? Is it varied among different genders or different age-groups?

Method
Our methods were two-fold. First, we surveyed dictionaries to clarify the color of ‘rose-color future’. Second, we conducted an online questionnaire, where 284 participants chose one color card that would best represent the future time from 13 different color cards.

Findings
Compared with the JIS-defined ‘rose’ color, the color of future in dictionaries is much lighter and softer. The questionnaire revealed unexpected variation: the most statistically significant answers are white, yellow and light blue. This may be because we asked the color of future they imagined freely rather than the conventionalized color of future. Although Japanese has no idiomatic expressions like ‘yellow future’ or ‘blue future’, people could imagine many different metaphorical colors for future.

Conclusion
Metaphorical colors of future can be varied, though conventionalized metaphorical expressions for the colors of future is relatively fixed in Japanese. Metaphorical colors could be more freely imagined than linguistic metaphors.

Take-home message
The visual mode of a conceptual metaphor is often richer than verbal one, which supports multimodality of conceptual metaphors.
Six of one, half a dozen of the other: Examining repetition effects in idiom processing

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The current study examines how idioms are represented in memory using a text repetition method. Text repetition effects occur when memory of the text formed during the first reading facilitates processing during the second reading. Text repetition effects have been observed following direct repetitions of the text (e.g., Levy & Burns, 1990) as well as paraphrases of the text (e.g., Raney, Therriault, & Minkoff, 2000). The goal of this study was to determine if repeating the meaning of a figurative phrase would support phrase repetition effects. Sixty participants read passages containing an idiom twice in succession. Participants first read one of two passages (Context A or B) with one of the idioms in a pair (e.g., walk in the park). Immediately after, participants read a second passage in a context repeated (e.g., Context A - Context A) or not-repeated (e.g., Context A - Context B) condition with a repeated idiom (walk in the park) or an idiom synonym (a piece of cake). Idiom synonyms differed in literal meaning, but shared a similar figurative meaning (to be easy). Analysis showed that reading times for idioms during the second reading were faster than the first reading. This indicates a significant repetition effect. We analyzed difference scores (first reading time - second reading time) to examine whether the magnitude of the repetition effect differed across idiom type and context conditions. The repetition effect for repeated idioms was larger than for idiom synonyms. Additionally, repeated contexts lead to larger repetition effects than not-repeated contexts. The results of the current study support Raney’s (2003) context-dependent representation model. We found larger repetition effects for repeated idioms than for idioms replaced with synonyms, which extends Raney et al.’s finding to figurative phrases. It appears that figurative phrases, such as idioms, support repetition effects in the same way as individual words.
An application of conceptual metaphor theory to depression metaphors

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Introduction
Depression is a mental health condition defined as ‘a low mood that lasts for a long time’ (Mind, 2013). Perhaps one of the biggest difficulties for people with the condition is that ‘a sequence of metaphors (...) is the only way to talk about the experience’ (Solomon, 2002, p. 29). Given this, metaphors of depression are a fascinating, and hopefully useful, area to test the theoretical claims of Cognitive Metaphor Theory (CMT), which proposes that metaphor is ‘pervasive in everyday life, not just in language but in thought and action’ (Lakoff & Johnson, 1980, p.3). As such, it has been posited that an abstract target concept like DEPRESSION is given form and structure by the mapping of properties from more concrete source domains, to which the theory of embodiment is extremely important.

Methods
Metaphors for analysis were selected from a heterogeneous mix of late twentieth-century English-language fiction, memoirs, newspaper articles and medical works all dealing with depression. The research employs a qualitative approach that relies on subjective interpretation.

Findings
The study asks these research questions: 1. Can metaphors of depression be classified into distinct groups of general mental state metaphors? 2. Do depression metaphors display systematicity in source to target mappings? 3. Is embodied reasoning able to account for a plurality of sources in depression metaphors? 4. Is CMT able to deal with on-line processing of all depression metaphors? The findings indicate a positive response to the first three research questions. However, the analysis suggests a negative reply to the fourth, proposing instead that Blending Theory is essential to supplement CMT in on-line metaphorical recovery.

Conclusions
Further research could explore possible connections between non-propositional (CMT) and propositional (e.g. Relevance Theory) approaches to mental state metaphors to advance understanding of metaphorical blends. Depression is a mental state relying on metaphors.
Interpreting metaphor in a foreign language: “Even though I am not Norwegian and don't have the Norwegian mountains in me from childhood...”

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Introduction
This paper addresses the degree of ‘difficulty’ metaphor presents to language learners by exploring how L2 learners of Norwegian respond to a task requiring them to interpret a literary metaphor and incorporate that metaphor in a text about their own lives: a task involving both receptive and productive metaphorical competence. The empirical data consists of texts collected in the Norwegian Second Language Corpus (ASK), written by L2 Norwegian learners as part of a high-stakes test for immigrants to Norway. These texts were produced by informants with one of eight different L1s, the entire set of responses to an identical task. They were instructed to write an essay incorporating their experiences of friendship with the message(s) in the Kolbjørn Falkeid poem Det er langt mellom venner [It is far between friends]. At the poem’s core is metaphorical simile steeped in the background of the Norwegian tradition of temporarily escaping the demands of daily life by vacationing in (often) primitive mountain cabins.

Methods
Metaphor identification in the L2 texts is conducted using the Scandinavian version of the Metaphor Identification Procedure Vrije Amsterdam (Nacey, accepted), requiring analysis of each word for metaphorical status. Subsequent analysis focuses upon metaphor density (i.e., how much metaphor is produced), together with the role of the identified metaphor clusters (i.e., what is the function of metaphor).

Findings
Preliminary results indicate three main approaches to the task, where interpretation of the poem manifests itself through either 1) absence of metaphor, 2) repetition of Falkeid's metaphor without elaboration, or 3) alternative metaphors and/or extension of Falkeid's metaphor through added entailments.

Conclusions
While the poetic metaphor never leads to complete noncomprehension, the interpretative approach employed in a particular text may sometimes be the consequence of miscomprehension of the poem resulting from the varied, non-Norwegian personal histories of the informants.
Children’s “life is hanging by a hair”: Metaphors, stories and simulations in advertising for social causes

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Powerful advertising often uses visual stories to trigger an emotional response in viewers. Many of these visual stories revolve around metaphors that activate vivid sensory and emotional simulations. In this paper, we analyze the metaphorical stories in a spot commissioned by an NGO to raise money for building a hospital for children with cancer, in Romania. The ad builds on the idiomatic (dead) metaphor "life is hanging by a hair", which is readily revived by transforming and extending it in the development of the implied story. Drawing on previous research on metaphor comprehension and storytelling, we aim to examine how the metaphor "life hanging by a hair" is revived and extended visually, sonically and by the gestures performed by the cast in the ad. The comprehension of the story in this ad depends on the simulations of physical pain and possibly some forms of mental suffering, such as grief, distress or sadness, which are activated by the metaphor. Finally, we aim to emphasize the social (bonding through shared experience of simulated pain - the viewers are invited to pluck a hair from their heads) as well as informative and persuasive functions of metaphorical storytelling in advertising for social causes.
Rundiang is a genre of traditional literature from the Minangkabau culture of West Sumatera Indonesia. Pangulu (clan leaders) participate in rundiang to reach consensus in negotiations related to various life course events, such as weddings, funerals, and the installation of new clan leaders. A high stylistic register of Minangkabau language is used and the pangulu are required to have excellent skills in rhetoric. Proverbs are rhetorical devices that readily found in every rundiang, and some proverbs occur in altered syntactic form that are context dependent. The various realizations of these proverbs that maintain the metaphorical elements are known as alloprovs. I will present an analysis of the alloprovs that occur in a sample of 20 rundiang in terms of the elements of metaphor they contain and their function in the context of use. The rundiang that are the source of this material were used by clan leaders in the Nagari Koto Nan Godang area in the highland of West Sumatra in the last 5 years. Analysis suggests that specific types of proverbs containing implied metaphors are most likely to give rise to alloprovs and the same forms occur constantly in different types of rundiang. The alloprovs function as an indication of the progress of rundiang in reaching agreement, making requests, expressing ideas, indicating position, and signalling acceptance.
Dementia in metaphors: towards shared understanding and decision-making in families of various cultural backgrounds

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Introduction

In the next decade, the number of people with dementia from migrant and ethnic minority (MEM) groups is expected to rise twice as fast as among native Dutch people. Persons with dementia and their families from MEM groups often receive suboptimal care. Differences in perceptions, values, and preferences and linguistic barriers may complicate communication between patients, their families and healthcare professionals.

This study is part of a larger project, aiming to better understand everyday thinking and talking about dementia in a culturally diverse group of persons with dementia and their informal caregivers and to improve person-centered, culturally sensitive dementia care. In the current study, we aim to identify metaphors with which persons with dementia and their families from different MEM groups understand and discuss dementia.

Methods

We will conduct twelve focus group interviews: two each with informal caregivers with a Chinese, Turkish, Moroccan, Surinamese, Dutch Antillean and native Dutch background. The interviews will be conducted in the native tongue of participants: Cantonese, Turkish, Berber, Sranan Tongo, Papiamentu, and Dutch, respectively. Additionally, we will interview two groups of healthcare professionals involved in dementia care. In the interviews, we aim to elicit the everyday thinking and talking about dementia of persons with dementia and their families. The interview guide is based on two pilot studies on metaphors for dementia. The interviews will take place in Spring and Summer of 2019 in different locations in the Netherlands. The focus group interviews will be transcribed verbatim and subsequently analyzed using the MIPVU.

Findings/conclusion

This study is ongoing. Preliminary results will be available in Summer 2019 and will be updated once they become available.

Take-home message

By using metaphor theory, we hope to contribute to bridging the gap in quality of care for persons with dementia from MEM groups.
Conceptualization of language learning in terms of metaphors

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There are many concepts associated with the language learning. Metaphors are frequently encountered in learning context and as a cognitive tool, according to Lakoff and Johnson (1980), may reveal different attitude of the students (and teachers) towards learning. They provide ‘windows’ to the learners’ minds and let us see their real interpretations and ideas. The conceptual domain of TEACHING/LEARNING sometimes is understood in terms of JOURNEYS AND DISCOVERIES, THEATER, WAR, BUILDING AND GARDENING. Those metaphors have already being discussed by several authors (Gonigroszek 2011, Cielicka 2002). The study aims to analyze the metaphors that influence our understanding of language learning process and uncover learners’ conceptualization of teachers’ roles. It also attempts to explore which metaphors could motivate the students and which ones may hinder their learning. A list of metaphors was collected through the short survey completed by the teachers and essays written by the students of applied linguistics and foreign language studies. They were grouped by different categories and marked according to the languages that students were learning (English and Russian). The results showed that there are positive as well as negative metaphors used both by teachers and students, regarding learning and teaching process. It's crucial to understand the learning environment created by teachers and their students in order to interpret the metaphors used for understanding learning process.
Hold onto the idea or kick the habit? The role of embodied cognition in metaphor processing

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Introduction

Theories of embodied cognition (Barsalou, 1999) propose that cognitive operations are grounded in mental simulations of the body's sensory and motor experiences. Neural activity consistent with embodied simulation has been observed when reading literal descriptions of motor actions (e.g., neural activity in hand/finger areas of the motor cortex when reading he grasped the pen). Are embodied simulations similarly engaged when sensory or motor words are used nonliterally in motor metaphoric expressions like she grasped the idea? This question has important implications for our comprehension of and subjective response to metaphoric expressions. Based on prior research, the answer may depend on an expression's familiarity: using fMRI, Desai et al. (2011) observed neural activity indicative of embodied simulation when participants read unfamiliar motor metaphors but not when participants read familiar motor metaphors (e.g. grasped the idea). Because only one study has manipulated familiarity, further research is needed to clarify whether metaphor familiarity determines whether embodied motor simulations are engaged when processing motor metaphors.

Methods

In the present study, we used behavioral measures to investigate whether embodied simulations are engaged differentially for familiar and unfamiliar motor metaphors. Motor metaphor stimuli and familiarity ratings were drawn from Desai et al. (2011). Motor metaphors (e.g. grasp the idea) and literal motor sentences (e.g. grasp the pen) were presented to participants. Some sentences were preceded by a short video of a hand performing the action referenced in the sentence (e.g. a video of a hand grasping a ball).

Findings

Although data collection for this study is ongoing, primary data analysis indicates that literal sentences and unfamiliar motor metaphors, but not familiar motor metaphors, are understood more quickly when preceded by a matched video.

Conclusions

Our findings may suggest that embodied simulation is helpful in facilitating unfamiliar metaphor comprehension but is not needed for familiar metaphors.
How metaphor and simile comprehension changes across the familiarity spectrum

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Introduction

An important question in research on figurative language is how metaphor and simile comprehension differ. In prior research, the Categorization model (Glucksberg, 2003) specifies that an automatic process (categorization) is used to understand metaphors across the familiarity spectrum, whereas the Career of Metaphor model (Bowdle & Gentner, 2005) specifies separate processes: a controlled, effortful process (comparison) for unfamiliar metaphor comprehension and an automatic process (categorization) for familiar metaphor comprehension. Both models assume that simile comprehension relies on comparison, a controlled process. In a recent study assessing these models, we found that inducing resource depletion (temporary impairment of executive control) in participants slowed comprehension of unfamiliar metaphors by a much greater margin than familiar metaphors. Because resource depletion negatively impacts controlled, effortful processes but does not affect automatic processes, comparing the effects of resource depletion on familiar and unfamiliar expressions (metaphors and similes) may shed light on whether controlled or automatic comprehension processes are used.

Methods

In the present study, we investigated how resource depletion affects comprehension of both metaphors and similes across the familiarity spectrum. We induced depletion in participants (N = 200) using a Stroop color-word task. Metaphor stimuli were drawn from Katz et al.'s (1988) normed database and similes were constructed from these metaphors by adding the word like.

Findings

In both metaphors and similes, we observed that resource depletion slowed comprehension of unfamiliar expressions more than familiar ones, though the impact of depletion was more pronounced in metaphors than in similes.

Conclusions

Regarding metaphors, our findings may suggest a shift from controlled to automatic processing as metaphors become more familiar, consistent with the Career of Metaphor model. Overall, this study may suggest that similes and metaphors draw on similar comprehension processes, shifting from controlled to automatic processing as familiarity increases.
Tracing the time-course of metaphor interpretation: Cross-modal evidence for dual access

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Introduction
Copular metaphors such as my lawyer is a shark are taken to convey – perhaps conventionally and aptly – a message that goes beyond their literal meaning. But what are the real-time processes involved in attaining this “speaker-intended” message? Experimental investigations of metaphor comprehension employing offline reading tasks provide little insight into the time-course of metaphor processing. More recent online studies involving eye-tracking have suggested that copular metaphors are first quickly interpreted literally (Ashby, Roncero, de Almeida, & Agauas, 2018), before their figurative interpretations arise. However, reading-time differences between metaphors and literal controls do not provide insight on what kind of information is accessed at the point where the vehicle (e.g., shark) is processed, which is crucial for determining how quickly the - speaker-intended - meaning is attained.

Method
Thirty-seven native speakers of English participated in a cross-modal lexical decision task (Swinney, 1979) with a novel brief (80 ms) masked target presentation at two probe points during the processing of the vehicle noun. These points, determined by a gating paradigm (Grosjean, 1996), were the recognition point of the vehicle and 500 ms later. Experimental targets were related to the literal interpretation of the vehicle (e.g., fish), to its metaphorical content (e.g., aggressive), or they were unrelated (same frequency and length as the related targets). Sentences were either metaphors or similes, such as It is hardly a secret that lawyers are (like) sharks, because...

Results
Results show priming effects for all related targets across probe points, but no significant differences between conditions.

Conclusions
These results may be interpreted as supporting a dual-processing account of metaphor interpretation (e.g., Carston, 2010), which suggests that metaphors are quickly interpreted as literally true, with ad-hoc concepts being simultaneously created to interpret intended speaker meaning. We suggest that fast, dual-proposition representations for metaphorical content are obtained during real-time interpretation.
Watering female subjectivity: Leanne Betasamosake Simpson’s ‘Big Water’

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This paper will conduct a literary analysis of the metaphors of water in the story ‘Big Water’ by Canadian Indigenous writer Leanne Betasamosake Simpson in the theoretical context of a dialogue between the feminist theory of subjectivity, proposed by Astrida Neimanis, and the philosophical theory of metaphor, proposed by Jeffery Donaldson. The paper will begin by first considering Astrida Neimanis’ proposal of a new feminist subject, conceptualized as a body of water. Drawing on Neimanis’ concept that a new feminist figuration can create a powerful ‘imaginative political space’, I will argue that when the feminist subject as a body of water is viewed as a metaphor and situated in the context of the metaphor theory of materiality proposed by Jeffery Donaldson, the connections to water are consolidated. Next, I analyze the metaphor of water as female subjectivity in the story Big Water and will show how this metaphor reflects traditional Anishinaabe connections between women, water, and creation. In particular, this metaphor articulates the anxieties of a body of water, Lake Ontario in Canada, in peril. The paper concludes by suggesting that metaphor is a critical lens through which to renew our understanding of the waters of the Anthropocene. Take-home message: Metaphor is a critical lens through which to renew our understanding of the waters of the Anthropocene.
The perceived reasonableness of metaphors in argumentation

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Metaphors are said to possess rhetorical potential; through the comparison of a source and target domain, a metaphor could make a message more convincing. Sopory & Dillard (2006, pp. 408-409) show in their meta-analysis that the presence of metaphors in persuasive messages positively affects a receiver's attitude (r=.07). The researchers nevertheless advocate caution: the messages in their meta-analysis were highly fine-tuned and, even for these finely-tuned messages, almost 40% decreased persuasiveness. Sopory & Dillard (2006, p. 413) suggest that familiarity with the metaphor's target domain, the metaphor's novelty and its extendedness positively impact its effectiveness, but also call for future researchers to “investigate other variables that have the potential to moderate the effectiveness of metaphorical messages”. From the field of argumentation theory, at least one variable that impacts persuasiveness is known: the soundness of the argumentation (see O’Keefe, 2005; Meuffels, 2006). As O’Keefe (2005, p. 220) puts it: “normatively-good argumentative practices commonly engender persuasive success”. In the extant literature on metaphor's rhetorical potential, the soundness of the argumentation put forward in the tested messages has so far not been given due consideration. To what extent does the presence of a metaphor affect the evaluation of sound and fallacious argumentation? To answer this question, we conducted an experiment in which native speakers of English (N=408) were asked to evaluate dialogue fragments in which (maximally) novel, direct metaphors were used to present a premise of the argumentation. These fragments were tested by means of a two (with metaphor / without metaphor) by two (sound argumentation / fallacious argumentation) multiple-message, repeated-measures design. The experiment shows to a certain degree that metaphor presence negatively affects the reasonableness evaluation of argumentation. The extent of this effect depends on an interaction between soundness and metaphor presence: fallacious arguments are less affected by metaphor presence than sound arguments.
What happened to literal meaning? A minimalist account of metaphor interpretation

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Introduction
A recent, partial review of the literature on metaphor processing (Holyoak & Stamenković, 2018) claims that the so-called “three-stage model” of metaphor comprehension has been “quite conclusively rejected” (p.644). The three-stage model reflects the view that the literal interpretation is first accessed, then discarded, with a third stage being required to search for an alternative non-literal interpretation (Clark & Lucy, 1975; Searle, 1979). This model has been supported by experiments showing longer RTs for metaphorical than literal expressions (Janus & Bever, 1985; [references omitted]). We argue instead for an alternative to the three-stage model, a minimalist account of metaphor interpretation.

Main Argument
Thus far, most experiments taken to “reject” the three-stage model have relied on off-line and judgment methods (e.g. accuracy measures, judgment response times, paraphrases, interpretations, etc.; e.g., Glucksberg, 2003), involving tasks that are “cognitively penetrable” (Pylyshyn, 1984) thus not taping the microgenesis of early comprehension processes. When actual on-line methods are employed (e.g., ERPs, eye-tracking, cross-modal priming), processing differences between literal and metaphorical expressions are obtained. These differences can be attributed to extra processing costs associated with building an alternative meaning composition (i.e., an alternative proposition). We discuss the role of on-line methods tracing the time-course of linguistic/semantic analysis of metaphor comprehension ([references omitted]) arguing for a minimalist model of metaphor comprehension. Our model emphasizes early linguistic processing of predicative relations between vehicle and topic in copular metaphors. This early analysis yields a proposition compatible with a literal-first interpretation that is further analyzed by higher cognitive-pragmatic mechanisms, triggered at the offset of vehicle comprehension.

Conclusions
We suggest that metaphor comprehension relies on literal meaning first, with further enrichment provided by extra-linguistic pragmatic processes.

Take home message
Models of metaphor processing should account for the time-course of linguistic processes, relying on on-line measures, taping the earliest moments of semantic composition.
Metaphorical idiom frequency and very casual corpora

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Metaphorical idioms (e.g. *add fuel to the fire, pull the plug*) are figurative multi-word expressions that serve a number of important social functions, such as providing instances of wordplay (when unpacked for creative or humorous use) and building rapport among community members. This is because idioms often encode cultural and societal norms and are utilized in discourse to signal shared values among interlocutors, which in turn aids in developing relationships and assimilating into discourse communities. Thus, the mastery of metaphorical idioms would seem to be especially important to non-native speakers who desire to integrate into a community where the target language is spoken. In spite of the importance of metaphorical idioms for many language learners, some second language researchers have questioned the pedagogical value of teaching these idioms on the basis of their purported low frequency. However, the studies that report the low frequency of metaphorical idioms draw largely from written corpora or more formal spoken corpora. Given that idioms are in general very casual in register, this should come as little surprise. Until recently, a large corpus of very casual English has been unavailable, but the Brigham Young University suite of corpora recently made publicly available a 325 million word TV corpus and 200 million word movie corpus. The current study aimed to uncover the extent to which idiom frequency differs by register by comparing 222 metaphorical idioms across three different corpora (including the two above). In addition, a subset of 30 idioms was selected to search for differences in the creative exploitation of idiom parts across these corpora. The results showed that metaphorical idioms are far more frequent in very casual corpora, and the creative unpacking of idioms was qualitatively distinct. The pedagogical implications of this study and future research for very casual corpora will be discussed.
Metaphorical models of politics and finance (1810-2017): a big-data, diachronic analysis of (metaphorical) domain constructions in American English

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Research into domain constructions such as ‘political climate’ and ‘financial crash’ has primarily focused on the metaphor-signaling potential of the adjective (Goatly, 1997; Reijnierse, et al., 2018). To date, little is known about the nature of the nouns in these constructions. In this paper, we therefore study nouns in adjective-noun combinations in the domains of politics and finance. We selected domain constructions with the adjectives ‘political’ and ‘financial’ in the 400-million word Corpus of Historical American English (COHA; 1810-2009; containing written historical sources) and in the 131 million words from written genres in the 2010-2017 part of the Corpus of Contemporary American English (COCA). Only domain constructions that occurred at least 10 times in one of the two corpora were included, yielding a total of 89,536 tokens for ‘political’ + noun, and 27,621 tokens for ‘financial’ + noun. We used MIPVU (Steen et al., 2007) to manually analyze which nouns were used metaphorically. Results show that 32.2% of all constructions with ‘political’, and 37.3% of all constructions with ‘financial’ were metaphorical. Domain adjectives thus do not necessarily signal metaphor, in that most constructions were non-metaphorical. We are currently conducting follow-up analyses by categorizing metaphorical nouns in terms of source-domain concepts that are frequently mentioned in the literature, such as war (‘political campaign’, ‘financial struggle’; Lakoff & Johnson, 1980), living being (‘political muscles’, ‘financial health’; Wang et al. 2013), and building (‘political foundation’, ‘financial reconstruction’; Musolff, 2000). We are also conducting diachronic analyses, investigating the distribution of metaphorical versus non-metaphorical domain constructions, and of source domains. Results of these further analyses will be presented at the conference. By combining big data with manual corpus analyses, this paper provides a detailed account of the presence and distribution of metaphorical source domain concepts in two types of domain constructions over time.
Argumentative metaphorical comparisons in British parliamentary debates

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This paper focuses on metaphor by investigating its argumentative role in British parliamentary debates. In this type of debate, Members of Parliament (MPs) and Lords are given the opportunity to discuss government policies and proposals for new law. Sometimes they frame their arguments in metaphorical terms to simplify and concretise the complicated and abstract issues under discussion. In argumentation theory, such an argumentatively employed metaphor is referred to as a figurative analogy. While the role of metaphor as an explanatory and persuasive device has received ample scholarly attention, its argumentative role has been largely ignored. The use of figurative analogies in parliamentary debates, however, is not necessarily obvious because it is generally considered a weak, unstable, and easily defeasible type of argument. Nonetheless, politicians regularly use this type of argument.

The aim of this paper is to investigate the argumentative role of metaphors in British parliamentary debates, more in particular in cases of figurative analogies in British Public Bill Committee debates. Based on argumentation-theoretical studies on analogy argumentation, we first identify various parameters that may help characterise figurative analogies as they appear in actual practice. Subsequently, we analyse empirical data from British Public Bill Committee debates according to these different parameters. To determine whether the patterns of use that we find are specific for figurative analogies, and not for analogical arguments in general, we also examine cases of so-called ‘same-domain’ analogies, in which a comparison is made between concepts from the same conceptual domain. This way, our results will uncover the functions that analogical arguments fulfil in parliamentary debates, how they contribute to or hinder the continuation of the debate, and the commonalities and differences in use between figurative and same-domain analogies.
Computer- and paper-based normative ratings of metaphors: They are similar in some ways and different in other ways

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The purpose of our study is to compare metaphor norms collected using computers compared to norms collected by paper. We conducted a norming study using metaphors of the ‘X is a Y’ format (e.g., ‘history is a mirror’) taken from Campbell and Raney (2015). Participants rated (1) how familiar the metaphors were, (2) how many interpretations they could think of, and (3) how related were the two content words. One group responded using computers and one group responded on paper, but all ratings were collected in person (not online). Ratings collected by computer and paper were very highly correlated ($r > .97$ for all three ratings). However, the paper group provided significantly higher absolute ratings of familiarity and relatedness, and significantly lower number of interpretations than the computer group. For example, for the paper group, the average familiarity rating for the 20 least familiar metaphors was actually higher than the average for the 20 mid-familiarity metaphors from the paper group. We discuss how standardizing ratings can minimize this problem. In addition, more participants produced ‘bad’ data (e.g., responding 1 to every question) in the computer group than the paper group. This might cast doubt on the quality of computer-based norms. Whether you choose paper or computer normed stimuli might not seem important given that the ratings were highly correlated across methods. Even so, we conclude that care must be taken when using metaphor norms that are collected using different methods as covariates in analyses or when matching stimulus properties.
Shakespeare’s conceptual conflicts and metaphorical swarms: Text functions and implications for translation

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This paper looks at figurative language in Shakespeare’s comedies and at its translation into Italian. Particularly, it applies to Shakespearian comedies the notions of conceptual conflict and of metaphorical swarm as devised by Prandi (2012, 2017). Conceptual conflict is a characterising factor of figurative language, and of metaphors in particular, and a distinctive feature separating living figures from conventional ones. In this context, Prandi distances itself from Lakoff and Johnson (1980) and from the massive tradition they have inspired in that its emphasis is shifted from conventional metaphors to non-conventional ones. Prandi also provides a definition for networks of interconnected metaphors based on the same conflictual concept, to be found in a single text or across texts, that is, metaphorical swarms. In metaphorical swarms, through the mechanism of projection, a network of metaphoric associations is constructed widening the scope of the core conflictual concept and carrying it out extensively. This notion is particularly apt, because of its network nature, to be used to analyse complex textures in a variety of text types. This paper attempts to apply these notions to Shakespeare’s comedies by identifying metaphorical swarms and analysing how their complex structures contribute to comic functions in text. Moreover, it seeks to comment on the implications for translation of such structures and to show how challenges to translation are posed by extremely creative and unconventional uses of conflictual metaphors and metaphorical swarms. Metaphorical swarms in Shakespeare’s comedies provide complex, creative and unconventional uses of metaphors posing major challenges to translation.

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Metaphor for inner self exploration

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Introduction

Inner self is a truly subjective experience. It is only inside oneself, without any perceptual information coming from outside. Therefore, experience of inner self exploration is sometimes difficult to express in language. Given scarcity of research on this topic in Conceptual Metaphor Theory (Lakoff and Johnson 1980, 1999), we investigate how the experience of inner self exploration is expressed in metaphorical language in two different levels: internal speech and external speech. In doing so, we examine how perception-based metaphors are used in the subjective experience of inner self exploration.

Method

By unstructured interviews, we collected metaphorical expressions for exploration of inner self, especially for the cases where one cannot yet find proper words for one's own inner experience. Two speakers of Japanese were separately interviewed for our qualitative study. Each interviewee (1) thought about their inner self (talking to themselves if possible), then reported it verbally or in other ways [internal-speech level], (2) explained as clearly as possible what they experienced in their self-exploration [external-speech level]. The authors analyzed the data to find out what kinds of perception-based metaphorical expressions were used.

Findings

Our qualitative exploratory analysis revealed that, in both two levels, people used metaphors of various perceptual modalities, like visual, auditory, or haptic, to express their inner exploration. Examples (translated into English) include: ‘grope/touch to search for one’s true ideas’, ‘try to see the shadow inside’, ‘hear inner voices’, etc. Creative metaphorical expressions were also found, e.g., ‘gaze into a bog and see muddy bubbles come up’.

Conclusion

Inner self is not literally perceptual, but people find perceptual expressions to guide their exploration and to express it in language. Inner self exploration is a case where perceptual concepts can be metaphorically used for non-perceptual experience as the Conceptual Metaphor Theory suggests.
Metaphorical nomination of God in John Gospel

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Introduction
JanVanDer Watt said: “If a person wants to speak about the Divine, it should be done by means of metaphors.” This point of view is based on a long tradition. Thinkers such as Aristotle, Thomas Aquinas, Giambattista Vico noted that a metaphor has great heuristic potential in describing transcendental realities. The purpose of the paper is to consider the ways of nominating God by John Gospel in the original Greek text.

Methods
The theoretical part of research is based on the conceptual metaphor theory (Lakoff, Johnson). The practical part is based on different methods: corpus-based method, in particular, KWIC (in BibleWork for Greek text). As for metaphor identification MIPVU is used as the main tool. The study also adopts five-step method by G.Steen for transition from linguistic to conceptual metaphor.

Findings
When we selected the keywords, which were used for naming God in John Gospel, we found that all of them were metaphorically used. Identification of conceptual roots of these sayings showed that all of them could be grouped into several concepts. The first group is formed by the concept KINSHIP, which describes relations between God (pater), Jesus (hios) and believers (tekna). The second group consists of ego-eimi sayings, which John used for metaphorical descriptions of Jesus' properties. It includes such concepts as WAY, TRUTH, LIFE, FOOD, SHEPHERD, VINE, LIGHT. The last group includes several abstract concepts, such as WORD and WORLD.

Conclusions
According to the analysis, all concepts have their own clouds of related words, which represent them in the text. Besides every separate metaphor is part of the conceptual framework. It means that every word in John Gospel, which the author used for describing the Deity, is part of the basic metaphor of God. As J.Caird said: “all that the Bible says about God is a metaphor”.

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Metaphorical Extensions of Dutch Preposition ‘op’

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The focus of research in cognitive linguistics is how the use of language reflects human thinking. The most basic thing about cognitive linguistics is the conceptualization of image schema. Image schema is a kind of basic conceptual framework derived from the perception and physical experience of humans (Saeed, 2003: 345). One of its contributions is to the study of prepositions because the image schema can be used to analyze the relation of objects observed by humans (Figure) to where the object is located (Ground). In accordance with the times and advances in technology, prepositions in reality are not only used to connect things that are concrete, or have dimensions, but are also used for abstract things. Therefore research is needed to identify the emergence of spatial prepositions in various types of Figure (F) and Ground (G) domains, both concretely and abstractly sourced from a large number of corpora at the level of language use by the Dutch speaking community. The method in this study is qualitative with the main theoretical basis of cognitive linguistics that underlies the study by conceptualizing image schema and semantic domain structure and the data was collected from Leipzig corpora (corpora.uni-leipzig.de) with the corpus linguistic method, with preposition op as the keyword. The findings in this study are (1) identification of the word or group of words of Figure and Ground; (2) the classification of concrete and abstract semantic domains of Figure and Ground. One of the conclusions is that the extensions of space, also the metaphorical extensions of preposition can be found from the research with corpus in real language user data on a large scale community. data from spoken languages still need to be analyzed to get comprehensive results.
Metaphors in political speeches: This time it’s personal

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The personalization of political communication has been acknowledged by scholars of both communication studies and political sciences. The talk argues that personalization can be observed on a conceptual level as well, as the use of unique metaphorical expressions contribute both to the creation of a leadership style and to self-representation, allowing politicians to make their followers feel as insiders (Charteris-Black 2009). As illustrated by Kövecses (2010), Jack Kemp, the Republican candidate for Vice President in 1996, exploited metaphorical expressions with reference to his career as a professional football player.

Since one of the first steps in establishing a prospective career in the White House rests on the nomination acceptance speech of presidential candidates, the transcripts of these addresses will be taken into consideration both from Republican and Democratic candidates since 2000. Personalisation is believed to be a process that can be observed to an increasing level over time (Karvonen 2010); accordingly, it is assumed that presidential candidates use a growing amount of metaphors that characterise them. Metaphors are identified with the help of the MIP and it is explored whether they can be personally connected to candidates.

Personalization is a globally intensifying phenomenon; the present talk aims to reveal the extent to which it is possible to observe it on a conceptual level and whether it shows a growing tendency in the politics of the United States.

References
Conceptual metaphors in media discourse: Case study

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Introduction
The study intends to compare the use of conceptual metaphor of war manifested lexically with war and other war related vocabulary in political, business and sport sections in newspaper articles from two different languages, English and Albanian.

Methods
Two corpora of data sourced from two newspapers, The Guardian in the UK and Koha Ditore in Kosovo were compiled. The study aims to find out to what extent speakers of these two languages share their understanding of particular target domains, in this case of politics, sports, and business through the source domain of war.

Findings
Two main questions will be addressed: to what extent is conceptual metaphor of war similar or different in English and Albanian; and whether metaphorical concept of war shares the same degree of conventionality in English and Albanian.

Conclusion
English and Albanian display high degree of similarity in conceptual level of war as source domain for politics, business and sport which is manifested with equivalent linguistic metaphorical expressions. Nevertheless, there are also significant differences in linguistic level which are expressed in the frequency of occurrence, in the level of extension of conceptual metaphor resulting in different degrees of diversity of warfare lexicon in English and Albanian. As the concept of war is universal in nature, the conceptual metaphor from source domain of WAR is relatable to both English and Albanian speakers, however there are culturally specific differences which reflect different values in both societies.
The effects of metaphor awareness-raising approach on the development of EFL learners’ pragmatic proficiency

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The present study was inspired by theoretical considerations in cognitive linguistics connected with the metaphorical idea of politeness is distance, applying them to develop Japanese learners' knowledge of the different degrees of politeness attached to English requests. The total number of 89 Participants in three intact classes at a university in Japan took part in the present study and they were randomly assigned to two treatment groups, such as cognitive linguistic treatment (CL) (n = 27) and non-cognitive linguistic treatment (NL) (n = 32), and one control group (n = 30). Their average age was 20 years and their English proficiency was assessed to be at the intermediate level. The cognitive linguistic approach is composed of two components: (a) watching an illustration based on high-low and near-far metaphors about the English requests under the instructor's guidance and (b) engaging in the problem-solving tasks. The non-cognitive linguistic approach consisted of two components: (a) watching the list of English requests under the instructor's guidance and (b) engaging in the problem-solving tasks. The present study adopted a pre-test and three post-tests to measure the effectiveness of the cognitive linguistic and non-cognitive linguistic approaches through a discourse completion test (DCT), an acceptability judgement test (AJT), a retrospective evaluation questionnaire, and interviews. The data from the DCT and the AJT were analyzed quantitatively and qualitatively. The results of the present study revealed that the cognitive linguistic approach group outperformed the non-cognitive linguistic approach and control groups in the DCT and the AJT, and further suggested that the spatial concept-oriented metaphor awareness-raising approach is an effective mnemonic device in developing Japanese EFL learners' pragmatic proficiency, helping them to facilitate deep processing form-meaning-context connections and keep long-term retention of them.
Event structure metaphors in academic writing textbooks

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Responding to Lindstromberg’s (1991) advocacy of integrating explicit metaphor instruction into teaching English for Specific Purposes, a number of ESP/EAP research have investigated the role of Conceptual Metaphors in academic writing. Studies revealed the influence of figurative language and thoughts on multiple facets of academic writing, namely: 1) students’ competence and conceptualizations of writing (Levin and Wagner, 2006; Permyakova & Ukina, 2016); 2) L2 writing instruction and educational implication (Thonus & Hewett, 2016; Villamill & Guerrero, 2005; Smith, 2010). Academic writing textbooks, however, remain overlooked. This study intends to uncover the commonly occurred conceptual metaphors found in textbooks, in order to demystify the underlying cultural and institutional conceptualizations, assumptions, and expectations of academic writing in American academia. This study closely examines two widely used academic writing textbooks (Swales & Feak, 2004; Thonney, 2016) and instructional materials from the PURDUE OWL online writing lab for the linguistic and multimodal manifestation of ACADEMIC WRITING metaphors. Similar to how we understand mundane concepts, we draw on our everyday bodily experience from our interaction with spatial locations and physical objects to think and reason about ACADEMIC WRITING and IDEAS IN ACADEMIC WRITING. In order to systematically examine the metaphor used in the textbooks, this paper adopts the framework of Event Structure Metaphor (Lakoff, 1990, 1993; Lakoff and Johnson, 1999) and analyzes the data through the lens of Location- and Object-Event Structure Metaphor. The examination of the duality of IDEAS IN ACADEMIC WRITING AS LOCATIONS and OBJECTS systematically reveals the conceptualization of the PURPOSE, ACTION, PROCESS, LOGIC, and UNITS of academic writing. The system of ACADEMIC WRITING metaphors, along with semiotic manifestations highlighting different aspects of mappings, will be identified and discussed. Pedagogical implications will be discussed on how writing instructors could develop materials highlighting the systematic metaphors that are constructive to L2 writers' development.
Demolishing walls and myths: Cognitive salience of literal and metaphorical meanings in L1 and L2 speakers

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The processing metaphorical vs. literal meaning is widely discussed in the literature, with some scholars suggesting that the literal meaning peaks first (Weiland et-al.2014) and others suggesting that figurative and literal meanings are processed alike (Glucksberg,2003). However, this might be different for L2 speakers (Littlemore et-al.2011). Our study explores potential differences in L1 and L2 processing of conventionalized metaphorical expressions with same frequency and salience as their literal counterparts. We conducted a cross-modal LDT with semantic priming. Participants were presented with spoken nouns followed by a written verb or a pseudoword (which had to decide whether it was a real word). For instance, literal condition: they hear cash, and see INVEST; metaphorical condition: they hear effort and see INVEST; unrelated condition: they hear garden and see INVEST. Participants were English native speakers (N=48), high-proficiency L2 learners (N=27) and low-proficiency L2 learners (N=27). L1 speakers’ results showed that reaction times for both literal and metaphorical condition are significantly faster than the unrelated condition, with no significant difference between literal and metaphorical condition. L2 speakers’ results showed that for low-proficiency there are no significant differences between any of the conditions. For high-proficiency, there is a significant interference effect: the literal condition is significantly slower than the unrelated condition, while there are no significant differences between the other conditions. L1 results show that metaphorical and literal expressions are processed alike: the literal meaning does not hold a privileged status. L2 results show that low-proficiency speakers are not sensitive to this type of semantic priming, while high-proficient speakers are aware of the connection between the literal prime and the target, but not of the metaphorical one. This supports previous findings from the literature: for L2 speakers, metaphorical meanings are indeed special and potentially difficult, even when they are completely conventionalised.
(Rigorous) imagination: Applying contemporary metaphor theory to the production of creative texts

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Metaphors We Live By heralded an interest in metaphor as central to how we think and act in everyday life. There has been no shortage of research since which seeks to apply theoretical tools from metaphor theory to a range of disciplines. Semino’s MELC project, for example, seeks to detail metaphor use in end-of-life care, but also to suggest better ways of communicating with patients and healthcare professionals. As Metaphors We Live By’s opening sentence admits, metaphor is regarded, by most, as merely a literary phenomenon, a ‘device of the poetic imagination’ (1980, p.3). It is natural, then, that contemporary metaphor theory has been applied, through cognitive poetics, with a view to enriching poetic analysis. In contrast, there has been very little work done on how contemporary metaphor research can be applied when writing creatively. Given how metaphor research in other fields has become more descriptive and applied, this is an incongruity. In my presentation, I offer reasons why this incongruity should be redressed, and a framework in which it could happen. I will draw on two theoretical models: The discourse dynamics approach to metaphor, which analyses metaphor use at the level of real-world discourse, engaging in a search for metaphoric systematicity that reveals the ideas, attitudes and values of the speakers. Forceville’s work on metaphors in advertising, which saw him use a modified version of Fouconnier and Turner’s blending theory to devise a creativity template for the production of multimodal metaphors. In combining these two models, I will show that contemporary metaphor theory, with its insights into discourse and creativity, has much to offer the discipline of creative writing, and the creative writer who wants to imbue their work with theory.
Refugees from conflict countries become the last few years an issue in the Netherlands. Sometimes there are frictions in the society about them. This paper aims to show the role of metaphors to express what the society thinks about the refugees. The data of this research are taken from the Dutch online newspaper Trouw in 2018. The articles are searched with the keyword *vluchtelingen* (‘refugees’). The MIP (Metaphor Identification Procedure) (Pragglejaz Group 2007, Nacey 2013) is used to identify the metaphors. To understand better what the society thinks, the data will be classified in three categories, namely positive, negative, or neutral attitudes toward the refugees. They will be analyzed through the used words as metaphors. The preliminary result indicates that although there are some frictions, Dutch society accepts them well. That can be seen through the metaphors such as *bijbenen* (‘to keep up with’), *een veilige haven* (‘a safe harbor’), *strenger bewaken* (‘to guard more strongly’). The result also shows that context is very important to establish metaphorical meaning. Further research with more keywords and diverse kinds of newspaper - it means more data - is needed so that we can get a more comprehensive understanding of the Dutch society through metaphorical expressions.
Moon metaphors in multilingual spaces

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Despite the moon's familiar presence, its elusive physical nature has meant that people have used stories, religious practices and scientific explanations to make sense of it. In other words, our relationship with the natural world is shaped by narratives, explanations and metaphors that we, usually as communities, live by. This talk presents how Chinese, Arabic, Polish and English-speaking communities respond to physical phenomena, such as the moon, in focus group settings. The study has two broad aims: to find out (1) how family members from each language group construe the moon, and abstract concepts associated with the moon, through metaphor. And, (2) what this tells us about the significance of the moon for the family members in each language/cultural group. A preliminary analysis of source and target domains of moon metaphors in English texts (popular science articles, poetry, literary texts, newspaper articles) was made. It identified, using Metaphor Identification Procedure (Pragglejaz Group 2007), numerous source domains associated with the moon: DESTINATION; TIME KEEPER; OBJECT OF DESIRE etc. And, LOVE, TIME, MOVEMENT and MIND. These findings were compared against what family members of the four language groups said in eight focus group sessions. Drawing on Conceptual Metaphor Theory (Lakoff and Johnson 1980), cognitive grammar (Langacker 2008) and schema theory (Stockwell 2002), the results show that the conceptual metaphors: e.g CRIMINAL ACTIVITY IS THE MOON’S PRESENCE, were closely linked to the participants' experiential and cultural knowledge domains. Cognitive grammatical analysis of, for example, the foregrounding and specificity of the metaphorical expressions provides further insight into the significance of moon for each of the participants. This study shows how understanding the cognitive architecture of metaphorical construals from a multilingual perspective can provide insight into individual, linguistic and cultural variation found in our relationship with the natural world.
Metaphorical framing of ‘free economy’: The liberalization of economy in Hong Kong (1997-2017)

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Hong Kong has been ranked as the world's freest economy with limited government intervention for the past 25 consecutive years (Heritage Foundation, 2019). In this study, we investigate whether and how metaphorical frames of this ‘free economy’ concept in Hong Kong public discourse have changed over a twenty-year period (1997-2017), starting from the moment at which Hong Kong became a Special Administrative Region of China. Our corpus includes 1,248 public speeches containing 1,793,611 words by Hong Kong principal officials (01/07/1997-31/12/2017). Using Metaphor Pattern Analysis (Stefanowitsch, 2006), we searched lexical items in the target domain of FREE ECONOMY to obtain concordances. Associated metaphors were identified following MIPVU (Steen, et. al., 2010) and further categorized into source domains following Author (in progress). We focus on two types of changes in metaphorical framing: changes of source domains and changes of source-target domain mapping principles (Author, in press; Author, 2010). The preliminary analysis on 10% of the data reveals that the concept of ‘free economy’ was positively constructed over the whole period while the framing functions differed at critical junctures. For example, before 29 June 2003, when the first Free Trade Agreement was signed between Hong Kong and China, metaphors were primarily used to encourage the idea of ‘constructing a free economy’ (e.g. building and promoting free trade). After 2003, metaphors were mainly used to highlight the achievements of free economy and stating the hope of ‘achieving a full economy liberalization’ (e.g. emphasizing free trade as a pillar that supports Hong Kong economy and breaking down [of] barriers for free trade development). This study highlights the role of source-target mapping principles in corpus-based metaphorical framing analysis. It also demonstrates the potential of Chinese political influence in Hong Kong politicians’ language use for framing specific societal issues during the first twenty-years of the post-handover period.
Argument scheme of metaphorical argument: analogical or symptomatic?

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Which argument scheme a metaphorical argument uses has raised many discussions. Those viewpoints mainly have two categories: One school argues metaphorical argument is a variant of arguing by analogy. So the acceptability of argumentation with a metaphorical argument is derived from a comparison between the target concept and the source concept in a metaphor. The other school takes the opposite view that metaphor used in argumentation is a figure of speech so that metaphorical argument is a symptomatic relation. These two views contradict each other. However, the present article believes that this contradiction is caused by different situations where metaphorical arguments are used. Metaphor studies have a broad discussion about its mechanism. According to the career-of-metaphor hypothesis of Bowdle and Gentner (1999, 2005), a novel metaphor is understood using an analogy. After repeated encounters, conventionalization comes into the process of understanding and replaces analogy. This study basically introduces the view into studying the use of metaphor in argumentation and gives an illustration with both verbal argumentation and visual argumentation. The study investigates arguments schemes of the use of metaphor in verbal argumentation and visual argumentation. It is found out that verbal metaphorical arguments are more likely a symptomatic relation. Differently, visual metaphorical arguments are mainly based on an analogical relation. Take-home message: Whether a metaphorical argument is based on an analogical relation or a symptomatic relation is determined by the metaphor's degree of conventionality and the discourse's modality.
Supporting idiom learning through images in second language acquisition

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Correct idiom use or ‘figurative competence’ (Levorato & Cacciari 1992) is a marker of advanced language proficiency. However, idioms are hard to learn correctly due to their opaque meaning (e.g. kick the bucket). Dual coding theory (Paivio 1971) suggests that both the literal and the figurative meaning have to be stored. This theory inspired training studies where idioms were presented together with pictures depicting their literal meaning. These studies arrived at inconclusive results with respect to retention of form (Boers et al. 2008; Boers et al. 2009; Szczepaniak & Lew 2011), possibly because the literal meaning was made more salient (Cieślicka 2006). Assuming that idiom learning is easier when the connection between the literal and the figurative meaning is clear, the current study tested the effect of L2-idiom learning through conceptual support. 96 Swiss students of English were taught 10 idioms in 3 conditions: (1) pictures with form-support depicting the literal meaning, (2) pictures with conceptual support depicting the figurative meaning, (3) a mixed condition with pictures depicting the figurative meaning using the literal components. The immediate posttest and the delayed retention test showed that the participants in the literal and the mixed conditions performed significantly better in a sentence completion task than the participants in the figurative condition (immediate retention: literal 70.5%, mixed 68.8%, figurative 58.9%; delayed retention: literal 64.4%, mixed 64.1%, figurative 55.4%). Further, significant learning effects were found between the figurative condition and the literal and mixed conditions (literal 56.5%, mixed 52.3%, figurative 44.1%). This suggests that form support is more efficient than conceptual support when it comes to the accurate reproduction of an idiom. For teaching novel idioms and metaphors in an EFL context, this implicates that a focus on the exact lexical make-up of the new phrases is favorable.
Metaphors German doctors learn(ed) by: A functional approach to metaphor use in German textbooks from a diachronic perspective

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Introduction

Specialist discourse is partially shaped by metaphors (Drewer 2008; Herrmann 2015). As it has been pointed out for example by Camus (2015: 248), there may be genre-related differences in the use of those metaphors. Since genre can be defined as a conventionally established and historically developed scheme for the resolution of complex linguistic problems (according to the definition given by Brinker 2014:139), those differences primarily depend on its general function. Thus, the functional characteristics of the textbook (Bongo 2008, Heinemann 2000, Gläser 1990), which is a fundamental genre for specialised communication, may be mirrored in the way metaphors are used in this genre. The aim of this paper is therefore to analyse the functions of medical metaphors used in German textbooks from a diachronic perspective.

Methodology

A corpus of textbooks from the 13th century until nowadays has been analysed. The metaphors have been identified using the Metaphor Identification Procedure (Pragglejaz Group 2007) and then classified according to their source domain and function.

Findings

The data suggest that the use of metaphors mirrors the functional definition of the genre under analysis, as theory-constitutive metaphors (Knudsen 2003), despite undergoing a conventionalisation process, are in some cases still ‘re-opened’ (Camus 2015: 251) for educational purposes. Moreover, the same source domain can be used deliberately and non-deliberately (Steen 2008), depending on the function of the metaphor in the given context. Some other metaphors, on the contrary, are only used deliberately.

Conclusions

Medical knowledge, as it is conveyed in the textbook, is not only conventionally transferred on a purely descriptive level through metaphors, it is also more creatively explained through them. Thus, the data should be used for further studies on genre-related metaphor use.