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# 9th International Conference on Figurative Thought and Language

**9-11 September 2026**

Faculty of Philology, Translation and Communication  
University of Valencia



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It is our great pleasure to welcome you to the **9th International Conference on Figurative Thought and Language (FTL9)**, *Blending Minds and Machines: Figurative Language, Creativity, AI, and Computational Linguistics*, held at the Faculty of Philology, Translation and Communication, University of Valencia (Spain), from 9 to 11 September 2026.

Organized by the **Cognitive Linguistics applied Research group (CLaRe2025-671)** at the University of Valencia, FTL9 continues the successful tradition established in Thessaloniki (2014), Pavia (2015), Osijek (2017), Braga (2018), Sofia (2020), Poznań (2022), Genoa (2023), and Klagenfurt (2025). Over the years, the FTL conference series has become an important international forum for scholars interested in the cognitive, linguistic, social, and cultural dimensions of figurative thought and language.

The theme of this edition, *Blending Minds and Machines*, reflects the growing dialogue between human creativity and artificial intelligence. While figurative language has traditionally been explored within Cognitive Linguistics, Pragmatics, Psychology, and Communication Studies, recent advances in computational linguistics and AI have opened exciting new perspectives on the modelling, interpretation, and generation of figurative meaning. FTL9 therefore brings together researchers working across a wide range of disciplines to explore how human and artificial systems contribute to meaning construction, creativity, and communication.

The scientific programme reflects the diversity and vitality of contemporary research on figurative language. Alongside the general session and a number of specialized theme sessions, the conference features keynote lectures by distinguished scholars whose work spans Cognitive Linguistics, Computational Linguistics, Artificial Intelligence, Multimodality, Pragmatics, and Discourse Analysis. We are particularly honoured to welcome Dr. Smaranda Muresan, Dr. Alexander Onysko, Dr. Sandra Peña Cervel, Dr. Manuela Romano, Dr. Tony Veale, and Dr. Bodo Winter, whose research continues to inspire the field.

This edition also celebrates the work of emerging scholars through the FTL Young Researchers' Award, which recognises outstanding contributions by PhD candidates and early-career researchers. We hope this initiative will continue to encourage innovation and excellence among the next generation of researchers in

figurative language studies.

Most importantly, FTL9 is an opportunity to exchange ideas, establish new collaborations, and strengthen the international community that has grown around the FTL conference series. We sincerely hope that the presentations, discussions, and social events will provide an inspiring environment for scientific dialogue and future research partnerships.

We would like to express our heartfelt gratitude to all participants, keynote speakers, theme session conveners, members of the Scientific Committee, reviewers, sponsors, collaborators, and volunteers whose enthusiasm and commitment have made this conference possible.

Whether you are joining us to present your work, participate in discussions, or attend as a guest, we warmly welcome you to Valencia and wish you a wonderful, enjoyable, and memorable conference.

Welcome to FTL9!

The Organizing Committee

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# PLENARIES

# *Through the AI Lens: From Metaphors to Creative Writing*

**Smaranda Muresan**

**Barnard College, Columbia University**

## **Abstract**

Large language models (LLMs) constitute a paradigm shift in Natural Language Processing (NLP) and its applications across all domains. Models such as ChatGPT and Claude seem to possess human-like abilities --- reasoning about problems, passing bar exams, writing stories. But do they? In trying to answer this question, I will discuss three desiderata for building human-centered NLP/AI systems: knowledge-aware models, human-AI collaboration frameworks, and theoretically-grounded evaluation protocols. I will discuss human-AI collaboration frameworks for high-quality datasets creation (e.g., visual metaphors) and helping human solve tasks (e.g., writing short stories). I will introduce an evaluation protocol for assessing the creative capabilities of LLMs in both producing as well as assessing creative text and discuss a pragmatic-aware automatic metric to operationalizes the assessment of creative expressions.

# *Metaphors of, in, and through AI*

Alexander Onysko

University of Klagenfurt

## **Abstract**

This talk will explore the interface of metaphors and so called “Artificial Intelligence (AI)” on three dimensions. The first part will highlight and critically discuss the metaphors that we use to refer to and that contribute to our understanding of Large Language Models (LLMs), which constitute the main thread of the current AI Hype (cf. Bender & Hanna, 2025). This will be followed by an overview of past and current attempts at automatic metaphor identification and evaluations of human and machine performance in doing so. Finally, different LLMs will be tested on identifying metaphors in a prior manually annotated set of texts that are part of the New Zealand Stories Corpus (Degani & Onysko, 2026). The combined investigation of these dimensions is intended to contribute to a critical reflection on the role of human thinking and machine pattern recognition in (conceptual) metaphor identification and analysis. The discussion also bears implications on our understanding of conceptual metaphor theory.

**Keywords:** AI Hype, automatic metaphor identification, metaphors of AI, conceptual metaphor theory

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# *Contrast and meaning construction in lexical creativity: A study of oxymoronic blends*

**Sandra Peña Cervel**

**University of La Rioja**

## **Abstract**

This presentation examines a neglected type of lexical creativity in English: oxymoronic blends or oxyblends (e.g. *pleather* < *plastic* + *leather*). Adopting Peña and Ruiz de Mendoza's (2022, p. 254) view of oxymoron as a figure that juxtaposes apparently incompatible properties and resolves the resulting contradiction through conceptual reframing, the talk argues that lexical blending offers a particularly revealing domain for investigating how contrast contributes to meaning construction. In this respect, oxyblends are of special interest because they condense complex conceptual operations into highly economical linguistic forms, forcing speakers and hearers to negotiate apparent contradictions in order to arrive at a coherent interpretation.

While previous studies of oxymoron have concentrated largely on adjective-noun combinations such as *open secret* (Gibbs & Kearney, 1994; Shen, 1987), oxymoron encoded through lexical blending has received virtually no attention. However, blending has become one of the most productive and conspicuous mechanisms of lexical innovation in contemporary English. Defined as a word-formation process involving the fusion of two or more lexical items, at least one of which is shortened (Bauer, 2003; Peña, 2022; Plag, 2003), blending occupies a particularly interesting position at the interface of morphology, phonology, and conceptualization. Oxyblends represent an especially creative subtype because the formal fusion of lexical material is accompanied by the conceptual integration of apparently incompatible notions.

Drawing on a corpus of 250 oxymoronic blends collected from both authoritative and crowdsourced dictionaries and from the *NOW* and *iWeb* corpora, this presentation shows that these forms occupy an extreme position on the creativity continuum because they combine the formal compression characteristic of blending with the conceptual tension inherent in oxymoron. In Haspelmath's (1999) terms, they constitute highly extravagant linguistic formations since they depart from default lexical and conceptual expectations while remaining interpretable through identifiable cognitive processes.

The analysis focuses on the role of contrast at different levels of conceptual organization. At the lexical level, oxymoronic relations arise through complementary oppositions (e.g. *plandid* < *planned* + *candid*) and incompatibility relations between co-hyponyms (e.g. *manfant* < *man* + *infant*). At a higher conceptual level, these blends rely on the construction of non-default scenarios that reconcile apparently conflicting

properties, events, or situations. Thus, *manfant* evokes a marked scenario in which an adult male behaves in a characteristically childish manner. The interpretation of oxyblends therefore depends not simply on identifying lexical oppositions but also on building conceptual configurations that resolve incompatibility through contextually motivated reframing.

On this basis, the presentation proposes three interrelated taxonomies of oxyblends organized according to (i) the type of contrast involved, (ii) the degree of explicitness with which contrast is encoded, and (iii) the conceptual complexity of the blend, including its interaction with metaphor, metonymy, hyperbole, and irony. Finally, the presentation examines the pragmatic functions of oxyblends, showing how they extend beyond naming to serve evaluative, humorous, witty, persuasive, and sometimes derogatory communicative purposes.

The resulting findings point to the value of oxyblends as a testing ground for investigating the interaction of lexical creativity, contrast, conceptual reframing, and figurative thought in meaning construction.

**Keywords:** oxymoron, lexical blending, extravagance, contrast, reframing

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## *Metaphor for social change and hope*

**Manuela Romano Mozo**

**Autonomous University of Madrid**

### **Abstract**

Collective actions such as rallies, strikes, or occupations cannot be conceived without discourse, whether expressed verbally or through non-verbal forms. Yet, despite the extensive attention that social protest movements have received from historians, sociologists, economists, political scientists, psychologists, and culture and media scholars (Della Porta & Diani, 2020; Earl & Rohlinger, 2018; Goodnow, 2006; Jasper, 2014; Snow et al., 2004; Stewart et al., 2007; Wagoner et al., 2018), they have only comparatively recently become a focus of interest for discourse analysts (Lalić-Krstin & Silaški, 2025; Porto & Romano, 2019; Romano, 2013, 2021, 2022, 2026). So, even though still today we cannot predict when a protest will emerge, we are now far closer to understanding how activists mobilize others, how they express their demands, and how they create group coherence, solidarity and identity; processes that are achieved fundamentally through discourse.

Protesting exemplifies what Van Dijk (2024) has called “doing something social” through discourse. Demonstrators must fulfil a wide variety of social functions simultaneously: making political claims, encouraging participation, challenging social inequalities, constructing group identity, while also expressing emotions and grievances. An interdisciplinary approach integrating Cognitive Linguistics and Critical Discourse Analysis (Charteris-Black, 2011; Hart & Kelsey, 2018; Hart & Lukes, 2007; Musolff, 2023; Romano, 2024; Soares da Silva et al., 2017), provides particularly suitable analytical tools for examining these complex discursive strategies.

Protest slogans, the focus of this talk, circulate, both online and offline, across a wide variety of media —banners, posters, street art, social networks, T-shirts, hashtags— and modes —words, images, chants, street performances. And, because they are inherently ‘mobile language objects’ (Jaworski, 2015), as well as temporally and spatially bound texts that will probably be read only once (Romano, 2013), creators need to compact their messages within in a single word, image, object or melody. It is in this context that metaphor emerges as a protest strategy par excellence.

Metaphor, together with closely related analytical concepts such as *creativity*, *multimodality*, *scenario*, *framing*, *recontextualization*, *(re)appropriation* and *resemiotisation*, proves crucial for explaining how protestors compress such vast amounts of sociocultural, historical, and emotional meaning. Within protest discourse, metaphors function as powerful ideological and disruptive resources that undo well

established linguistic and cultural categories, along with the ontologies and ideologies those categories embody (Goatly, 2007; Koller, 2014), and that shape people's opinions by shocking and calling attention (de Lavalette et al., 2019).

By analyzing metaphors as key protest symbols in recent global social protests, this talk demonstrates how activists repurpose everyday concepts and objects—such as statues, umbrellas, fruit or animals—not only to challenge dominant ideologies and mobilize people, but, above all, to construct a new discourse of solidarity and foster conditions for hope (Silva & Lee, 2024) in contemporary contexts shaped by social despair and hate speech.

**Keywords:** protest slogans, metaphor, social transformation, hope

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# *The Parallax View: Mining Subjective Humour from Ironic Frame Collapse*

Tony Veale

University College Dublin

## **Abstract**

Humour is a highly subjective phenomenon. A joke that leaves some people clutching their ribs or slapping their thighs may leave others entirely cold, for humour divides audiences into those that “get” the joke and those that do not. This division is most often a side effect of humour, but with verbal irony it is usually the intended goal. An ironic speaker *wants* to be divisive, to divide audiences into an *in*-group that recognizes and agrees with the latent criticism of an ironic conceit, and an *out*-group whose beliefs it undermines (Reyes et al., 2013; Veale et al., 2006; Veale, 2018). The humour of irony arises in large part from the parallax between the contrastive meanings that it double-deals to competing groups. In this talk I will model parallax as a frame collapse, in which a benign framing of listener expectations is shown to be unsustainable in the face of reality, or at least the reality portrayed by the speaker, and collapses into a competing and much less generous framing. I will explore two linguistic forms of this humorous frame collapse. The first is the figurative construction *X is the Y of Z*, which can be used to target X with comparisons to a Y that collapse under the weight of their own assumptions. In this way, X is damned not with faint but with *fierce* praise. The second is the classic joke pattern that combines a brief setup with a snappy punchline. In both cases I explore frame collapse from a computational perspective (Veale, 2012, 2021), to ask: how can we elicit creative wit from a machine, specifically a Large Language Model (LLM), by explicitly framing the problem in cognitive-linguistic terms? I will present this work in the context of my research in comics generation, to show how both textual and visual metaphors can be harnessed within machine creativity.

**Keywords:** irony, humour, metaphor, frames, comics

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## *From birds to words: Metaphor, metonymy, and iconicity in sensory language*

**Bodo Winter**

**University of Birmingham**

### **Abstract**

Sensory words connect perception and language, allowing us to express what we see, hear, feel, taste and smell with words such as “blue”, “loud”, or “sweet”. Yet, not all sensory experiences are equally easy to express. For example, while English and other languages teem with adjectives for vision (e.g., “purple”, “bright”, “shiny”, “blurred”), they often offer far fewer words for smell (e.g., “musky”, “fragrant”). This asymmetry in lexical differentiation raises a fundamental question: how do we communicate sensations for which our language lacks dedicated vocabulary? How do we overcome the ineffable?

In this plenary talk, I will present results from two large-scale studies. The first looks at synesthetic metaphors: when a particular sensory modality is lacking in dedicated sensory words, adjectives associated with other modalities can be co-opted in expressions like “smooth melody” or “rough taste”. By combining 38 published datasets from 14 different languages, we show that the century-old idea of a “hierarchy of the senses” (vision/sound > touch > taste > smell) is not actually borne out by the data. The dominant cross-linguistic pattern is that across languages, the auditory domain recruits touch words (e.g., “rough/smooth/hard/soft sound”). Besides helping us learn about sensory metaphor, this study also shows the utility of conducting meta-analyses in research on figurative language.

I will then discuss a new corpus study of 6,000 descriptions of bird vocalizations from 18 English-speaking field guides. The English language has not evolved conventionalized vocabulary for the description of bird song, which forces field guide authors to become creative with figurative devices. Descriptions are teeming with metaphor, metonymy, comparisons, and onomatopoeia, as when the Goldfinch’s song is described as “A delightful liquid twittering teewit, tewit, tititititi”, or the Anhinga’s song is described as sounding “like a treadle-operated sewing machine or a croaking frog with a sore throat”. I will quantify the different figurative strategies that are used to make the otherwise inexpressible qualities of bird song expressible. This analysis suggests a division-of-labor, where onomatopoeia communicates the overall contour and structure of a sound, and metaphorical/metonymical adjectives, especially from the domain of touch, communicate timbre.

Together, these studies illustrate that sensory language needs to be studied using a framework that looks across different semiotic strategies and figurative devices.

Together, different aspects of figurative language and onomatopoeia render the otherwise ineffable effable. When it comes to communicating the detailed qualities of sensory experience, metaphor and metonymy are inevitable.

**Keywords:** perception, sensory language, synesthesia, metaphor, metonymy

## **THEMATIC PANEL: IRONY**

## *The grounding of realities in verbal irony expression: the case of counterfactual irony*

Angeliki Athanasiadou

Aristotle University of Thessaloniki

### Abstract

In my presentation, I consider verbal irony in terms of the realities it depicts, and I investigate how ironic realities are created. In its naïve characterization, reality is understood as factual, projected, or potential (Langacker, 1991), but also counterfactual or imagined, depending on how the ironist conceptualizes the evolution of reality through time. I focus, in particular, on counterfactuality, arguing for a close link between counterfactuality and irony. As previous research has established, counterfactuality is realized by grounding devices such as tense, modality, aspect (bold in examples) and possibly a variety of setting devices (italics in examples) that either encourage or constrain the contribution of the participating entities towards counterfactual reality (Radden & Dirven, 2007, p. 172). Ironic counterfactual events may be conceptualized in present, past or future time, as seen below, respectively, in examples 1, 2 and 3:

#### (1) Present

-Do hurry up, dear. It's so hot in the car. I'll be glad when the rains come.

-Will you?

-If only they just **went on** *for a month or two* and then **stopped**. (Greene, 1978, p. 26)

Past

#### (2) What's the trouble?

-He thinks we are not **exclusive enough**.

He spoke with the comfortable irony of a man who had in his time been **completely exclusive**, who had in fact **excluded** from his solitary table in the Protectorate everyone but himself. (Greene, 1978, p. 29)

Future

#### (3) **Even if** Lyons **were** a true-green environmentalist, which he is not, this strategy is doomed to fail. (Sketch Engine)

Counterfactuality is the cognitive process of thinking of alternative scenarios counter to expectations or even established facts. It is hypothesized that counterfactuality, whether in the present, the past or the future, seems to be the favored

reality of irony. This observation has been confirmed by the examination of excerpts from different novels, also supported by the use of connectors such as *what if*, *if only*, *even if* from Sketch Engine search constituting the present corpus. Speakers, informed by grounding and setting devices that modulate mental simulations (Bergen, 2012, pp. 108-119), perceive the incongruity, discrepancy, opposition and/or contradiction between the two alternative scenarios (the actual utterance and the intended meaning) and interpret the ironic construal in terms of types of counterfactual reasoning.

In my presentation, on the one hand, I investigate the kinds of realities created by irony, and I consider whether or not ironic communication is projected towards the future, the present or the past. I also consider why a range of realities would be of interest in the study of verbal irony. On the other hand, I also explore the role of counterfactual reasoning.

In conclusion, in the present study, I maintain that approaching irony through the counterfactual reality of its expression can lead to greater understanding of ironic reasoning and its pragmatic effects. Moreover, I claim that the interaction of thought and figurative language with grammar is further necessitated as various realities are invoked in the development of an ironic construal.

**Keywords:** counterfactuality, grounding devices, realities, setting devices, verbal irony

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***Capturing L1 and L2 irony processing through action-dynamics:  
Insights from mouse-tracking***

**Lydia N. C. Chan, Stephen Skalicky, and Anna Siyanova-Chanturia**

**Te Herenga Waka - Victoria University of Wellington**

**Abstract**

While some studies have shown that ironic language may take longer to process than non-ironic equivalents (e.g., Akimoto et al., 2012; Olkonemi et al., 2016), this is not always the case (e.g., Ivanko & Pexman, 2003; Kowatch et al., 2013). Much of the previous research has pointed towards faster processing times as evidence for qualitatively different processes between irony and non-irony (Skalicky, 2023). However, irony processing is not a linear process, as it involves pragmatic inferences in addition to semantic decoding. One way to better capture irony processing is to use an action-dynamics approach, such as mouse-tracking.

We present a mouse-tracking experiment extended from Kowatch et al. (2013), examining how L1 English speakers, L1 Cantonese L2 English speakers, and L1 Mandarin L2 English speakers comprehend English irony presented aurally. The stimuli were recorded by two American English speakers. Only tone of voice was used to signal irony. The critical statements included ironic negative, ironic positive, non-ironic negative and non-ironic positive meanings, in the form of ‘*I just love/ hate + NOUN*’. Participants imagined themselves grocery shopping with their new housemates; their task was to listen to what their housemates said about certain foods, then choose what the housemates wanted using a computer mouse. Accuracy, Euclidean distance from an ideal path, Area Under Curve (AUC), and Sample entropy (SAM) were analysed as outcome variables measuring non-linear processing.

All participant groups had significantly lower accuracy for irony compared to non-irony<sup>1</sup> ( $p \leq .005$ ; see Figure 1). For the L1 Mandarin group, a floor effect in accuracy was observed for irony, suggesting complete failure to recognise irony. Analysis of mouse trajectory<sup>2</sup> showed that ironic conditions yielded significantly larger Euclidean distance than non-ironic conditions ( $p < .05$ ; see Figure 2) for the L1 English

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<sup>1</sup> Independent variables included trial index, Area Under Curve, Sample entropy for all groups. For L1 Cantonese group, LexTALE scores and self-rated proficiency were also entered as the independent variables.

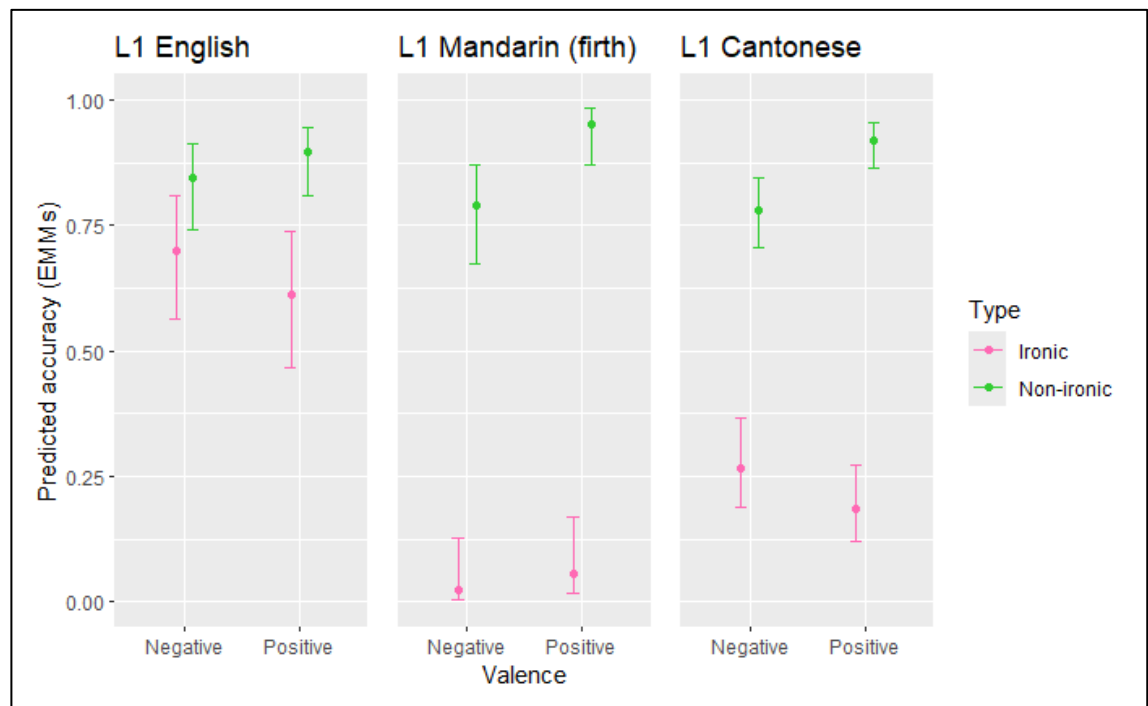
<sup>2</sup> Statistical models were fit only for the L1 English and L1 Cantonese groups. None of metrics was calculated for the L1 Mandarin group, considering the floor effect observed in accuracy for the ironic conditions.

group but not the L1 Cantonese group. Regarding AUC and SAM (see Figures 3 and 4), for the L1 English group, negative valence was significantly more likely to yield higher AUC ( $p = .012$ ) and higher SAM ( $p = .017$ ) than positive valence. No significant effect was found for either AUC or SAM in the L1 Cantonese group.

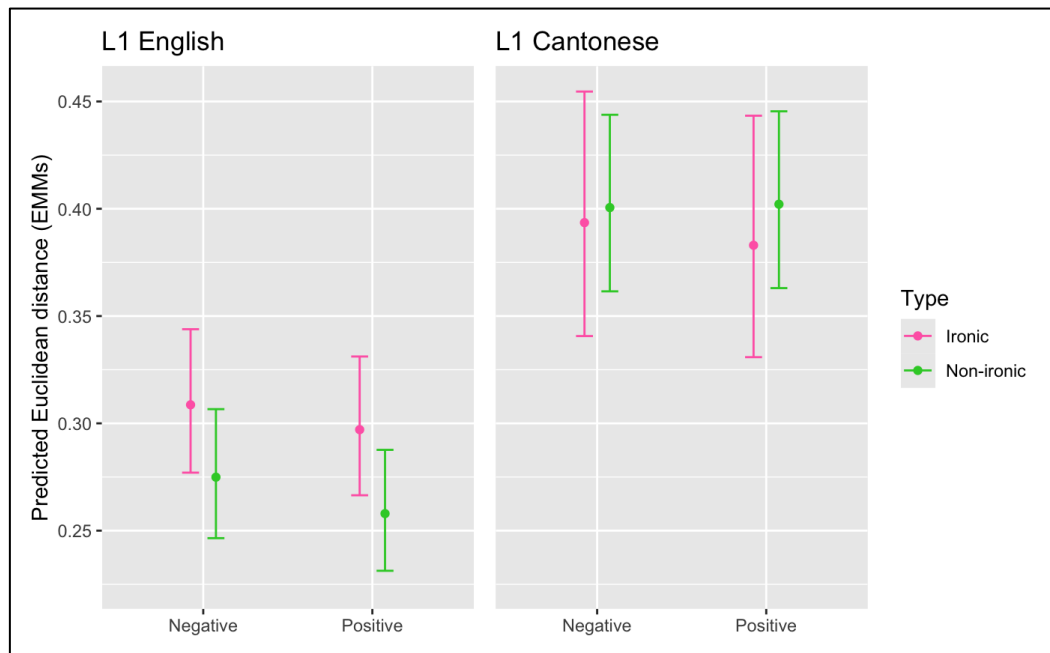
Accuracy suggests that for all participants, irony was more challenging to recognise compared to non-irony. However, mouse trajectory metrics only partially confirm this finding. This indicates that accuracy alone cannot capture the complexity of irony comprehension. This also reflects the potential interplay of methods and findings (Gibbs & Colston, 2012). Nevertheless, our study offers novel perspectives on irony processing by examining irony cued solely through prosody, and methodological insights into how the action-dynamics approach can capture irony processing beyond conventional measures such as accuracy, reading times, and decision times.

**Keywords:** irony processing, mouse-tracking, Cognitive linguistics, bilingualism, figurative language

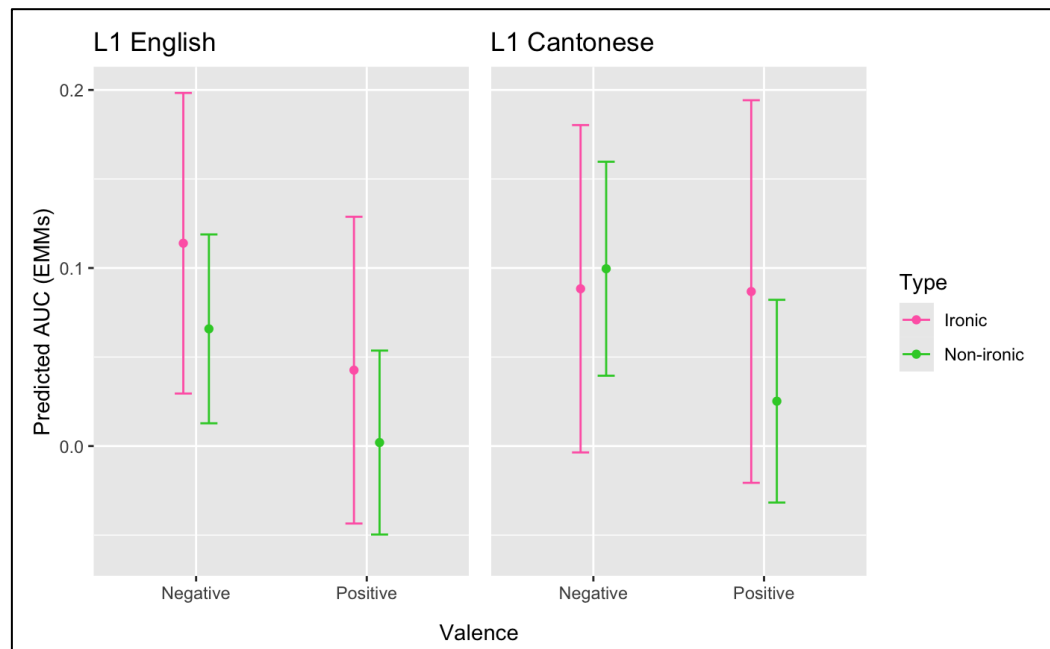
**Figure 1.** Predicted accuracy by type and valence across groups (when controlling for all other variables)



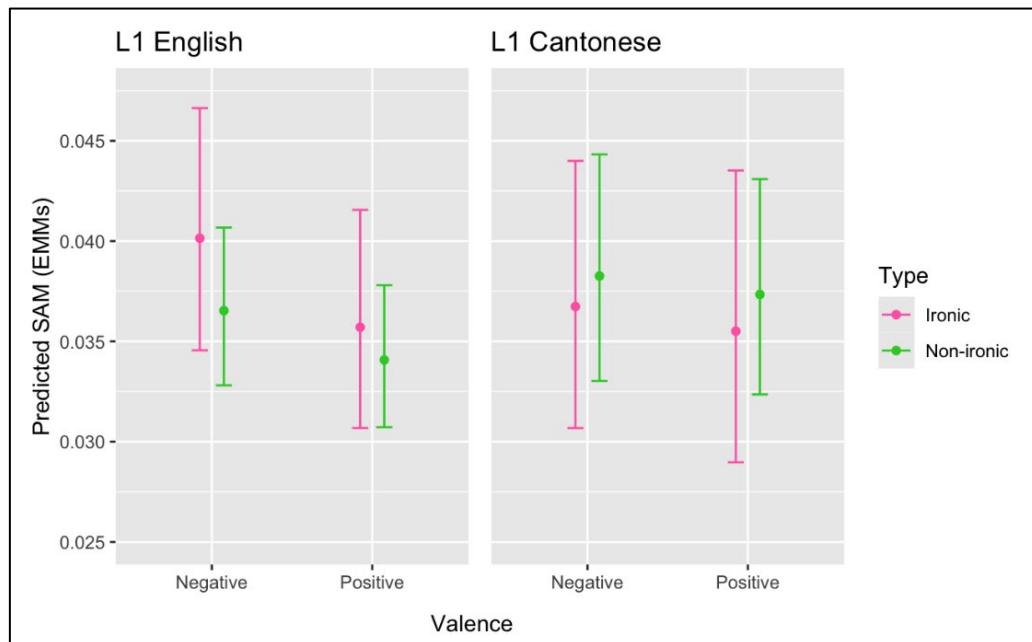
**Figure 2.** Predicted Euclidean distance by type and valence for L1 English and L1 Cantonese groups (when controlling for all other variables)



**Figure 3.** Predicted AUC by type and valence for L1 English and L1 Cantonese groups (when controlling for all other variables)



**Figure 4.** Predicted SAM by type and valence for L1 English and L1 Cantonese groups (when controlling for all other variables)



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## *Translating irony in Arabic media texts: An analysis of English versions*

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### **Abstract**

This study examines ironic statements in argumentative Arabic media texts and their English translations. It is based on Sperber and Wilson's (1981) theory of verbal irony, which views irony as an echoic reference to a proposition from which the speaker expresses a critical attitude. The research questions of the study are:

- (1) What conceptual and pragmatic tools are required to fully explain verbal irony in Arabic media discourse?
- (2) Could irony be interpreted through echoic mention, contextual assumptions, or other cognitive mechanisms?
- (3) How do translators reproduce irony in the English versions, and to what extent are the intended meanings accessible to the target readers?

The study analyzes ironic statements taken from three editorial articles published in *AL Distour Newspaper* in an Arabic that provides both Arabic and English versions. The findings show that verbal irony in Arabic media can be explained using echoic mention, where the speaker dissociates from a proposition to signal criticism, combined with contextual assumptions and cognitive mechanisms like perspective-shifting, which help readers infer the intended meaning. In addition, while the implicatures in the source and target texts do not always fully coincide, irony is often more explicit in the English translations, although the original value judgments remain largely unchanged.

**Keywords:** verbal irony, echoic mention, Relevance Theory, implicit meaning, cognitive mechanisms

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## *The if not-construction and its ironic impact*

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### Abstract

This presentation explores the ironic effect reinforced by the metacommunicative *if not* conditionals. In these devices, which have a metalinguistic (Athanasiadou, 2020; Athanasiadou & Dirven, 2000; Dancygier, 2012) or metatextual function (Dancygier, 1992; Horn, 1989), both the expression they comment on and its alternative are profiled. In Dancygier's (1992, p. 70) *The Queen of England is happy, if not ecstatic*, the *if not*-clause targets the speaker's description. The speaker comments on the term "happy" with a *perhaps even* more appropriate alternative, "ecstatic", in the same construction. They are both special and flexible constructions, as they combine conditionals and negatives, two constructional devices "whose semantics is inherently alternative". They can, therefore, "comment on possible alternative figurative construals, rejecting or accepting a construal, or balancing different possibilities" (Dancygier & Sweetser, 2014, p. 150).

This corpus-based study focuses on the productive use of the *if not*-construction. Relying on concrete instances extracted from the TenTen corpus in Sketch Engine, it is shown that the *if not*-clause can question an expression with the aim of sarcastically strengthening its ironic construal. In a case like *interesting, if not entertaining*, the speaker comments on the term that is positioned lower on the scale. The focus of the hearer, however, is not on its alternative expression. In her discussion of metacommunicative conditionals, which contribute to the highlighting of intense ironic instances, Athanasiadou (2020, p. 84) observes that in a case such as *She is very emotional. Her feelings, if any, were not shown*, the question primarily concerns whether these feelings exist in the first place, so that they can be shown. The hearer, therefore, is focused on the extent to which these terms are able to appropriately describe success in the academic profession.

- For most of us in the academic profession, the search for some "truth," whether it be scientific or historical, arguably matters most. Malcolm Gladwell, however, would have us believe our success lies in being **interesting, if not entertaining**. (enTenTen21, 21680870)

The *if not*-construction can set up possible alternative evaluations within the framework of conceptual integration. It is claimed that its ironic impact is evoked by constructional parameters as well. Figuration is intensified by the metalinguistic or metatextual interpretation of the negation, even if the device per se is not inherently ironic.

**Keywords:** alternativity, ironic effect, metacommunicative *if not*-clauses, metalinguistic or metatextual function, cognitive and constructional mechanisms

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## *(Fuzzy) Sets and the Multifaceted Nature of Irony: A Quest Into Categorization*

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### **Abstract**

How is IRONY to be categorized, and what is the relation between this figure and other mechanisms, such as antiphrasis, satire, sarcasm?

The goal of the paper is to examine IRONY through FUZZY SETS THEORY that goes beyond:

a. The Aristotelian logic which demands that a notion either belongs or does not to a category. The classical, definitional, set membership theory, and structural lexical semantics, rely on binary values, and impose mutual exclusivity. Irony with its multifaceted nature, cannot fit in such strict models. An irony cannot be evaluated as either false or true, as the classic logic demands, but only through its contradictory clash with reality.

b. Prototype theory and family resemblances which rely on feature similarities and on the assumption that various connected notions are intrinsically of the same type but may not possess all characteristics at the same degree. But on which basis is IRONY more prototypical /central than any of the other figures it interacts with?

Irony, negation, truth value, and extensions, such as antiphrasis, allegory do not constitute a family with irony as a central, prototypical member. I propose an interdisciplinary approach between linguistics and mathematics, to approach IRONY, within the frame of fuzzy sets.

In fuzzy set theory, explicitly motivated by linguistic vagueness, and introduced by Zadeh (1965, 2008), members of a set intersect/overlap with members of other, entirely different in nature, sets at various degrees. Membership in a category of linguistic variables is not a binary, yes/no question, but a matter of degree, categories are flexible, and ambiguities are handled.

In (fuzzy) set theory, irony and other notions, antiphrasis, satire, hyperbole, understatement, can be considered as completely different notions, which happen to intersect, as the case might be. For negation and truth values this is self-evident. Negation is not intrinsically related to irony, although an ironic statement can be implicitly negative. Antiphrasis, sarcasm etc. are completely independent from irony but may at various degrees intersect with it. An utterance can be sarcastic, hyperbolic, overstated, or understated without necessarily being ironic, but it may combine any of these nuances to different degrees. The graded membership in fuzzy theory accords with the variable intensity of an ironic statement, and hence the dilemma of the truth/ falsity of an ironic statement is no longer a threat, since ironies can be both true and false,

having a degree of participation in both notions. Fuzzy set theory enables the representation of abstract categories, IRONY, SARCASM, etc. through numerical membership values, which can then be processed and studied by computational models (Gurbanzada, 2025; Meriem et al., 2021; Reyes et al., 2012; Seising, 2011; Sharma et al., 2023).

The contribution purports to be a programmatic theoretical modelling proposal, drawing linguistic evidence from Oscar Wilde's works. Ironies, antiphrasis, etc. will be handled in a continuum of membership values that allows gradable semantic overlap and numerical values will be assigned to them. The indeterminacy of irony hence is treated within a robust theoretical model, designed for fuzziness, that captures gradience and interpretive flexibility.

**Keywords:** irony, categorization, fuzzy set theory

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***When humour meets critique: A cognitive perspective on irony in multimodal politically-themed T-shirt designs***

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**Abstract**

This presentation examines the construction of critical yet humorous ironic messages on T-shirts from a multimodal cognitive-linguistic perspective. The study is based on a corpus of politically themed T-shirts featuring prominent global and Polish politicians. The choice of political discourse as the object of analysis is motivated by the dynamics of contemporary global politics and its inherently evaluative and argumentative character, which fosters the emergence of irony as a strategy for indirect criticism and stance-taking. The study seeks to answer the following question: *Which frames/domains are evoked in the creation of critical and humorous aspects of the messages about politicians?*

The analysis is based on a corpus of 50 T-shirts collected from online marketplaces through targeted Google searches, a procedure that mirrors how a potential customer typically encounters such items. The corpus was compiled according to three criteria: the presence of political content referring to global or Polish politicians, the combination of verbal and visual elements, and the use of irony as an evaluative strategy. The analytical procedure involved identifying epistemic and observable scenarios underlying ironic interpretation, as well as the cross-scenario clash (Lozano Palacio & Ruiz de Mendoza, 2022; Ruiz de Mendoza, 2024), followed by determining the frames and domains (e.g., Kövecses, 2020) activated by textual and visual components.

Preliminary results show that criticism in the multimodal messages either arises directly from irony and the cross-scenario clash, or it is indirectly conveyed through the humorous portrayal of a politician. In the analysed corpus, typically, the epistemic scenario is retrieved from societal assumptions concerning the behaviour of politicians in democratic countries, whereas the observable scenario, being the conceptual correlate of knowledge linked to any source of new evidence, is communicated by the T-shirt design. Humour is predominantly anchored in the image layer. Differences were observed between English-language T-shirts, mostly referring to Donald Trump, and Polish-language T-shirts featuring various top-level Polish politicians: the former evoke the domains of CRIME, FICTION, and RELIGION, while the latter draw on FICTION and HISTORY, with frames varying across individual T-shirts. Additionally, while the dissociative attitude in the first group of T-shirts can be qualified as mockery, with some Polish T-shirts, derision is observable.

Our study contributes to political discourse analysis by examining politically oriented T-shirts as consumer artefacts through which political stances circulate in commodified form, thereby extending political discourse analysis beyond institutional and media texts to everyday material forms of political communication. At the same time, the study contributes to multimodal irony research by extending Forceville's (2023) *Multimodal Trope Theory* to irony, a trope that is beginning to receive attention compared to the extensively studied metaphor and metonymy, and by showing how ironic meaning is created through text-image interaction under genre-specific constraints such as visual and verbal simplicity, limited space, and the need for immediate understanding.

**Keywords:** irony, cognitive linguistics, multimodality, politics

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# *A Cognitive-Pragmatic Model of Sarcasm: Scenario Clashes, Chained Schemas, and Attitudinal Functions*

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**Universitat Politècnica de València & University of La Rioja**

## **Abstract**

This presentation develops a unified cognitive-pragmatic account of sarcasm as a non-denotational (attitudinal) use of language that specializes the inferential machinery of irony within a scenario-based model (Lozano Palacio & Ruiz de Mendoza, 2022). While sharing irony's core architecture, sarcasm involves obligatory disparaging dissociation and exploits a set of attitudinal functions that emerge from chained reasoning schemas. The model builds on (i) a two-stage premise-conclusion inferential process, in which Schema 1 identifies and evaluates an echoed premise against observable facts, and Schema 2 contains a premise determining the speaker's attitudinal rationale; and (ii) a functional typology of sarcasm mapped to these schemas and their rhetorical diagnostics.

In Relevance Theory, irony is described as echoic attribution accompanied by dissociation (Wilson & Sperber, 2012). The scenario-based model reframes this phenomenon as a clash between an epistemic scenario (an attributed expectation, belief, or norm) and an observable scenario (contextual reality), with attitudinal meaning arising through structured inference (Ruiz de Mendoza & Lozano Palacio, 2021). Our architecture captures this clash: a mismatch in Schema 1 licenses the disparaging evaluative stance derived in Schema 2, whereas the absence of a mismatch yields epistemic interpretations. Linguistic cues such as hyperbolic endorsement, paradoxical praise, concessives, and deliberate distortions heighten the salience of the clash and bias Schema 2 toward negative attitudinal outcomes (Ruiz de Mendoza, 2020).

Five principal functions of sarcasm exemplify distinct configurations of this architecture:

(1) Corrective-mocking sarcasm: *Brilliant time-management ... missing the meeting and the deadline in one elegant move!* Here, Schema 1 echoes a claim contradicted by reality, while Schema 2 supplies a hostile evaluative rationale, reinforced through hyperbolic agreement.

(2) Norm-policing sarcasm: *Right on time ... only twenty minutes after everyone else, but who's counting?* Schema 1 foregrounds a gap between expected and actual behavior, signaled by concessives or counterfactual hints, and Schema 2 conveys censure grounded in violated norms.

(3) Competence-downgrading sarcasm: *Excellent job printing the report ... especially the part where the pages came out blank!* Schema 1 echoes competence expectations to expose inadequacy, and Schema 2 adopts a derogatory stance strengthened by paradoxical praise or scalar exaggeration.

(4) Institutional exposure (satiric sarcasm): *A truly inspiring commitment to transparency! A 300-page report with 298 pages blacked out!* Schema 1 echoes institutional claims, while Schema 2 unmasks discrepancies through quantitative contrasts or lexically ironic phrasing.

(5) Proleptic undermining: *I'm sure this 'simple fix' will take five minutes — just like every other one that turned into an all-day emergency.* Schema 1 echoes unjustified optimism, and Schema 2 creates pre-emptive distancing through future-oriented markers.

Corpus evidence from political discourse, literature, audiovisual media, and everyday interaction confirms that these functions rely on the same cognitive scaffolding as irony while imposing a specialized attitudinal configuration. The typology clarifies constraints on sarcastic meaning (obligatory target orientation, disparaging stance, limited benign uptake) and strengthens the theoretical distinction between irony and sarcasm, resolving longstanding terminological ambiguities.

**Keywords:** sarcasm, irony, cognitive modelling, scenario-based account of irony

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***Isn't It Ironic? Or Sarcastic? Or Both? A Study on the Nature of Irony  
and Sarcasm in Greek Communication***

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**Abstract**

Despite extensive theoretical work, the distinction between irony and sarcasm remains contested. While many theoretical models, (e.g., Attardo, 2000; Barbe, 1995, Bousfield & Locker, 2008) treat sarcasm as a subcategory of irony or use the two terms interchangeably, the features that differentiate the two, have rarely been empirically examined, especially outside of English-speaking contexts. This study investigates how native Greek speakers perceive and categorize irony and sarcasm, aiming to evaluate whether commonly proposed theoretical features apply in this community and how first-order understanding of the terms “irony” and “sarcasm” differs from linguistic models.

Moreover, the research focuses on three proposed distinguishing characteristics, namely overttness, speaker attitude and target presence. To test whether these are indeed characteristics that distinguish irony and sarcasm, a vignette-based questionnaire was administered to 160 native Greek speakers. Participants evaluated short conversational scenarios that contained different types of utterances: ironic compliments, ironic insults, sarcasm, literal compliments and literal insults. Each vignette was accompanied by several tasks measuring participants' classifications (ironic, sarcastic, both, or literal), perceived overttness, speaker attitude and target identification. Furthermore, the questionnaire was presented in two phases: participants first evaluated scenarios without theoretical definitions, and then repeated the tasks being presented with definitions of irony and sarcasm. This design allowed the comparison of first-order (intuitive) and second-order (theoretically informed) understanding of the two phenomena.

The results revealed several important patterns. First, as expected participants struggled to distinguish between irony and sarcasm, especially in ironic compliments and sarcastic responses, suggesting some overlap in intuitive interpretation. Secondly, sarcastic utterances tended to be deemed more overt than ironic prompts. However, target presence emerged as the most reliable distinguishing factor, since utterances perceived to be directed to the listener were more likely to be deemed as “sarcastic”, whereas utterances referring to a general situation or non-specific referent were more often interpreted as “ironic”. Unexpectedly, attitude judgments produced results that diverge from traditional theoretical expectations. While irony is often associated with more positive or humorous intentions and sarcasm with a more scornful attitude, participants frequently associated sarcastic utterances with positive or friendly attitudes.

The findings suggest that sarcasm may function as a form of banter or solidarity, rather than purely hostile or face-threatening act. This may reveal a cultural communication pattern in Greek, specifically a tendency towards positive politeness and relational solidarity.

Overall, the findings suggest that the boundary between irony and sarcasm is less rigid than theoretical accounts suggest. It also highlights the importance of cross-linguistic investigation and a significant gap in existing literature, that has relied too much on English speaking populations to conceptualize the two terms. It also emphasized the importance of distinguishing first- and second-order of understanding, since public interpretation may differ substantially from formal linguistic models.

**Keywords:** irony, sarcasm, attitude, Greek, first- and second-order understanding

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**Abstract**

Irony implies a meaning opposite to the literal meaning and bears some relation with allegory, “since [it] is clearly a particular, 180-degree reversed, instance of allegory’s double meaning” (Lanham, 1991, pp. 92-93). In this presentation, we aim to shed light on how irony is interpreted in allegorical settings by presenting a case study of its use in the *Zhuangzi* (4th c. B.C.E.), the second foundational text of the Daoist philosophical and religious tradition. Zhuangzi’s writings, as summarized in the biography of the philosopher in the *Shiji* (‘Records of the Grand Historian’), “for the most part were allegories” (Mair, 2000, p. 31). Consider:

Nie Que asked Wang Ni, “Do you know what all things agree in calling right?”

“How would I know that?” said Wang Ni.

“Do you know that you don’t know it?”

“How would I know that?”

“Then do things know nothing?”

“How would I know that? However, suppose I try saying something. What way do I have of knowing that if I say I know something I don’t really not know it? Or what way do I have of knowing that if I say I don’t know something I don’t really in fact know it? [...] How could I know anything about such discriminations?” [...] (Watson, 1968/ 2013, pp. 14-15)

The above allegorical dialogue, enacted by two fictional discourse characters, embodies the philosopher’s use of two unique modes of discourse, namely, ‘yuyan’ [imputed words] and ‘chongyan’ [repeated words] (Ye, 1979/2004, p. 7). In other words, the philosopher makes use of this conversation for particular rhetorical purposes and hence speaks through these fictional figures. This suggests that in the *Zhuangzi* there exist multiple viewpoints, namely, the perspectives of the narrator/writer and discourse characters, that are fused together. This dialogue, instantiating so-called “idiotic irony”, conveys the philosophical message that “higher wisdom consists in knowing that one does not know and therefore in the ability to ironically expose the foolishness of others who claim that they do know” (Moeller, 2008, p. 117).

Drawing on Fauconnier and Turner’s (2002) Conceptual Blending Theory, we

analyze ironies embedded in the Zhuangzian allegories as intersubjective mixed viewpoint discourse constructions (cf. Östman, 2005), involving not just a blend of the situational frame and incongruent counterfactual verbal element(s) (Belaj & Tanacković, 2022) but also the viewpoints of the philosopher, discourse characters and prospective readers. We further view irony as a strategy of internal rhetoric, which “occurs between one aspect of the self and another” (Nienkamp, 2001, p. x). The successful interpretation of ironies in a text with abundant mixed viewpoint scenarios lies in the cognitive alignment of the possibly different viewpoints, which are set up and shifted in a multi-layered manner for particular argumentative purposes. This study not only complements previous research on irony as a viewpoint phenomenon (Tobin & Israel, 2012; Tobin, 2020) but also sheds light on the cognitive underpinning of internal rhetoric.

**Keywords:** irony, allegory, viewpoint blending, intersubjectivity, the *Zhuangzi*

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## *Ironbole: Hyperbolic irony encoded through lexical blending from a Cognitive-Linguistic perspective*

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### **Abstract**

Scholars such as Barnden (2020), Carston and Wearing (2015), Colston and Keller (1998), Dynel (2016), and Popa-Wyatt (2020) have examined the interaction between hyperbole and irony noting their attitudinal nature in so far as they convey the speaker's emotional stance towards an utterance. While hyperbole maximizes emotional impact, irony involves parametrizable dissociation between the speaker and the communicated content (Ruiz de Mendoza, 2020, pp. 33-34) often giving rise to such attitudes as skepticism, scorn, or mockery. Hyperbole can therefore be exploited for ironic purposes and as argued by Popa-Wyatt (2020, p. 93), may enhance the effect of irony.

Irony may be constructionally cued or purely inferential. Relatively few studies have investigated the role of specific linguistic devices in triggering or evoking ironic meaning (Athanasiadou, 2020; Colston, 2018; Giora et al., 2015), mainly because verbal irony typically relies on broad contextual information for its interpretation (Athanasiadou, 2020, p. 79). This study addresses this gap by dealing with lexical blending (a word formation process combining two or more lexical items, at least one of which is truncated; e.g. *snoafer* < *sneaker* + *loafer*; Peña, 2022) as a morphological mechanism capable of instantiating *hyperbolic verbal irony* in some cases with minimal contextual support. In this sense, this analysis contributes to the study of constructional irony by extending it to the morphological level, which has so far received little systematic attention.

The study is based on a corpus of 200 *ironboles* (hyperbolic irony encoded through lexical blending) compiled from *CogBlend* (a database of recent blends drawn from major English dictionaries, mainly *Cambridge*, *Oxford*, and *Merriam-Webster*). The *NOW* (*News of the Web*) Corpus has been used to validate blend classification where necessary and to provide contextualized instances of use.

Within the framework of Construction Morphology (Booij, 2010, 2013), the analysis shows that ironboles show different degrees of schematicity (Audring & Jackendoff, 2025). Ironboles may function as:

(i) partially schematic morphological constructions (e.g. (clipped) noun/verb/adjective + *-maxxing*, as in *sleepmaxxing*, which, in incel communities, refers to sleep optimization; since it spread from incel forums to mainstream social media, *-maxxing* formations have acquired ironic overtones; obsessively improving one's

physical appearance or health habits and lifestyle can be counterproductive and even harmful; *-maxxing* formatives carry negative connotations and do not rely on context to be interpreted as ironic);

(ii) fully schematic morphological patterns (e.g. adjective + adjective (one of them must be shortened), as in *fantabulous* < *fantastic* + *fabulous*; only in the right context, this intensifying hyperbolic blend can be construed as ironic; e.g. A: *The server crashed five minutes before the deadline, we lost all the data, and now the client is furious.* B: *Yeah! That's fantabulous!*).

Additionally, the study draws on the scenario-based approach to irony (Peña & Ruiz de Mendoza, 2022), which claims that the echoed scenario and the observable scenario of irony can be built on the basis of (partially) explicit and/or implicit information, to distinguish two main situations: (i) ironboles in which the echoed scenario is explicit and the observable context is implicit (e.g. *Trumptopia* < *Trump* + *utopia*; critics of Trump would interpret *Trumptopia* as a dystopian shift toward authoritarian governance) and (ii) ironboles (e.g. *Trumpocracy* < *Trump* + *democracy*) in which the echoed scenario is explicit and the observable scenario is made explicit by adding more contextual material, as in *Trumpocracy: The Corruption of the American Republic*).

**Keywords:** hyperbole, irony, lexical blending, morphological constructions, Cognitive Linguistics

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## *Assessment of ironic contrast in visual, non-verbal irony*

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### **Abstract**

A longstanding theoretical question in irony studies pertains to the relationship between verbal and situational irony (Littman & Mey, 1991; Utsumi, 2000). Arguments relate to whether situational irony is a prerequisite for verbal irony (Currie, 2023; Utsumi, 2000), and relatedly whether a singular mechanism (agnostic to linguistic properties) can explain both situational and verbal irony (Colston, 2017; Shelley, 2024; Simpson, 2019). Several theoretical models have been proposed, such as testing the degree of *ironic contrast* in different ironies (Colston, 2017) or mapping the counterfactual ironic situation underlying verbal ironies (Shelley, 2024). However, to date these arguments remain largely theoretical, and there is a need for empirical evidence to determine the feasibility of measuring ironic contrast (or its various synonyms).

Accordingly, the goal of this project is to test the possibility of measuring ironic contrast across a large set of ironies. In this data, we focus on situational ironies as depicted in a sample of drawn cartoons from a webcomic called *Yes, But* (YB; Gudim, 2026). The YB comics each comprise two panels, where the first panel (*Yes*) depicts an apparently benign situation (e.g., a young boy petting a cow on a farm), whereas the second panel (*But...*) reframes the first panel through an ironic lens (e.g., the young boy is then shown eating a beef burger) – see Figure 1.



**Figure 1.** Example of *Yes, But* comic

We selected a subset of 102 YB comics from the artist's *Instagram* website (Gudim, 2026). Two trained raters then independently annotated each comic for ironic contrast, following the framework provided by Shelley (2024). Under this framework, each comic was annotated for two contrasting *actual situations* (AS1 and AS2), followed by a statement explaining the irony emerging from a clash between the two situations (known as the *counterfactual ironic situation*; CIS). After annotating the entire set, initial rater agreement was 91% (93 of 102 comics), indicating most comics contained perceivable irony via contrasting schemas. For the comic in Figure 1, these are:

- AS1: A boy is patting a cow at a farm.
- AS2: The boy is eating a beef burger.
- CIS: It would be ironic to show care to animals and then eat them.

Next, we subjected the comics to a pilot pairwise rating task, where human subjects ( $n = 20$ ) decided which of two randomly selected comics is the most ironic (each subject rated 51 pairs, resulting in 1,020 ratings). We analysed these ratings using a Bradley-Terry probability model, which sorted the comics into a ranked list of least-to-most ironic. We are now gathering more ratings from a larger number of subjects in the USA and New Zealand ( $n > 200$ ). Altogether, the results will provide us with a quantitative measure of the strength of irony in each picture, alongside human annotations of the nature of the ironic contrast. The conclusion will be a framework that demonstrates the feasibility of quantifying ironic contrast across a large dataset, paving the way for future work with other forms of situation and verbal irony.

**Keywords:** situational irony, ironic contrast, quantifying irony, human annotation, pairwise rankings

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# *Beyond the Mirror: Cognitive Operations and Ironic Representation of Narcissus*

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## **Abstract**

While irony is a pervasive feature of Ovid's narrative world, its cognitive foundations remain underexplored in Ovidian scholarship. In the *Metamorphoses*, only Krupp (2009) and van Schoor (2011) offer extensive treatments of the figure. Renger (2017) concentrates on the Narcissus episode's reception, discussing the impact of the various themes and ideas explored in it. Finally, Stirrup (1976) addresses the ironic elements within the episode but focuses on its structural parallels with the story of Echo.

This paper investigates the cognitive mechanisms underlying the ironic representation of Narcissus in Ovid's *Metamorphoses* (3.337-510), focusing on how shifts in viewpoint and failures of mindreading generate figurative meaning. In particular, this study argues that the Narcissus episode provides a compelling case of how irony emerges from the interaction between narrative perspective, embodied perception, and the reader's capacity for mental-state attribution. This cognitive ability, employed to explain and predict mental states and the behaviour of oneself and others, is known as mindreading or Theory of Mind (Baars & Gage, 2018, pp. 322-342; Novokhatko, 2025, p. 19).

Following the story of Echo (pp. 337-404), the Narcissus episode (pp. 405-510) is structured in two parts: the first is presented by the narrator, who details the events, while the second consists of the character's own monologue. This monologue reveals Narcissus' mental processes and perturbed emotional state leading up to his realization. The analysis shows that irony operates on two interrelated levels. Firstly, *narrative irony* arises from the discrepancy between the narrator's informed perspective and Narcissus' misinterpretation of the situation. Secondly, *cognitive irony* (referring to Narcissus' mind) is grounded in the protagonist's failure of mindreading, as he cannot recognize that the object of his desire is his own reflection.

Drawing on research in Theory of Mind, Cognitive Linguistics, and embodied cognition, the paper proposes that ironic comprehension depends on dynamic viewpoint management (e.g., Tobin & Israel, 2012) and inferential processes that allow readers to track competing mental perspectives. The paper builds upon Athanasiadou and Colston's (2020) conceptualization of irony as a multifaceted phenomenon and Gibbs et al. (2024, p. 74) view that "irony arises through cognitive appraisals of our thoughts and bodies and the world around us" (see also Ruiz de Mendoza, 2024). By integrating these perspectives with Colston's (2020) analysis of the nonverbal behaviours underpinning verbal irony, this paper argues that irony should be understood as a fundamentally

embodied experience. Narcissus' experience thus illustrates how irony emerges from a misalignment between subjective cognition and external reality. Methodologically, the paper combines close textual analysis with cognitive-linguistic modelling, examining linguistic cues such as rhetorical questions, focalization, and perspective shifts that guide readers' interpretation. These features are interpreted as narrative triggers for mindreading processes that enable the recognition of irony.

By modelling irony as a cognitive operation involving viewpoint coordination and mental-state attribution, this study aims to contribute to broader debates on figurative thought and language. In particular, it highlights mechanisms that are crucial not only for human interpretation of figurative discourse but also for current challenges in computational modelling of figurative language, where irony remains notoriously difficult for artificial systems to detect and interpret. The Narcissus episode therefore offers a valuable case study for understanding how figurative meaning emerges from the interaction between cognition, narrative structure, and embodied perception, with implications for both cognitive theories of figurative language and emerging computational approaches to figurative meaning.

**Keywords:** mindreading, viewpoint, ironic comprehension, multimodal irony, *Metamorphoses*

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# **GENERAL SESSIONS**

# ***Figurative Language Learning through Multimodal Digital Storytelling in Inclusive EFL Contexts***

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## **Abstract**

The interpretation of figurative language may be especially challenging for autistic learners in English as a Foreign Language (EFL) contexts, particularly when comprehending idioms and metaphors depends on contextual inferencing and the construction of non-literal meaning (Happé, 1993; Lampri et al., 2024). Although multimodal pedagogies have been shown to support language learning in inclusive settings (Kim et al., 2024), the pedagogical use of digital storytelling has received comparatively less attention in relation to figurative language learning for autistic learners (Glumbic et al., 2022). Digital narratives may offer a useful scaffold for non-literal comprehension by combining verbal and non-verbal input in ways consistent with dual-coding approaches to meaning-making (Clark & Paivio, 1991; Paivio, 1986). Consequently, this paper examines whether multimodal digital storytelling can support figurative language for autistic EFL learners and explores participants' perceptions of multimodal digital tools as pedagogical resources. This study adopted a sequential mixed-methods design, involving twelve autistic learners aged 16-19 with A2-level English proficiency as participants. They were divided into an experimental group and a control group. The first one engaged with a multimodal digital story combining narration, images and audio, whereas the control group used a printed version of the same narrative. Quantitative data were collected through pre- and post-tests on figurative language, and qualitative data were gathered through a semi-structured group interview. Findings revealed improvement in both groups with higher scores in the experimental group, suggesting that multimodal and contextualised input supported the interpretation of non-literal meaning more effectively. Qualitative data further suggested a positive effect of the digital stories, as participants reported that visual support, narrative sequencing and audiovisual cues helped them connect figurative expressions with actions and intended meanings. Therefore, these findings reveal that digitally mediated narratives could support figurative language learning by providing a structured narrative for contextualisation and interpretation.

**Keywords:** figurative language, digital storytelling, multimodality, EFL, autism

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***Conceptual mechanisms behind English lexical blends: a qualitative corpus-based case study***

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**Abstract**

This study investigates how computing-related lexical blends achieve semantic depth and communicative efficiency. It examines the conceptual mechanisms guiding their interpretation, the structural patterns and splinters that stabilize meaning, the communicative functions of blending in technological discourse, and how splinter evolution reflects broader sociotechnical change.

The analysis adopts a cognitive-linguistic framework integrating three mechanisms. First, metonymy–metaphor interaction is modelled as metonymic expansion or reduction affecting the source or target domain of a metaphor, following earlier accounts of metaphonymy (Goossens, 1990) and later reformulations (Ruiz de Mendoza, 2017; Ruiz de Mendoza & Galera, 2014). In *robocalypse*, target reduction selects the catastrophic outcome of a complex sociotechnical scenario, which is then mapped onto a primary catastrophe metaphor.

Second, *metaphorical amalgams* (Ruiz de Mendoza, 2017, 2021) account for blends that integrate two self-standing metaphors. In *hackathon*, there are two source domains: MARATHON, as a model for sustained, time-bounded effort, and HACK, as a model for creative problem-solving, jointly map onto the target domain of a collaborative project-development event, yielding emergent inferences of endurance, teamwork, and iterative problem-solving that neither source provides independently.

Third, frame enrichment, grounded in the Invariance Principle (Lakoff, 1990) and its later refinements (Ruiz de Mendoza, 2021), explains the rapid interpretability of many blends by showing how a matrix frame imports compatible structure from a donor frame under image-schematic constraints. In *technostress*, a WORK/ACTIVITY frame incorporates elements of a PHYSIOLOGICAL-STRESS frame, allowing immediate access to experiential associations of overload and coping.

These conceptual mechanisms are examined alongside morphological description, with particular attention to clipping-based patterns and splinter behavior (Mattiello, 2019; Peña, 2022). Productive splinters such as *cyber-*, *crypto-*, *algo-*, and *-pocalypse* contribute to semantic predictability and analogical patterning, often approaching combining-form behavior through repeated use.

Methodologically, the study is based on qualitative analysis of 215 computing

blends. Structural characterization focuses on the predominance of clipping-based blends, especially formations combining (i) the initial part of the first word with the final part of another (e.g., *techlash* < *technology* + *backlash*), (ii) a full first word with a truncated second element (e.g., *chatbot* < *chat* + *robot*), and (iii) an initial clipped segment with a full second word (e.g., *cryptowallet* < *crypto(currency)* + *wallet*). Such configurations maximize transparency and categorical recoverability (Beliaeva, 2019; Sánchez Fajardo, 2022). We further consider how recurrent splinters contribute to semantic stabilization, with examples such as *cyber-* (e.g., *cybercrime*) and *crypto-* (e.g., *cryptowallet*), whose rising productivity tracks key phases of socio-technological change.

The results show that computing blends are predominantly transparent, endocentric, and efficiency-driven. Interaction between metaphor and metonymy accounts for evaluative stance and semantic parameterization (e.g., *-pocalypse* formations); metaphorical amalgams explain event and role construction (e.g., *netizen*); and frame enrichment accounts for rapid processing (e.g., *technostress*). Finally, the increasing productivity of splinters mirrors sociotechnical evolution, confirming blending as a central naming strategy in English and demonstrating how conceptual and morphological factors jointly shape meaning construction in the domain of computing.

**Keywords:** metonymy, metaphor, metaphorical amalgams, frame enrichment, splinters.

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## *Variation and echoic mechanisms in verbal parody*

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### **Abstract**

This study examines verbal parody from a relevance-theoretic perspective, focusing on the role of variation in shaping its communicative complexity. The central research question addresses how variation parameters—particularly partiality, inaccuracy, and complexity—contribute to the interpretation and effects of verbal parody. A related question concerns the extent to which parody differs from irony, given that both are treated as instances of echoic mention in the framework developed by Sperber and Wilson (1981) and later refined by Wilson and Sperber (2013). The study seeks to clarify how parody, as an echoic phenomenon, signals dissociation from a source while privileging formal manipulation for comic purposes.

The theoretical approach is grounded in Relevance Theory, which conceptualizes irony and parody as echoic uses of language. Within this framework, an echo represents a prior utterance, thought, or style, and the speaker communicates a critical or dissociative stance toward it, as it happens in irony (Ruiz de Mendoza & Lozano, 2021). The study extends this model by systematically examining how echoes vary and how such variation affects interpretation. Unlike previous accounts that treated parody more uniformly, this study uses a nuanced typology of variation (as already put forward by Ruiz de Mendoza & Barreras Gómez, 2025).

Methodologically, the study is qualitative and analytical. It identifies and categorizes instances of echoic discourse, comparing ironic and parodic examples according to three main parameters: degree of partiality (partial vs. full echoes), inaccuracy (distortions or exaggerations of the source), and structural complexity. It also analyzes three shared complexity strategies—compounding, cumulation, and chaining—to determine how these mechanisms function in discourse. Although specific datasets are not detailed in the summary, the data consist of naturally occurring or constructed examples of ironic and parodic utterances subjected to pragmatic analysis.

The expected results indicate that parody differs systematically from irony in its preference for partial echoes and its emphasis on formal features rather than propositional content. In parody, inaccuracy and heightened complexity are strategically employed to enhance comic effect. Both irony and parody exploit compounding, cumulation, and chaining, but parody uses these strategies primarily to intensify stylistic exaggeration. Overall, the study demonstrates that variation is central to understanding the communicative sophistication of verbal parody and refines the theoretical treatment of echoic discourse.

**Keywords:** verbal parody, echoic mention, Relevance Theory, communicative variation, complexity strategies

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**Abstract**

The language surrounding AI has been studied extensively, but one area that still remains underexplored is AI's adaptive dimension, i.e., how AI chatbots adjust their responses to different users. The paper combines established theories such as Lakoff and Johnson's (1980) conceptual metaphor theory to identify source domains used for AI self-representation, Fillmore's (1982) frame semantics to analyse the conceptual frames activated in each response, Entman's (1993) framing analysis to examine ideological choices at the discourse level and additionally Bell's (1984) audience design framework to account for sociolinguistic audience orientation, which together provide insight into how the large language model Claude (Sonnet 4.6) adapts its linguistic output to five distinct user personas. The data collection included ten identically worded questions about AI's understanding of language, creativity, limitations and errors, asked by five distinct personas: a general audience member, a university student, an IT specialist, a linguist and a translator. Personas were created through changes to user preference settings before each separate inquiry and without explicit labelling of the user's identity in the conversation itself. This design attempted to test whether Claude engages in spontaneous audience adaptation rather than simple instruction following. The analysis combines conceptual metaphor identification, framing analysis and the comparison of speech acts and epistemic hedging strategies for each persona.

The results indicate that Claude adapts on multiple linguistic levels. At the level of metaphor, Claude used a variety of source domains for each persona, from spatial and container metaphors to library, colleague and helpful or subordinate assistant metaphors. At the level of framing, the same concepts were construed differently, varying from reassurance and collaboration to accountability and philosophical inquiry frame. At the level of speech acts, correction and peer-level challenge appeared in specialist transcripts, while scaffolding and encouragement were offered to a student. Most notably, Claude drew on different theoretical and literary authorities in its responses, e.g., cognitive linguistics (embodied meaning, grounding) and critical discourse analysis (CDA) for the linguist, Pearl's causal hierarchy (a framework for reasoning about causation and counterfactuals) for the IT specialist and literary figures Barthes, Eliot, and Morrison to frame issues of authorship and creativity for the student.

These findings suggest that besides adapting register and vocabulary, Claude also changes its entire theoretical framework in response to implicit users' preferences. This represents a form of audience design that raises important questions about AI's

sociolinguistic impact, AI literacy for different professions and human-AI communication.

**Keywords:** AI discourse, adaptive communication, conceptual metaphor, framing

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# *Construal, Frame, Metaphor: A Taxonomy of Conceptual Variation in Creative Idiom Use*

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## **Abstract**

Existing models of idiomatic creativity categorize variation using broad labels such as “metaphorical extension” or “semantic shift”, failing to distinguish between within-domain construal adjustments and cross-domain metaphorical restructuring. This paper proposes a systematic taxonomy of usage-based conceptual variation with fine-grained, empirically grounded distinctions between types of conceptual operations. Drawing on Conceptual Metaphor Theory (Lakoff & Johnson, 1999), Frame Semantics (Fillmore, 1982), and cognitive linguistic construal processes (Croft & Cruse, 2004), the framework identifies conceptual reorganizations as they manifest in speakers' creative modifications of established expressions. We ask: what distinct conceptual operations are empirically detectable in attested idiom variants, and how do these distribute across idioms and languages?

The taxonomy partitions the conceptual change space into four categories, analysed by contrasting the idiom variant (V) with its canonical form (C) across three interacting dimensions: construal, frame, and metaphor.

1. **Anchored variation:** Preserves the original construal, metaphor, and frame structure; any variation is purely referential or stylistic (e.g., *don't count your electoral chickens before they hatch*).
2. **Construal-shifting:** Modifies parameters such as scalarity or gestalt without altering the event frame or metaphor (e.g., *count all my chickens before they hatch* — quantifier addition intensifies the scalar profile without changing roles or mapping).
3. **Frame-restructuring:** Reconfigures event-role structure by altering participant roles or causal relations, necessarily entailing a construal shift (e.g., *the chickens are already hatched* — reversing the canonical entailment that outcomes remain uncertain).
4. **Metaphor-restructuring:** Suspends, replaces, or reconfigures the original source-target mapping while preserving the overall target interpretation (e.g., *poultry farmers can now afford to count their profits before their chickens hatch* — “profits” replaces “chickens”, literalizing the counting frame while preserving the caution framing).

A primary distinction of this taxonomy is its analytical separation of within-domain construal from cross-domain metaphorical mappings, providing finer-grained diagnostics than traditional models. Using an inductive, data-driven annotation protocol, the framework is applied to a dataset of over 14,000 idiom variants from English, Japanese, and Korean TenTen corpora. Crucially, formal and conceptual dimensions are coded entirely independently: formal coding is strictly confined to morphosyntactic manipulation of the canonical idiom's constructional slots, while conceptual coding captures the semantic effect of the variant in context, including any overt elements that bear on construal, frame, or metaphor. This clean separation allows the taxonomy to isolate conceptual operations independently of structural analysis.

The analysis demonstrates that idiomatic creativity is frequently multi-layered, with variants often involving simultaneous operations. Cross-linguistic comparison across English, Japanese, and Korean further probes how morphosyntactic and sociopragmatic constraints shape tolerance for conceptual restructuring.

This study advances figurative language research by providing a rigorous, replicable tool for analysing how speakers manipulate conceptual structure to balance creativity with interpretability, with coding distinctions that are readily adaptable for computational annotation of figurative language.

**Keywords:** idiomatic creativity, Construction Grammar, Frame Semantics, conceptual metaphor, Cognitive Linguistics

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# ***Evaluating FILMIP-AI: A Comparison of Human and MLLM-Assisted Filmic Metaphor Identification***

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## **Abstract**

This study investigates the potential of multimodal large language models (MLLMs) to identify metaphorical meaning in audiovisual media through an AI-enabled implementation of the Filmic Metaphor Identification Procedure (FILMIP; Bort-Mir, 2019, 2021). Situated at the intersection of cognitive linguistics, film studies, and artificial intelligence, the research explores how a theoretically grounded analytical framework can be operationalized as a sequence of machine-readable prompts for multimodal metaphor detection.

The study addresses the following research questions: (1) To what extent can MLLMs replicate the analytical stages of FILMIP in identifying filmic metaphors? (2) How does MLLM-assisted annotation compare to human annotation in terms of accuracy and interpretive depth? (3) Which factors (e.g., prompt design, multimodal input, model architecture) influence metaphor identification performance?

Methodologically, we develop FILMIP-AI and test it across three Google Gemini models (2.5 Pro, 3.5 Flash, and 3.1 Pro Preview), selected for their native video-processing capabilities. The models are evaluated using several prompting strategies, including *k*-shot prompting (zero-shot to 10-shot) and Chain-of-Thought (CoT) prompting. The dataset consists of selected TV commercials, which are analyzed both by human annotators and by the models, allowing for systematic comparison.

Results show that MLLMs can produce highly accurate multimodal descriptions of visual and auditory elements, reconstruct referential meaning, and identify filmic metaphors with high sensitivity. However, this sensitivity is accompanied by lower precision, as models tend to overgenerate metaphorical interpretations. Additional challenges include difficulty integrating information across modalities, limited sensitivity to culturally embedded metaphors, and the generation of unstable or hallucinated conceptual mappings. These findings are consistent with prior research indicating that MLLMs struggle with integrating cross-modal information (Wang et al., 2025) and that prompt engineering significantly affects model performance in metaphor identification (Fuoli et al., 2026). Our research proposes a framework for MLLM-assisted metaphor annotation based on prompt-engineered FILMIP stages (e.g., incongruity detection, abstraction, cross-domain mapping). It further argues that FILMIP-AI can support the scalable construction of filmic metaphor corpora,

functioning as a pre-annotation tool under expert supervision. More broadly, the research contributes to ongoing discussions about the role of AI in cognitive-linguistic analysis and the limits of automated meaning construction.

**Keywords:** filmic metaphor identification, multimodal large language models (MLLMs), AI-assisted annotation, multimodal metaphor, prompt engineering

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***METATEA: An exploration of metaphors of cognitive and sensory overload in ASD individuals***

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**Abstract**

The METATEA project, a newly funded research initiative hosted at Universitat Politècnica de València, investigates the metaphorical conceptualization of cognitive and sensory overload in individuals with Autism Spectrum Disorder (ASD) Level 1. Grounded in the framework of Conceptual Metaphor Theory (Lakoff & Johnson, 1980), the project is built on the fundamental premise that metaphor is not merely a linguistic ornament but a primary cognitive mechanism through which humans structure their lived experience. By examining how neurodivergent individuals employ metaphorical language to describe internal states, the project seeks to understand how these linguistic frames shape emotional responses and influence affect regulation.

Metaphors play a critical role in the interface between cognition and emotion, serving as filters through which individuals interpret complex challenges (Gibbs, 2014). In the context of disability and neurodivergence, war metaphors—which frame difficulties as “battles” to be won or “attacks” to be defended against—are particularly dominant. While warlike imagery can provide a sense of agency or empowerment in specific contexts, it may also inadvertently evoke feelings of fear, aggression, or systemic helplessness. These effects could be significantly more salient for individuals with ASD Level 1, who often navigate heightened sensory and cognitive demands (Brezis, 2012; Kalandadze et al., 2018; Robertson & Baron-Cohen, 2017). The METATEA project addresses the currently underexplored question of how neurodivergent individuals naturally describe states of overload and, crucially, how different metaphorical framings, whether aggressive or peaceful, alter their emotional self-perception and psychological well-being.

The research is structured in two distinct yet interconnected phases. The first phase employs a comprehensive online questionnaire designed to elicit spontaneous metaphorical descriptions of sensory and cognitive overload. This instrument combines open-ended prompts to capture qualitative linguistic data with closed-ended items to identify recurring conceptual patterns. The second phase adopts a narrative-based experimental design. Participants are presented with overload scenarios framed through contrasting metaphorical lenses: “war-based” metaphors versus “neutral” or “peaceful” metaphors (e.g., metaphors of “flow,” or “nature”). Emotional responses to these scenarios are systematically assessed using Plutchik’s (1980, 2001) multi-dimensional model of emotions to determine how linguistic framing shifts affective states.

Preliminary results derived from an initial pilot group of 14 participants demonstrate the approach's feasibility and highlight the potential for significant variations in emotional impact based on metaphorical choice. With full funding secured, the METATEA project is now expanding its sample size and establishing strategic collaborations with autism associations across Spain. Ultimately, the project aims to generate evidence-based recommendations for therapeutic and clinical communication, advocating for metaphorical frameworks that support emotional resilience and promote long-term well-being in neurodivergent populations.

**Keywords:** conceptual metaphor, ASD, cognitive and sensory overload, METATEA

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## Abstract

Gestures are “symbolic movements of hands, arms, and other body parts that are related to people’s ongoing speech and expressive intention, as well as those movements that are related to people’s silent thinking” (Gu, 2018, p. 10). Studies have shown that speakers align their gestures with lexical representations and syntactic structures to make these congruent (e.g., Kita et al., 2007; Özyürek et al., 2005), and that, overarchingly, gestures contribute extra-information to speech (see e.g., McNeill, 1992).

In virtually any language, TIME is talked about via spatial metaphors, thus realising the conceptual metaphor TIME IS SPACE (Kövecses, 2010; Lakoff and Johnson, 1980). In Chinese, THE PAST is expressed in terms of ABOVE (as in *shàngzhōu* up-week ‘last week’) and IN FRONT (as in *yǐqián* from.here.to-front ‘before’); THE FUTURE in terms of BELOW (as in *xiàzhōu* down-week ‘next week’) and BEHIND (as in *yǐhòu* from.here.to-back ‘after’); TIME APPROXIMATION is expressed via a LEFT-RIGHT metaphor (as in *sāndiǎn zuǒyòu* three-hour left-right ‘around three o’clock’) (e.g., Yu, 1998, 2012). Given the above, Mandarin speakers might be expected to gesture through the vertical (up–down), sagittal (front–back), and lateral (left–right) axes when talking about TIME.

While some experimental studies (e.g., Gu, 2018; Gu et al., 2019) have found temporal gesturing along all three axes, in an arguably spontaneous production task, Li (2017) has found that participants asked to define time words tend to make more gestures through the lateral axis. Our hypothesis is that there are differences in the axes involved in time gestures in experimental discourse vs. non-experimental discourse.

Therefore, the primary research questions of this study ask: (1) *What is the axis Mandarin speakers prefer when talking about TIME in non-experimental naturally occurring discourse?* and (2) *Do Mandarin speakers align their gestures with lexicon, e.g., making UP-DOWN gestures when using UP-DOWN time metaphors?*

Our data consists in Chinese videotapes selected from Youglish.com, a YouTube-like word-searchable video database, where different time words were input to collect videoframes of speakers uttering the input words. Videoframes that satisfied our criteria of inclusion for naturalness were meta-tagged in a qualitative software analysis, i.e., ATLAS.ti, for presence or absence of hand gestures that co-occur with time lexicon, type of axis through which hand gestures occur (i.e., sagittal, horizontal, frontal), and spatial metaphor realised by lexical choice (e.g., ABOVE vs. BELOW; RIGHT vs.

LEFT).

Our preliminary results show that Mandarin speakers' TIME gestures are the exception rather than the rule: instead of producing overt temporal hand gestures through the three axes, speakers often rely on other embodied resources, such as micro-movements of the fingers, head and/or shoulders to talk about time. When hand gestures do occur, they tend to align with TIME lexicon primarily in contexts where TIME is explicitly foregrounded or pragmatically emphasised.

**Keywords:** Mandarin Chinese, conceptions of time, hand gestures, non-experimental data, conceptual metaphor theory

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# *Active zone and its conceptual neighbourhood: On competing terms in cognitive linguistics*

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## **Abstract**

Langacker's (1984, 1990, 1993, 1999, 2009) notion of *active zone* has often been treated as occupying the boundary between literal and figurative language. Because it involves a discrepancy between the profiled entity and the portion most directly engaged in a relationship, active zone can be viewed as a phenomenon shading into metonymy (Taylor, 2012). From this perspective, it is closely related to what Dirven (2002) terms *pre-metonymy*. At the same time, in cognitive linguistics a range of partially overlapping notions have been introduced: *contextual modulation*, *frame variation*, *perspectivisation*, *domain highlighting*, and *facetisation* (Cruse, 1986, 2000; Croft, 2006; Dirven, 2002; Fillmore, 1982; Paradis, 2004; Taylor, 1995). Although these notions are not always presented as competing with active zone, they are frequently illustrated with identical or comparable examples, raising the question of whether they capture some specific facets of active zone or designate distinct analytical constructs.

The paper offers a comprehensive analysis of the key publications in which these notions are proposed, examining their definitions, examples illustrating them, their ontological scope, and the terms' explanatory potential. Particular attention is paid to cases in which similar examples receive divergent classifications, since they most clearly reveal the theoretical differences between the terms. The discussion addresses two questions: first, how these notions relate to Langacker's active zone and, second, whether any of them can function as a substitute for it. I argue that *active zone* is the most general of the notions considered: unlike the others, it is not restricted to a single level of semantic organisation but covers a continuum of cases in which the profiled entity differs from the substructure most directly involved.

**Keywords:** figurative language, literal language, overlapping terms, zone activation

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## *What proper names can reveal about paragons*

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### **Abstract**

This paper discusses the use of Lakoff's (1987) paragon notion (an ideal member representing a domain) for the analysis of non-literal proper names, e.g., in (1) and (2), which refer to Abdeslam Ouaddou (Orlando Pirates) and Miles Davies, respectively (examples from Schwab et al., 2022). Adducing evidence from non-literal uses of proper names, it proposes a revised paragon concept.

(1) *a new Zidane*

(2) *the Picasso of music*

Non-literal uses of proper names involve metonymy and metaphor (Athanasiadou, 2020; Barcelona, 2003; Brdar & Brdar-Szabó, 2007; Kleiber, 1991; Ruiz de Mendoza, 2020). Many analyses converge in that a metonymy MEMBER FOR CATEGORY, based on the paragon notion, maps individuals onto the property of ideally representing a domain. This property, in (1), representing football ideally, can subsequently be attributed to other individuals. Additionally, a metaphor can change the domain of the paragon to the domain which is explicated in the modifier of the expression, in (2), to music.

However, a crucial aspect of (1) is not yet covered in the paragon model: Zidane's paragon status for football involves a specific role (his way of playing football), which differs from the role of other contenders to this status like Pelé, Beckenbauer, or Maradona. Consequently, (1) characterises someone as ideally representing Zidane's way of playing football and differs from, e.g., *a new Pelé*. Hence, paragons need not be unique, if they play different roles in the domain, i.e., other paragon footballers could coexist with Zidane. Brdar and Brdar-Szabó (2007) also argue that not all non-literal proper names presuppose uniqueness.

This additional ingredient to the paragon model resurfaces in metaphorical examples like (2-3): Characterising musicians in terms of Picasso or Einstein represents them quite differently, roughly, as ideal representatives of music due to a very intuitive or a very analytical approach to music, respectively. Again, paragons are relative to specific roles in a domain:

(3) *the Einstein of music* (Arnold Schönberg)

Brdar and Brdar-Szabó (2007) criticise paragon analyses, basically decomposing the paragon concept into several metonymies, first, one from individuals to individuals in a domain, e.g., from Zidane to Zidane as footballer, and then one from the bearer of a

property to the property (footballer to being a footballer), to explain why examples like (4) feature Zidane as footballer:

(4) *He is one of the players that I would pay any amount of money to watch but he is not the Zidane of 1998.*

But (4) exhibits a different metonymic mapping, linking individuals to one of their temporal stages, like Kleiber's (5).

(5) *the Paris of my youth*

(5), which involves no specific aspect of Paris, shows that this metonymy does not involve domains. In (4), the notion of football enters only because (3) explicitly discusses footballers; in contrast, in Zidane's circle of friends, *the Zidane of 1998* might relate to his behaviour during that year, completely disregarding football.

To conclude, the paper suggests defining a paragon as an ideal member representing a domain in a specific role, which allows several paragon for one domain.

**Keywords:** paragon, proper names, metonymy, metaphor, antonomasia

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***Linguistic infrastructure through the conceptual landscape: How grammar  
constrains the interpretation of similarity statements***

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**Abstract**

This paper proposes a framework for theorizing about and investigating similarity statements, both literal and figurative. The framework can itself be encapsulated in the following metaphor: a similarity statement is a road through the conceptual landscape, built to allow traffic in properties and inferences. The framework recognizes three distinct elements of every similarity statement: (i) the concepts being compared, including world knowledge and contextual information; (ii) the linguistic form used to compare them, including lexical and grammatical choices; and (iii) the interpretation of the comparison. These three elements are envisioned respectively as (i) the conceptual landscape, (ii) the linguistic infrastructure, and (iii) the semantic traffic. I argue that these elements are all too often conflated together, and that a clear delineation between them is crucial for a better understanding of what we do with similarity statements, and how we do it.

As a case study, I examine the interplay of three factors pertinent to the judgment of similarity statements as literal or figurative: conceptual distance between compared concepts (Chiappe & Kennedy, 2001; Ortony, 1979; Shen & Porat, 2017), grammatical directionality (Chestnut & Markman, 2016; Gleitman et al., 1996; Winter, 2018), and property attribution versus alignment (Gil & Shen, 2019; Medin et al., 1993; Wolff & Gentner, 2011); see examples of the relevant distinctions in (1-3).

- |                                                                     |                     |
|---------------------------------------------------------------------|---------------------|
| (1) a. Alice is like Bob.                                           | (conceptually-near) |
| b. Alice is like broccoli.                                          | (conceptually-far)  |
| (2) a. Alice is like Bob.                                           | (directional)       |
| b. Alice and Bob are alike.                                         | (non-directional)   |
| (3) Alice looks just like Bob (that's how you'll recognize her).    | (attribution)       |
| on) Alice looks just like Bob (that's why I think they're related). | (alignment)         |

I show how the proposed framework may illuminate the interplay between these factors. First, I argue that the function of similarity statements is not to claim that a certain degree of similarity, which is to say, a certain conceptual distance, holds

between concepts. Rather, speakers use similarity statements to link between concepts with a specific communicative goal, such as funneling a single property from one concept to the other, parading the many varied properties shared between the two, or zoning them apart from other concepts to form a new category.

The speaker's goals influence exactly what kind of similarity statement they will choose to construct. Thus, a directional statement, which situates concepts in clearly distinct start and end points, is well suited for one-way semantic traffic. Conversely, a non-directional statement, which situates concepts together in a conjunction or plural form, is well suited for outlining the boundaries of a new category.

The conceptual landscape likewise influences the construction of a similarity statement. Directional statements can cover vast conceptual distances, provided that they start at a relatively elevated position, in terms of concreteness, typicality, etc. In contrast, non-directional statements between concepts at different levels of elevation are awkward, and ones between concepts that are far apart can be impossible to navigate without abundantly clear "road signs".

**Keywords:** similarity, asymmetry, directionality, conceptual distance

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***Lexical creativity in advanced L2 English: Evidence from idioms, remote associates, and lexical proficiency***

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**Abstract**

Research in cognitive linguistics and creative behavior has emphasized the important role of creative thought and associative processes in structuring the mental lexicon (e.g., Benedek & Neubauer, 2013; Littlemore, 2023; Nacey, 2013; Tyler, 2012; Vigrano et al., 2021). Within this perspective, lexical creativity is increasingly viewed not as deviation from target norms but as evidence of underlying cognitive mechanisms that shape language use. This study investigates lexical creativity in advanced second language (L2) English through the interaction of idiom knowledge, associative reasoning, and general lexical knowledge.

The study extends a version of Mednick's (1962) Remote Associates Test (RAT)—a classic measure of creative associative ability—to a population of adult L2 English learners with long-term immersion experience in the United States ( $M = 18$  years). Participants ( $N = 22$ ; mean age = 48) are Russian native speakers with advanced English proficiency, who are compared to a control group of native American English speakers ( $N = 22$ ; mean age = 40). The RAT requires that participants consider three prompts and identify a word that forms meaningful expressions with each (e.g., *opera/hand/dish* → *soap*). Crucially, many RAT solutions involve idiomatic or conventionalized combinations (e.g., *soap opera*), which makes the task relevant for examining the link between associative creativity and idiomatic language.

To capture multiple dimensions of lexical competence, the study combines three measures: (i) a 30-item RAT task, with stimuli drawn from Bowden & Jung-Beeman (2003), (ii) a custom-designed 12-item multiple-choice idiom comprehension test targeting idioms (e.g., *break the bank*, *pretty penny*), which includes 24 distractors, and (iii) the standardized LexTALE vocabulary test assessing overall lexical proficiency (Lemhöfer & Broersma, 2012).

The study addresses four questions: (i) how L2 learners compare to native speakers in accuracy across tasks; (ii) how non-target responses differ in variability, lexical overlap, and semantic compatibility; (iii) whether performance on idioms and RAT task is correlated; and (iv) how both relate to overall lexical proficiency. A central focus is the analysis of non-target responses as instances of creative lexical behavior.

Preliminary results show that L2 learners achieve lower RAT accuracy than native

speakers (36% vs. 41%). However, L2–native differences vary across items: some items show a clear advantage for native speakers, while others show a modest learner advantage. Importantly, cases in which learners outperform natives do not reach the same magnitude as the reverse pattern (see Appendix for descriptive statistics).

A closer examination of non-target responses reveals systematic differences: natives tend to supply alternatives that reflect conventionalized collocations (e.g., *towel* and *cloth* for the *opera/hand/dish* prompt). By contrast, no learner produced *towel/cloth* and instead generated less conventional responses (e.g., *buffet*). Similar patterns emerge in other RAT items: natives consistently rely on conventionalized lexical associations, whereas L2 learners exhibit less conventionalized networks.

Importantly, these non-target responses are not random errors but reflect productive, meaning-driven processes. The findings have implications for modeling lexical organization in both human and artificial systems and demonstrate how variability, creativity, and collocational structure interact in the mental lexicon of non-native vis-à-vis native speakers.

## APPENDIX

Descriptive statistics on LexTALE, idiom test, and RAT items. Inferential statistics are currently underway (mixed-effects models and correlations, as well as between-group comparisons).

**Table 1.** Demographic characteristics of Russian-speaking participants (N = 22)

| Variable                 | Range | Mean  | SD    |
|--------------------------|-------|-------|-------|
| Age (at time of study)   | 27–75 | 48.14 | 14.54 |
| Age of onset (English)   | 5–20  | 9.27  | 4.19  |
| Age of immigration (USA) | 12–45 | 26.21 | 8.44  |
| Years of residence (USA) | 2–37  | 18.56 | 10.73 |

**Table 2.** Overall LexTALE accuracy by group (N=22 each)

| Measure                           | Non-native   | Native       |
|-----------------------------------|--------------|--------------|
| <b>Real words (40 items)</b>      | 92.0%        | 97.9%        |
| <b>Nonwords (20 items)</b>        | 84.7%        | 93.8%        |
| <b>Overall LexTALE (60 items)</b> | <b>89.7%</b> | <b>96.6%</b> |

**Table 3.** Overall idiom accuracy by group (12 items)

| Group               | Correct | Total | Accuracy (%) |
|---------------------|---------|-------|--------------|
| Non-native (N = 22) | 150     | 264   | 56.8%        |
| Native (N = 22)     | 215     | 264   | 81.4%        |

**Table 4.** Overall RAT accuracy by group (N = 22 each)

| Group      | Correct | Total | Accuracy % |
|------------|---------|-------|------------|
| Non-native | 240     | 660   | 36.4%      |
| Native     | 272     | 660   | 41.2%      |

**Table 5.** Comparison of L2 and native speaker accuracy across RAT items (ordered by difference scores) [Note. Diff = Native % – L2 %. Positive values indicate higher accuracy for native speakers; negative values indicate higher accuracy for L2 learners.]

| RAT item           | L2 | L2 % | Native | Native % | Diff | Target |
|--------------------|----|------|--------|----------|------|--------|
| wise/worth/pincher | 3  | .13  | 17     | .89      | +.76 | penny  |
| duck/fold/dollar   | 8  | .35  | 17     | .81      | +.46 | bill   |
| officer/cash/theft | 5  | .22  | 11     | .55      | +.33 | petty  |
| pie/luck/belly     | 8  | .35  | 13     | .65      | +.30 | pot    |
| pile/market/room   | 7  | .30  | 12     | .57      | +.27 | stock  |
| guy/rain/down      | 3  | .13  | 7      | .37      | +.24 | fall   |
| cane/daddy/plum    | 17 | .74  | 21     | .95      | +.21 | sugar  |
| river/note/account | 14 | .61  | 18     | .82      | +.21 | bank   |
| back/step/screen   | 2  | .09  | 6      | .29      | +.20 | door   |
| way/ground/weather | 1  | .04  | 4      | .19      | +.15 | fair   |
| opera/hand/dish    | 11 | .48  | 13     | .62      | +.14 | soap   |
| fish/mine/rush     | 12 | .52  | 13     | .65      | +.13 | gold   |
| pet/bottom/garden  | 2  | .09  | 4      | .18      | +.09 | rock   |

| RAT item            | L2 | L2<br>% | Native | Native<br>% | Diff             | Target |
|---------------------|----|---------|--------|-------------|------------------|--------|
| spoon/haired/lining | 13 | .57     | 13     | .65         | +.08             | silver |
| palm/shoe/house     | 14 | .61     | 14     | .67         | +.06             | tree   |
| boy/mate/foul       | 8  | .35     | 6      | .29         | +.06             | play   |
| rocking/wheel/high  | 16 | .70     | 16     | .73         | +.03             | chair  |
| old/hot/under       | 4  | .17     | 4      | .20         | +.03             | dog    |
| end/line/lock       | 6  | .26     | 6      | .27         | +.01             | dead   |
| hungry/order/belt   | 1  | .04     | 1      | .04         | .00 <sub>y</sub> | mone   |
| dream/light/care    | 7  | .30     | 6      | .30         | .00              | day    |
| tooth/potato/heart  | 11 | .48     | 9      | .45         | −.03             | sweet  |
| date/alley/fold     | 7  | .30     | 5      | .26         | −.04             | blind  |
| note/chain/master   | 9  | .39     | 7      | .33         | −.06             | key    |
| child/scan/wash     | 2  | .09     | 0      | .00         | −.09             | brain  |
| pine/crab/sauce     | 6  | .26     | 3      | .17         | −.09             | apple  |
| mail/list/berry     | 13 | .57     | 9      | .47         | −.10             | black  |
| carpet/eye/handed   | 8  | .35     | 4      | .22         | −.13             | red    |
| sandwich/soda/golf  | 13 | .57     | 9      | .43         | −.14             | club   |
| print/bird/collar   | 9  | .39     | 4      | .21         | −.18             | blue   |

**Keywords:** lexical creativity, associative networks, idiom comprehension, lexical proficiency, L2 English

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***Methodological challenges in the cross-linguistic adaptation of figurative language comprehension instruments: reflections based on a case from Brazilian Portuguese into British English***

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**Abstract**

This study examines methodological challenges in the cross-linguistic adaptation of a figurative language comprehension instrument. The discussion is grounded in the case of adapting a test originally developed in Brazilian Portuguese into British English, illustrating procedures that support comparable research between languages. The motivating problem arose when we tried to compare the comprehension of primary metaphors, metonymies, idioms, and proverbs across speakers of different languages, but lacked equivalent materials that could be directly and fairly compared. We therefore adapted a Portuguese instrument into English and faced some challenges. While some items allowed for verbatim translations without loss of meaning, many others carried culturally embedded meanings that verbatim translations could not convey. Even when functional equivalents existed, their degree of familiarity and conventionality in the target language did not always match that of the originals, not allowing a mere replication of such items. This indicated that translation alone is not an adequate strategy for figurative language instruments, which demand a process of adaptation integrating linguistic, conceptual, and cultural dimensions. Guided by Cognitive Linguistics, Conceptual Metaphor Theory, and psychometric guidelines, we conducted a multi-step adaptation methodology. Primary metaphors and metonymies were adapted through conceptually guided translation and expert judges' validation, preserving the original conceptual mappings and similar structure while ensuring naturalness in the English language. Idioms and proverbs, in turn, required a combination of lexicographic, corpus-based, and psycholinguistic methods with 98 native speakers of British English, who rated the expressions in familiarity and conventionality judgments. Results demonstrated convergence between familiarity and conventionality: expressions rated as less familiar were also less strongly conventional. This pattern provided robust criteria for selecting idioms and proverbs that best balanced semantic equivalence, familiarity, and conventionality; syntactic and vocabulary equivalence could not be preserved. From this analysis, we selected the final idioms and proverbs to compose the English version of the instrument. These, along with the selected metaphors and metonymies, were then fully adapted into the structure of the original instrument and evaluated by expert judges before a pilot study confirmed their adequacy. The resulting tool supports cross-linguistic comparisons with evidence of validity and illustrates methodological paths in the adaptation of figurative language instruments, allowing for

comparable research across different language pairs. These findings also highlight the role of usage-based dimensions in figurative language cross-linguistic studies; more broadly, they show that different types of figurative language require distinct adaptation strategies, reflecting differences in conceptual grounding and sociocultural usage. It thus contributes to figuration studies by proposing a multidimensional framework for cross-linguistic comparability and by demonstrating that figurative units cannot be treated as directly transferable across languages based on semantic or syntactic equivalence alone. Finally, this approach opens new possibilities for the adaptation of figurative language comprehension tasks across a wider range of languages, including those with fewer standardized resources, enabling not only adaptations from or into English, but also between other language pairs, supporting more flexible cross-linguistic research.

**Keywords:** figurative language assessment, instrument adaptation, figurative language comprehension, Cognitive Linguistics, Conceptual Metaphor Theory

***Figurative language comprehension throughout lifespan: a cross-linguistic study in  
Brazilian Portuguese and British English***

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**Abstract**

This study investigates figurative language comprehension in Brazilian Portuguese and British English through an experimental cross-linguistic approach, using the Instrument for Assessing Figurative Language Comprehension (COMFIGURA). The instrument comprises five tasks: one pictorial task assessing the comprehension of primary metaphors, and four verbal tasks targeting primary metaphors, metonymies, idioms, and proverbs. Each task includes seven items, totalising 35 items. Grounded in the frameworks of Cognitive Linguistics and Conceptual Metaphor Theory, this study aims to identify developmental markers of figurative comprehension across the lifespan based on the instrument's findings. The sample included 281 native speakers of Brazilian Portuguese (aged 2.6 to 72) and 101 native speakers of British English (aged 2.10 to 76), all typically developing. Data were analysed using linear mixed-effects models and post-hoc Tukey tests, along with regression analyses to examine the effects of language, age and educational level on task performance. First, overall performance across the entire instrument was analysed. Results revealed significant effects of age and educational level, but no significant effect of language on figurative comprehension. A gradual understanding of figurative phenomena was observed, allowing for the identification of potential onset ages and developmental patterns: primary metaphors and metonymies emerge around ages 4-5, idioms around 8-10, and proverbs around 10-13. After, performance was analysed separately for each type of figurative phenomenon. These analyses revealed a more nuanced pattern. Significant effects of age and educational level were predominant throughout all tasks, suggesting that cognitive and sociocultural factors have a greater influence on figurative language understanding than the specific language spoken. However, significant language effects emerged in the comprehension of idioms and proverbs, more complex and culturally specific phenomena. Regression analyses conducted for each phenomenon indicated an interaction between language and educational level, suggesting that the impact of education may be moderated by the participant's language, with stronger effects observed among Portuguese speakers. In this context, in a country such as Brazil, where social inequalities directly affect access to formal education, it is reasonable that educational level plays a critical role in the comprehension of such phenomena. This also reinforces the idea that, in contexts of greater social vulnerability, formal education not only reduces gaps but also enhances the cognitive development required to process more complex linguistic constructions, such as idioms and proverbs. Ultimately, by

identifying common developmental markers for the onset of figurative understanding in both languages, this work supports the cross-linguistic consistency of figurative language development, progressing from the understanding of embodied metaphors in early childhood to the understanding of more complex, culturally mediated forms in adolescence.

**Keywords:** figurative language comprehension, language acquisition and development, Cognitive Linguistics, Conceptual Metaphor Theory, psycholinguistic experiment

## *Semantic Extensions of Croatian Prepositional Phrases with the Preposition u*

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language**

### **Abstract**

The paper examines the semantic extensions of Croatian prepositional phrases with the preposition *u*, with a focus on the shift from the spatial to the temporal domain and on semantic restrictions that limit possible combinations with dependent nouns. It adopts a localist view that the basic meanings are spatial, while temporal and other abstract meanings develop via metaphoric and metonymic transfers from the spatial domain, in line with the theory of conceptual metaphor and metonymy (Lakoff & Johnson, 1980). Temporal uses are analysed as metaphorical mappings of a bounded-space schema onto a temporal “container”, whereby *u* retains its spatial schematicity but changes its domain of application: the spatial schema of “entering a bounded space” is mapped onto the conceptualisation of entering a delimited temporal interval (*u grad* ‘into the city’ – *u ponedjeljak* ‘on Monday’).

The analysis is based on a corpus compiled within the project *Croatian Prepositions in Use – Semantic and Syntactic Analysis*, which documents contemporary usage of temporal prepositional phrases. Examples with *u* are extracted, and in a first step the semantic properties of the complement nouns are described depending on whether they are temporal (*u ponedjeljak* ‘on Monday’) or non-temporal (*u ratu* ‘in the war’). Temporal nouns are further grouped into subcategories such as time units, parts of the day, days of the week, months, seasons and expressions of indefinite time. Drawing on conceptual semantics (Jackendoff, 1990), which models linguistic meaning through structured representations of conceptual organisation, the analysis shows that a temporal reading requires a specific conceptual structure, which explains why some combinations are neutral, while others are unacceptable or marked (*u ponedjeljku* or *u siječanj* are not attested in standard usage). The semantic restrictions arise from conflicts between the conceptual structure of the noun and the schematic meaning of *u*, with the categorial meaning of case playing an important role: the accusative profiles a goal or endpoint of an event, while the locative profiles a location or frame within which an event unfolds, metaphorically extended to time (*u proljeće* vs. *u proljeću*). Differences in case selection are also examined in relation to the semantic and syntactic properties of the governing element, which proves relevant when comparing temporal phrases with *u* and *na*. Temporal expressions with *na* more often refer to future events and highlight boundary effects and orientation toward the onset of a time period (*doći ću na proljeće* ‘I will come in the spring’), whereas accusative expressions with *u*

typically profile the interior of the time period as the locus of the event (*trava je zelenija u proljeće* ‘the grass is greener in (the) spring’). The findings are discussed in the broader context of figurative language and possible applications in computational linguistics, such as automatic recognition and analysis of temporal expressions, improved machine translation, and models that explicitly account for metaphor and metonymy in the processing of Croatian prepositional-case constructions with *u*.

**Keywords:** Croatian prepositional phrases, preposition *u*, semantic extensions, time

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*Explaining the productivity and creativity of -splain blends: Towards a usage-based, constructionist approach*

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**Abstract**

This paper examines lexical blends in contemporary English—words created by merging parts of two or more lexemes, such as *mancession* from *man* and *recession*—from a usage-based, constructionist perspective (Goldberg, 2006, 2024). The focus is on how productivity and creativity interact in lexical blends that use *-splain* as a splinter. The analysis draws on 157 types of *-splain* blends extracted from the NOW Corpus, supplemented with relevant data from the SplinterCorpus and Google.

Our findings tentatively support several claims. First, following the view that general cognitive mechanisms are central to blend formation (Beliaeva, 2014; Gries, 2012; Kemmer, 2003), we argue that cognitive operations—especially metonymic reduction or specification—are crucial for explaining the semantic shifts found in these blends. For example, the meaning of *mansplain* (‘to explain something to someone, typically a woman, in a condescending or patronizing manner’) becomes generalized into the splinter *-splain*, glossed as ‘to explain in a condescending, patronizing, or unjustifiably authoritative way’ (OED/Merriam-Webster) (Peña-Cervel, 2022a, 2022b). As a result of this reduction, the splinter no longer depends on nouns denoting gender, although the negative social evaluation nonetheless remains a core semantic component.

Second, blends with *-splain* display considerable morphosyntactic and semantico-pragmatic flexibility, which directly influences how the negative evaluative stance toward the explanation is modulated. The splinter can thus attach productively to a wide range of morphosyntactic categories of varying complexity: nouns (*dietsplain*, *Trumpsplain*, *Batmansplain*), compounds (*blowjobsplain*), adjectives (*thinsplain*, *greensplain*, *britsplain*), verbs (*asksplain*), noun phrases (*all-American-man-splain*), and even full sentences (*I-m-not-yet-a-man-splain*). This versatility supports Marqueta Gracia’s (2021) proposal that such neologisms are best analyzed as constructional idioms, as proposed in Construction Morphology (Booij, 2002, 2010; Masini & Audring, 2019).

Despite the semantic diversity of the left-hand bases (related to productivity understood as generality), certain representative discourse-pragmatic groupings emerge. These include blends where the left base denotes an agent (*mansplain*, *womansplain*, *Janesplain*), the topic under discussion (*sportssplain*, *dietsplain*, *coronasplain*), the instrument or medium used (*Googlesplain*, *mapsplain*, *eggsplain*), the manner of

explanation (*Trumpsplain*, *Batmansplain*), or a salient attribute of the referent (*thinsplain*, *richsplain*, *greensplain*) (González-García & Peña-Cervel, in press; Peña-Cervel, 2022a, pp. 289–290).

Consistent with the gradient view of productivity and creativity endorsed here (Bagasheva, 2025; Barðdal, 2008; Hoffmann & Ivorra, 2026; Koliopoulou & Walker, 2024; Sampson 2016), blends whose left base is an adjective (e.g., *thin*), a functionally equivalent category (e.g., *I-m-not-yet-a-man*) or a verb (e.g., *ask*) are argued to be more innovative and cognitively creative than those based on nouns, whether gender-related or not (see González-García & Peña-Cervel for further discussion in relation to *-speak* blends).

Finally, *-splain* blends show strong potential to extend into new constructional environments (productivity as extensibility; Barðdal, 2008, p. 29). Examples include the way construction (*Biden can't 'splain his way out of his disastrous debate performance*, NOW Corpus, 24-07-10 PK), the caused-motion construction (*Don't let men mansplain us out of finances*, NOW Corpus, 25-06-21 IE), and the *into*-causative construction (*Using, for example, his Oh Brother Where Art Thou persona, Clooney could mansplain Trump into something approximating silence*, NOW Corpus, 17-02-16 NG).

**Keywords:** lexical blends, Construction Grammar(s), productivity, creativity, cognitive modeling

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## *Polarity and Metaphor: A Corpus Study of Holocaust Oral Histories*

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### **Abstract**

The Holocaust stands as one of history's most profound traumas (Caruth, 1996). Because traumatic events can resist integration into existing cognitive and emotional frameworks, survivors may rely on figurative language, especially metaphor, to communicate what is otherwise difficult to express (Busch & McNamara, 2020; Qiu et al., 2024). Drawing on Conceptual Metaphor Theory (Lakoff & Johnson, 1980) and MIPVU (Steen et al., 2010), this study examines whether metaphor density in Holocaust oral histories is predicted by polarity (negative vs positive), and whether metaphorically used words (MRWs) vary by discourse function (situation description vs emotional reflection) and grammatical word class distribution.

The data curated from CORHOH, a corpus of 500 firsthand accounts compiled under strict inclusion criteria (Jaff, 2025). A custom pipeline using Transformers (Wolf et al., 2020), Pandas (Reback et al., 2020) and NumPy (Harris et al., 2020) is used to isolate survivor speech, yielding 106,000 utterances. Three sentiment-analysis models were applied, NLPTown (2023), CardiffNLP's RoBERTa-based Twitter sentiment model (Barbieri et al., 2020), and Google's original BERT model (Devlin et al., 2019), and only paragraphs with full inter-model agreement were retained (agreement 7.7%; disagreement 92.3%). After additional filtering (noise removal; excluding paragraphs <100 tokens), the final balanced sample comprised 117 positive paragraphs (83 files; 21,672 tokens) and 118 negative paragraphs (87 files; 21,075 tokens). A balanced 10,000-word subsample (5,000 negative, 5,000 positive) were selected and VU-Metaphor Identification Procedure (Steen et al., 2010) is applied with annotation reliability ( $n = 929$  lexical units; 94.6% agreement; Cohen's  $\kappa = 0.66$ ).

The analysis found that metaphor density is nearly identical across polarities (10.11% negative vs 9.13% positive; average 9.61%), exceeding Steen et al.'s (2010) 7.7% conversational benchmark by 1.9 percentage. Indirect metaphors dominated in both subsets, but the negative subset showed comparatively more direct metaphors (30 vs 19) and implicit metaphors (19 vs 10), alongside a higher share of closed-class (function- word) MRWs (236/482, 48.96% vs 203/450, 45.1%), consistent with greater discursive pressure to foreground rupture, danger and loss of control. By contrast, the positive subset relied relatively more on indirect, lexically entrenched metaphor (399/450, 88.67% vs 408/482, 84.65%), indicating greater dependence on conventionalised figurative language that remains backgrounded and supports cohesion rather than rhetorical salience. MRWs occurred predominantly in situation- focused

narration (75.33%) rather than emotion-focused reflection (24.67%), suggesting that metaphor in these testimonies primarily organises and renders events describable, while explicit affective commentary constitutes a smaller share of metaphor use.

**Keywords:** corpus linguistics, Holocaust oral histories, metaphor, sentiment analysis, trauma

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## *Construction networks and figurativity. Elaborating on the notion of ‘idiom set’*

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### **Abstract**

This talk focusses on the role of construction networks in the motivation of figurative meaning, elaborating on the notion of ‘idiom set’. Building on previous work in CxG (e.g., Diessel, 2023; Sullivan, 2013), it is defined in Hampe (2022) as a construction network connecting (transparently motivated) figurative idiomatic expressions back to an ‘underlying’ network of related ‘literal’ uses that provide the semantic and syntactic frames enabling the creation of (sets of) figurative ones.

Employing multi-modal corpus data from the Newsscape 05 Corpus (FAU Erlangen & UCLA Newsscape Archive of the RedHen Lab), Hampe (2022) investigates literal and figurative instantiations of a ‘schematic idiom’ informally called the ‘*Up-to-X-in-Y* construction’ (with X providing a body-part noun with a possessive determiner indicating the depth of immersion in a substance Y). Its figurative instantiations (a.) are shown to build on the affordances of the non-salient ‘literal’ uses (b.), which encode the experiential logic of bodily immersion (the deeper, the more dangerous). From these, figurativity (and the sub-constructions for formally encoding it) emerge, largely building on the semantics of high immersion levels. It is shown that a ‘family’ of recurring co-speech gestures connects literal and figurative uses (together forming the ‘idiom set’), indicating (some level of) source-domain activation in the figurative ones. Some of the resulting expressions have become ‘idioms’ in the traditional sense, i.e. are more strongly conventionalized than others or more deeply entrenched with individual speakers. As the entire ‘idiom set’ is a productive construction network, the experiential logic of the base can be played with in novel ironic or hyperbolic uses (c.).

- a. Charlie has been up to HIS EARS in problems.
- b. Homeowners ... finding themselves... up to THEIR KNEES in water.
- c. The Canadian banks were up to THEIR ANKLES in the toxic muck, whereas the American banks were over their head.

This talk will elaborate further on the notion of ‘idiom set’ by applying it to further types of idiomatic expressions. By doing so, the talk will also cover expressions whose ‘literal base’ is much less obvious, viz. “Expressive Binominal NPs” (e.g., Aarts, 1998, ex. d.-f.; Foolen 2004). As instances of a ‘schematic idiom’, they unite uses that are differentiated by their degrees of metaphoricity and expressivity (Hampe 2023).

- d. gem of an engine, lump of an ankle
- e. sham of a marriage, monstrosity of a building
- f. sliver of a scream, glimmer of a smile

Extending previous work (Hampe, 2023) with a view to the specifics of the *constructional ecology* of this specific ‘idiom set’, the talk shows that/how the resp. idiomatic expressions, which are related to the X-is-the-Y-of-Z constructions (Turner, 1987), emerge from a highly schematic and generic ‘base’ which is composed of several related subnetworks not themselves associated with the highly specific functionality of its salient figurative/expressive ‘*niche*’.

**Keywords:** idiom set, construction network, figurativity, motivation, co-speech gesture

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*Creative metaphoric framing in multimodal non-commercial advertisements on substance use*

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**Abstract**

Non-commercial advertising is a particularly interesting genre for the exploration of figuration not only as a cognitive process but as a resource which plays crucial roles in social and cultural practices. This is in line with recent research in figuration, which calls for a need to pay attention to the socio-cultural dimensions of figurative cognition as situated in specific contexts (Colston & Rasse, 2022; Gibbs, 2006; Kövecses, 2015) and in connection to promoting social action and change (Hidalgo-Downing, 2025; Hidalgo-Downing & O'Dowd, 2023; Lakoff & Johnson, 1980). The motivation to study non-commercial advertising campaigns that raise awareness of the dangers of substance use (smoking, alcohol, drugs) is that it has become one of the most pressing problems in present day societies. From the perspective of the study of multimodal figuration in advertising discourse, non-commercial advertising is a genre which displays interesting creative strategies to catch the audience's attention (Pérez-Sobrino, 2016a, 2016b, 2017; Pérez-Sobrino et al., 2021). This article explores the creative metaphoric conceptualization of substance use and its effects on health in a corpus of non-commercial advertisements. The research questions are the following: (1) How is substance use conceptualized in the campaigns? How are the metaphoric target domains of substance use and its effects represented? What metaphoric source domains are used to frame the target domains? (2) What are the values and emotions evoked by the campaigns? (3) How is metaphor used creatively in the campaigns? and (4) What are the functions of metaphor in the campaigns? The data consists of a corpus of 41 multimodal non-commercial print advertisements and posters targeting substance use retrieved from the internet, mostly from Ads of the world and other online resources. Of these, 21 address smoking, 12 address alcohol and 8 address drugs use. The advertisements were collected between March and September 2024 and they include campaigns by various institutions such as the British National Health Service (NHS), various Alcoholic Anonymous associations (AA) from different countries in the world, Cancer associations, car brands drunk driving campaigns, charities and local government campaigns targeting substance use.

The results show that the most frequent source domains are THREAT and EVERYDAY OBJECT, followed by other source domains such as ANIMATE BEING, PHYSICAL HARM, HUMAN BODY, DOWN, GAME, and NON-HUMAN. The high frequency of the THREAT source domain shows that the main concern of the advertisements in this

corpus is to draw attention to the dangers and negative effects of substance use. Though value and emotional connotations are more frequently negative, half the campaigns additionally display positive messages to act against substance use. Creativity relies on visual impact, the interaction of metaphor and metonymy and shockvertising techniques to evoke scenarios which may trigger emotions of fear and distress. Creative metaphors play important functions in the corpus, such as making accessible the topic of substance use and evaluating its dangers.

**Keywords:** creative metaphor, visual and multimodal metaphor, non-commercial advertising, substance use, shockvertising

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# *Could you figure out beyond English? Bangla Figurative Pragmatics in Humans and AI*

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## **Abstract**

Figurative language is central to human pragmatic competence, enabling speakers to convey meanings beyond literal semantics through metaphor, metonymy, irony, and related tropes (Gibbs, 1994; Lakoff & Johnson, 2003). Its interpretation integrates linguistic form with contextual and culturally grounded conceptual knowledge, often through heuristic mappings between expressions and familiar conceptual structures rather than explicit reasoning about speaker intentions (Gibbs, 2008; Glucksberg, 2001). The strong performance of large language models (LLMs) therefore raises a key question: to what extent can statistical models approximate human figurative reasoning without embodied conceptual knowledge or communicative intentions?

Recent work shows that LLMs can approximate aspects of pragmatic inference, including implicatures and indirect speech acts, sometimes displaying human-like success and error patterns (Hu et al., 2023). Yet most evaluations focus on English, leaving unclear whether such performance reflects language-general competence or English-dominant training patterns. This limitation is particularly significant for figurative language, whose interpretation is shaped by culturally embedded conceptual metaphors (Kövecses, 2010).

This study addresses the gap by examining metaphor interpretation in Bangla, a widely spoken yet underrepresented language in computational pragmatics. Because many Bangla metaphors are culturally grounded and do not map transparently onto English figurative patterns, they provide a vital test of whether LLMs can generalize figurative reasoning beyond English-centric linguistic environments.

The study addresses two research questions: (1) To what extent can large language models accurately interpret metaphorical expressions in Bangla? and (2) When models fail, do their error patterns resemble those of human speakers or reveal systematic biases in figurative interpretation? By comparing model outputs with human judgments, the study identifies similarities and divergences in how humans and machines process figurative meaning.

Methodologically, the study adopts a controlled interpretation paradigm inspired by experimental pragmatics (Hu et al., 2023). We construct expert-curated Bangla metaphor stimuli, including both conventional metaphors and culturally grounded

figurative expressions drawn from literary discourse, media language, and everyday communication. Each item consists of a brief contextual scenario followed by a metaphorical utterance and a multiple-choice interpretation task with three options: the intended figurative meaning, a literal interpretation, and a pragmatically inappropriate alternative. Stimuli were developed by native Bangla linguists and piloted with Bangla-speaking participants to ensure interpretability and cultural validity.

Human performance is assessed through responses from native Bangla speakers ( $N \approx 40\text{--}50$ ) completing the task online. In parallel, several contemporary LLMs such as GPT-5, Aya, and LLaMA 4 are evaluated using a zero-shot multiple-choice inference format. Model responses are analyzed alongside human judgments, and mixed-effects models compare performance across metaphor types and conceptual domains.

By integrating human experimental data with computational evaluation, this study provides a cognitively grounded assessment of figurative language understanding across human and artificial systems. The findings are expected to show that while LLMs can interpret many conventional Bangla metaphors, they exhibit greater literal bias and difficulty with culturally grounded expressions compared with human speakers, highlighting the importance of linguistic diversity in evaluating the generalizability of computational models of meaning.

**Keywords:** figurative cognition, human–AI interaction, metaphor interpretation, Large Language Models (LLMs), low-resource languages

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## *Figurative Thought in Internet Memes*

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### **Abstract**

This study explores how image-macro memes function as multimodal constructions, combining textual and visual modes for systematic form-meaning pairings. While much of the existing literature has examined memes' social bonding functions, few studies have investigated how form and meaning interact in meme-making. Adopting a Construction Grammar framework, this study builds on Dancygier and Vandelanotte's (2017) proposition that memes constitute meaningful linguistic-like constructions, and on Grundlingh's (2017) view that memes perform communicative speech acts. The research addresses two main questions: (1) In what ways do internet memes resemble or differ from spoken language as form-meaning mappings? and (2) How is linguistic and cognitive creativity, particularly the construction of ironies, manifested in memes?

The study focuses on the image macros, which Milner (2012) identifies as the clearest example of imitation and transformation in meme culture. A corpus of 2,000 memes was collected, and we finally decided to limit our research scope to 500 "comparison memes," including Buff Doge vs. Cheems, Drake Hotline Bling, Expanding Brain, Three-Headed Dragon, Soyboy vs. Yes Chad, etc. Memes were systematically annotated in Atlas.ti for layout, comparison type (following Morlino, 2018), symbolic elements, and creative transformations of templates. Construction Grammar (Dancygier & Vandelanotte, 2017; Goldberg, 1995) was employed to examine how constructional networks emerge across templates. Layered formal and functional annotations enabled quantitative analysis of recurring patterns, while representative cases will be selected for qualitative examination of how semiotic elements are blended in multimodal constructions to construct specific perspective-taking to compare and contrast topics. The finding shows that juxtaposition functions as a schematic device of comparison, while visual mismatch foregrounds contrast and guides perspective-taking, creating an ironical stance. Furthermore, symbolic elements (e.g., Trump's hat) can replace core constructional components, enabling users to recreate and adapt templates while maintaining recognizable mappings.

This study contributes to the understanding of figurativity in multimodal construction grammar. Comparison memes develop into a network of visual schematic presentation, which on the one hand allows figurative operation, while on the other hand supports templated evaluative meaning-making. Every meme is an "utterance," and through repeated instantiation, meme templates (i.e., schemas) become entrenched and increasingly schematic.

**Keywords:** memes, multimodality, construction grammar, computer-mediated communication

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***Individual differences in the perception of metaphoricity. The influence of domain knowledge***

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**Abstract**

Metaphor has traditionally been viewed as a categorical phenomenon: either an expression is used literally, or it is used metaphorically. However, with the introduction of Conceptual Metaphor theory, Lakoff and Johnson (1980, 1999) have drawn attention to the fact that what is usually considered literal and conventional often has an underlying metaphorical basis, such as thinking of time or change as motion in space. More recently, the notion of metaphor as a gradable phenomenon has become more and more acknowledged (e.g. Hanks, 2006; Julich-Warpakowski & Jensen, 2023; Turner & Littlemore, 2023). Whether an expression is considered more or less metaphorical may vary from speaker to speaker depending on their varying experiential backgrounds. The present paper aims to address: How does the degree of knowledge of a specific domain (here: classical music) influence the perceived metaphoricity of domain-specific metaphorical expressions?

In our study, we are going to expand on a rating study by Julich-Warpakowski (2022). We aim to sample 200 native English speakers for an online experiment. Participants will be asked to rate stimulus sentences that either express a literal motion event (1), a conventional metaphorical motion event (2), or a metaphorical motion event that is domain-specific (i.e. relating to classical music, as in (3)).

(1) *The musician approached the door.*

(2) *The conductor approached the end of his career.*

(3) *The music approaches a climax.*

Rating these sentences will be prompted by two different tasks: (a) *How literal do you consider the sentence?* and (b) *How strongly do you associate the sentence with actual motion?* Task (a) is intended to tap into participants' more general perception of the metaphoricity/literalness of the stimuli, while task (b), by making explicit the source domain of motion, taps into participants' perception of the conceptual distance between the source domain and the intended meaning. To test for influence of domain knowledge, we are going to sample 100 participants that have indicated on Prolific to have experience with musical instruments for 5 years and more. As a control group, we will sample 100 participants with no such indication. The motion verbs in the stimuli range from low to high frequency verbs, so that the influence of verb frequency on the

perception of metaphoricity and its potential interaction with domain knowledge can also be tested. Multifactorial regression analysis will be used to analyse the data.

Our hypothesis is that more musically experienced participants will rate the domain-specific metaphorical motion sentences as less metaphorical given that they are more familiar with the conventions of how to describe and talk about music. The findings may present quantitative evidence for the gradable nature of metaphor and may indicate that the degree of metaphoricity of a certain metaphorical expression can vary with respect to the speaker and his or her degree of familiarity with a specific domain.

**Keywords:** metaphor, metaphoricity, genre, music, rating task

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## *Symbolic deixis and logical inferencing*

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### **Abstract**

This paper may be seen as a contribution to the catalytic significance of figurative thought and deixis in creating grammar. It also aims to highlight the cognitive motivation of the grammatical functions of linguistic signs.

The main question addressed is how, and through which cognitive processes, some initially deictic elements come to express logical inferencing. The data are drawn from Ancient Greek texts of the classical period. Although the main meanings of the examined subordinators have been considered, no exhaustive collection of all relevant instances has been attempted. A range of Ancient Greek inferential subordinators introduce a minor premise, a particular instance of a general proposition, add a new point, or express (dis)approval, either in result clauses or in the continuation of an argument (τοίνυν ‘therefore’, τοιγὰρ ‘therefore, accordingly’, τοιγαροῦν ‘for that very reason’, τοιγάρτοι ‘for that very reason’). All of these etymologically consist of a demonstrative element (τοι ‘this’), which is why they are the focus of this study, and may also include a temporal particle meaning ‘now’ (νῦν). The demonstrative component, which initially pointed to an extralinguistic object, and the particle of temporal immediacy, having undergone extensive grammaticalization and metaphORIZATION, no longer supply direct visual representation, but instead rely on *mental iconic representation* (cf., Dove, 2012). By mentally pointing to an abstract entity, the speaker is led to inferences that fall outside of what is visibly marked (Fillmore, 1975). Inferencing is thus grounded in the grammaticalized deictic action to local and temporal immediacy. Not only is inferential reasoning conceptualized as a progression in physical space (Sweetser, 1990, p. 60 ff.) but seeks validation through ‘ostensive anchorage’. The turn from actual to mental iconicity emerges as an inferential cognitive strategy. To strengthen the plausibility of an assumption, inference processes make a plea to the justification of a cognitive commitment to evidential truth through deixis. Result clauses refer to a virtual outcome, a change of the state of affairs which may not necessarily be dependent on the intentionality, will or control of the speaker. Arguments likewise are by nature of a prospective character. Although the speaker generally infers from his/her knowledge or estimation of the situation, mental deixis enables him/her to enhance prospectivity, assert potentiality and factuality (Cabrillana, 2011, p. 36). S/he is thus able to attenuate subjectivity, by seeking to logically support, and justify the truth of some claim by ‘pointing’, as it were, to an ‘objective’ element (cf., De Haan, 2005, 2001), even though the deictic value is not

existentially valid, but merely symbolic and context insensitive. A literal deictic element thus becomes a figurative, schematic, and abstract logical coordinator.

In ‘the game of giving and asking for reasons’ (Brandom, 1994, p. xviii), the act of concluding and epistemic reinforcement appears (cf. Pinto, 2001; Schlichter, 1986) as initially emerging from ‘visual argumentation’ (Marraud, 2018, p. 314; 2016; Willett, 1988), a sense of embodiment, due to an archetypal gesture of pointing, material necessity and experiential realism, before it acquires its figurative, symbolic power and grammatical function.

**Keywords:** symbolic deixis, visual argumentation, figuration

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***Weather in figurative thought and language – towards building the  
Meteorologicon database***

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**Abstract**

Weather as an experientially universal conceptual domain provides ample sources for the creation of metaphorical meanings, from poetic (Kövecses, 2019) to conventional metaphors, such as *it is raining bullets* (Muelleman & Paykin, 2016), and it can also be regarded as a target domain (Yağlı & Çınar, 2025). However, cross-linguistic, and theoretically and methodologically uniform investigations of weather metaphors are few and far apart (e.g., Abdulraheem & Fareh, 2021), with studies dealing with either a) a single target domain (Grigore, 2024), b) a single language (Żołnowska, 2011), c) select weather phenomena couched within the larger NATURAL FORCE metaphor (Silaški & Đurović, 2011), and d) a focus on temperature as the source domain (Brdar et al., 2021; Kövecses, 2003; Štrkalj Despot, 2024; but cf. Koptjevskaja-Tamm, 2015 on weather unrelated properties).

To investigate these and other relevant types of language data related to weather and weather phenomena we initiated the METEO-LEX Project (*Meteorologicon – Weather in Language, Thought, and Culture*), funded by the NextGenerationEU, Faculty of Humanities and Social Sciences, University of Zagreb. Our goals are to a) describe the language of the weather conceptual domain using a unified cognitive linguistic theoretical framework with a focus on everyday weather expressions and their syntactic, semantic, and discourse properties, b) conduct contrastive studies with typologically and culturally diverse languages, and c) build a database of weather and weather-related expressions in collaboration with meteorological professionals (*The Meteorologicon*).

As part of the project, this study investigates metaphorical extensions of weather expressions in English and Croatian, with a focus on precipitation and hydrometeors, (e.g., rain, snow, fog), and non-precipitation phenomena (e.g., thunder, wind) (Eriksen et al., 2012). Weather expressions are investigated using a corpus-based and lexicographic approach (enTenTen21 for English, hrWaC 2.2 ReLDI for Croatian). By adopting a Cognitive Linguistic and Construction Grammar theoretical framework (Colston, 2025; Gibbs, 2005; Goldberg, 2006; Sharifian, 2011), several types of metaphorical mappings are proposed, reflecting some typological properties of the two languages (Kövecses, 2005) and relevant for the annotation of figurative senses in the database: a) idiomatic expressions that draw on complex metaphorical scenarios related to the weather (e.g., Cro. *nicati kao gljive poslije kiše* = Engl. *like mushrooms after rain*,

or Cro. *plakati kao kišna godina* / lit. ‘to cry like a rainy year’ ≠ Engl. *to cry your eyes out, to cry buckets* / Engl. *to rain on someone’s parade* ≠ Cro. *pokvariti nekome zabavu* / lit. ‘ruin someone’s fun’), b) lexical and constructionally-marked polysemy (e.g., Cro. *pljuštati* - atransitive, *pljušti* / lit. ‘it is pouring’; intransitive, figurative *pljušte pohvale* / lit. ‘congratulations are pouring’), and c) morphosemantic extensions, relevant for Slavic languages such as Croatian with rich derivational processes (e.g., Cro. *gromko* ≠ lit. ‘loud like thunder’ / Engl. *loudly*, or Cro. *munjevito* = Engl. *quickly* / *at lightning speed*). The analysis of the selected weather conceptual subdomains will serve to explore potential cross-linguistic similarities and differences in the conceptualization of the weather domain, as well as illustrate the implementation of figurative senses in the database under development.

**Keywords:** weather, conceptualization, metaphorical extension, Meteorologicon database, ecolinguistics

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***Finding constructions involving metonymy: The metonymic a pair of BODY-PARTS construction and its associated situational and evaluative meanings***

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**Abstract**

Metonymies involving body parts are widely used across languages (Hilpert, 2007) and typically allow speakers to refer to a person by highlighting a particularly salient attribute (Littlemore, 2015). A well-known example is Henry Ford’s remark, “why is it every time I ask for *a pair of hands* they come with *a brain* attached?”, where a pair of hands refers to workers suited to manual labour, and a brain refers to those capable of creative work or likely to question authority. While the cognitive and communicative functions of such expressions have been explored in depth, less attention has been paid to the linguistic environments in which they occur. Yet previous work suggests that grammatical constructions play an important role in shaping metonymic usage (e.g., Brdar and Brdar-Szabó, 2017; Panther, Thornburg & Barcelona, 2009; Ruiz de Mendoza & Pérez-Hernández, 2001).

This study focuses on one such construction: the English *a pair of N* construction. It asks two main questions: first, whether this construction is more likely to be used metonymically when *N* is a body-part noun than when it is an arbitrary noun; and second, what kinds of patterns of use and evaluation are associated with it. The analysis draws on 600 examples from the English Web 2021 corpus, including 100 examples each of five body-part nouns (*arm*, *ear*, *eye*, *hand*, and *leg*) and 100 randomly selected comparators. Each example was manually coded for metonymic use, constructional pattern, and evaluative meaning.

The findings show a clear tendency for body-part nouns to be used metonymically in this construction (mean 42.8%, compared with 2.0% for non-body-part nouns). Moreover, different body parts tend to occur in distinct, recurring patterns. For instance, *a pair of arms* often appears in contexts involving affection (e.g. *wrapping*, *embracing*), whereas *a pair of eyes* tends to occur in contexts of attention (e.g. *staring*, *watching*), and *a pair of hands* frequently appears in more forceful or hostile situations (e.g. *grabbing*, *clamping*). Across these patterns, there is a consistent sense of lack of agency on the part of the experiencer, who is typically positioned as being acted upon.

These patterns are also linked to evaluation. Uses involving *arms* are more often associated with positive affect, while those involving *hands* tend to carry more negative connotations. Taken together, these findings suggest that body-part metonymy is not simply a general semantic process, but one that is closely tied to particular

constructions, which in turn shape how situations and evaluations are construed.

**Keywords:** metonymy, construction, evaluation, corpus, context

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*AI vs. human generated annotation of figurative construals for ideological purposes: the case of medical conspiracy discourse*

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**Abstract**

The present study aims at comparing three large language models (LLMs) and a human analyst in identifying and interpreting figurative construals of metaphor, metonymy and hyperbole employed with ideological functions in medical conspiracy texts extracted from the LOCO corpus (Miani et al., 2022). The theoretical framework employed for the analysis of the corpus relies, first and foremost, on the findings of cognitive linguistics as applied in critical discourse analysis (Hart 2010). Specifically, the analysis will focus on how construal operations, here that of metaphor, metonymy and hyperbole, are used as discursive strategies with ideological aims (Hart, 2010; Peña-Cervel & Ruiz de Mendoza, 2022; Reisigl & Wodak, 2009; van Dijk, 2006). We will focus on conspiratorial medical content (e.g. miraculous natural cures, deep state narratives around public health agencies) and code each figurative token for (1) type of figuration and (2) ideological role.

Methodologically, we implement the following protocol: two human experts and three LLMs: Gemini, Chat and Perplexity independently annotate identical LOCO excerpts; we then perform assisted concordance and clustering to examine systematic co-selection of figurative construals as carriers of ideologies; finally, we compare in what ways the annotations differ and we pinpoint the strengths and weaknesses of LLMs and human analysts in processing the linguistic data.

The results, based on a random sample from the LOCO corpus, suggest that LLMs experience difficulty in accurately identifying metonymy. In particular, metonymy appears to be systematically over-identified relative to human annotation. This tendency may be attributed to the models' lack of grounding in physical reality, as well as their heightened sensitivity to lexical triggers, such as institutional names, which can prompt metonymic interpretations even in otherwise literal contexts. A similar tendency can be observed in the case of hyperbole, which is likewise over-attributed when compared with human judgments. This may be explained by the models' limited access to shared background knowledge and situational context, both of which play a crucial role in human assessments of scalar meaning and exaggeration.

In turn, as for metaphor, both LLMs and human analysts seem to overlap in its identification, but the interpretation differs depending on the particular model used.

All the three models appear to be relatively effective, and broadly comparable to

human analysts, in identifying the role of figuration in the realization of discursive strategies and the reproduction of conspiratorial ideology.

**Keywords:** figurative construals, ideology, AI assistants, medical conspiracy discourse

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## *Behind the Blue Veil: Cultural Conceptualisations of the Lotus in Persian Verse*

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### **Abstract**

This study offers the first cognitive-linguistic account of lotus-based figurative expressions in Classical Persian literature, addressing a gap in metaphor scholarship despite the flower’s long-established symbolic prominence across various cultures. While lotus metaphors have been analysed in Sanskrit (Cielas, 2013) and Taiwanese literature (Lu, 2017), no study has examined how Persian poets conceptualise the lotus within their own culturally grounded systems of meaning. The study asks: (1) What conceptual metaphors and metonymies structure lotus imagery in Classical Persian poetry? (2) Which cultural conceptualisations motivate these figurative patterns? and (3) How do Persian lotus conceptualisations relate to broader cross-cultural lotus traditions?

The dataset consists of approximately 230 occurrences of *nilufar* (Pers. ‘lotus’) and lotus-related imagery drawn from a purposive sample of poems by Rudaki, Saadi, Mahsati Ganjavi, Sanai, Attar, and Rumi, representing both secular and mystical registers. Data selection followed two criteria: (a) explicit lexical reference to the lotus, and (b) metaphorically salient co-text. Metaphor identification was conducted using the MIPVU procedure (Steen et al., 2010), applied systematically to each occurrence. All metaphors were coded for source–target mappings, co-activated semantic domains, and culturally salient schemas. Coding categories were developed iteratively, combining Conceptual Metaphor Theory with the Cultural Linguistics framework of cultural schemas, cultural categories, and cultural metaphors (Sharifian, 2017).

The analysis situates Persian lotus imagery within a wider trans-cultural symbolic network. From ancient Egypt to India and China, the lotus has functioned as a cosmological and theological emblem (Klasanova, 2018; Lekov, 2007; Zimmer, 1972). Persian poets inherit this symbolic reservoir but adapt it to local conceptual needs (Fargdan & Houshiar, 1389; Schimmel, 1992; Sharifian & Jamarani, 2011; Soudavar, 2003). The findings show that in Persian cultural cognition, the lotus becomes linked to abstract notions such as *farr* (divine radiance or royal charisma), humility and gentleness as ethical virtues, the emotional dynamics of longing, and the aspiration toward spiritual elevation. A culturally distinctive feature emerging from the data is the recurrent depiction of the lotus as blue, a colour associated in Persian poetics with melancholy, longing, and the emotional aftermath of separation. This chromatic framing introduces an affective dimension and demonstrates how colour symbolism interacts with plant metaphors to produce complex conceptualisations.

The study’s contribution is twofold. Empirically, it provides the first systematic

mapping of lotus-related figurative patterns in Persian literature. Theoretically, it demonstrates how the integration of CMT and Cultural Linguistics enables a more nuanced account of how metaphors are shaped by culturally shared schemas and literary conventions. The case study shows that plant metaphors function as sites where universal embodied experience, culturally specific conceptualisations, and genre-based poetic traditions intersect, thereby refining our understanding of how metaphor systems become culturally particular.

**Keywords:** lotus, Persian poetry, cultural conceptualisations

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***I've had it up to here! Multimodal messages from a Construction Grammar perspective***

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**Abstract**

The paper addresses the theoretical issue of the specificity of multimodal messages that can be described as constructions. Constructions are understood here as such combinations of form and meaning in which certain aspects of the form or certain aspects of the meaning are not predictable on the basis of the components of that construction or other, previously established constructions (Goldberg, 1995, p. 4). This approach raises the question of whether messages whose meaning is created through the coexistence of different modes - e.g., word and gesture or word and image - can be considered constructions.

This question seems particularly intriguing in relation to the combination of word and gesture, because although these two semiotic modes are now recognized as elements of language - as David McNeill claims, “Language IS gesture” (2025) - they will not necessarily exhibit the features of constructions, that is, recurring associations between form and meaning (Zima, 2025). Gestures occurring during speech may modify, supplement, or change its semantics (Kendon, 2013). However, for such a multimodal message to be considered a construction, the semantic stabilization of the connection between the two (or more) modes participating in meaning-making should characterize it.

An example of a construction considered here is Polish expression *mam tego wszystkiego potąd* (*I've had it up to here*), which, for Polish language speakers, must be accompanied by a gesture performed at a specific height, indicating the boundary of saturation (idiomatic expression *I've had it up to here* can function as deixis (Guławska-Gawkowska, 2013). To determine whether this idiomatic expression, used to denote excess, can indeed be treated as a construction, approximately 110 examples illustrating various aspects of its usage were collected from Polish language corpora.

In order to further specify its meanings and to address the issue of the obligatoriness of the gesture, a survey was conducted, the results of which will be presented in this paper. The study seeks to answer the following questions: how do the elements of this multimodal expression contribute to the overall meaning of the construction, and can their interaction legitimately be described as a multimodal construction? In other words, does it exhibit semantic stability and reproducibility, and if so, are all elements of such multimodal expressions equally repeatable? Finally, the study examines whether Construction Grammar constitutes a justified framework for

analysing this type of utterance.

**Keywords:** metaphorical meaning, idioms, co-speech gestures, construction, construction grammar

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***The application of construction grammar to multimodal message analysis: the  
“we have X at home” and “before it was cool” constructions***

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**Abstract**

The non-compositional nature of linguistic expressions constitutes a fundamental concern within cognitive linguistics. As Tabakowska (1999) observes, the meaning of an expression cannot be reduced to the sum of its constituent elements. Within construction grammar, the term *construction* designates form-meaning pairings whose semantic value transcends the combined meanings of their components (Fillmore et al., 1988). Utterances such as “What’s X doing Y?” exemplify this phenomenon (Gibbs, 2010).

This study extends construction grammar analysis to multimodal discourse, specifically examining internet memes employing the constructions “we have X at home” and “before it was cool”. The aim of this article is to analyze the two types of utterances mentioned, taking into account the assumptions of construction grammar.

The material selected for analysis comprises a mini corpus of internet memes, containing 60 items. When selecting memes for the corpus, we were guided by the following criteria: the meme had to contain key linguistic constructs, such as “we have at home” and “before it was cool” along with an accompanying iconic representation of the content. The sources of our selected materials are online platforms, including social media. The basis for the analysis was a framework we developed that considered the following aspects of the structure: the semantic aspect, i.e. the specific semantic-pragmatic value of linguistic structures, and the formal aspect, i.e. the way the content is structured, as well as the image accompanying the structure. It is the image that introduces new, non-literal (constructive) meanings. This whole creates a meme unit. For example:

Ex 1 – “We have X at home/X is at home” = There is an object  $X_1$  in the house that seemingly resembles the one in question or has some of its features, i.e.  $X_2$ . Consequently, the individual elements or components of  $X_2$  do not create the postulated  $X_1$ . The meaning of the entire construction is negation, the essence of which is the use of an affirmative sentence in the function of negation. The literal meaning of the verbal part of the construction denotes possession, while the constructional meaning – lack of it (have = not have).

Ex 2 – “before it was cool”. The meaning of the entire structure is irony, which can be decoded through the semantic interaction of the verbal and iconic layers. In the

case of memes containing this structure, the content connotated by the image requires reference to a broader socio-political-cultural context, the decoding of which determines understanding the ironic meaning of the meme. Schematically, this notation would take the form  $X = \sim X$ .

These expressions exhibit non-compositionality at the structural level, with meaning emerging from the interaction between textual and visual components. Following Goldberg's widely adopted and well-known definition (Goldberg, 1995, p. 4), we are convinced, however, that the analyzed material necessitates a multimodal approach (Nikiforidou & Fried, 2025; Zima, 2025), treating the message as a holistic entity rather than decomposable parts. The question that arises in this connection is whether construction grammar is an appropriate approach to the analysis and understanding of multimodal messages.

**Keywords:** construction grammar, multimodality, figurative language, pragmatics

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***The shades of shadow in John Henry Newman's "Parochial and Plain Sermons" (1834-1843) in light of cognitive semantics***

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**Abstract**

Figurative language plays an important role in religious discourse, where abstract theological ideas are frequently communicated through concrete imagery. This paper examines the figurative uses of the lexeme *shadow* in the sermons of John Henry Newman, one of the most influential 19th-century Christian theologians and preachers (Ker, 2009). The analysis focuses on *Parochial and Plain Sermons* (1834–1843), a collection of 191 sermons originally delivered at St Mary the Virgin in Oxford and widely recognized for their rhetorical and intellectual influence (Ellison, 1995). The aim of the study is to identify the conceptual mechanisms underlying Newman's figurative uses of *shadow* and to examine the role of this image in his homiletic discourse.

The study addresses 3 research questions: (1) What figurative senses of the lexeme *shadow* occur in *Parochial and Plain Sermons*? (2) What conceptual metaphors and metonymies motivate these meanings? and (3) To what extent do these conceptualizations reflect conventional patterns in English and Christian symbolic tradition, and to what extent are they characteristic of Newman's style? By addressing these questions, the study contributes to research on the cognitive foundations of religious language and symbolic imagery in theological discourse (Kuczok, 2020; Richardson et al., 2021).

The analysis is conducted within the framework of Conceptual Metaphor and Metonymy Theory in cognitive linguistics (Kövecses, 2010; Lakoff & Johnson, 2003). The mechanisms of conceptual metaphor and metonymy are shaped and constrained by a speaker's bodily experience of the world, as well as by situational, conceptual-cognitive, and discourse contexts (Kövecses, 2020). They can also interact with each other, resulting in more complex metaphonymies (Ruiz de Mendoza & Galera, 2014).

Methodologically, the study combines corpus-based identification of figurative language with qualitative semantic analysis following the procedure proposed by the Pragglejaz Group (2007). The dataset includes all occurrences of *shadow* and related derivatives in the eight volumes of *Parochial and Plain Sermons*. The corpus contains 96 instances of *shadow*, 3 of *foreshadow*, and 6 of *overshadow*. Each occurrence was analyzed in context to determine whether it carries literal or figurative meaning.

The results show that Newman's figurative uses of *shadow* include meanings motivated by the metonymy SHADOW FOR THE SHADOW CASTER as an instance of the EFFECT FOR CAUSE mapping, encompassing negatively charged senses

associated with evil, ignorance, and suffering, as well as positively evaluated meanings linked to protection, blessing, and divine presence. In other contexts, the figurative use of *shadow* is motivated by the typological metaphor A PREDECESSOR OF X IS A SHADOW OF X, rooted in biblical tradition (Blenkinsopp, 2003), as well as the metaphor A SEMBLANCE OF X IS A SHADOW OF X, which contrasts the appearance of reality with truth (Østergaard, 2019). The findings demonstrate that Newman's figurative language is systematically grounded in embodied experience and shaped by biblical tradition, often involving complex patterns of metaphor–metonymy interaction.

**Keywords:** shadow, metaphor, metonymy, J. H. Newman, sermon

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**Abstract**

The increasing use of AI in producing texts such as announcements and local or university newspapers (Ansari et al., 2025) represents a relatively recent development that warrants closer examination. One key motivation for discourse analysis is the well-documented bias present in the datasets used to train large language models (Basta et al., 2019; Kurita et al., 2019), which may be further amplified in AI-generated texts through the phenomenon of “stochastic parrots” (Bender et al., 2021).

This study examines the conceptualization of climate change in texts generated by large language models (particularly GPT-5) through the use of metaphor, situating LLMs as emergent discourse actors whose outputs both reflect and potentially reconfigure established metaphorical frames in environmental discourse. The analysis draws on conceptual metaphor theory (Lakoff & Johnson, 1980) and its implications for environmental discourse (Baker, 2006; Flusberg et al., 2017). The study analyses AI-generated texts produced in response to nine prompts (each prompt was run thrice, producing a dataset of 27 texts) concerning environmental issues (including mitigation, responsibility, and future scenarios). The aim was to identify underlying conceptual mappings using the qualitative method of the Metaphor Identification Procedure (Pragglejaz Group, 2007) and determining whether LLMs reproduce dominant metaphorical frames, such as CLIMATE CHANGE IS WAR (Flusberg & Thibodeau, 2023), or generate alternative conceptualizations.

The results are largely conservative, with predominantly literal phrasing. The observed metaphorical mappings draw primarily on the institutional language of international policy documents (such as the Intergovernmental Panel on Climate Change [IPCC]). The analysis also indicates that LLMs tend to avoid sensationalism and the more overtly persuasive framing typical of mass media. However, thematic variation is evident across prompt types: mitigation-focused texts are dominated by technical framing, whereas responsibility and future-oriented prompts yield somewhat richer, though still moderate, metaphorical patterns, primarily serving illustrative functions.

These findings contribute to a better understanding of artificial intelligence as a discourse actor and suggest that LLMs function as conservative discourse agents that privilege institutional and technocratic framings over more overtly metaphorical media framings, potentially limiting metaphor diversity and persuasive variation in environmental communication.

**Keywords:** metaphors, discourse, ecolinguistics, AI, LLMs

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***Figuration as Pedagogy: A cross-cultural reading of the teacher figure in  
Sepedi and Afrikaans poetry***

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**Abstract**

This paper presents a cross-linguistic and cross-cultural comparison of two pedagogically embedded poems: the Sepedi poem “Morutiši” (D.M. Mampuru) and Antjie Krog’s Afrikaans poem “Onderwyser.” Rather than analysing figurative language as an isolated stylistic or cognitive feature, the study advances a reframing: it investigates how poems that are themselves taught within educational contexts deploy figuration to construct and mediate the figure of the teacher. The paper argues that these poems do not simply illustrate figurative language; rather, they demonstrate how figuration itself performs pedagogical work, shaping how knowledge, authority, and learning are conceptualised across cultural contexts. The paper draws on recent developments in cognitive linguistics and discourse-oriented approaches to metaphor, particularly Conceptual Metaphor Theory in its contemporary extensions (Kövecses, 2015; Semino, 2021), as well as cognitive poetics and reader-response dynamics (Stockwell, 2020). In addition, it engages African-centred literary frameworks and decolonial pedagogy (Ndlovu-Gatsheni, 2018; Makalela, 2016), foregrounding how figurative language is embedded within culturally specific knowledge systems. These perspectives are complemented by a polysystemic and relational view of literature (Even-Zohar, recontextualised in contemporary South African literary studies), which understands literary texts as products of interacting cultural and pedagogical systems. Within this framework, the analysis demonstrates that figurative language functions not merely as ornamentation, but as a mode of pedagogical meaning-making. In “Morutiši”, the teacher is constructed through the idiom of praise poetry, where metaphor, repetition, and performative address elevate the teacher to a quasi-heroic or ancestral status. This reflects broader tendencies in Sepedi poetic traditions, where figurative language is central to praise, social memory and moral instruction. By contrast, Krog’s “Onderwyser” employs extended metaphor and intertextual allusion to produce a more ambivalent representation, foregrounding the tension between authority and vulnerability in the modern classroom. Methodologically, the paper adopts a qualitative, comparative approach, reading the two poems as pedagogical artefacts within distinct but intersecting literary systems. The comparison reveals both convergence and divergence: while both texts rely on dense figurative strategies to construct the teacher figure, they differ in their cultural encoding of authority: communal and reverential in the Sepedi text, and critically reflexive in the Afrikaans text.

**Keywords:** pedagogy, teacher representation, cognitive poetics, Afrikaans poetry, decolonial pedagogy

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## ***Conceptual Reshaping of Political Identity: Donald Trump's Case***

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### **Abstract**

Political leaders always aim to demonstrate their unique leadership skills and to position themselves as strong, powerful and successful politicians either on national or international political arenas. However, a cognitive approach enables their target audience to identify and deconstruct hidden, latent identities existing in the discourse of these political leaders. This research aims at the identification and analysis of conceptual metaphors in Donald Trump's political discourse and their role in reshaping and transforming his political identity. Trump's speech at the 80<sup>th</sup> Session of the United Nations, delivered on September 23, 2025, served as a research material. The theoretical and methodological framework of this study is grounded in the concepts of political discourse, cognitive linguistics, and Conceptual Metaphor Theory (Kövecses, 2002, 2008, 2015, 2020; Lakoff & Johnson, 1980; van Dijk, 1998, 2002; Widdowson, 1995). Conceptual metaphors were identified by mapping the most prevalent source domains in Trump's political discourse to the target domain – POLITICS. The research results show that Trump conceptualizes politics as religion, heritage, war, relationship, business, profession; therefore, shaping his own new, numerous political identities, such as a saint; an heir; a saviour; a friend, a lover; a businessman, a winner; a cutter, a builder, a clairvoyant, a hunter, an inventor. The reshaping of political identity in Trump's political discourse is built upon two personal pronouns – *I*, referring to the president himself, and an inclusive plural pronoun *we*, referring to Trump, his government and the American society. The new political identities, demonstrated within the context of the UN session, enable the president Trump to position himself as a more successful leader than his predecessor, being a role model whose actions and advice in the fields of international relations and conflict resolution have to be taken into account by the UN; and to form the intended image of "great America" and its supremacy over other global powers.

**Keywords:** conceptual metaphors, conceptual mapping, domain, political discourse, political image

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# ***Making the Abstract Tangible: Reification in the Development of Metaphor Production***

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## **Abstract**

This study investigates the development of metaphor production in Swedish school texts, with a particular focus on reification as a meaning-making resource in writing. The study aims to examine how metaphorical adjective–noun combinations develop across the school years, to investigate the extent to which students use reification when expressing abstract meanings, and to explore how such uses relate to the development of abstraction in writing. The data consists of narrative and expository texts written by Swedish students in Grades 3, 5, 9, and 11/12. The analysis focuses on adjective–noun combinations extracted from the corpus and annotated within the framework of the LOC model (Paradis, 2005). Each combination is analysed with respect to noun ontology (e.g., concrete vs. abstract meanings), adjective domain, and type of construal, including whether the use is metaphorical. Metaphorical instances are further examined in terms of their conceptual motivation, with particular attention to reifications, where abstract meanings are construed in more concrete, spatially measurable terms. The analysis combines systematic manual annotation with quantitative comparison across grade levels.

The results show a clear developmental pattern. Metaphor use increases across the school years, from very low frequencies in the early grades to a substantially higher proportion in upper secondary school. In addition, the proportion of reifications appears to increase, with older students more frequently construing abstract domains such as events, states, and discourse processes in terms of physical properties (e.g., *big risk*, *long discussion*). Reifications constitute a substantial proportion of all metaphors in the higher grades. These findings are consistent with a broader developmental shift towards increasingly abstract meanings in students' writing (Löhndorf, 2021). From a cognitive linguistic perspective, abstract meanings are often structured in relation to more concrete domains (Lakoff & Johnson, 1980). The results of the present study suggest that reification may be one way in which developing writers manage increasing levels of abstraction, by grounding abstract concepts in perceptually accessible dimensions such as size, space, and duration. The study contributes to research on figurative language development by showing how metaphor may function as a resource for abstraction in writing and by identifying reification as a potentially important component of this developmental process.

**Keywords:** conceptual development, later language development, metaphors,

reifications, adjective-noun combinations

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# *Creatividad y productividad de los snowclones en la fraseología contrastiva alemán-español<sup>3</sup>*

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## **Abstract**

La presente comunicación tiene por objeto analizar eslóganes políticos que han experimentado un proceso de lexicalización, es decir, que se han afianzado en la lengua y han generado patrones fijos o construcciones fraseológicas (cf., Mellado Blanco, 2019, 2024). En el ámbito de la gramática de construcciones y la fraseología, el término *snowclone* (Hartmann & Ungerer, 2023) hace referencia a secuencias fijas —como refranes, citas o frases proverbiales— que se modifican con el fin de generar un efecto lúdico o humorístico en el discurso. Su alta productividad y frecuencia de uso no canónico favorecen la creación de nuevas construcciones con casillas vacías.

Partiendo del eslogan *Success has many fathers, but failure is an orphan*, atribuido a J. Kennedy, se analizarán, a partir de los corpus esTenTen23 y deTenTen23 de Sketch Engine, los *snowclones* [X hat viele Väter], con una frecuencia de 746 tokens, y su equivalente en español [X tiene muchos padres], con 638 tokens. En este sentido, se adoptará una metodología inductiva de carácter cuantitativo mediante la cual (1) se examinarán las actualizaciones léxicas de los *slots* sustantivos en las construcciones semiesquemáticas; (2) se atenderá al potencial creativo del *snowclone* a partir de las distintas instancias de la construcción; y (3) se analizará el lenguaje figurado en torno al concepto de «padre», sobre la base de esquemas como EL PADRE ES EL ORIGEN DEL PROBLEMA (p. ej., *La inestabilidad tiene muchos padres; die Inestabilität hat viele Väter*), EL PADRE ES FUENTE DE FINANCIACIÓN (p. ej., *El estadio tiene muchos padres; das Stadion hat viele Väter*) o EL PADRE ES EL INVENTOR (p. ej., *el automóvil tiene muchos padres; Das Auto hat viele Väter*), entre otros.

**Keywords:** snowclone, fraseología, gramática de construcciones, alemán, español.

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<sup>3</sup> Esta comunicación se enmarca dentro del Proyecto nacional PID2024-161338OB-I00, *Creativity through the lens of Construction Grammar: a corpus- and AI-based repository of constructional idioms in German, Spanish and English*, dirigido por Carmen Mellado Blanco.

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***“[like] having my ovaries wrapped in barbwire” – An Exploratory Contrastive Study of Cognitive Metaphors Used by Patients with Endometriosis in France and in Quebec***

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**Abstract**

Endometriosis is a gynaecological chronic inflammatory condition characterized by the implantation of endometrium-like cells outside the uterus (Maddern et al., 2020). If some patients are asymptomatic and informed of the condition while dealing with fertility issues, some are living with disabling symptoms, including painful and heavy menstruations, chronic back and pelvic pain, and digestive issues. Affecting up to one tenth of cisgender women and an unspecified percentage of trans men and non-binary individuals, endometriosis is having complex, multidimensional, negative impacts on a patient's life (Culley et al., 2013).

However, despite its high incidence and its socioeconomic weight, patients with endometriosis face a medical delay averaging anywhere from five to nine years between the condition's onset and the diagnosis worldwide (Culley et al., 2013). Several social factors play a key role, notably the persistence of a cultural taboo surrounding menstruation and gender bias in a medical setting (Cox et al., 2003; Seear, 2009). Even if women are more prone to see a medical professional for chronic pain, their care is often deficient. Linguistic factors are also at play, since women tend to describe pain metaphorically rather than functionally. Medical providers tend to misunderstand this description of pain (Bullo & Weckesser, 2021). Studies on oral interviews of British women with endometriosis (Bullo, 2018, 2020, 2021; Bullo & Hearn, 2021) and written testimonies in English (Abraham & Rajasekaran, 2023; Andreolli, 2023) have shown this reality. The results of a study in Chile indicate that Hispanophones patients with endometriosis also use metaphors for the expression of pain (Ito & Pascual, 2024). No such studies have been conducted in French.

We aim to narrow this gap in the literature by describing the discourse of French-speaking patients with endometriosis. We will examine the use of cognitive metaphors using a mixed method (both quantitative and qualitative), their function, and the cultural differences across two varieties of French: French in Québec and French in Metropolitan France. Our analysis is based on initial data from a 49-hour 45-minute-long corpus consisting of 40 semi-directed interviews conducted with patients in France, aged between 21 and 53 years old, and in Quebec, aged between 18 and 73 years old. Using NVivo for the corpus analysis, a inductive encoding of metaphor was conducted with the addition of tags documenting source and target domain. Early results seem to

indicate a widespread use of cognitive metaphors by patients as a descriptor of the illness (notably by the analogy between endometriosis and a nonfatal cancer, and the representation of the condition as a spiderweb gluing organs inside the abdomen). Some occurrences of the illness's personification, as another individual, were reported. Furthermore, Francophone patients with endometriosis also used cognitive metaphors identified in English to express pain, as documented in Bullo and Hearn's study (2021). Further analysis is necessary to confirm if the distribution of the cognitive metaphor is similar in two geographical varieties of medical French.

**Keywords:** pain verbalization, geographical variation, corpus-based studies, patient discourse, endometriosis

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*Evaluation through metaphor. A political conflict in media and in AI generated texts*

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**Abstract**

Metaphors are often thought of as capable to frame different sociopolitical events; in other words, they give the events a certain perspective, usually through evaluation. Therefore, they are frequently employed for persuasion and manipulation (Bogetic, 2019; Brugman et al., 2019; Charteris-Black, 2019; Hart, 2014; Musolff, 2016). Such framing acquires particular significance in an era marked by the growing circulation of AI-generated texts among audiences. Some authors (Dylan & Grossfeld, 2025) argue that autocratic regimes attempt to manipulate LLMs so that chatbots reproduce authoritarian narratives within the digital systems that people increasingly rely on. However, not all authors adhere to the same treatment. For instance, Alyukov et al. (2025) suggest that the direct reproduction of disinformation by chatbots is relatively rare and argue that the threat may be overstated.

The paper focuses on how metaphors construct and evaluate the same politically turbulent event in actual media and AI-generated discourse and attempts to identify interpretative patterns and ideological perspectives. The event in focus is a political conflict between Belarus and the EU when in 2021 a Ryanair plane, travelling from Athens to Vilnius was forced to land in Minsk by Belarusian authorities. As a result, Western countries imposed sanctions on Belarus, which reacted by helping illegal migrants cross the Belarusian borders to Lithuania, Latvia, and Poland. The paper explores how systematic usage of metaphors contributes to constructing attitudinal stance while describing the conflict between Belarus and the EU countries in American media discourse and in AI-generated texts across different chatbots.

The corpus consists of two sub-corpora, comprising: 1) American media texts (~30, 000 words) and 2) AI-generated texts (~ 9,000 words). The most popular chatbots (ChatGPT, Gemini, Claude, Meta, Mistral, Grok, etc.) were prompted to produce a coherent text describing what happened in Belarus in 2020-2021 and to express their opinion about the events. The study was carried out in the framework of Critical Metaphor Analysis (CMA) (Charteris-Black, 2004), a procedure consisting of three steps: (a) linguistic level, figurative language manually identified in the texts; (b) cognitive level, the cases of figurative language analysed relating them to cognitive metaphorical scenarios (Musolff, 2016); (c) rhetorical level, the scenarios investigated in terms of attitudes adopted in the texts through figurative language (Charteris-Black, 2019; Musolff, 2016).

Preliminary findings suggest that in the discourse of American media the incident is metaphorically constructed as war or violent confrontation with Lukashenko, “the strongman”, fighting a hybrid war against Europe. The metaphor of performance with “good” and “bad” guys is also identifiable. The AI-generated discourse is not radically different; however, there is some variation across the chatbots. Some of them engage in an elaborate description and evaluation of the event, others are more succinct and mostly stick to the facts. Metaphor seems to be paramount in both sets of data.

**Keywords:** metaphorical framing, AI-texts, media texts, Belarus political crisis

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## *Cognitive mechanisms for linguistic classification: the case of English Light Noun Classifiers*

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### **Abstract**

The notion of Light Nouns (henceforth, LNs) has been investigated so far only in few contributions, mainly focusing on languages other than English (especially, Italian and Basque). LN constructions are represented by a binomial pattern of the type ‘a N1 of N2’, where the first nominal plays a grammatical function licensed by the context, that is by the combination with the N2. Simone and Masini (2009) are the first to provide a definition of a LN, that is “nouns that, in particular syntactic configurations, would not act as fully referential elements, but play some other role within the NP they are part of” (2009, pp. 143-144). They carried out research on Italian LNs (in comparison with other languages, such as French and English) based on morphosyntactic and aspectual-semantic features. According to the authors, nouns can be distributed along a scale of ‘Nouniness’ (Sasse, 2001; Simone, 2006) where a [+Noun] extreme, which is mainly characterized by Referential Force, is opposed to other [-Noun] classes that exhibit a lower degree of Referentiality. The [-Noun] subcategories include Classifiers (e.g., a *crew* of N2, a *bunch* of N2), Quantifiers (e.g., a *mountain* of N2), Qualifiers (e.g., a *type* of N2), Approximators (e.g., a *sort* of N2), and Support Nouns (e.g., a *flow* of N2).

This work focuses on English LN Classifiers, adopting a cognitive-metaphorical perspective (Aikhenvald, 2003; Zhang, 2017). Classification is a pervasive mechanism in languages and can be encoded in many ways depending on the language. In Zhang’s (2017) terms, the first element of the construction behaves as a ‘quasi-numeral Classifier’ of the Noun referent, classifying it on the basis of one (or more) salient inherent or imputed characteristics, such as ARRANGEMENT, MEASURE, and COLLECTIVITY. To demonstrate my hypothesis, I have carried out a corpus-based analysis of English LN Classifiers in the *EnTenTen21* corpus between March and May 2026, using the SketchEngine tools of ‘Word Sketch’, ‘collocations’, and ‘word combination’. The retrieved dataset contains examples of the LN constructions “a bunch/ pile of N2” (ARRANGEMENT), “a span/ ton of N2” (MEASURE), and “a group/ crew of N2” (COLLECTIVITY). For each pattern we set a minimum score threshold of 5.0. This work aims at answering the following research questions: 1) What are the semantic properties of English LN Classifiers?; 2) Which semantic features are present in the conceptual schema of the Classifiers under analysis?; and 3) How are the different members of the same category categorized, and what are the categorization motivations?

My results show that LNs are found in combination with different N2s referring both to animated and inanimate items and are motivated by different metaphorical mappings of the Source Domain. For example, in “a pile of ideas”, the latter are metaphorically conceived as paper-like entities arranged one above the other. Similarly, in “a ton of laughter”, laughter is metaphorically quantified in a ton, to give a creative and exaggerated reading of the utterance. They can, therefore, be considered instances of a *continuum* that select and exploit different features of the Source Domain, which are licensed at a syntagmatic level.

**Keywords:** light nouns, classifiers, *EnTenTen21* corpus, cognitive approach, English binomial constructions

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# ***Figurative Framing in Hybrid Quality Press: Clickbait Strategies in the Digital and Print Headlines of The New York Times***

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## **Abstract**

The constant development of information technologies and digitally based affordances has seen contemporary journalism transition and transform into a highly competitive, click-driven environment. Recent research (Diez-Gracia et al., 2024; Garcia Orosa et al., 2017) suggests that legacy news organizations have increasingly started to adopt click-oriented headline practices as part of their transition to digital platforms, driven by users' shifting news consumption habits, which has resulted in the emergence of the so-called hybrid quality press (Chakraborty et al., 2016; Kuiken et al., 2017). In this context, clickbait headlines have emerged as a widely discussed strategy for capturing reader attention and prompting engagement. Initially linked to sensationalist, tabloid press and digital-native outlets, clickbait headlines are typically associated with filling readers' curiosity gaps, emotional appeal, and sensational framing (Blom & Hansen, 2015; Munger et al., 2024).

Drawing on Burgers et al. (2016) framework of figurative framing, this study aims to investigate the extent to which metaphor, hyperbole, and irony, as well as their combinations resulting in complex figurative frames (ibid.) function as clickbait-related strategies in the headlines of a 'legacy' quality newspaper. The present paper thus analyses the practices adopted by *The New York Times* as a representative case of a historically print-based outlet argued to have transitioned into a digitally oriented news environment (Garcia Orosa et al., 2017).

To this end, the "Today's Paper" subsection (NY/national and international) available on *nytimes.com*, which is assumed to reflect the structure of the print front page, was sampled over a 30-day period at fixed times of day, with particular attention paid to headlines, subheadlines, and potential teaser texts or leads. These were classified according to the domain based on the conventional section-marking scheme of the newspaper (and reproduced in the online edition's "Today's Paper" page) and manually annotated for the figurative framing devices under investigation. Various (sub)types of interaction between these figurative devices and other formal features commonly associated with clickbait headlines, such as *forward reference* through deictics (Blom & Hansen, 2015), *hyperbolic lexis*, and *visualisation devices* (Mormol, 2019), were then analysed, and selected examples were subjected to qualitative content analysis.

The online front-page versions were additionally compared with those appearing

on the corresponding daily print front page to test for both the presence and potential function(s) of figurative framing patterns between *The New York Times*' online and the print platform, as well as with its Instagram account to cater for the comparison with digitally-native platform practices, hypothesized to be more prone to clickbait(-related) practices.

The study has found partial confirmation for the claim that clickbait headlines function as sites of intensified figurative framing, with hyperbolic lexis and subtle metaphorical and metonymic framing, as well as their various combinations, serving as the key framing devices, resulting in headlines functioning as hybrid units combining the informational and curiosity gap filling function. As such, clickbait headlines may serve to increase figurative density as a way to heighten and maximize epistemic curiosity and affective engagement, a goal found in our study to be particularly typical of soft news (domains), but increasingly present in hard news domains (e.g., politics and economics) in digital journalism (Knauf et al., 2025).

**Keywords:** clickbait, figurative framing, metaphor, metonymy, hyperbole

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# **Metaphor, Animacy, and Ecological Sensibility in Robert Macfarlane's *Is a River Alive?***

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## **Abstract**

The worsening climate crisis exposes not only political and technological shortcomings but also a deep crisis of imagination. As Buell (1995) notes, addressing this challenge requires new ways of conceptualising nature and humanity's role within it, including a shift towards recognising the agency and intrinsic value of non-human entities.

Following this, the study examines how rivers are metaphorically framed in *Is a River Alive?* (2025) by Robert Macfarlane, the recipient of the 2025 Henry David Thoreau Prize for Literary Excellence in Nature Writing. The book, shortlisted for Blackwell's Book of the Year (2025) and the Wainwright Prize for Conservation Writing (2025), challenges instrumental views of nature by depicting rivers as living, relational, and dynamic entities. Drawing on Kimmerer's "grammar of animacy" (2015), Macfarlane argues that language fails to fully represent the vitality of the more-than-human world and highlights the need for a more relational environmental linguistic representation. At the heart of this process is metaphor, which resides not only in language and thought but also yields diverse views of life and may create different (ecological) realities (cf., Kövecses, 2020; Lakoff & Johnson, 1980). In light of this, the analysed book raises the question of the transformations that occur when rivers are recognised as alive in linguistic, conceptual, and ultimately legal terms (Macfarlane, 2025, p. 18), implying that such acknowledgement shapes human-environment relations, since "words make worlds" (Macfarlane, 2025, p. 22).

Methodologically, the study combines ecocritical analysis with insights from cognitive linguistics, focusing on metaphor as a key mechanism of conceptualisation that supports Keen's "narrative empathy" (2006), which is extended here to more-than-human entities (cf., Weik von Mossner, 2017).

Focusing on rivers as a central motif, the paper examines metaphor as a key cognitive and epistemological mechanism for re-establishing the notion of rivers and reconfiguring human-nature relations more broadly. The analysis traces metaphorical conceptualisations of rivers that transform them from inert matter into animate entities endowed with agency, memory, personhood, vulnerability and rights. Moving from individual linguistic articulation to systematic patterns, the study reconstructs the underlying metaphorical network (Kövecses, 2020) through an interpretive, corpus-based approach that combines qualitative content analysis with iterative categorisation

of metaphorical representations of the river. The analysis also emphasises embodied experience, culminating in the author's feeling of being "flooded from within" (Macfarlane, 2025, p. 246) and ultimately "rivered" (Macfarlane, 2025, p. 295), which exemplifies an immersive, relational mode of perception that dissolves strict boundaries between humans and nature.

The analysis contends that metaphor-driven (re)conceptualisations of rivers as living entities should not be regarded as reductive anthropomorphism but rather as efforts to broaden the conceptual boundaries of life and to redefine subjectivity beyond the human, thereby promoting ecological sensibility.

**Keywords:** metaphor, rivers, animacy, ecocriticism, ecological sensibility

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***Where is Tomorrow? Mapping the Spatiality of the Future in the Moroccan  
Mind: The Front-Back Axis***

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**Abstract**

In accordance with Conceptual Metaphor Theory (Lakoff & Johnson, 1980), Moroccan temporal conceptualization is predominantly structured via the Space-to-Time mapping. The spatial mapping of the Future as Front and the Past as Behind is central to this conceptualization through which the locus for future-front and past-behind metaphors is determined cognitively speaking. This paper investigates this cognitive dominance of the Front/Back axis within Moroccan Darija, exploring how native speakers spatially depict temporal events relative to their own bodies (Boroditsky, 2000). Within the framework of Conceptual Metaphor Theory (CMT), the “Future” is typically treated as a destination reached by moving forward, while the “Past” is a region physically located behind the speaker. However, this linear progression is not just a linguistic convention but a reflection of a complex socio-cognitive worldview and a different cultural conceptualization (Sharifian, 2011). Numerous studies have discussed temporal metaphors cross-linguistically, but intra-cultural variation and the impact of generational shifts on the stability of these mappings especially in North African countries is rather ignored. Drawing on the metaphorical structuring of time in Moroccan Arabic (Berrada, 2010), this study analyzes how the Future-Front metaphor interacts with the Moroccan concept of time shifting between the Ego-Moving metaphor (the speaker moving toward the future) and the Time-Moving metaphor (the future approaching the speaker). The study adopts a hybrid approach where a questionnaire (N=60) is administered to elicit temporal conceptualization via forced choice mapping and scenario-based tasks. The methodology used allows for a cross-linguistic comparison of spatial metaphors (Nuñez & Sweetser, 2006) within a single speech community. The findings suggest that the younger population (ages 18–40) exhibit a Future-Front orientation while with older demographics (60+) show a tendency to

alternate between Front-Back mappings and Time/Ego Moving orientations.

The study demonstrates that the spatial conceptualisation of time in the Moroccan context is a dynamic construct shaped by socio-generational variation. In doing so, it contributes to current research on social cognition, sociocultural perspectives on figuration, and the experimental investigation of metaphorical mappings. More broadly, the findings challenge the assumption that spatial mappings of time are fixed and universal by providing empirical evidence for the dynamic and evolving nature of conceptual metaphors across generational groups.

**Keywords:** *Conceptual Metaphor Theory, front-back axis, Moroccan Darija, spatial mapping, temporal conceptualization*

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***Figurative Names Across Minds and Machines: A Cognitive Study of  
Translating Onomastic Phraseological Units***

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**Abstract**

Phraseological units (PUs) with onomastic components represent a culturally rich subtype of figurative language in which proper names evoke shared conceptual frames (Fillmore, 1982) and collective knowledge structures. While such expressions have been widely discussed in onomastics and phraseology (Carroll, 1983; Liu, 2008; Peti, 1999; Piirainen, 2012), less attention has been paid to how they are processed in translation by human learners in comparison with AI-based translation systems. This paper explores how culturally embedded figurative meaning is negotiated across languages by both minds and machines. Drawing on cognitive-linguistic approaches to conceptual structuring, metaphor, and metonymy (Barcelona, 2003; Evans & Green, 2006; Lakoff & Johnson, 1980), the study treats onomastic PUs as constructions grounded in shared encyclopaedic knowledge rather than as purely lexicalized idioms. Because such expressions combine figurative mapping with culturally specific reference, they provide a productive testing ground for examining how conceptual frames are activated – or fail to be activated – in translation. The study addresses the following research questions: 1) What translation strategies do Croatian EFL students employ when rendering English onomastic PUs?, 2) How do AI-based translation systems render the same expressions?, 3) To what extent do human and AI outputs differ in preserving figurative meaning and culturally embedded frames?, and 4) Does contextual information affect human and AI performance differently?

In the analytical part, the study compares Croatian translations of selected English onomastic PUs produced by 90 university EFL students with outputs generated by widely used AI-based translation systems (Google Translate, DeepL, ChatGPT). A balanced subset of 40 expressions was selected across four semantic categories (personal names, towns, countries/counties, nationalities) and across two transparency levels (presumably universal vs. culturally specific). Items were presented both in and out of context to assess the role of contextual support. All translations – human and AI – were analysed using the same primary coding taxonomy: 1) idiomatic expression containing a name, 2) idiomatic expression without a name, 3) non-idiomatic paraphrase, 4) wrong translation, and 5) no translation. A secondary coding layer assessed whether figurative meaning was preserved, neutralized, or misinterpreted.

Quantitative results reveal systematic differences between human and AI strategies. Students demonstrate greater conceptual flexibility, frequently opting for

culturally adaptive equivalents, or explanatory paraphrases. AI systems, by contrast, show a stronger tendency toward literal transfer of the onomastic element or semantic simplification, particularly in culturally specific expressions.

Qualitative analysis suggests that successful translation of onomastic PUs depends on coordinated conceptual operations (metaphorical mappings, metonymic extensions, and frame shifting) that remain challenging for automated systems. By directly comparing learner data with AI outputs, the study contributes to ongoing discussions about figurative thought in computational contexts and highlights pedagogical implications for the critical integration of AI tools in translation training.

**Keywords:** figurative language, onomastic phraseology, cognitive linguistics, machine translation, translation pedagogy

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***From image-schemas to mental spaces: The COOKING domain in the multi-level view of metaphor***

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**Abstract**

The conceptual mechanism of metaphor has been widely studied in Cognitive Semantics. Nevertheless, research on metaphors tends to focus mainly on the conceptual correspondences between the source and the target domain, without delving more deeply into the different levels of schematization involved in each metaphor.

This study proposes the application of a recent comprehensive framework for the study of metaphor known as the “multi-level view of conceptual metaphor” (Kövecses, 2020, 2026). According to this view, conceptual metaphors are conceived of as a complex phenomenon that involves diverse conceptual structures simultaneously at distinct levels of schematicity. Thus, within the interlocking vertical hierarchy, image schemas are at the highest level of schematicity, followed by domains, frames and mental spaces, at the lowest level.

Following this approach, this study aims to address these research questions: (1) What image-schemas, domains, frames, and mental spaces are involved in the understanding of the selected metaphorical expressions grounded in the COOKING domain?, and (2) how does the multi-level view of conceptual metaphor contribute to a more comprehensive understanding of the metaphorical mappings identified?

To this end, the COOKING domain was selected, as it is a prolific source of metaphorical expressions (Esbrí-Blasco, 2024; Esbrí-Blasco & Navarro i Ferrando, 2023; Navarro i Ferrando & Esbrí-Blasco, 2024). The metaphorical expressions analyzed in this study were drawn from the Corpus of Contemporary American English (Davies, 2008) and identified using MIP (Pragglejaz, 2007). Once extracted, the conceptual configurations at the four levels of schematicity (i.e., image-schemas, domains, frames and mental spaces) were identified and described, as well as the metaphorical mappings involved.

The results of our study suggest that the multi-level view of metaphor constitutes an especially effective and useful approach that accounts for the complexity of metaphors by integrating different interconnected levels of schematicity within the same analysis.

In sum, this study goes beyond the classical Conceptual Metaphor Theory to contribute to our understanding of metaphors as a configuration of multiple

schematicity levels.

**Keywords:** metaphor, image-schema, cognitive domain, semantic frame, mental space

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## *Hyperbole as super-normality*

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### **Abstract**

Most accounts of hyperbole agree with two of the following claims: (I) hyperbolic statements receive non-literal meanings because their literal meanings are highly improbable and hence need to be ‘repaired’ pragmatically (Fogelin, 2011); (II) hyperbole interpretation involves mapping the extreme literal meaning to another, often affective domain (Ruiz de Mendoza, 2014). For example, "I've got a million things to do" is recognized as improbable on a literal interpretation, then mapped to an affective scale: the speaker conveys she is feeling like she has a million things to do. In a computational modelling approach, Kao et al. (2014) implement this type of account as Bayesian reasoning: The literal meaning has low utility, so the affective domain becomes where meaning resides.

I argue against this type of view on three grounds. First, not all hyperbolic utterances are improbable on their literal meaning. Consider “I might help you if I haven’t got a million things to do”. This contains hyperbole yet its literal reading (that I might help you) is entirely plausible, so no repair is needed. Second, domain-mapping fails to explain interpretation. An affective meaning like ‘feeling like you have a million things to do’ is just as hyperbolic (and improbable) as claiming to have a million tasks. The target domain doesn't resolve the exaggeration; it merely relocates it. Third, computational models based on assumptions (I) and (II) make incorrect predictions about non-affective aspects of hyperbole meaning, as I will demonstrate through model simulations.

I propose an alternative account, where norm-relatedness is a key feature. Following Popa-Wyatt (2020), hyperbole is not just presenting things to be more extreme than they are but rather amplifying an existing deviation from some salient norm. A busy speaker is someone whose task load exceeds the norm and with "a million things to do" she exaggerates this deviation. This norm-relatedness makes hyperbole resemble *supernormal stimuli*. Super-normality (Tinbergen, 1953; Staddon, 1975) refers to the brain's tendency to respond more strongly to stimuli that deviate extremely from a norm. Tinbergen demonstrated this in experiments with herring gull chicks: they peck more vigorously at an abstract beak model that exaggerates key features of a parent gull (a thin rod with contrasting colours) than at a naturalistic one. Similarly, caricatures, which amplify facial features that deviate from the norm, are recognised faster and more reliably than photographs (Rhodes, 1996; Ryan & Schwartz, 1956), despite their physical inaccuracy.

I propose that hyperbolic utterances are linguistic supernormal stimuli. Rather

than requiring pragmatic repair, hyperbole simply uses extreme scalar concepts to efficiently signal norm deviations. This extreme signalling can occur simultaneously in source and target domain, thereby avoiding the problem identified above. This view has consequences about what an appropriate computational model for hyperbole is. It suggests that rather than modelling hyperbole as rational Bayesian reasoning, it would be more appropriate to model it as something emerging naturally from norm-relative encoding of information. The full paper will present methods to find evidence for supernormality in the distributed representations of neural architectures.

**Keywords:** hyperbole, domain mapping, computational models, supernormal stimuli

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***Bulldozing with idioms: Figuration in the conversation topic changes of elementary-to-intermediate Japanese learners of English***

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**Abstract**

The ability to deploy idioms, proverbs, and other figurative expressions (e.g., ‘plenty more fish in the sea’, ‘all’s well that ends well’) to manage conversational topic shift (hereafter *idiom topic transition*) constitutes a key yet underexplored dimension of second language (L2) metaphoric competence (MC). Positioned at the intersection of figuration, cognition, and pragmatics, idiom topic transitions encapsulate generalised, culturally-shared meanings while performing interactional work: summarising prior discourse, invoking moral evaluation, and projecting a shift in conversational trajectory (Drew & Holt, 1988, 1998; Littlemore & Low, 2006). As Antaki (2007, p. 529) observes, such clichés can “bulldoze” interlocutors into alignment. However, research on naturalistic interaction shows that recipients may resist or reshape such moves, despite power imbalances, as in psychotherapy, business meetings, and doctor–patient consultations (Charles & Charles, 1999; Drew & Holt, 1988; Kitinger, 2000).

Comparable asymmetries often characterise L1–L2 dialogues, where idiom topic transitions have also been observed (Eerdmans & Di Candia, 2007, cf., Morris-Adams, 2014). In pedagogy, Littlemore and Low (2006) demonstrated that advanced Japanese learners of English can produce successful idiom topic transitions in role-play tasks. Complementary test-based research suggests a marked receptive–productive gap: comprehension of idiom topic transitions appears relatively easy, whereas production is among the most challenging aspects of MC (O'Reilly & Marsden, 2021). However, further evidence is needed on the linguistic, conceptual, and pragmatic characteristics of learner performance across elicited and interactive contexts, particularly among lower-proficiency learners.

This study addresses these gaps through two research questions:

- 1) how does elementary-to-intermediate (CEFR A2–B1) Japanese L2 English learners’ performance on idiom topic transition compare with other areas of MC?
- 2) what kinds of idiom topic transitions do these learners produce and resist during prompted classroom discussions?

Participants were forty L1 Japanese learners (aged 19–24) enrolled in a UK-based English and academic skills programme, with classroom interaction data collected from a subset of twenty-five.

To address RQ1, participants completed a shortened MC Test Battery including receptive and productive idiom topic transition measures (O'Reilly & Marsden, 2021), analysed using linear regression. For RQ2, participants engaged in a role-play adapted from Littlemore and Low (2006), in which one interlocutor sustained a complaint (relationship breakup) while the other attempted to shift topic, supported by pre-task activities and idiom prompts, and analysed using thematic analysis.

Results for RQ1 replicate and extend previous findings: receptive and productive idiom topic transition were among the strongest and weakest MC areas respectively. Nonetheless, written productions revealed a diverse range of strategies. Role-play data (RQ2) further demonstrated learners' emerging figurative creativity and interactional competence. Participants attempted and resisted idiom-based topic shifts using both prompts and novel metaphorical extensions ('she's the only fish...a star, looks like Pegasus!'), employing re-literalisation ('there's a shoe for every foot, so let's go shopping!'), and invoking structurally-aligned idiom paraphrases ('plenty more girls in the world [fish in the sea]').

Overall, the findings highlight idiom topic transition as a productive site for examining figurative language, conceptual processes, and L2 development. Implications are drawn for future research and language pedagogy.

**Keywords:** idiom, topic transition, L2, language play, conversation

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## ***From Children's Illustrations to Internet Humor: Multimodal Metaphor and Meme Recontextualization in Kicia Kicia Images***

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### **Abstract**

This presentation explores how meme-context triggers metaphorical and metonymic construal in comparison to original illustrations from children's literature, using the Polish children's book series *Kicia Kicia* as a case study. *Kicia Kicia* is a widely recognized bestselling series of illustrated children's books by Anita Głowińska, aimed at preschool audiences. The books depict everyday situations (e.g., kindergarten routines, family activities, visiting a doctor etc.) through simple narratives and colorful illustrations. In their original form, these images are designed to support literal comprehension, emotional safety, and child-oriented framing. However, in contemporary Polish digital culture, *Kicia Kicia* illustrations have been repurposed as meme templates, circulating online with added captions that transform them into humorous, ironic, or socially critical multimodal messages addressed primarily to adults.

The study investigates how such memetic transformations reshape meaning construction and how viewers perceptually process memes in comparison to their source illustrations. While the original pictures function as narrative support, their meme variants operate as recontextualized multimodal artefacts relying on intertextuality, implicit meanings, and figurative mechanisms such as multimodal metaphor, metonymy, and conceptual blending (Ostanina-Olszewska & Majdzinska-Koczorowicz, 2021; Majdzinska-Koczorowicz & Ostanina-Olszewska, 2019, 2024). The central research question is: How does meme-context trigger metaphorical construal compared to the original children's book image? In other words, what conceptual operations are required for a viewer to interpret the same visual scene either as a literal children's illustration or as an ironic, metaphorically loaded meme?

The research is grounded in cognitive linguistic approaches to figurative meaning, combining Conceptual Metaphor Theory (Lakoff & Johnson, 1980), Conceptual Integration Theory (Fauconnier & Turner, 2002), multimodal metaphor theory (Forceville, 2002, 2008; Pérez-Sobrino, 2016), and theories of metonymy (Kövecses, 2002). Talmy's notion of image schemas and force dynamics (Talmy, 1988) is also employed to capture recurring construal patterns (Langacker, 2019). The theoretical aim is to conceptualize memes (Shifman, 2014) as multimodal blends in which the original illustration provides one input space associated with childhood innocence and everyday routine, while the caption and online discourse activate a second input space rooted in

adult experience, social commentary, and irony.

The dataset consists of 50 original *Kicia Kicia* illustrations and over 50 memes based on them. The analysis is conducted in paired format: each meme is compared to its source illustration, and cases where one illustration generates multiple meme variants are treated as evidence of productive reinterpretation schemas. The first part of the methodology is qualitative multimodal analysis aimed at identifying systematic strategies of metaphor construction, metonymic anchoring, and frame-shifting (Coulson, 2022). Special attention is given to how captions direct attention to selected visual details (Dancygier & Vandelanotte, 2025a, 2025b) and assign them new conceptual roles.

The second part consists of an eye-tracking experiment (Duchowski, 2017; Holmqvist et al., 2011) designed to test whether the process of meme recognition, which is assumed to entail a higher cognitive load, differs from the perception of original illustrations. Forty-six adult participants classified stimuli as “meme” or “not meme”. Measures include reaction time, fixation duration, and Areas of Interest (AOI). The hypothesis is that memes impose greater interpretive effort, resulting in longer decision times and more complex gaze patterns. This project is work in progress, focusing on emerging analytical categories and preliminary experimental tendencies.

**Keywords:** multimodal metaphor, conceptual blending, internet memes, eye-tracking, meme construal

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***From x-phemisms to meaning-making: Cognitive operations and lexical creativity in drag discourse***

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**Abstract**

This study examines the distribution and cognitive motivation of x-phemisms, that is, orthophemistic, euphemistic and dysphemistic expressions, in the specialised language of drag, as popularised by the tv show *RuPaul's Drag Race*. While drag discourse is stereotypically associated with the use of explicit language and vulgarity (Bruun, 2018; Galinsky et al., 2013; Marjanovic, 2023), the present study challenges this assumption by demonstrating that euphemistic strategies are, in fact, more frequent and more structurally productive than dysphemistic ones. Drawing on a cognitively oriented framework, the analysis provided here integrates insights from x-phemism theory (Allan, 2012; Casas Gómez, 2012; Díaz Hormingo, 2012; Duda, 2011; Smith, 2012) with Cognitive Linguistics, paying particular attention to the role of metaphor, metonymy, mitigation and inferential processes in meaning construction (Anderson, 2010; Ruiz de Mendoza & Galera Masegosa, 2014).

The empirical basis of the study consists of a corpus of drag-related lexical items extracted from the original American subtitles of the tv show *RuPaul's Drag Race* (seasons 1-16) by using the Sketch Engine software (Kilgarriff et al., 2004, 2014). The extracted sample is systematically classified into orthophemisms, euphemisms and dysphemisms. The total sample of x-phemisms is analysed in terms of the cognitive operations that motivate their form and underlie their meaning construal scenarios. Particular attention is paid to processes such as morpho-phonological modification (via clipping, acronymy, alphabetism and substitution), metonymic shifts (i.e., PART FOR WHOLE and WHOLE FOR PART relationships), metaphorical mappings (e.g., FOOD IS SEX, ANIMALS ARE HUMAN BODY PARTS), and pragmatic strategies of mitigation, high-level inference and exaggeration.

The preliminary results show a clear predominance of euphemisms over dysphemisms across the dataset analysed here. Far from simply avoiding taboo, these euphemistic expressions exhibit a high degree of structural and semantic creativity, often integrating different cognitive operations within a single expression. For example, metaphor-based euphemisms such as *burger finger* denote metaphorical mappings based on lexical analogy and conceptual remodelling, whereas terms such as *mother-tucker* rely on mitigation via morpho-phonological modification and playful reanalysis. In contrast, dysphemistic expressions, tend to be less innovative as they are more direct and less formally complex, frequently referring to conventionalised forms such as *fuck*, *cunt* or *ass*. Remarkably, some expressions occupy halfway positions, leading to the

idea that x-phemistic interpretation is best understood as a continuum rather than a set of discrete categories (Taylor, 1995). Thus, dysphemistic euphemisms and euphemistic dysphemisms are reasonably productive in the dataset examined (Duda, 2011; Smith, 2012).

These preliminary findings lead to significant theoretical implications. First, they demonstrate that drag discourse, rather than being simply vulgar, obscene or offensive, is characterised by a preference for indirectness, playfulness, humour and cognitive economy. Second, they show that euphemism is not merely a strategy of taboo avoidance, but a powerful resource for linguistic creativity and identity construction. Finally, the study contributes to Cognitive Linguistics by illustrating how general cognitive operations underlie not only lexical meaning, but also evaluative and pragmatic effects in subcultural discourse.

**Keywords:** drag discourse, X-phemisms, cognitive operations, lexical creativity, meaning-construal

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***Emotional metaphors and pragmatic inference in private digital  
communication: An empirical study***

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**Abstract**

Metaphor is central to how humans conceptualise and communicate the complexity of emotional experience (Kövecses, 2008; Lakoff & Johnson, 1980). In recent years, various studies have examined how these metaphorical structures influence the perception and emotional processing of language. Previous empirical work suggests that metaphorical language used in verb forms tends to carry greater emotional impact than literal language (Mohammad et al., 2016), and corpus-based studies show that metaphors play a key role in expressing emotions in digital communication (Damanik & Damanik, 2025; Shi & Khoo, 2023). However, none of these studies has directly contrasted emotional metaphors with their literal equivalents in private conversational digital contexts, so it is not possible to determine whether there is any interpretative difference between the two resources, nor what response they activate in the recipient. To address this research gap, this study aims to analyse the role of emotional metaphors in the processes of pragmatic inference through which recipients infer the sender's emotions and internal states based on a simulation of written messages in Spanish within digital contexts of private interpersonal communication. The research questions guiding this study intend to determine to what extent metaphors help to contextualise the pragmatic content of a message more effectively than a literal statement, whether the sender's emotions are better understood, and whether these are perceived as an intensification. To this end, we will conduct an online experiment simulating a digital instant messaging interaction context, from which participants' responses will be analysed. Participants will act as recipients and answer a series of follow-up questions. The results will be mainly quantitative; however, there will also be a series of open-ended questions from which we will extract qualitative results. This experimental design will enable us to compare the pragmatic impact of metaphors with their literal equivalents and to identify potential misunderstandings arising from the use of both figurative and non-figurative language. We expect this study to provide empirical evidence on the function of metaphor in the perception of emotions and its intensifying capacity.

**Keywords:** emotional metaphors, digital communication, pragmatic inference, literal language, empirical study

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# *AI: a tool, a helper or a god? Artificial Intelligence Metaphors in Popular Science Translation*

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## **Abstract**

People often resort to metaphors to make sense of unknown phenomena. The topic of metaphors used to describe Artificial Intelligence (AI) – the term itself being metaphorical – is particularly interesting as they can also be powerful tools of framing and shaping perceptions: is AI a helper (Anderson, 2023) or a tool? A “black-box”, (Furze, 2024) or a “stochastic parrot” (Oster et al., 2025)?

Despite the dominant role of English, translation into other languages remains essential for effectively disseminating scientific knowledge to lay audiences, especially in the case of popular science writing. Employing a Cognitive Linguistics framework, specifically the Conceptual Metaphor Theory (Lakoff & Johnson, 1980) and its later developments (Kövecses, 2020), this paper adopts the MIPVU approach (Steen et al., 2010) and corpus linguistics tools combined with cognitive approach to translation (Schäffner, 2004; Schmidt, 2015) to explore how conceptual metaphors change in the process of interlingual translation. To this end, the study aims to answer the following research questions:

RQ1: Which source domains are used to talk about Artificial Intelligence in the English popular science articles on AI and (how) do conceptualisations change in the process of translation into Italian and Polish?

RQ2: What can be inferred about the strategies translators use when translating scientific metaphors in the genre of popular science?

The analysis is based on a trilingual parallel translation corpus of three popular science articles on the topic of Artificial Intelligence (AI), originally published in English in a popular science magazine, “Scientific American”, and their translations from official international editions, Polish (“Świat Nauki”) and Italian (“Le Scienze”) (9 articles in total). Adopting both qualitative and quantitative approaches, this study examines 439 metaphorically used words across the three languages under investigation and explores cognitive-level conceptualisations of AI.

The findings reveal a variety of source domains, such as HUMAN (AI is a close friend, *our artificial cousin*, a helper or collaborator, a child, a craftsman/tailor or a (misleading) guide), god or an entity with supernatural powers, destructive force of NATURE (AI is a windfall, flood, explosion), and an inanimate OBJECT (a machine or a

tool). While the majority of metaphors are preserved across languages, others are omitted or replaced with alternative source domains, resulting in a different conceptualisation in the target language. In some cases, literal translation of the original metaphor leads to a narrowing down of sense (e.g., *train* vs PL *trenowac*). New translation procedures, including “borrowing” English terms, are also present in the corpus. The results provide insights into metaphor processing and the cultural adaptation of scientific discourse across European languages.

**Keywords:** scientific metaphor, metaphor in translation, AI, popular science

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***“Their metaphors in our lives”. The Conceptual Metaphors of Polish  
Presidential Candidates in the 2025 Pre-Election Television Debates: A Cognitive  
Linguistic Analysis***

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**Abstract**

This paper presents the findings of an analysis of conceptual metaphors employed by candidates in the Polish presidential election during televised pre-election debates held in April and May 2025. The empirical material was drawn from three debates — broadcast by Telewizja Republika, Super Ekspres, and a joint debate co-hosted by Polsat, TVN, and TVP — and comprises the candidates’ open-address segments exclusively, understood as speeches constituting the deliberate enactment of a communicative strategy.

The theoretical and methodological framework of the study is grounded in Lakoff and Johnson’s Conceptual Metaphor Theory (CMT) (1988), supplemented by the extended model proposed by Kövecses (2008). While fully acknowledging the methodological limitations of CMT and the ongoing scholarly debate surrounding it, the analysis operates strictly at the linguistic level, without making claims regarding metaphorical processing at the conceptual level. The research procedure employed (Platerek-Zyberek, 2017) is inductive in nature (bottom-up): linguistic metaphors were identified through close reading of debate transcripts and subsequently classified within six thematic categories.

The findings reveal a marked predominance of metaphors pertaining to the domain of politics and politicians (54 instantiations across 17 schemas), with a pronounced prevalence of negative connotations — politics as disease, as filth, as game, as theatre; the politician as a passive construct or mere instrument. A comparative analysis of the metaphorical repertoires of two candidates — Szymon Hołownia and Karol Nawrocki — further discloses significant strategic divergences: the former’s incoherent and passive metaphors of peace and stabilisation stand in sharp contrast to the consistent, emotionally salient POLITICS IS WAR schema employed by the election winner — a schema enacting Lakoff’s Strict Father model (Lakoff, 2011).

The study situates itself within the tradition of critical discourse analysis of political language and raises the question of the social consequences of dominant metaphorical schemas (Gibbs, 2014). Insofar as metaphors foreground selected aspects of political reality while obscuring others, they constitute a form of selective framing of which the recipient is typically unaware (Thibodeau & Boroditsky, 2011). The

recurrence of particular topoi, moreover, leads to their naturalisation within culture — and, by extension, to the legitimisation of specific visions of reality and of the political actions projected upon it (Bougher, 2012).

**Keywords:** conceptual metaphor, cognitive metaphor theory, political discourse, persuasion, framing

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***Metaphor as a Test Case for the Boundary between Linguistic and Cognitive  
Frames: sweet, bitter, amai, and nigai in English and Japanese***

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**Abstract**

Frame semantics has developed a relatively robust way of describing meanings in terms of frames evoked by lexical units and grammatical constructions (Fillmore, 1982; Fillmore & Baker, 2010). Less attention, however, has been paid to how cognitive frames should be represented when metaphorical interpretation involves a mapping between a source domain and a target domain. This issue becomes especially visible in evaluative metaphor, where source-domain structure alone does not determine either polarity or the specific construal of metaphorical meaning. This paper uses taste adjectives in English and Japanese as a test case for investigating the boundary between linguistic and cognitive frames.

The paper addresses three questions. First, how far can metaphorical meaning be accounted for by the frame structures of the source and target domains? Second, what kinds of cognitive-frame specifications are needed to license or constrain the mapping between them? Third, at what level of granularity should such specifications be represented so that they remain both descriptively adequate and computationally manageable?

The study focuses on figurative uses of sweet, bitter, *amai* ‘sweet’, and *nigai* ‘bitter’. These items are especially revealing because they show both cross-linguistic convergence and striking asymmetry. While bitter and *nigai* tend to converge in expressions such as bitter experience and *nigai keiken* ‘bitter experience’, the metaphorical range of sweet and *amai* is less straightforward. A telling contrast is found in ‘sweet face’ and Japanese *amai kao* (lit. ‘sweet face’), especially in the expression *amai kao o suru* (lit. ‘to make/show a sweet face’). In English, ‘sweet face’ typically maps sweetness onto a target domain involving pleasant appearance, positive affect, or interpersonal attractiveness. In Japanese, by contrast, *amai kao* in *amai kao o suru* tends to evoke a target domain involving indulgence, leniency, or insufficient strictness toward another person. This contrast suggests that metaphorical interpretation cannot be derived from the source domain of sweetness alone. Rather, it depends on cognitive-frame specifications that regulate the mapping, including conventional evaluative tendencies and perspective-sensitive conditions. In English, sweetness is stabilized as a positive value; in Japanese, however, further specification is necessary, since sweetness may be construed positively or negatively depending on whether attractiveness or indulgent softness is foregrounded.

Methodologically, the paper combines corpus analysis with AI-assisted probing. The Japanese data draw on an existing dataset of attributive uses of *amai* and *nigai* (Sakaguchi, 2022), obtained by listing noun collocates in A+N patterns and manually identifying metaphorical uses; this dataset includes 1,899 instances of *amai* (269 metaphorical) and 484 instances of *nigai* (65 metaphorical). Each example is annotated for (i) the frame structure of the source domain, (ii) the frame structure of the target domain, and (iii) the minimally necessary cognitive-frame specifications required to license the mapping. The AI-assisted component uses a large language model under incrementally enriched prompting conditions. Model outputs are compared with manual analysis to identify which aspects of figurative interpretation remain unstable unless such specifications are explicitly provided. The paper argues that cognitive frames should be modelled not merely as background knowledge, but as structured constraints on source-target mappings in metaphorical interpretation (Lakoff & Johnson, 1980; Sullivan, 2013).

**Keywords:** frame semantics, metaphor, taste adjectives, cross-linguistic comparison, AI- assisted analysis

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# *Qualitative Analysis of LLM Analogical Blindness in Spanish Popular Science Metaphors*

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## **Abstract**

Metaphor is one of the main drivers of semantic change, in a process where linguistic units are initially presented as novel comparisons or analogies until, through use and conventionalization, they might become dictionary entries (Bowdle & Gentner, 2005). While Large Language Models (LLMs) excel at generating fluent text, their capacity to traverse this “Career of Metaphor” remains debatable. Do they genuinely infer the analogical mapping of a figurative expression, or do they merely echo distributional semantics like “stochastic parrots” (Bender et al., 2021), relying on surface cues rather than emergent reasoning (Liu et al., 2022; Webb et al., 2023)? To address this, we resort to Natural Language Inference (NLI) —evaluating whether a literal hypothesis entails a metaphorical premise— and Model-in-the-Loop (MITL) methodologies (Chakrabarty et al., 2022). Based on a curated subset of 200 Spanish tweets focused on Popular Communication of Science (Sánchez-Montero et al., 2025), we conduct an in-depth comparative qualitative analysis of frontier LLMs (GPT-4, Qwen2.5, Mistral, and Gemma). Our cross-model approach maps the distinct ways different architectures handle figurative language in prototypical examples of popular science metaphors with perfect annotation agreement. Qualitative analysis is guided by a structured error taxonomy; while instances were individually evaluated, all ambiguous or complex cases were analyzed for collaborative consensus resolution among the authors for evaluation consistency. Specifically, we isolate two phenomena that severely challenge metaphor interpretation: novel verbal personifications (e.g., *El telescopio Webb analizó la estrella* / *The Webb telescope analyzed the star*) and deeply lexicalized scientific metaphors (e.g., *agujeros negros* / *black holes*; *circuito de recompensa* / *reward circuit*). By manually auditing the literal paraphrases and entailments generated by these models, we contrast their zero-shot baseline performance against a “scaffolded” configuration driven by explicit, human-crafted semantic rules. Our analysis uncovers that despite their architectural differences, models suffer from “analogical blindness” (Chen & Mao, 2023), though their specific error patterns vary. Without explicit guidance, LLMs treat dynamic analogies as static statistical clusters. Faced with highly lexicalised terms, they exhibit “metaphorical fatigue”—leaving the figurative vehicle entirely intact because its statistical ubiquity disguises it as literal truth, thus replicating frequency biases rather than demonstrating true comprehension (Mazzoli et al., 2025). Conversely, with personifications, baseline models fail to reassign agency to the actual human subject. Instead, they laterally swap one figurative term for a near-synonym (e.g., translating

“estrellas recién nacidas / newborn stars” as “estrellas jóvenes / young stars”). We present evidence that symbolic scaffolding successfully breaks this statistical inertia (Sengupta et al., 2025). When provided with expert guidance, models transition from superficial pattern matching to genuine semantic decoding focused on the underlying conceptual mapping. From this perspective, we argue that while generative AI is a powerful writing tool, so far it cannot independently assume the cognitive “heavy lifting” required for true metaphor comprehension.

**Keywords:** metaphor interpretation, Large Language Models, automatic metaphor processing, scientific metaphors, Spanish

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# *Let's talk about the way we talk about AI: Metaphors shaping our perception about artificial intelligence*

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## **Abstract**

In this paper we investigate how artificial intelligence (AI) is conceptualized in public discourse, focusing on the conceptual metaphors used to talk and think about AI. The dataset consists of 200 media texts (100 in English and 100 in Croatian) collected between September 2025 and August 2026 using the keywords ‘artificial intelligence’, ‘AI’, ‘umjetn\* inteligencij\*’, and ‘UI’. Texts were retrieved via Google under standardised search conditions (e.g. non-personalised search) and selected according to predefined relevance and genre criteria to ensure cross-linguistic comparability.

The data were manually annotated for metaphorical expressions following MIPVU (Steen et al., 2010) and analysed comparatively across the two languages. The analysis integrates Conceptual Metaphor Theory (Lakoff & Johnson, 1980) and Critical Discourse Analysis (Fairclough, 1995; van Dijk, 2008; Wodak & Meyer, 2001) in a three-step procedure: identification of metaphorical expressions, reconstruction of underlying conceptual mappings, and interpretation of their broader ideological implications.

The CMT analysis of the public discourse about AI reveals several recurrent metaphorical mappings, including AI IS A LIVING BEING, AI IS A FORCE, or AI IS A TOOL. Those are typical source domains for many abstract concepts, but their persistence in AI discourse is significant, since they encourage the perception of AI as an autonomous agent, a competitor, a threat to mankind, or a “being” that will eventually replace humans. For example, saying that “Alexa is *woken up*”<sup>4</sup> or that “self-driving cars *know* only how to deal with situations they have *seen* before”<sup>5</sup>, suggests a conceptualisation of AI in terms of human-like perception, knowledge, or agency. In some cases, metaphors go even further, attributing to AI distinctively human qualities; e.g. statements such as “[t]he report points to new *reasoning systems*”<sup>6</sup> ascribe to machines

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<sup>4</sup> <https://www.theguardian.com/technology/ng-interactive/2023/oct/25/a-day-in-the-life-of-ai>

<sup>5</sup> Ibid.

<sup>6</sup> <https://www.theguardian.com/technology/2026/feb/03/deepfakes-ai-companions-artificial-intelligence-safety-report>

one of the main human attributes, and that is reason.

This study demonstrates that, even though the use of metaphors is a cross-linguistic phenomenon, the linguistic choices that serve to evoke the frames that contribute to anthropomorphising AI slightly differ between languages and across the types of texts. By situating the analysis within a broader socio-economic and political context, the study contributes to a better understanding of how language participates in the social construction of AI and opens space for considering alternative, less anthropomorphizing ways of conceptualizing and discussing it.

**Keywords:** artificial intelligence (AI), conceptual metaphor, CDA, Croatian, English

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***“He looks older than grandad did even”: exaggerating in British English face-to-face conversation***

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**Abstract**

Contributing to work on exaggeration from a Cognitive Linguistics perspective (e.g., Peña & Ruiz de Mendoza, 2017), this study examines exaggeration in face-to-face conversation from an interactive perspective. We define exaggeration as an extreme degree on a scale and view exaggeration as involving a level that comes across as counterfactual and creates forcefulness. We ask the question:

How do speakers negotiate exaggeration in face-to-face British English conversation?

We adopt a Cognitive Linguistics (Croft & Cruse, 2004; Paradis, 2005, 2015; Peña & Ruiz de Mendoza, 2017) and dialogic Construction Grammar (Pöldvere & Paradis, 2020; Seitanidi et al., 2023, 2024) approach. We attend to the exaggerating constructions, the dialogic sequence leading to the assertion, the discourse context, the speakers’ relationship, and the hearer’s reaction. In order to capture the hearer’s counterfactual interpretation of the exaggeration, we only include utterances expressing INCREUDILITY. We inspect both the corpus texts and their accompanying audio files in their entirety so as to identify all instances of exaggeration and analyse how speakers negotiate exaggeration using insights from resonance, i.e., when speakers reproduce previous utterances (Brône & Zima, 2014; Du Bois, 2014; Pöldvere et al., 2021b). Our sample comprises approximately 100,000 words from twenty face-to-face conversations, i.e., ten among equals such as family members, and ten among dispartes such as teacher - student, from the London–Lund Corpus 2 (Pöldvere et al., 2021a).

We found seventeen instances of exaggeration, which were grouped into six main ways of exaggeration negotiation. Our analysis revealed that speakers replaced high-degree constructions with downgrading degree constructions (A: *you seem to know a lot about her life* - B: *do I* - A: *a bit well you said* - B: *little bit*). In addition, speakers replaced degree constructions with negated degree constructions or more appropriate alternatives (A: *my book’s so big* [. . .] *it’s so big* - B: *it is pretty big my Shakespeare is bigger*) and used laughter to show that they disagreed, or that they supported the statement. Finally, hearers responded by expressing hesitation or uncertainty, which contrasted with the certainty expressed by the exaggeration (A: *he looks older than grandad did even* – B: *do you think I don’t*). The novelty of the current work is twofold. First, we incorporate the hearer’s reaction into our definition of exaggeration in order to

ensure, as much as possible, that the instances we analyse were interpreted as an exaggeration by the hearer. Second, by juxtaposing utterances containing degree negotiation, our approach can analyse the aspects of DEGREE which can form the basis of exaggeration without being restricted to cases involving extreme concepts. Instead, it can capture more marginal cases which focus on such aspects as the speaker's certainty about the utterance rather than an extreme point in the meaning of a construction used by the interlocutor. This approach thus affords the opportunity to examine degree across a variety of manifestations.

**Keywords:** exaggeration, interaction, British English face-to-face conversation, Cognitive Linguistics, London–Lund Corpus 2

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## ***Land as Metaphor, Land as Symbol in Ukrainian Fighters' TikTok Videos***

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### **Abstract**

Nations are often associated with a peculiar place: a seat of ethnic communities or their homeland (Smith, 2005, p. 25). Thus, ethnoscapas, or landscapes associated with important historical events or persons, acquire poetic meaning and sacred significance for ethnic communities (Smith, 2005, p. 28). These ethnoscapas often “present a tradition of continuity and are held to constitute an ethnic unity”, since the community sees itself as a part of these poetic landscapes (Smith, 1999, p. 149). Moreover, ethnoscapas are social constructions (Schetter, 2005) and are closely associated with the “territorialisation of memory” (Smith, 1999, p. 151), or the process by which collective memories become anchored in specific places or territories, which are further turned into material, functional or symbolic *lieux de mémoire* ‘places of memory’ (Nora, 1989), with a potential to memorialize cultural trauma (Shani, 2025).

The Russian aggression against Ukraine, like any other war, is rooted in the territorialization of national ideologies (Schetter, 2005), when the beliefs about a certain ethnoscape legitimize the acts of violence. The ongoing war makes Ukraine, as a state, and Ukrainians, both collectively and individually, invoke historical sites, symbols and narratives to legitimize and protect their challenged national identity.

The invasion mobilized large numbers of Ukrainian soldiers and volunteers to defend the country. At the same time, the event generated new forms of wartime communication online. Members of the Armed Forces (ZSU) became not only the actors on the battlefields, but also the creators on social media platforms such as TikTok, where they participate in shaping the narratives of resistance and national identity, often contributing to the rise of cyber-nationalism (Jiang, 2012).

This paper examines how Ukrainian ZSU warriors construct meanings of homeland through multimodal communication, interpreting the land as a metaphor and symbol in TikTok videos produced by them. The analysis approaches these representations as rooted in embodiment, where bodily presence in the landscape becomes central to the meaning-making process. While not always referenced verbally, landscape is enacted visually through multimodal resources in 10 analysed videos from 5 popular ZSU accounts on TikTok. Using multimodal (mediated) discourse analysis (Bateman & Tseng, 2023; Kress & Bezemer, 2023; Ledin & Machin, 2018; Machin & Mayr, 2012), I trace how visual and verbal semiotic resources interact to construct the land as a defended and symbolically charged space – *lieux de mémoire* in the context of

war. Using the framework of Cultural Linguistics (Sharifian, 2017) coupled with metaphor scenario analysis (Musolff, 2025; Musolff et al., 2014), this study investigates and compares how land acts as a cultural schema, cultural metaphor and symbol in war-related social media discourse. The analysis shows that in the analyzed short videos symbolized ethnoscapas include open landscapes, battlefields and graveyards. The metaphor scenarios discussed include *land as close kin* (Sharifian, 2017); *land as sacred ground*; *land as body*; and *land as playground*.

**Keywords:** ethnoscape, cultural schema, cultural metaphor, cultural symbol, MCDA

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***Love, sex, machine, and suffering in European and Brazilian Portuguese: A multifactorial usage-feature and metaphorical profile analysis***

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**Abstract**

This study compares the conceptual structuring of love in the two main national varieties of Portuguese – European Portuguese (EP) and Brazilian Portuguese (BP) – and explores the cultural connections among the concepts of love, sex, machine, and suffering. Drawing on Cognitive Linguistics and Cultural Linguistics – particularly studies on love such as Kövecses (1988) and Szelid (2025) – as well as on an enactive-embodied approach to cognition (Gallagher, 2017), I investigate how cultural, environmental, and sociovariational factors within the same language, as spoken across different regions, shape the experience, (un)regulation, conceptualization, and communication of love. The study addresses three central hypotheses concerning the pivotal role of affect and emotion in language (e.g., Foolen, 2016; Soriano, 2022; Schiewer et al., 2022–2023), culture (e.g., Mesquita, 2022), and cognition (e.g., Colombetti, 2014): (i) the cultural nature of emotions; (ii) the crucial role of metaphor and other forms of figurative language; and (iii) the impact of divergent cultural conceptualizations across language varieties.

Two analyses of the conceptual structuring of romantic and sexual LOVE in EP and BP are conducted: one examines clusters of feature associations, and the other characterizes behavioral profiles of the concept’s metaphorical patterns. The dataset comprises approximately 700 occurrences of the lexemes *amor* ‘love’ (and its derivatives *amorzinho*, *mor*, *morzinho*) and *paixão* ‘passion’, extracted from a 750,000-word corpus of blogs (personal diaries addressing love, sex, family, and friendships). The LOVE event frame includes features such as emoter attributes; causes (physical, psychological, moral); the (non-)harmonious nature of relationships between lovers; temporality; control; intensity; behavioral reactions (e.g., physical closeness, intimacy, sex); physiological effects; emotional attitudes (e.g., affection, admiration, sacrifice, happiness, marriage); and positive or negative evaluation. Metaphors of love draw on source domains such as struggle, journey, game, machine, business, contract, navigation, fate, fire, drug, and food.

The findings indicate that visual displays of affection and intimate sexual behaviour are significant predictors of BP usage. They also reveal a stronger presence of a passionate ideal of love in BP, with a marked emphasis on emotional experience itself rather than on the relational dimension of love. This pattern aligns with characterizations of Brazilian culture as highly emotive and oriented toward a

passionate ideal of love. In contrast, EP places greater emphasis on the ideal of romantic love and on the relationship between love and suffering. This tendency is consistent with a more collectivist orientation in Portuguese culture, as well as with its well-documented blending of love and suffering. Machine metaphor is prominent in both varieties, shifting between conceptualizations of love as an automatic driving force and as a structural construct that can be either functional or – more often – destructive. Overall, the results provide empirical support for the cultural nature of emotions, the significant role of metaphor in shaping the situated experience of love, and the impact of divergent cultural conceptualizations across language varieties.

**Keywords:** emotions, love, metaphor, culture, variation

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***Overcoming Literal Bias of LLMs in Literary Analysis: A Multilingual Neuro-Symbolic AI Approach Grounded in the Function-of-Word (FoW) Ontology of Classical Indian Poetics***

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**Abstract**

Words in literary texts carry meanings well beyond the literal sense, through evocative layers that define literary quality. Large Language Models (LLMs) are optimised for the statistical likelihood of the next token rather than for interpretive depth. Hence, they exhibit a persistent literal bias, a tendency to resolve meaning at the most probable surface reading. This failure is termed *semantic flattening* in this paper. This is well documented in figurative-language processing (Chakrabarty et al., 2022; Mi et al., 2025) and in literary subtext interpretation (Karpinska & Iyyer, 2023; Thai & Iyyer, 2025). What is still missing is a unified computational framework that can interpret the full spectrum of figurative and layered meanings including contextual suggestion, as co-operating layers within a single literary sentence, and do so across languages.

This paper contributes a Neuro-Symbolic (NeSy) framework that constrains LLM interpretation through a formal ontology of layered meanings derived from Classical Indian Poetics, together with a theory grounded metric of interpretive depth. Three research questions are addressed:

1. (RQ1) Can the literary meaning theory of Classical Indian Poetics be formalised as a computational ontology of figurative language?
2. (RQ2) Can a NeSy approach grounded in that ontology measurably reduce semantic flattening?
3. (RQ3) Can a theoretically grounded metric operationalise interpretive depth for cross-lingual literary evaluation?

The theoretical foundation is the *Śabdavyāpāra* (Function-of-Word, FoW) framework systematised by the 11<sup>th</sup> century Indian Classical Literary Theorist Mammaṭa in the *Kāvyaprakāśa* (Mammaṭa, 1981). Unlike standard accounts that treat metaphor, metonymy, idiom, implicature etc., as separate phenomena, FoW describes how every word in a literary sentence operates across three layers of one continuous interpretive process, namely, *Abhidhā* (Denotation, the literal sense), *Lakṣaṇā* (Indication, the layer at which familiar figurative usages are licensed when the literal reading is incompatible with context), and *Vyañjanā* (Suggestion, the layer that captures deeper and contextually inferred meaning). Each layer maps to a distinct class of

layered meaning that are linked by explicit derivation rules. This makes FoW computationally tractable, and well suited as a symbolic constraint over neural generation.

The FoW triad is encoded as a formal ontology in OWL 2 DL (Herron et al., 2025), backed by a knowledge graph of annotated literary spans as the symbolic layer. A four-stage NeSy pipeline routes interpretation across the three layers. A first LLM pass identifies non-literal spans and their diagnostic signals; a knowledge graph grounding check tests these signals against the annotated corpus; a deterministic axiom classifier assigns each span to the correct layer (Indication, Suggestion, or Denotation) and its specific subtype; and a second LLM pass generates the layered meanings conditioned on that routing.

To evaluate interpretive depth, the Semantic-Semiotic Depth Index (S<sup>2</sup>DI) is introduced. S<sup>2</sup>DI combines a *density* sub-score (proportion of non-literal spans in a sentence) with a *quality* sub-score (subtype-specific weights, with deeper routes carrying heavier weights). Higher S<sup>2</sup>DI values therefore reflect both wider and deeper figurative meaning. An annotated gold dataset of 200 sentences comprising 100 from *King Lear* (English) and 100 from Kālidāsa’s *Meghadūtam* (Sanskrit) was compiled with a 50-sentence held-out evaluation set drawn from the same works. Evaluation compares baseline (single shot) prompting, few-shot prompting, and the NeSy pipeline across GPT-4o and Llama 3.3 70B.

Results across the 50-sentence held-out set (25 from *King Lear*, 25 from *Meghadūtam*) show that the NeSy pipeline measurably reduces semantic flattening on both corpora and under both models. On Sanskrit, mean semantic similarity to Gold rises from 0.35 (baseline) and 0.36 (few-shot) to 0.72 under NeSy, while mean literal divergence falls from 0.70 to 0.32. On English, semantic similarity rises from 0.50 to 0.65 and literal divergence falls from 0.56 to 0.43. NeSy gains are largest on the layered routes that the framework explicitly targets. Span-level F1 on Sanskrit improves from 0.37 to 0.49. NeSy systematically recovers more non-literal spans than the current Gold annotation, suggesting interpretive depth beyond present annotation coverage, a finding that will be examined through inter-annotator review in the complete study.

**Keywords:** figurative language, metaphor and metonymy, classical Indian poetics, neuro-symbolic AI, computational literary analysis, semantic depth, multilingual NLP

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## *Metaphors of male ideologies: Comparison between incel and far-right discourses*

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### **Abstract**

The link between involuntary celibates (or the created blend “incel”) and terrorism has been a fundamental point in both the media and in academic research (Hoffman et al., 2020; O’Malley et al., 2020). For instance, Papamadou et al. (2021) found that any user on YouTube has a 6.3% chance of being suggested an incel-related video even when no such content is sought particularly by the user, which makes this subject alarming for online radicalization. The violence spread on such forums targets women specifically and violent attacks have been carried out in North America.

As such, this paper presents two specific examples of discourse in relation to gender. First of all, it explores the question of gender and how it is ideologically construed, represented and shared among members of an incel forum. Particular attention is given to the way the members use and develop a specific language (see also Bogetić, 2022), which is encoded to a certain extent, in order to further expand their ideas. Their ideology can be summarized using dehumanizing metaphors (Lakoff & Johnson, 1980) such as WOMAN IS SEXUAL OBJECT or WOMAN IS POSSESSION. The incel corpus used here contains more than 1,500 posts drawn from an online forum and analyzed using AntConc for a view of the terms and frames used by the members. Their language promotes frames and prototypicality (Berlin & Kay, 1969; Rosch, 1977), with a preference for blends (e.g., terms such as *incel* from *involuntary celibate*, *locationcel* from *location* and *incel*, etc.), categorizing people as well as experiences in terms of stereotypes and the UP and DOWN metaphor (Lakoff & Johnson, 1980).

Secondly, I explain how Eric Zemmour, a well-known figure from the French far-right and candidate to the presidential elections of 2022, also uses gender as a powerful political tool. I explain how these narratives can be similar in the way a woman is seen as inferior to man since MAN IS POWER, using examples from two of his books, namely *The First Sex* and *The French Suicide*. In both discourses, women are dehumanized, either seen as robots (for the incel) or as machines (the case of politics).

The topic is particularly relevant in relation to ideology and how power relations between men and women (dominants and subordination) should be developed and maintained (Lazar, 2005; Fairclough & Wodak, 1997). The ideology promoted sees men as oppressed by the modern society, where the woman disturbs the “natural order”. Sexual relations, and namely man’s access to sex, play a central part in both discourses.

**Keywords:** gender, ideology, involuntary celibates, incel, far-right.

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# *Metaphor identification is source domain identification*

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## **Abstract**

Common approaches to metaphor identification (Pragglejaz Group, 2007; Steen et al., 2010) identify individual words as metaphoric if the in-text or in-discourse definition of the word differs from a more basic or historically older definition of that same word. While these methods have proven to be quite successful and reliable in manual annotation of metaphor, they stop at the identification of the metaphor expression, without continuing to the identification of the mapping between source and target domain that is inherent to the definition of a metaphor in Conceptual Metaphor Theory (with perhaps the exception of Reijnerse & Burgers, 2023). Lakoff and Johnson (1980) defined metaphor as a conceptual mapping, a unilateral transference between a source domain and a target domain, whereby the target domain (e.g., immigrants) is understood in terms of the source domain (e.g., floods) in expressions such as *U.S. crackdown on illegal immigrants is sending a surge of refugees to Canada*. In these mappings, the connotations and denotations of the source domain are transposed onto the target, leading to the formulation of the metaphor as TARGET IS SOURCE, i.e., IMMIGRANTS ARE NATURAL DISASTERS.

We argue that annotations, crucially, also need to include information about the source domains involved. The research question is, therefore, what is missing when source domains are not included in manual metaphor annotation. To answer this question, we present the results of an annotation effort that takes a set of source domains from different sources (Dodge et al., 2015; Lakoff et al., 1991) and uses them to label a corpus of 1,000 online comments (about 65,000 words). The annotation results in 4,351 units annotated from a set of 260 source domains. Three primary annotators were involved, with an average agreement of 60.5%, which we consider a moderate level of agreement.

The resulting annotated corpus gives us interesting insights into what source domains are more frequent in different types of discussions. For example, comments about elections (in our comments, the 2016 US Presidential election) feature GAME and CONTAINER source domains more frequently. In Example (1), *bet* evokes games and gambling. In (2), *defeat* is a transparent mapping to competition.

(1) Pennsylvania was *his best bet*.

(2) Hillary *humiliating defeat* is entirely by herself.

Comments about refugees and immigration feature CONTAINER and MOTION source domains. In (3), the expression *took in* uses the metaphor COUNTRIES ARE CONTAINERS and REFUGEES MOVE BETWEEN CONTAINERS.

(3) Aren't we great guys? We *took in* the number that Prince Justin decreed!

Our results show that annotating source domains provides unique insights into the metaphors more frequently employed and can help us identify conceptual frames that shape our world view. Future work involves expanding our analysis based on the topics and exploring the role of other figures of speech (metonymy, hyperbole, litotes) in framing.

**Keywords:** conceptual metaphor theory, metaphor annotation, source domain, online discourse

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## ***Figurative Color Metaphors in Economics: A Socio-Cultural and Cross-Linguistic Perspective***

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### **Abstract**

This study aims to analyse how figurative colour expressions associated with money are formed, transmitted, and function in English, Russian, and Hebrew, and how they are used to denote value, profit, risk, legality, and trust. It examines how these metaphors evolve under conditions of globalization, digitalization, and the increasing dominance of visual financial communication. The study is guided by the following questions: What figurative colour expressions related to money exist in English, Russian, and Hebrew, and how have they developed diachronically? How do speakers of English, Russian, and Hebrew interpret color-coded financial information, and what differences emerge in their perception of risk, trust, and legitimacy? How do global financial interfaces and digital visualizations (e.g., dashboards, stock charts) contribute to the convergence or divergence of colour meanings across languages? To what extent do these colour metaphors reflect universal cognitive patterns versus culture-specific economic experiences? The study draws on conceptual metaphor theory (Lakoff & Johnson, 2003), which views metaphor as a fundamental mechanism of thought, and on colour semiotics (Kress & van Leeuwen, 2002), which conceptualizes colour as a socially and culturally structured semiotic resource. These frameworks are complemented by cross-cultural research on colour perception in marketing, branding, and financial communication (Labrecque & Milne, 2013). Colour is treated not merely as a perceptual stimulus but as a culturally embedded cognitive marker that organizes economic concepts and shapes the interpretation of financial signals. The analysis considers how material objects (such as the colour of national currencies), bookkeeping traditions, and digital interface conventions contribute to the formation of stable colour scenarios. The project employs a mixed-methods approach combining qualitative and quantitative analysis. The diachronic component includes analysis of dictionaries, etymological sources, historical corpora, and archival materials to trace the evolution of colour metaphors from the 19th century to the present. The cross-linguistic component involves systematic comparison of figurative colour expressions in English, Russian, and Hebrew, focusing on semantic fields such as legality/illegality, profit/loss, transparency/openness, and risk/security. The empirical component includes content analysis of approximately 300 marketing materials, brand guidelines, financial interfaces, and digital dashboards to identify dominant colour patterns as well as surveys and semantic-differential tasks administered to native speakers of English, Russian, and Hebrew to assess contemporary colour associations and emotional responses to color-coded financial information. Data sources

include national corpora (e.g., COCA, Russian National Corpus, HUGI Corpus, financial news archives, digital banking platforms, fintech applications, and survey participants' responses). The dataset integrates linguistic, visual, and behavioural evidence, enabling a comprehensive multimodal analysis. The study is expected to demonstrate that colour metaphors of money combine universal cognitive tendencies with strong cultural specificity. English is likely to maintain a dominant association between green and money due to the historical influence of the U.S. dollar. Russian is expected to preserve a moralized contrast between “white” (legal) and “black” (illegal) financial practices, reflecting Soviet and post-Soviet economic realities. Hebrew is anticipated to exhibit a hybrid system that merges local religious symbolism with global financial standards. The study aims to contribute to research on figurative language, multimodal communication, and cross-cultural financial cognition.

**Keywords:** figurative language, colour metaphors, cross-linguistic comparison, sociocultural semantics, financial discourse

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## *From vegetables to colours: A cross-linguistic study*

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### **Abstract**

Although colour perception is grounded in human cognition, the naming of colours and the semantic extensions based on them are shaped by language-specific and culturally embedded patterns of categorisation (Philip, 2006; Roberson et al., 2005; Wierzbicka, 1990). Against this background, the presentation examines vegetable names and their colour-based semantic extensions in three languages representing different language groups: English (Germanic), French (Romance), and Polish (Slavic).

Anchored within cognitive linguistics, the study draws on Cognitive Grammar (e.g., Langacker, 1987, 1999, 2008, 2017). Within this framework, the analysed senses are treated as semantic extensions and understood in terms of a categorising relationship grounded in a mental process of comparison between two incongruent entities: the standard, that is, the basic sense of the vegetable name, and the target, that is, the figurative sense motivated in part by the vegetable's colour.

The presentation focuses, first, on the use of vegetable names to designate specific hues and, second, on other figurative senses motivated by the colour properties of vegetables. The analysis addresses three main questions: which vegetable names are used to designate colour in the three languages; what other colour-based figurative senses these names develop; and what cross-linguistic similarities and differences can be observed in this area. To answer these questions, a set of 54 English vegetable names was compiled, together with their French and Polish equivalents. The items were then examined with regard to their semantic extensions on the basis of a range of lexicographic sources, including 48 general and slang dictionaries, as well as specialised lexicons.

By comparing the lexical patterns found in the three languages, the presentation aims to show how colour, as a salient perceptual dimension, can motivate further semantic development. More broadly, the study contributes to research on colour terminology, semantic extension, and the interplay between perception, cognition, and culture in the lexicon.

**Keywords:** colour terms, comparative analysis, figurative senses, semantic extension, vegetable names

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# *Perceiving Time through Sensory Modalities: A Cognitive Semantic Analysis of Synesthetic Metaphors in Hindi Lyrics*

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## **Abstract**

This study examines the use of synesthetic metaphors to conceptualize time across emotional states in the domain of love, as represented in Hindi song lyrics by the Indian poet-lyricist Gulzar. Grounded in Conceptual Metaphor Theory (CMT) (Lakoff & Johnson, 1980), which posits that metaphors are cognitive devices in language (Climent & Coll-Florit, 2021), the study explores how abstract temporal concepts are systematically mapped onto concrete sensory experiences. This approach offers insights into the embodied, culturally situated understanding of time in romantic discourse, a common theme in popular music, where metaphors serve as powerful linguistic devices to convey complex feelings (Lakoff & Johnson, 1980; Thur, 2019).

Present literature in cognitive linguistics suggests that while temporal concepts are frequently framed in spatial terms, there is little evidence of its conceptualization through the sensory modalities. Existing research has demonstrated that emotional valence influences temporal perception, with positive emotions associated with accelerated time and negative emotions with temporal elongation (Cui et al., 2022; Droit-Volet & Meck, 2007; Droit-Volet et al., 2010; Droit-Volet et al., 2011; Gable et al., 2022). Nevertheless, limited attention has been paid to how these emotional modulations of time are linguistically codified and expressed in creative domains such as song lyrics.

This cognitive linguistic study asks: (1) How is time metaphorically structured through sensory modalities in expressions of love? (2) What synesthetic patterns emerge across positive and negative emotional states? (3) How do these patterns reflect embodied cognition in linguistic expressions?

The dataset consists of 27 instances from about 23 songs, extracted from a larger pool of about 260 Hindi love songs composed by Gulzar. The primary extraction was through keyword search using units of time in Hindi, such as *raata* ‘night’, *raina* ‘night’, *dina* ‘day’, *mausama* ‘weather’ etc. Furthermore, the selected instances represented emotional experiences related to love, such as happiness, longing, and sadness, and featured synesthetic constructions involving SENSE–TIME collocations. A qualitative methodology of metaphor identification process (Steen et al., 2010) was employed to analyse these instances, identifying mappings between the target domain (emotional states) and the source domains (SENSE-TIME collocations).

**[GUSTATORY (tasteless/bland) → TIME] → [Sorrow/sadness]**

|    |           |                 |           |      |             |      |
|----|-----------|-----------------|-----------|------|-------------|------|
| A. | phiike    | lagate          | haiM      | ye   | mausama     | aapa |
|    | dull.M.PL | seem.IPFV.M.PL  | be.PRS.PL | this | season.M.PL | you  |
|    | jaba      | ha.Nste         | nahiiM    |      |             |      |
|    | when      | smile.IPFV.M.PL | not       |      |             |      |

*These seasons seem tasteless/dull when you don't smile.*

|    |          |         |                |                |            |
|----|----------|---------|----------------|----------------|------------|
| B. | tere     | binaa   | besvaadii      | besvaadii      | raatiyaa.N |
|    | 2SG.POSS | without | tasteless.F.PL | tasteless.F.PL | night.F.PL |

*The nights are utterly tasteless without you.*

|    |           |           |             |          |            |      |
|----|-----------|-----------|-------------|----------|------------|------|
| C. | phiike    | phiike    | the         | dina     | raata      | mere |
|    | dull.M.PL | dull.M.PL | be.PST.M.PL | day.M.SG | night.F.SG | my   |

*My days and nights were dull and bland.*

**[TACTILE (rough) → TIME] → [Sadness (in separation)]**

|    |              |     |            |     |               |     |
|----|--------------|-----|------------|-----|---------------|-----|
| D. | ruukhii      | re  | ruukhii    | re  | kaaTuu        | re  |
|    | dry.F.SG     | VOC | dry.F.SG   | VOC | pass.SBJV.1SG | VOC |
|    | kaTe         | naa | ratiyaa.N  |     |               |     |
|    | pass.PRS.3SG | not | night.F.PL |     |               |     |

*Dry, oh dry, how should I pass them? The nights do not pass.*

**[VISUAL (colourful) → TIME] → [happiness]**

|    |           |              |           |                          |      |              |
|----|-----------|--------------|-----------|--------------------------|------|--------------|
| E. | vo        | aa-kar       | pehluu    | Me.N                     | aise | baiThe       |
|    | they.3.SG | come-CVB     | side      | in                       | thus | sit.PST.M.PL |
|    | ki        | shaama       | raMgiina  | ho gayii                 |      |              |
|    | COMP      | evening.F.SG | colourful | become<br>go.VV.PST.F.SG |      |              |

*They came and sat beside me in such a way that the evening became colourful.*

The findings reveal that emotional states significantly shape the sensory conceptualization of time. Negative emotions, particularly sadness associated with absence or longing, are consistently represented through diminished or unpleasant sensory experiences. For example, sadness and emotional absence are conceptualized through gustatory metaphors of blandness or tastelessness mapped onto temporal experience, as in examples A, B, and C, where seasons, nights, and days are described as dull, bland, or tasteless. Similarly, loneliness and emotional separation are represented through tactile imagery, such as dry or rough time, as illustrated in example D. In contrast, positive emotional states are associated with enriched sensory perception, as in example E, where happiness is conceptualised through the visual metaphor of a “colourful evening”.

Findings show an embedded metaphorical structure within the source domain, in which Time is conceptualized through the senses. These constructions can add an aspect of embedded metaphors to the study of cognitive conceptualization in the special context of emotions.

**Keywords:** synesthetic metaphor, Conceptual Metaphor Theory, temporal perception,

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***From Collocation to Idiom: Modelling Entrenchment of Adjective–Noun  
Constructions Using Association Measures***

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**Abstract**

The mental lexicon is often modelled as a repository of words and multiword expressions, with storage primarily associated with non-compositionality (Levelt, 1992). This study adopts a broader usage-based perspective, viewing the mental lexicon as a network of associations between lexical items that become entrenched through repeated usage, even when meanings remain largely compositional (Fillmore et al., 1988; cf., Dąbrowska, 2014 for behavioural evidence). Within this framework, we investigated how usage frequency, semantic restriction, and conceptual mapping contribute to graded idiomaticity in compositional constructions.

We focused on Hungarian adjective–noun collocations referring to abstract concepts, e.g. *bátor lépés* ‘brave step’, *levert hangulat* ‘low spirits, lit. beaten-down mood’, *hátsó gondolat* ‘ulterior motive, lit. rear thought’. These pairings provided a testing ground for evaluating how different association measures capture stages of idiomatisation (Wulff, 2008). Specifically, we compared two corpus derived metrics: mutual information (MI), widely used in psycholinguistic research (Futrell et al., 2019; McConnell & Blumenthal- Dramé, 2021), and logDice, recommended in computational linguistic approaches (Rychlý, 2008; based on Dice, 1945), as predictors of speaker behaviour. We argue that these metrics reflect complementary distributional profiles: MI highlights unexpected co- occurrence relative to chance (surprisal), while logDice captures increasing lexical selectivity and local connectivity within the lexical network.

We tested adjective–noun collocations in a forced-choice judgment task with 222 native speakers (median age = 23, range: 18–78). In each trial, adjectives were drawn from the same semantic field while the noun head was held constant: we presented four semantically similar collocations differing in association strength, plus one distractor to control for inattentiveness. Participants were instructed to select the most natural-sounding collocation from the five options. We interpreted naturalness as a behavioural proxy for representation stability and entrenchment in the mental lexicon.

Because the two selected association metrics, MI and logDice are strongly correlated, experimental materials were constructed to dissociate them. In 25 trials, items varied in MI while maintaining similar logDice values; in another 25, items varied in logDice while MI remained comparable. All participants completed the 50 trials whose order was randomised. Across all trials, association strength ranges and

variability were held constant, however, mean association strength varied, resulting in differing trial difficulty. Raw collocational frequency was also included as a potential predictor.

Linear regression and model-fit comparisons showed that logDice predicts speaker preferences more robustly than MI, and this advantage holds across difficulty levels. Frequency alone showed weaker explanatory power. Furthermore, variation in responses across participants further indicates that the perceived naturalness of collocations is not uniform, consistent with a gradient and speaker-dependent degree of entrenchment. These findings suggest that idiomatisation is better understood as a process of increasing lexical selectivity within the lexical network, rather than being driven by mutual predictability alone. In metaphor-based adjective–noun constructions, this pattern may suggest an association between higher semantic opacity and increasing lexical distributional restriction, contributing to idiom-like entrenchment.

**Keywords:** collocations, idiomatisation, association strength, corpus metrics, psycholinguistics

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### **Abstract**

In this cognitive-semantic study, we investigate to what extent evaluative polarity (negative and positive) is the same for concrete and figurative uses of antonymic partners in discourse. It is well-known that some antonyms are clearly evaluative such as *good* and *bad*. They express positive and negative evaluation in all contexts, unless they are negated or used ironically in some way or other (Paradis et al., 2015). But, what about pairings such as *heavy* and *light*, or *long* and *short*? Out of context, we cannot tell. We do not know anything about their evaluative contribution unless they are instantiated in a context in discourse, and, moreover, we do not know anything about whether there is a difference between concrete and figurative uses.

Our dataset consists of roughly 18,000 utterances extracted from the British National Corpus, each containing an adjective selected from 21 well-established antonym pairs. Each occurrence was manually coded for evaluative polarity (positive, neutral, negative) and for type of meaning (concrete or figurative). The analysis reveals that there is substantial variability across the antonym pairs. While some pairs (e.g., *good–bad*, *beautiful–ugly*) display strong and opposing polarity, many others show weak or asymmetrical patterns, including cases consisting of members that evoke the same evaluative polarity type or are predominantly neutral.

Our data show that evaluative polarity is not systematically distributed across antonyms, which means that oppositeness does not guarantee opposite evaluative values. One key finding is that figurativity significantly influences polarity. Figurative contexts increase the proportion of evaluative uses, and they have the effect of increasing negative polarity more than positive polarity. Interestingly, for *thin*, *thick*, *poor*, *empty*, evaluation appeared in the figurative uses only.

These findings have both theoretical and applied implications. Theoretically, they challenge the assumption that evaluative polarity is intrinsic to antonymic opposition. Instead, our findings support a context-sensitive approach to meaning making. The new and important upshot is that figurative uses of antonyms, in contrast to concrete uses, tend to be recruited for evaluative purposes. For various automatic applications, the results point to challenges for sentiment analysis systems that rely on fixed lexical polarity assignments. Overall, the study highlights the importance of contextual and figurative meaning in shaping evaluative interpretations in language use.

**Keywords:** antonymy, evaluative polarity, figurative language, corpus linguistics, cognitive linguistics

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# *Metaphorical Storytelling and Humanization in Lithuanian Social Advertising: A Case Study*

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## **Abstract**

Social advertising increasingly employs multimodal figurative structures and humanization strategies to encourage socially desirable attitudes and behaviors. This study examines the role of metaphorical storytelling and personification in contemporary social advertising displayed in the urban public spaces of a modern Lithuanian city (Kaunas).

The study adopts a cognitive-linguistic and multimodal framework, combining conceptual metaphor theory (Lakoff & Johnson, 1980) with multimodal metaphor analysis (Forceville, 1996, 2008, 2009). The data consist of a corpus of 60 social advertisements collected from public urban locations (billboards, posters, transport spaces) in Kaunas within the period of 2020-2025. The analysis is qualitative and focuses on the interaction of visual, verbal, and spatial modes in constructing metaphorical narratives and personification.

Narrative-based social advertising employs metaphorical storytelling to construct emotionally engaging scenarios that facilitate audience identification and reduce resistance to persuasive intent (Green & Brock, 2000; Woodside et al., 2008).

Metaphorical narratives and personification further intensify the persuasive potential of social advertisements by attributing human characteristics to abstract concepts, social problems, or institutions. By anthropomorphizing issues such as environmental degradation, public health risks, or social inequality, campaigns transform complex or distant problems into emotionally accessible experiences.

In an era shaped by digital and social media platforms that support interactive, participatory, and shareable storytelling formats (Gensler et al., 2013), narrative-driven and humanized communication constitutes a powerful strategy for enhancing engagement, ethical persuasion, and social impact in contemporary social advertising.

The findings show that social advertisements systematically employ personification to humanize abstract social issues such as public health risks, environmental degradation, and social exclusion, thereby enhancing emotional accessibility. Metaphorical storytelling frequently relies on embodied and culturally salient schemas (e.g., journey), which structure audience interpretation and position viewers as morally engaged participants rather than passive observers. In addition,

dialogic strategies - such as direct address, conversational tone, and poetic compression - create a sense of interpersonal involvement and simulate interaction, reinforcing persuasive impact.

These results demonstrate that multimodal metaphor and personification are not merely stylistic devices but function as key mechanisms of engagement, shaping affective response and ethical positioning in social advertising. The study contributes to research on multimodal figuration and persuasive discourse by providing an empirically grounded account of how figurative strategies operate in public media contexts and by highlighting their role in contemporary participatory communication environments.

**Keywords:** multimodal metaphor, personification, social advertising, narrative, dialogism

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***‘Which is fixed—the cost or the shelf?’ Examining processing of conventional metaphorical meanings in L2 English speakers***

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**Abstract**

Even though figurative meaning plays a central role in the development of polysemy across languages (Apresjan, 1974; Bowdle & Gentner, 2005) and metaphorical extensions are generated through similar cognitive mechanisms cross-linguistically, second language (L2) learners frequently experience difficulty in acquiring and processing figurative meanings (Jankowiak et al., 2017; Littlemore, 2001, Littlemore et al., 2011). This is the case for even the very conventional, often transparent, meanings, such as in the expression *cash flows* (Littlemore, 2001). Previous experimental research confirmed these findings, showing that L2 speakers struggle with both conventional and novel expressions (Jankowiak et al., 2017), and that L2 speakers are less sensitive to the metaphoricity of conventional metaphorical expressions (Citron et al., 2020). Nevertheless, little is known about whether such challenges vary depending on learners’ first language (L1). The present study investigates whether L2 processing of conventional metaphorical language differs across groups of learners with different L1s to investigate the extent to which polysemy, a widespread linguistic phenomenon, poses a potentially universal cognitive challenge across different L2 learners.

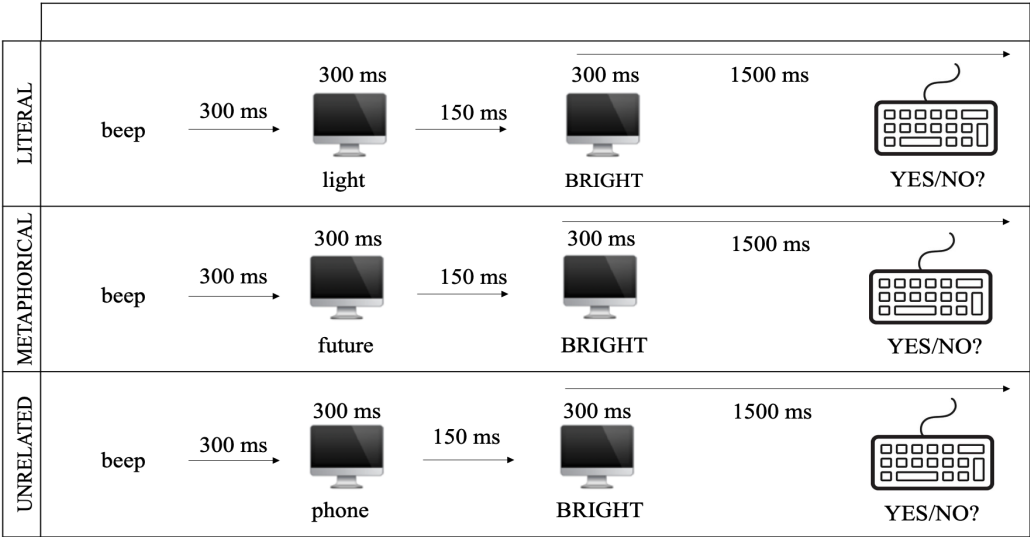
We examined three groups of advanced L2 English speakers (N = 126) with L1 Croatian, French, or Korean. Participants completed an intra-modal semantic priming lexical decision task (see Figure 1). Target items were 48 polysemous English adjectives (e.g., *bright*, *firm*, *cold*) that permit both literal and metaphorical interpretations. Each target was preceded by one of three prime types: (1) a literal prime (e.g., light–BRIGHT), (2) a metaphorical prime (e.g., future–BRIGHT), or (3) an unrelated prime. Reaction times (RTs) and accuracy were analysed using linear and generalized linear mixed-effects models.

The RT results showed that there is a consistent pattern across all three L1 groups, since *L1 group* was not a significant predictor, but *Type of meaning* was. Targets in the metaphorical condition elicited significantly slower RTs compared to the other conditions. As for the accuracy, interestingly, participants were significantly more accurate in the metaphorical condition than in the unrelated condition, while this was not the case for the literal condition. No significant main effect of *L1 group* and no interaction between *L1 group* and *Type of meaning* were observed for RTs or accuracy,

suggesting that the overall processing pattern was comparable across Croatian, French, and Korean learners.

We interpret these findings as showing that although metaphorical meanings carry greater temporal costs, they appear to trigger deeper semantic engagement, resulting in higher accuracy. We argue that metaphorical language has a distinctive status in the bilingual mental lexicon, which is not to be viewed as a secondary or disadvantaged compared to literal meanings since conventional metaphorical expressions may benefit from heightened semantic awareness characteristic of L2 processing (Hawkins, 1999; Schmidt, 1990). Furthermore, the absence of L1 effects suggests that the cognitive demands of figurative language L2 processing may be similar across different L1 groups. Overall, this study sheds new light on how figurative meaning is represented and processed in the bilingual mental lexicon by highlighting the role of linguistic awareness which potentially causes longer RTs but helps with semantic processing.

Figure 1. Experimental paradigm



**Keywords:** metaphor processing, L2 speakers, conventional meaning, polysemy

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***Familiarity and Literal Plausibility, Not Transparency, Drive Idiom  
Comprehension in Adult Readers With Low Literacy Skills in Easy German***

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**Abstract**

Easy German (Leichte Sprache) is a strongly rule-guided variety of German intended to increase accessibility of written information by reducing lexical and syntactic complexity and by externalizing structure through layout conventions (e.g., short main clauses, high-frequency vocabulary, one idea per line; Bredel & Maaß, 2016; DIN, 2023). Its primary target audiences include people with cognitive disabilities and adults with low literacy skills, and it is widely used in institutional communication. Figurative language, especially idioms, sits uneasily within this regime: some guidelines recommend avoiding it altogether, whereas others allow figurative expressions when they are familiar, inferable from context, or supported by explanation (Bredel & Maaß, 2016; DIN, 2023; Netzwerk Leichte Sprache, 2022).

We treat these guideline assumptions as testable processing hypotheses and ask (1) whether literacy and item-level cues (transparency, literal plausibility) predict idiom comprehension when context is absent, and (2) whether functional familiarity, literacy, and item-level cues predict idiom endorsement and preference when Easy German contexts and paraphrastic alternatives are provided.

We combined two preparatory studies with two experiments in the target population, in cooperation with a social institution (a sheltered workshop; WfbM). Experiments 2–4 were conducted with adults recruited from this workshop population (adults with cognitive disabilities and low literacy), enabling testing in an accessibility-oriented setting with experimenter-mediated responding. First, a norming study with a literate control sample (Prolific) established item-level transparency (perceived inferability from constituent words) and literal plausibility (plausibility of the literal scene; reverse-coded so higher values indicate higher plausibility) for 71 German verb-phrase idioms, e.g., *am Ball bleiben* ('to keep at it'; lit. 'to stay on the ball'), (Donalies, 2012; Glucksberg, 2001). Using ranked means and excluding the middle tercile to maximize separation, we selected 24 idioms for a balanced  $2 \times 2$  design crossing transparency (high/low) and literal plausibility (high/low). Second, literacy in the target group was assessed with lea.Online (Koppel & Wolf, 2014) and transformed from categorical alpha levels into a quasi-continuous index for individual-differences modeling. In Experiment 3 (no context), participants explained each idiom ("What does the sentence mean?"), providing a baseline measure of functional familiarity (availability of idiomatic meaning absent contextual support). Experiment 4 retested the

same cohort after ~6 months using Easy German contexts (independently checked for comprehensibility), a multiple-choice endorsement task (idiom vs. meaning-consistent paraphrase vs. distractor), and a podium-based ranking task (gold/silver/bronze).

Mixed-effects logistic modelling (Baayen et al., 2008) showed that figurative accuracy in Experiment 3 increased with literacy ( $\beta \approx 0.03$ ,  $p \approx .002$ ) and was modulated by literal plausibility ( $\beta \approx 0.57$ ,  $p < .001$ ). Transparency showed no reliable main effect ( $p \approx .29$ ) but interacted strongly with plausibility ( $\beta \approx -1.46$ ,  $p < .001$ ): idioms that were both transparent and literally plausible yielded the lowest figurative accuracy, consistent with cue competition (Libben & Titone, 2008; Titone & Connine, 1999). In Experiment 4, idiom endorsement was predicted by functional familiarity from Experiment 3 ( $\beta \approx 0.70$ ,  $p \approx .03$ ), with weaker trends for literacy and transparency; rankings showed robust distractor rejection and no reliable disadvantage for idioms relative to meaning-consistent paraphrases.

Overall, results challenge guideline approaches that prioritize transparency and instead highlight audience familiarity and literal plausibility as central determinants of idiom accessibility, with contextual scaffolding enabling idiom use without categorical avoidance.

**Keywords:** Easy German (*Leichte Sprache*), idiom comprehension, low literacy, familiarity, literal plausibility

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# Nominal metonymy beyond reference: Attitudinal meaning and neurodiversity

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## Abstract

Metonymy, characterized as a referential device, also conveys speaker attitude by foregrounding a particular aspect of a referent (Hidalgo-Downing, 2025; Littlemore, 2015, 2022). While literature has acknowledged this, controlled empirical investigations remain scarce. At the same time, a growing body of research suggests that autistic individuals show differences in metonymy comprehension (Rundblad & Annaz, 2010; Melogno et al., 2012; Van Herwegen & Rundblad, 2018; Zheng et al., 2015). The present study extends this line of research by examining 1) whether metonymic language has an intrinsic attitudinal effect and 2) whether comprehension of such effect is comparable across neurotypes.

We report an experiment testing whether the linguistic form of metonymy systematically shapes perceived speaker attitude across autistic and neurotypical individuals. 119 native English-speaking adults participated (59 autistic; 60 neurotypical). Prior to the experiment, we conducted independent norming studies to ensure neutral conversational contexts and to classify person-related attributes into negative, neutral, and positive valence groups. Participants read short dialogues in which a person was referred to either literally (e.g., the person with the tooth gap raised his hand) or metonymically (tooth gap raised his hand) and rated the speaker's attitude. This yielded a 3 Valence  $\times$  2 Form design.

Analysed irrespective of neurotype, mixed-effects modelling revealed a strong main effect of Valence (positive > neutral > negative;  $\beta = 1.29$ ,  $p < .001$ ) alongside a significant main effect of Linguistic Form: metonymic expressions systematically shifted perceived attitude in a more negative direction compared to their literal counterparts across all valence categories ( $\beta = -.56$ ,  $p < .001$ ), with no reliable interaction between Form and Valence. This finding suggests that the attitudinal shift does not merely reflect lexical valence but arises from metonymy-intrinsic properties, possibly due to the “depersonalising effect” of property-for-person reference.

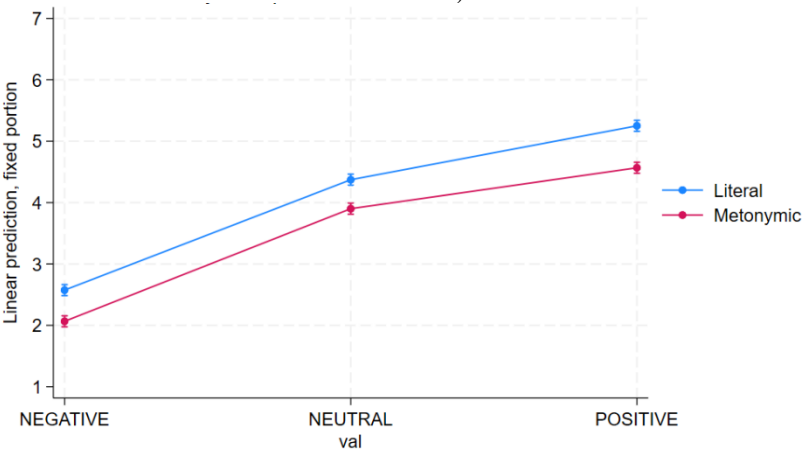
Crucially, analyses across neurotypes revealed striking convergence. Autistic participants demonstrated attitudinal sensitivity to metonymic form comparable to that of neurotypical participants ( $p = .257$ ). The only difference was a slight tendency for autistic individuals to provide more positive ratings when attributes were positively valenced, a pattern evident across both metonymic ( $\beta = -.26$ ,  $p < .001$ ) and literal ( $\beta = -.20$ ,  $p = .004$ ) conditions. Visual inspection of the rating distributions (analysed using *kdensity* in Stata 18.0) further revealed highly overlapping patterns across neurotypes,

with no clear differences in either central tendency or dispersion.

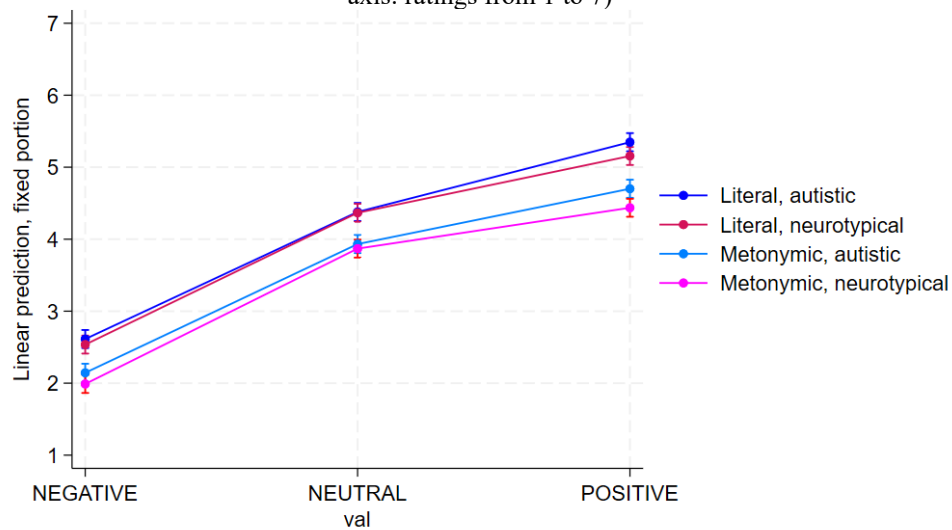
These findings carry two main implications. First, they provide evidence that attitudinal meaning is an intrinsic negative-leaning consequence of person-related nominal metonymy, plausibly linked to the depersonalizing “tagging” function of nominal metonymy (Hidalgo-Downing, 2025; Littlemore, 2015, 2022). Second, the comparable performance between autistic and neurotypical participants suggests, on the one hand, that autistic adults are capable of interpreting attitudinal meaning beyond reference in metonymy. On the other hand, the absence of a neurotype difference may further suggest that the attitudinal meaning reflects a more inherent property of metonymy, available to both neurotypes, rather than arising from additional inferences - processes for which neurotype differences have been frequently reported. More broadly, the results support a difference-rather-than-deficit perspective on non-literal meaning processing in autism (Crompton et al., 2020, 2025; Milton, 2012).

**Keywords:** metonymy, speaker’s attitude, autism, neurodiversity, experimental pragmatics

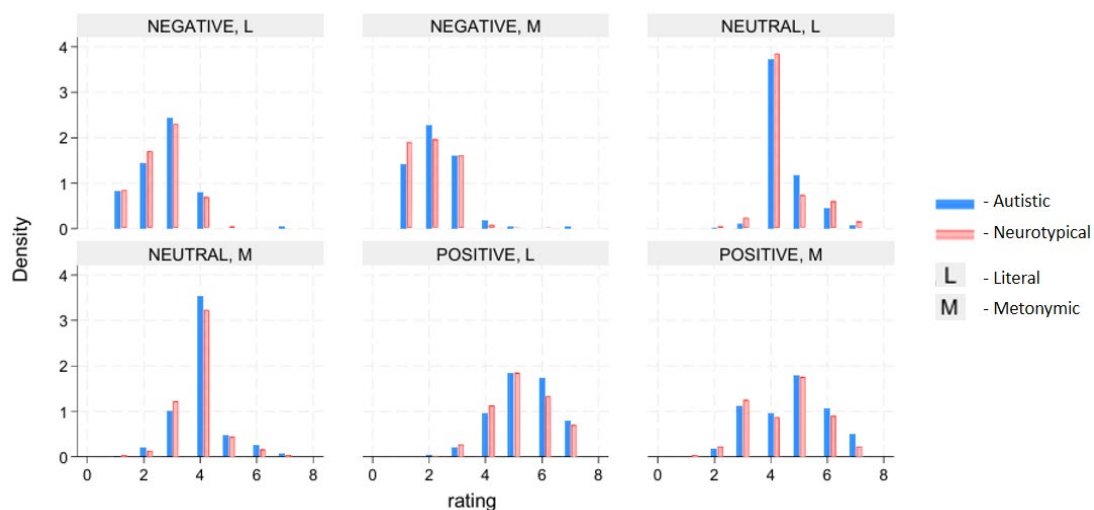
**Figure 1.** Adjusted predictions of rating across valences & conditions (x-axis: valences; y-axis: ratings from 1 to 7)



**Figure 2.** Adjusted predictions of rating across valences & conditions & neurotypes (x-axis: valences; y-axis: ratings from 1 to 7)



**Figure 3.** Distribution of ratings across neurotypes in different conditions



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## *Metonymy beyond reference: how nominal metonymy carries speaker's attitude*

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University of Cambridge

### **Abstract**

Metonymy, traditionally characterised as a referential device (Bowerman, 2021; Littlemore, 2015; Nunberg, 1995), also conveys speaker's attitude. Current literature has acknowledged this, proposing processes such as selective highlighting and depersonalization (Falck & Jensen, 2025; Hidalgo-Downing, 2025; Littlemore, 2015; Schumacher, 2019), however, these accounts have remained descriptive and empirically untested. Moreover, it remains unclear whether such attitudinal effects arise as an inherent consequence of metonymy or from additional inferences (e.g., about why a particular attribute is selected over alternatives).

The present study provides the first controlled experimental investigation of how nominal person-related metonymy contributes to attitudinal meaning. Across three experiments, we systematically isolate two potential sources of evaluative interpretation: (i) metonymic form (metonymic vs. literal way of reference via the same attribute,) and (ii) vehicle selection (whether the speaker is construed as choosing one attribute over alternatives). Experiment procedures are shown in attachments.

Experiment 1 (N=58) tested whether metonymic form alone modulates attitude interpretation in baseline contexts where no attribute selection is involved. Mixed-effects models revealed a strong main effect of valence ( $\beta = 2.34$ ,  $p < .001$ ), indicating that attitude judgements in metonymy largely track the lexical valence of the attribute. There was a significant main effect of linguistic form ( $\beta = -.59$ ,  $p < .001$ ), suggesting that metonymic expressions, in comparison to literal descriptions, were consistently interpreted as conveying more negative attitudes.

Experiment 2 (N=60), introduced neutral attributes, allowing us to test whether the attitudinal effect of metonymy depends on the presence of strongly valenced properties themselves. Results replicated the main effect of valence (positive > neutral > negative) and of metonymic form ( $\beta = -.588$ ,  $p < .001$ ). Results showed that metonymic expressions systematically shifted perceived attitude in a more negative direction across negative, neutral, and positive attributes, with no reliable interaction between form and valence.

Experiment 3 (N=60), took the first step to address the status of the attitudinal effect. If it reflects an inherent property of metonymy, the availability of alternatives should not substantially alter perceived attitude. However, if it arises from pragmatic inference about attribute choice, making alternatives available should modulate the

evaluation, either by strengthening or attenuating it. Results showed a small effect of selection ( $\beta = .14$ ,  $p = .008$ ), with availability of alternatives slightly attenuating the negative bias. This pattern suggests that attitudinal meaning is more consistent with an inherent consequence of metonymic form, with contextual inference playing at most a secondary role.

We provide the first controlled empirical evidence that metonymy carries attitudes beyond reference. Results show that (i) attitude interpretation primarily tracks lexical valence, (ii) metonymic form introduces a systematic negative-leaning evaluative bias, possibly due to depersonalizing and “tagging” mechanisms and (iii) the contribution of vehicle selection is weak, suggesting that attitudinal effects are rooted in the metonymic construal itself rather than in additional pragmatic inferences. More broadly, the study highlights evaluative meaning as a measurable dimension of figurative language and supports an expanded view of pragmatic processing (Colston, 2020; Gibbs & Colston, 2020) that captures its complexity.

**Keywords:** metonymy, evaluative meaning, speaker’s attitude, experimental pragmatics

### Materials and result visualization

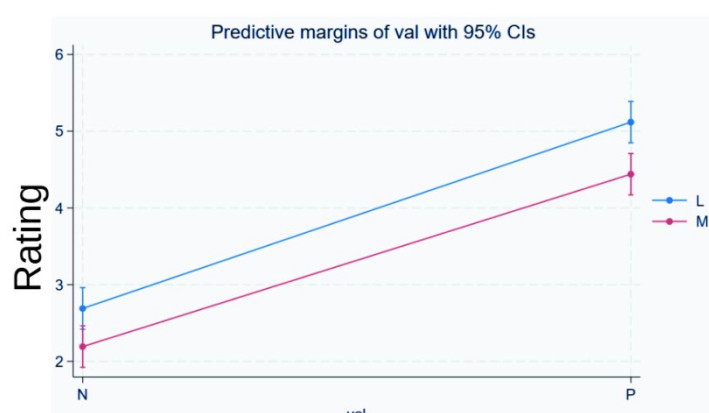
#### *Independent norming study*

25 native English-speaking adults rated candidate person attributes for valence. We selected **12 clearly negative** and **12 clearly positive** and a longlist of **neutral** attributes with high agreement. Contexts in stimuli also normed for neutrality.

| Item            | Neg/Pos | Valence Mean | Variance |
|-----------------|---------|--------------|----------|
| Stink           | N       | 1.483        | 0.762    |
| Dirty Nails     | N       | 1.667        | 0.768    |
| Cigarette Smell | N       | 1.683        | 1.000    |
| ...             |         |              |          |
| Quick Mind      | P       | 6.450        | 0.658    |
| Golden Voice    | P       | 6.167        | 0.819    |
| Perfect Pitch   | P       | 5.933        | 0.877    |

### Experiment 1

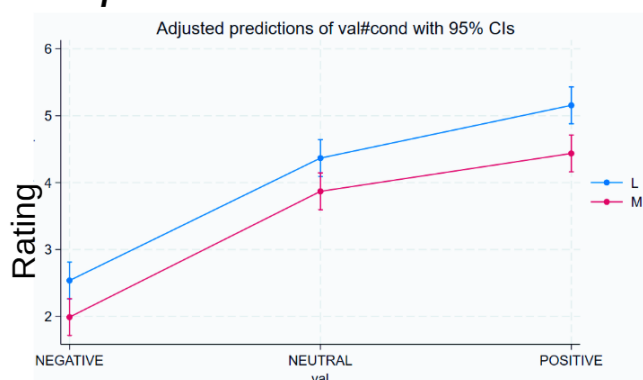
| Experiment 1 | Procedure                                                                                                                                                                                                                            |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Background   | A and B are talking about people they meet at a public lecture. They both see and know the following about the people they are talking about:                                                                                        |
| Attribute    | 1. The guy leaning against the aisle wall carries a strong smell of sweat.<br>2. The person nearby is wiping his glasses while waiting for the talk to start.                                                                        |
|              | Later, A asks B about it.                                                                                                                                                                                                            |
| Conversation | A: I think I missed the start — what was going on when I came in?<br>B ( <b>Condition M</b> ): <u>Stink</u> came in late carrying a new bag.<br>B ( <b>Condition L</b> ): The person with the stink came in late carrying a new bag. |
| Question1    | Which is speaker B referring to in the conversation?<br>(Multiple choice: Person 1, Person 2, or Neither)                                                                                                                            |
| Question2    | How positive or negative do you think is B's attitude towards the person being referred to? (7-point scale with slider)<br>(1=very negative, 4=neutral, 7=very positive)                                                             |



1. Main effect of **Valence** (N vs. P): Positive > Negative ( $\beta = 2.34$ ,  $p < .001$ )
2. Main effect of linguistic **Form** (Metonymic < Literal) ( $\beta = -.59$ ,  $p < .001$ )
3. Marginal **Valence**  $\times$  **Form** interaction ( $\chi^2(1) = 2.79$ ,  $p < .095$ )

## Experiment 2

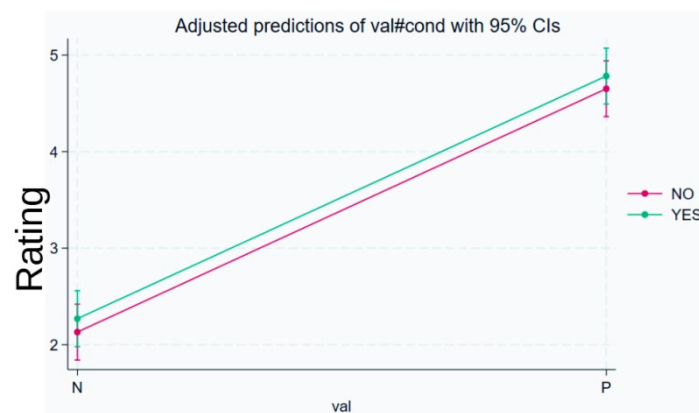
### Experiment 2



1. Main effect of **Valence** (Positive > Neutral > Negative) ( $ps < .001$ )
2. Main effect of linguistic **Form** (Metonymy < Literal) ( $\beta = -.588$ ,  $p < .001$ )

### Experiment 3

| Experiment 3 | Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Background   | A and B are talking about people they meet at a public lecture. They both see and know the following about the people they are talking about:                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Attribute    | <p><b>Condition Selection-Yes:</b></p> <ol style="list-style-type: none"> <li>1. The guy leaning against the aisle wall carries a strong smell of sweat.</li> <li>2. The person nearby is wiping his glasses while waiting for the talk to start.</li> </ol> <p><b>Condition Selection-No:</b></p> <ol style="list-style-type: none"> <li>1. The guy leaning against the aisle wall carries a strong smell of sweat and is wearing a black jacket.</li> <li>2. The person nearby is wiping the glasses while waiting for the talk to start and he also displays a slow way of speaking.</li> </ol> |
|              | Later, A asks B about it.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Conversation | <p>A: I think I missed the start — what was going on when I came in?</p> <p>B: <u>Stink</u> came in late carrying a new bag.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Question1    | Which is speaker B referring to in the conversation?<br>(Multiple choice: Person 1, Person 2, or Neither)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Question2    | How positive or negative do you think is B's attitude towards the person being referred to? (7-point scale with slider)<br>(1=very negative, 4=neutral, 7=very positive)                                                                                                                                                                                                                                                                                                                                                                                                                           |



1. Main effect of **Valence** (Positive > Negative) ( $\beta = 2.52$ ,  $p < .001$ )
2. Main effect of **Selection** (Selection Yes > Selection No) ( $\beta = .14$ ,  $p = .008$ )

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# *Toward a Unified Annotation Protocol for Figurative Language: A Structured Scoping Review and Methodological Proposal*

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## Abstract

Recent work on figurative language in AI has produced a growing number of datasets and annotation frameworks across tropes, such as metaphor and metonymy. Building on this literature, we reviewed 15 influential datasets, annotation frameworks, and model-oriented studies selected from major NLP venues and repositories, based on their relevance to figurative language annotation, detection, and interpretation.

The review is summarised in Table 1 along key dimensions, including figurative trope type, research aim (e.g., detection vs. interpretation), dataset scale, degree of linguistic-theoretical grounding, language coverage, and annotation design.

| Study                        | Trope    | Phenomenon coverage      | Aim                                 | Dataset size                                          | Degree of theoretical grounding | Unit of analysis                    | Annotators                             |
|------------------------------|----------|--------------------------|-------------------------------------|-------------------------------------------------------|---------------------------------|-------------------------------------|----------------------------------------|
| Steen et al. (2010) MIPVU    | Metaphor | High                     | Annotation guideline                | —                                                     | High                            | Word                                | —                                      |
| Krennmayr & Steen (2017) VUA | Metaphor | High                     | Corpus / annotated                  | ~200k words                                           | High                            | Word                                | 2 trained annotators                   |
| Ghosh & Jiang (2025) ConMeC  | Metonymy | Medium (6 types)         | Corpus / benchmark                  | ~6k sentences                                         | Medium                          | Target noun in context              | 2 human annotators                     |
| Leong et al. (2018)          | Metaphor | Medium (linguistic)      | Shared task benchmark               | VUA-based                                             | Medium                          | Word                                | Inherited VUA                          |
| Do Dinh et al. (2018)        | Metaphor | (conventional vs novel)  | extension (novelty)                 | VUA: 22,196 tokens; Here: 15,180 tokens               | Medium                          | Metaphor instances                  | crowdworkers                           |
| Markert & Nissim (2003)      | Metonymy | High                     | Annotation scheme + corpus analysis | 2000 BNC occurrences                                  | High                            | Named entities (location instances) | 2 expert annotators (authors)          |
| Reimann & Scheffler (2025)   | Metaphor | Limited                  | Detection profile (LLM)             | VUA: 22,196 tokens; Here: 14,437 tokens               | High                            | Word                                | Not specified (evaluation-based)       |
| Fuoli et al. (2025)          | Metaphor | Limited                  | Detection profile (LLM)             | 94 texts / 59k words                                  | Medium                          | Discourse / full text               | Multiple human annotators              |
| Tong et al. (2024) MUNCH     | Metaphor | High (novelty variation) | Interpretation benchmark            | ~3k metaphors / ~11.5k paraphrases                    | Medium                          | Sentence                            | 10 human annotators                    |
| Tsvetkov et al. (2014)       | Metaphor | Limited                  | Model (detection)                   | TroFi (~1.6k SVO) + ~1.8k AN + multilingual test sets | Low                             | syntactic relation                  | 2-6 annotators (according to language) |
| Shutova et al. (2010)        | Metaphor | Limited                  | Model (detection)                   | Seed: 62; BNC (~100M words); Output: 4456 expressions | Medium                          | syntactic relation                  | 5 human annotators (evaluation)        |
| Liu et al. (2020)            | Metaphor | Limited                  | Model (detection)                   | VUA-based (~30k tokens)                               | Low                             | Word                                | —                                      |
| Choi et al. (2021) MeIBERT   | Metaphor | Limited                  | Model (detection)                   | VUA / MOH-X / TroFi                                   | Medium-High                     | Word                                | —                                      |
| Li et al. (2023)             | Metaphor | Limited                  | Model (detection)                   | VUA-scale                                             | High                            | Word                                | —                                      |
| Pedinotti & Lenci (2020)     | Metonymy | Limited                  | Model (interpretation)              | 1,018 sentences                                       | Medium                          | Sentence (target expression)        | 2-3 expert coders                      |

**Table 1.** Comparative analysis of figurative language datasets, frameworks, and models across methodological dimensions

As summarised in Table 1, existing resources exhibit several limitations. First, figurative phenomena are unevenly represented in current datasets, with a strong bias toward metaphor. This risks encouraging metaphor-centred generalisations in downstream systems, where non-metaphorical figurative phenomena may be treated as metaphor-like cases rather than identified through their own semantic-pragmatic mechanisms (Lai et al., 2023; Zhu et al., 2022). Second, most datasets and annotation guidelines adopt a predominantly word-level focus, despite the fact that figurative meaning is often conveyed through longer stretches of text (e.g., *He has been a lightning rod*), thereby limiting the ability to identify accurately the linguistic unit used figuratively.

Also, existing resources often separate detection from interpretation. Yet, in practice, the two tasks are much more closely intertwined, so that success in completing each task depends heavily on the other. In addition, existing resources are heavily skewed toward conventionalised figurative expressions, which may inflate model performance while obscuring challenges associated with novel uses. Finally, annotation practices vary substantially within and across tropes, including in annotator background and levels of granularity, which often limits cross-dataset comparability; and many identification and classification decisions lack explicit linguistic criteria or theoretical justification.

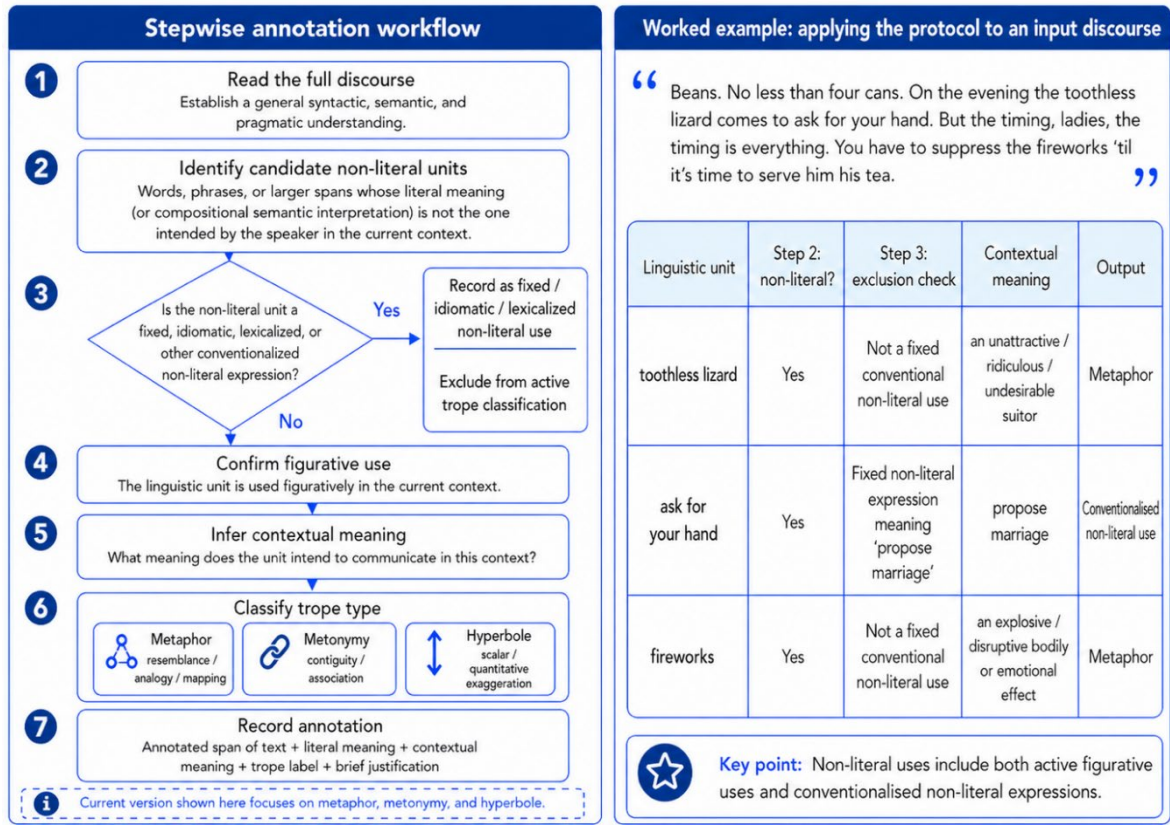
In response, we propose an extensible, linguistically and cognitively grounded unified annotation protocol, illustrated in Figure 1 with both the decision workflow and an example annotation. Rather than treating each figurative trope as a wholly separate annotation problem, the framework is organised around a shared decision architecture, with all annotations beginning by asking whether any span of the input discourse is intended figuratively. The essential criterion adopted to identify figurative uses of language is whether the literal meaning encoded in the words differs from the speaker-intended, contextually relevant meaning (Gibbs & Colston, 2012; Searle, 1979). Once a linguistic unit is regarded as used non-literally in the context, depending on the relation between the unit’s contextual interpretation and its literally encoded meaning, we further classify the figurative language into different tropes. For example, it would be classified as a metaphor, where the two meanings are qualitatively distinct but linked by resemblance (Ortony, 1979); and as metonymy, where they are qualitatively distinct but linked by contiguity (Peirsman & Geeraerts, 2006).

In this way, the framework integrates figurative language identification and interpretation within a single workflow while preserving linguistically grounded trope-specific distinctions. In addition, the framework addresses the lexical-unit limitations of previous annotation guidelines by enabling more precise identification of the linguistic span whose literal meaning is not contextually relevant.

We are currently applying the protocol to a small corpus sampled from BNC 2014 (Love et al., 2017) to annotate figurative language (including metaphor, metonymy,

hyperbole and simile). Expected outcomes include greater transparency and consistency in human annotation, improved cross-dataset comparability, and a stronger foundation for evaluating how language models detect and reason about figurative meaning.

**Figure 1.** Unified annotation protocol and illustrative example



**Keywords:** figurative language annotation, unified annotation protocol, interpretation and identification, figurative language in NLP

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# *Transitive Anticausatives and Figurative Agency in English and Japanese*

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## **Abstract**

Anticausative constructions (e.g., *The vase broke.*) exhibit considerable cross-linguistic variation (Alexiadou et al., 2015; Schäfer, 2008). This paper examines a less canonical subtype, *Transitive Anticausatives* (TrACs; Schäfer, 2024), in which syntactically transitive clauses give rise to anticausative-like interpretations. In TrACs, the object position is restricted to a property noun that bears an attribute–holder relation to the subject, as in *The clouds changed their shape*, in contrast to unacceptable cases involving ordinary part–whole relations, as in <sup>#</sup>*The house burnt its roof*.

Building on observations that TrACs are attested in typologically distinct languages such as English and Japanese (Hasegawa, 2004; Kageyama, 2002; Schäfer, 2022; Sugioka, 2002), this study provides a corpus-based comparative analysis of their distribution and semantic properties in the two languages. As a focused case study, I investigate constructions headed by the highly productive verbs *change* and Japanese *kae-ru* ‘change,’ which robustly license TrAC interpretations across languages.

The empirical analysis draws on data from the Corpus of Contemporary American English (COCA) and NINJAL-LWP for The Balanced Corpus of Contemporary Written Japanese (NINJAL-LWP for BCCWJ). Extracted TrAC instances are classified according to the semantic type of their property-noun objects and the abstractness of their subjects. The findings are presented in Table 1 for English and Table 2 for Japanese. In these tables, the numbers represent the total occurrences of TrACs headed by *change* or *kae-ru* co-occurring with each property noun object. Additionally, the numbers in parentheses indicate the occurrences of TrACs with abstract noun subjects (e.g., “The *pain* changed shape”).

The quantitative results show a strong cross-linguistic similarity: TrACs are most productive with semantically light property nouns such as *shape* and Japanese *katachi/sugata*. These nouns tend to form conventionalized collocations (e.g., *change shape*, *katachi-o kaeru*), allowing the construction to function much like an intransitive predicate. For instance, the sentence *The clouds changed their shape* can be rephrased as *The clouds changed* without explicitly using the noun *shape*. Notably, TrACs frequently occur with abstract subjects, indicating that the construction readily extends beyond concrete physical change.

I argue that TrACs involving property nouns systematically construe change-of-state events as abstract eventualities rather than literal physical processes. Under this construal, the subject is not interpreted as exerting direct causal control over the object. Instead, it is metonymically construed as an inherent property bearer responsible for the abstract change. For example, *The clouds changed their shape* is interpreted as a change arising from intrinsic properties of the clouds, rather than from an externally caused physical action. This account explains both the acceptability of abstract subjects and the exclusion of ordinary part-whole relations. Consequently, TrAC subjects are interpreted as figuratively agentive via personification, rendering these constructions conceptually akin to reflexive constructions with animate subjects (e.g., *The cells changed their shape*).

The analysis contributes to research on anticausatives by demonstrating that TrACs are grammatically licensed through metonymic and personifying construals, thereby revealing how figurative mechanisms shape argument structure and event interpretation across languages.

**Keywords:** transitive anticausatives, figurative agency, metonymy, personification, property nouns

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## *Emotion as a Catalyst of Meaning: Cognitive Metaphor and Figurative Conceptualization in Verbs of Understanding*

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### **Abstract**

This study examines the intersection of cognition and emotion in English verbs of understanding. Despite research on cognitive metaphors of understanding the contribution of emotional factors to the emergence of figurative meanings remains underexplored. Recent research in Cognitive Metaphor Theory argues that figurative language is emotionally grounded and engages affective representations (Dorji & Durgin, 2025; Littlemore et al., 2023). In this context it is relevant to consider how emotional loading transforms physical verbs into cognitive metaphors.

While traditional linguistic models often treat understanding as a purely intellectual act, this study analyses a group of English verbs of understanding (about 40) using data from the BNC and the COCA to demonstrate that understanding is an active, often emotive process. Emotional loading was measured by co-occurrence within  $\pm 5$  words of 69 emotional markers covering 15 basic emotions, consistent with empirical studies claiming that figurative meaning is dynamic and context-driven (Colston, 2024; Gibbs & Colston, 2012).

The central finding of the research is that several verbs such as *see*, *read*, *dig*, *grasp*, and *seize* develop figurative meanings of understanding via co-occurrence with emotional markers, transforming neutral or action-based verbs into carriers of interpretive and empathetic meaning.

The study points out that the figurative meanings are emotional extensions of the body-mind metaphor (Kövecses, 2000, 2020). The analysis provides evidence to conceptualize understanding as physical interaction (*grasp a concept*, *dig into a topic*) and to consider sensory perception as a cognitive gateway (*see a topic*, *look into a matter*). It is also detected that the figurative use of the verbs *see* and *view* frequently co-occurs with emotions such as *hope*, *love*, and *interest*. This suggests that *seeing* is an emotional evaluation of reality.

Furthermore, the research indicates that emotional loading serves as a semantic bridge. The transition from a literal meaning (*bottoming out* physically) to a figurative one (*reaching a cognitive conclusion*) is mediated by emotion, anchoring the metaphoric transference of the verbs. Thus, for a verb like *read into*, the shift from literal reading to figurative over-interpretation is driven by *interest*, *fear*, and *pride*; figurative uses of *grasp* are associated with emotional motivations such as *curiosity*, *anticipation* or *fear*. Here emotions act as the catalyst that allows a word to jump from

one semantic domain to another.

Based on the emotive profiles of the verbs, three hypotheses are proposed: (1) Effort-Value Correlation Hypothesis: verbs with more effort-based physical meanings display stronger emotional and cognitive intensity in figurative use; (2) Directionality of Emotion in Spatial Metaphors Hypothesis: depth-related verbs correlate with deeper realization, while vision verbs reflect subjective interpretation; (3) Prosocial Bias in Understanding Hypothesis: understanding in English tends to be conceptualized as a positive, socially oriented process.

The study demonstrates that figurative meanings emerge from the interaction between a verb's primary meaning and the emotional motivation which drives the transformation of physical verbs into cognitive metaphors of understanding.

**Keywords:** emotion, verbs of understanding, figuration, cognitive metaphor, corpus linguistics

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# ***The clock is ticking: A Comparative Analysis of Temporal Metaphors in Institutional and Activist Climate Communication***

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## **Abstract**

Time is a powerful rhetorical resource for making the climate crisis intelligible, urgent, and actionable. This study examines the figurative representation of time in climate communication produced by United Nations Climate Change and Greenpeace, focusing on institutional and activist discourse in English. The analysis examines the most recurrent temporal metaphors, their variation across enunciative positions, and their discursive functions in the construction of a climate future—framed in terms of possibility, responsibility, ethics, urgency, and the representation of time as a finite resource, among others. The study adopts a cognitive–discursive view of metaphor as a mechanism that structures abstract domains such as time through more concrete experiential ones (Lakoff & Johnson, 1980), while also accounting for its ideological and persuasive effects in public discourse (Charteris-Black, 2004; Musolff, 2016) and its evaluative role in shaping narratives about human–environment relations (Stibbe, 2015). Complementarily, drawing on construal level theory, temporal framing is understood to modulate psychological distance—one of four interrelated dimensions influencing how climate change is perceived—such that greater perceived proximity tends to facilitate engagement, albeit in non-linear and context-dependent ways (Liberman et al., 2007; Maiella et al., 2020). On this basis, I compiled a corpus of social media posts from United Nations Climate Change (UNFCCC) and Greenpeace on X (formerly Twitter), selected to capture contrasting enunciative positions (institutional vs. activist). The dataset comprises 712 UNFCCC publications (20,016 tokens) and 541 Greenpeace posts (17,181 tokens), collected via scraping in July 2025 and processed in Python using relevant libraries, where I standardised and cleaned the data (removing duplicates, retweets, and non-English content). Methodologically, the study combines qualitative discourse analysis with quantitative corpus-based procedures. An exploratory reading of a limited sample of the corpus enabled the identification of recurring temporal figurations, leading to an inductive coding scheme structured around six configurations: temporal materiality, process, liminality, conflict, historicity, and ethics. Categories were operationalized through keyword lists and regular expressions in an iterative process, followed by manual validation to minimise classification errors. Alternatively, from a comparative perspective, the CreativeLang/metaphor\_detection\_roberta\_seq model was tested, classifying all sentences as metaphorical with probabilities clustered around 0.5, indicating low confidence and potential bias; similarly, the HiTZ/mdeberta-metaphor-detection-

multilang-es\_en model yielded an almost uniform prediction with probabilities around 0.40, again reflecting limited discriminative capacity. Expected results regarding the qualitative analysis suggest that temporal metaphors play a central role in constructing climate urgency. Institutional discourse is likely to privilege liminal and ethical temporalities, framing climate action as a narrowing window of responsibility toward future generations, whereas activist discourse may foreground conflictive and processual temporalities, intensifying urgency and portraying climate change as a race against time. Across both, temporal metaphors might function as key resources for organizing the crisis as a historical turning point and extending the horizon of climate communication.

**Keywords:** temporal metaphors, climate change discourse, ecolinguistics, psychological distance, metaphor detection

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***Drinking as Entering an Idealized Experience: An Experience-Oriented  
Perspective on Structural Metaphor in Chinese Alcohol Advertising***

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**Abstract**

Research on multimodal metaphor frequently suggests that commercial advertising predominantly relies on ontological metaphors—especially entity construction and personification—to render products as concrete and perceptually accessible (Forceville, 2009; Forceville & Urios-Aparisi, 2009). While this tendency is often treated as a general feature of advertising discourse, it remains unclear whether it applies uniformly across product categories and how culturally specific product functions might shape figurative strategies. This study addresses two research questions: (1) To what extent is ontological metaphor consistently dominant across disparate product categories within a single cultural context? and (2) How do culturally grounded product functions and experiential motivations drive the distinct metaphorical configurations observed in Chinese alcohol advertising?

To answer these questions, the study draws on a comparative baseline corpus of 100 Chinese commercial video advertisements across four industries (food, alcohol, automotive, and textile). Chi-square testing confirms that the dominance of ontological metaphor across the corpus is a robust pattern. However, against this baseline, the alcohol sector constitutes a notable exception, diverging by favoring structural metaphors. Focusing on this divergence, the analysis isolates the 25 alcohol-sector advertisements (baijiu and beer, broadcast between 2019 and 2022) from the baseline corpus. A total of 13 multimodal metaphors were identified from these advertisements and subjected to qualitative analysis.

The analysis identifies a recurrent cognitive schema: DRINKING X IS ENTERING AN IDEALIZED SOCIAL-EMOTIONAL EXPERIENCE. Under this pattern, the act of consumption is systematically mapped onto culturally valued experiential frames, such as family reunions, romantic intimacy, and convivial social bonding. Unlike ontological metaphors that define what a physical product is (Lakoff & Johnson, 1980), these structural mappings construct what consuming the product entails, effectively embedding the beverage within a structured experiential scenario.

This pattern supports an experience-oriented perspective on metaphor in advertising. Cognitively, the process operates as a form of conceptual integration (Fauconnier & Turner, 2002): elements of drinking and socially meaningful experiences are projected into a blended space, generating emergent affective meaning. Socio-

culturally, it reflects the entrenched role of alcohol in Chinese society as a vehicle for ritualized interaction and collective emotional bonding, a cultural embedding that shapes metaphorical strategy in ways consistent with Kövecses's (2005, 2015) model of contextual variation in metaphor. In certain cases, this integration is further reinforced by metaphonymic interaction (Goossens, 1990), where culturally salient visual cues simultaneously trigger metonymic contiguity and metaphorical mapping. This study contributes to multimodal metaphor research by challenging the assumed universality of ontological metaphor in advertising and by highlighting how figurative processes creatively construct culturally meaningful experiences.

**Keywords:** multimodal metaphor, structural metaphor, Chinese advertising, alcohol, cultural motivation

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# ***Reframing Conceptual Mappings: Intra- and Inter-Mapping Dynamics in Cognitive Linguistics***

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## **Abstract**

Research on conceptual mappings within Cognitive Linguistics has traditionally focused on *intra-mapping* instances (i.e., operating within the projection between the source and target domains). This includes not only individual metaphorical and metonymic mappings, but also their interaction patterns (e.g., cases of metonymic expansion/reduction of a metaphoric source/target). More recent work has broadened this perspective by addressing *inter-mapping* phenomena (including chains and amalgams, consecutive mappings of one domain onto another and models backed up by a different one, respectively). Nonetheless, other types of interactions between mappings have remained largely unexplored. This paper seeks to fill this gap by accounting for a set of inter-mapping relationships that have received limited attention in the literature: mapping completion & activation, mapping replacement, mapping co-occurrence, and mapping deactivation.

To this end, we compiled an *ad hoc* corpus consisting of over 150 original advertisements retrieved from <https://jackfundcreative.com/>. This source was selected due to the creative nature of its advertisements, which could reveal intriguing cognitive constructs involved in the interpretation process. The data were manually filtered using the *Metaphor Identification Procedure* (MIP; cf., Steen, 2004; Steen et al., 2010), slightly adapted to identify metonymic mappings.

For illustrative purposes, let us consider the following case of a replacement operation between an initially metonymic interpretation and a different one which substitutes the first (Figure 1). For this phenomenon to occur, both of the mappings implied in the replacement have to share a similar conceptual structure.

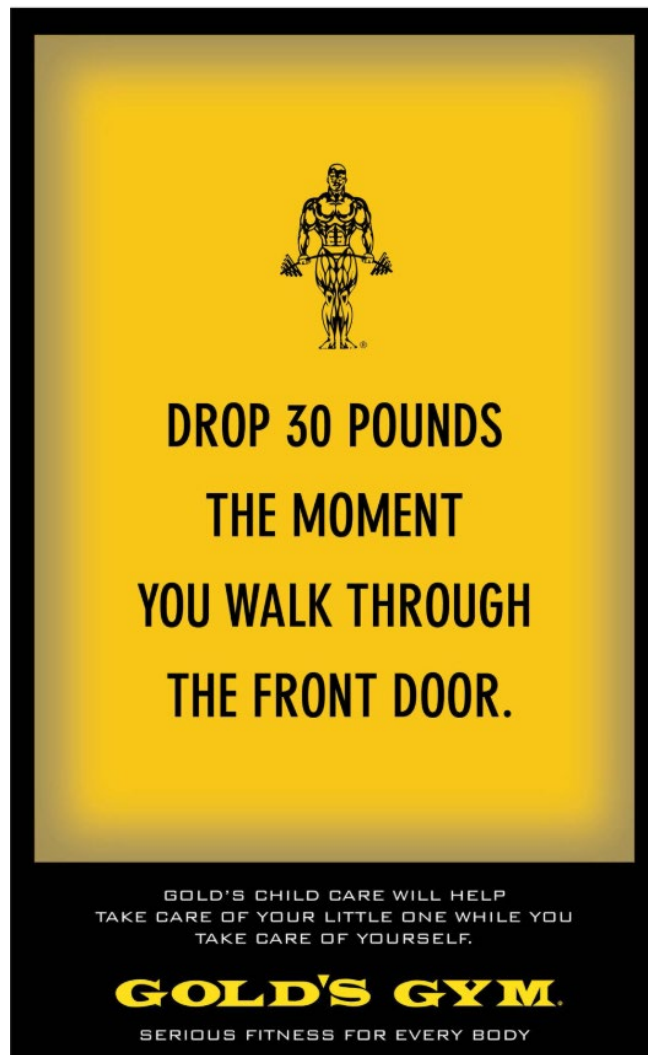


Figure 1. Advert 1

If the interpreter starts by reading the larger text (“DROP 30 POUNDS THE MOMENT YOU WALK THROUGH THE FRONT DOOR”), she/he infers that you lose weight from the very first moment you enter the gym by means of a CAUSE FOR EFFECT metonymy (i.e., working out in the gym makes you lose weight), in combination with an obvious hyperbole. This inference is replaced when you continue reading the text below (“GOLD’S CHILD CARE WILL HELP TAKE CARE OF YOUR LITTLE ONE WHILE YOU TAKE CARE OF YOURSELF”), which makes you understand that the 30 pounds actually refer to your young child, which may be left under the care of Gold’s Gym. This is possible thanks to a PART FOR WHOLE metonymic mapping (the weight which is going to be released stands for the child) whose target domain (i.e., the child) is generated at a later stage in the interpretation process. For the replacement operation, the conceptual domain “weight” is shared by the two metonymies included in the ad.

Our analysis shows that the four phenomena analysed indeed characterise mapping relationships both internally and externally. These phenomena appear to be

related to formal operations, as they affect ICMs structurally (as opposed to content operations), and involve contrasting mechanisms.

**Keywords:** Cognitive Linguistics, conceptual mapping, intra-mapping and inter-mapping relationships

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