

AFLiCo 9

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Abstract book



Keynotes' abstracts

How do we measure the quality of AI-generated texts?

Anna-Maria De Cesare

The advent of large language models (LLMs) has revolutionized our ability to generate text in a wide range of languages. According to Goldstein et al. 2023, LLM-generated outputs (in English) are high-quality texts that are in many ways comparable to and indistinguishable from human-written texts. The aim of this talk is to reflect on how we can verify these claims and assess whether LLM-generated outputs are indeed human-like. Based on the results of an empirical study analyzing textual parameters occurring in a self-assembled corpus of Italian biographies, I will show that generated texts appear well-written only at first glance. Upon closer inspection, LLM-generated texts tend to be repetitive and monotonous. This result can be explained by the presence of an “algorithmic bias” that favors common features and patterns even at the micro-level of textual organization.

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Sounds with meaning and beyond: the case of ideophones as aesthetic catalysts

Iraide Ibarretxe-Antuñano

Ideophones, an umbrella term encompassing sound and sensory mimetics, form a distinctive word class of elements that stand out from other non-ideophonic or 'prosaic' word categories in their respective languages due to their salient linguistic features (Dingemanse 2012, 2023; Ibarretxe-Antuñano 2017, in press; Akita & Dingemanse 2019). After a brief review of some of their main formal properties, this talk will describe their semantics (both semantic domains and semantic semasiological and onomasiological relations) and pragmatics (usage). In particular, the talk will focus on how ideophones express concepts that are culturally bound to the speakers, becoming aesthetic catalysts that produce an intimate interlocutionary involvement between the speakers of ideophonic languages. This involvement facilitates intertextuality and a group bonding effect within their ideophonic linguistic community.

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Conceptualizing anger around the world

Zoltán Kövecses

Anger is conceptualized metaphorically in all languages in which it has been studied to date. Another aspect of the figurative construal of anger is metonymy. Anger metonymies have received much less attention than metaphors in the crosslinguistic investigation of anger. In the talk, I focus on anger metonymies, as found in 12 non-European languages in a large-scale crosslinguistic study of metaphors and metonymies of anger and contrast them with anger metonymies in English. In particular, I discuss such issues as the following: (1) What are the most salient metonymies in these languages? (2) What kinds of metonymies are recognized in the data? (3) How universal are the metonymies? (4) What is the relationship of the metonymies to the metaphors? (5) Can we think of the metonymies as context (contextual factors) for the emergence and production of the anger metaphors? The examination of such issues will give us a new perspective on the interplay of metaphor and metonymy in the conceptualization of anger.

Ecolinguistics: Studying the interaction between language and the environment

Hermine Penz

Ecolinguistics has developed as an approach to language studies over the past fifty years. Since its beginnings in the 1970s it has applied the ecology metaphor to language in various ways to study the interaction between language and its environment. This presentation will briefly trace the history of ecolinguistics and will then discuss its recent developments (Penz and Fill 2022; Fill and Penz 2018). Attempts to unify the diverse approaches have identified four different ways in which language is conceptualized, i.e. as a symbolic ecology, a natural ecology, a sociocultural ecology, and a cognitive ecology (Steffensen and Fill 2014). With the publication of Stibbe's (2015) book on *Ecolinguistics* the field has taken a more discourse analytic turn, yet the other areas are still present. In terms of theorizing, methods of sociolinguistics, functional linguistics, cognitive linguistics and corpus linguistics have been resorted to, yet a recent endeavour aims to develop ecolinguistic theory by conceptualizing language itself as ecological (Steffensen et al. in print).

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Table des matières

Cover_1.pdf	1
keynotes_abstracts_1.pdf	2
The Influence of Affective-Meaning on Anaphora Resolution, Glauch Kalle	1
Intersubjectivity, Interaction, and Viewing Arrangements: A New Typology of Event Conceptualization, Machida Akira	4
Conceptual metaphor in the political discourse of the Catalan pro-independence conflict, González Gómez Carmen	7
Comprendre les Gilets Jaunes à travers le prisme des cadres sémantiques et des métaphores conceptuelles : une analyse captivante de la presse espagnole, Rodriguez-Pelaez Estéfano	9
Semantic nuances in interjections: The case of pain, Ponsonnet Maïa	11
Does 'i' have confidence in their own opinion?, Burnett Sophia	13
Political storytelling, Brexit narratives and cognitive persuasion: towards a critical approach., Bonnet Alma-Pierre	15
On the conceptualisation of locative events: the analysis of co-verbal eye-movements in a describing-matching task, Lesuisse Megane	17
No equivalence: A computational model, Leclercq Benoît [et al.]	19

Cognition incarnée : postures et gestes au service de l'apprentissage des langues, Carrera-Sabaté Josefina [et al.]	21
Multimodal strategies for delivering irony in political speech, Alkhateeb Dima [et al.]	23
Stance and legitimation in corporate responsibility reports: A corpus-based ecolinguistic approach., Fernández-Avilés Jorge	25
The Source/Goal (a)symmetry in Negidal: encoding Grounds in a Tungusic language, Barbier Laurène	27
Expressing and understanding figurative language about emotions in Spanish as a second language, Suárez-Campos Laura	29
The structuring of locative information in English and in French, Cadot Mégane [et al.]	31
Réponses déclaratives et physiologiques au cours du processus de compréhension de l'oral en L2, Biagiotti Triscia [et al.]	33
Exploring theories of embodied cognition in multisensory audio description (AD) in botanic gardens for blind, partially sighted (BPS) and non-blind audiences, Beale Jessica	35
The mechanics of meaning. Understanding metaphors and image schemas through animacy and inanimacy., González-Vidal Marcos	37
Cognition incarnée et Terminologie : Exploration du rôle de la simulation motrice dans le traitement des concepts liés aux connaissances spécialisées., Sere-dova Larisa [et al.]	39
Teaching and testing embodied reasoning in FLT: A case study on German motion and localization expressions, Gallez Françoise [et al.]	42
On the Directional Encoding of Visual and Auditory Events in English, Aquilina Yana [et al.]	44

How do teachers adapt their multimodal behaviors when addressing L2 learners? An Exploratory Study, Perrez Julien [et al.]	46
The impact of speed-induced language on the processing of Goal-oriented visual scenes: An eye-tracking study in Estonian, Taremaa Piia [et al.]	48
L'asymétrie motrice, un des déterminants de l'asymétrie Source-But, Roy Alice Catherine [et al.]	50
Le transfert rythmique de la parole à travers une approche multimodale., Gamba-Kresh Tilia [et al.]	51
The value-driven metaphors of LANGUAGE during the debates of "language crisis" in Estonia (2020-2022), Vainik Ene [et al.]	54
Étude sociolinguistique du choix de structure de question partielle en français hexagonal : conclusions tirées de données expérimentales, Corentin Mazet	56
Le statut de la vélaire nasale et du -ing en français : une étude empirique, Roadman Arielle [et al.]	56
Cross-Linguistic Analysis of Information Structure in French and French Belgian Sign Language: The Case of Contrastive Focus, Lombart Clara	59
Effets des actions sur l'encodage et la récupération de mots en langue étrangère, He Zhang Yuting [et al.]	61
Construal operations as polarising discursive devices in Brazilian and Spanish far-right populist tweets: Going beyond metaphor., Peterssen Silvia [et al.]	63
Ukraine aujourd'hui, Taïwan demain? Analyse critique du discours sur l'analogie entre Taiwan-Chine et Ukraine-Russie, Li Peici [et al.]	66
Mapping language variation in the context of Australian mobilities, Mas Erwanne [et al.]	69
Combinatoire lexicale et profilage du sens du lexème 'embryon', Ana-Maria Cozma [et al.]	71

Humor in Conversation A Cognitive-pragmatic Analysis of Banter., Errami Fennane Salma	73
Embodied spatial coordination in child-pet interaction, Peltola Rea [et al.]	76
Exploring the Foreign Language Effect: A Study on Emotional Responses to Taboo Words, Kamp Victoria [et al.]	78
Encountering a strange erratic: the embodied animacy of a boulder stone, Peltola Rea	81
I Saw Cthulhu and I Lost My Mind: Multimodal Representations of Cosmic Horror in John Carpenter's „In the Mouth of Madness" and Beyond, Nowak Ilhana	83
Metaphor scenario as an explanatory tool in the pro-vaccine discourse, Silaški Nadežda [et al.]	85
Encoding path and manner in metaphorical motion sentences, Veismann Ann [et al.]	87
Tark, shperlack, burfip, and other alien bad words: investigating a sound-meaning association in swear words of English and French, Vallery Robin	89
L'expression des expériences émotionnelles en wolof - approches lexicologique et syntaxico-sémantique, Perrin Loïc-Michel	91
Metaphor processing in Modern Greek : what does it mean to be 'conventional' ?, Voga Madeleine [et al.]	94
Phrases préfabriquées interrogatives à fonction métalinguistique : vers une modélisation sous forme de phrasèmes constructionnels, Tutin Agnès [et al.]	95
Proximalization of distal daily events in family dinners through words, gestures and signs, Danino Charlotte [et al.]	97
” Pendant que la tempête traverse mon corps ” : ressources métaphoriques et multimodales dans les récits d'accouchements oraux et écrits, Danino Char-	

lotte	99
This is how we roll (and spin) in French from a multimodal perspective: Cross-modal analysis of rotating events, Peiró-Márquez Laura [et al.]	101
A cognitive linguistic and eco-linguistic analysis of prospective creative writing, Peterson Catrin [et al.]	103
Beyond type frequency: the role of variability and similarity in the productivity of constructions, Perek Florent [et al.]	105
An Experimental Examination of the Stage Model in Cognitive Grammar, Sugaya Yusuke	107
Corpus-based and experimental evidence in the study of evaluative constructions: a crosslinguistic investigation, Tsikulina Alina [et al.]	109
Language in Orbit: Compounds and the Conceptualization of Outer Space, Törmä Kajsa	111
The Intelligibility and Comprehensibility of French-accented English in an Academic Context: how do L2 productions affect recognition?, O'callaghan Victoria	112
Le rôle des expériences sensorimotrices et du contexte dans la représentation et la mémoire de concepts concrets et abstraits, Marre Quentin [et al.]	114
La force des connecteurs. Réflexions autour d'expériences pilotes sur les marqueurs de causalité et de concession, Dargnat Mathilde [et al.]	116
SEX IS ASCENSION and WOMAN IS ENEMY. A cognitive analysis of incel ideology, Tabacaru Sabina	118
Lexicalization patterns and language variation under the microscope: a corpus study on motion event encoding in French, English, and German, Buclier Adélie [et al.]	120
Does language constrain spatial thinking, categorization of motion events and	

gaze behavior? A crosslinguistic investigation, Soroli Efstathia	122
Liste des auteurs	124

The Influence of Affective-Meaning on Anaphora Resolution

This paper investigates the influence of affective-word-meaning, specifically valence (the extent to which a stimulus is negative or positive) and arousal (the extent to which a stimulus is calming or exciting), on the resolution of anaphorically used personal pronouns.

Affective-meaning has been shown to influence the processing of isolated words (Kuperman et al. 2014), as well as production (Fraga et al. 2012) and processing (García-Orza et al. 2017) of ambiguous relative pronouns.

Typically, the influence of valence on processing is attributed to automatic vigilance, which refers to humans' innate tendency to pay more attention to negative stimuli. In the context of anaphora resolution, automatic vigilance can be assumed to function as the underlying cognitive mechanism turning negative-valency into a saliency-lending cue.

Building on the premise that personal pronouns tend to favor highly salient targets (Ariel 1988), I predict a higher degree of negative valence to increase the probability of resolving a pronoun with corresponding referents.

The hypothesis was investigated using a meaning selection study. Participants were presented with transitive sentences of the form “The noun₁ sees the noun₂ y. He...” and were prompted to select the preferred pronoun target as quickly as possible based on their intuitions (Fig. 1).

Sentences were automatically generated through the random combination of two tokens from a predetermined list of 179 human-denoting nouns¹ for which normed affective-ratings (Warriner et al. 2013), gender stereotype ratings (Kennison & Trofe 2003), and frequency data (Brysbaert & New 2009) are available.

Contrary to list-design approaches that involve theoretically unjustified factorization of affective-meaning (Fraga et al., 2012; García-Orza et al. 2017), the implemented method treats affective-meaning as a continuous variable. Furthermore, the variation in experimental items allows for extremely fine-grained testing of essentially all possible differences in relative affective-meaning between two referents in a given sentence.

Each participant (n = 52) processed 89 items resulting in 4628 observations overall. For each trial, the relative affective-ratings for the given nouns in the specific constellation were calculated² and used to predict the probability of choosing the subject-referent with a generalized linear mixed effects model for binomial data. The model output indicates a significant main-effect of valence (p = <0.001) (Fig. 2), but no significant main-effect for arousal (p = 0.098). The two affective-meanings neither show an interaction with each other, nor with gender-stereotype-ratings or frequency.

The data supports the hypothesis that negative-valence is a saliency-lending cue influencing anaphora resolution. In contrast to studies on resolution of ambiguous relative pronouns (Fraga et al. 2012; García-Orza et al. 2017) that showed a significant main effect for both dimensions of affective-meaning, arousal does not influence the resolution pattern in the current study.

According to the automatic vigilance hypothesis, arousal is not straightforwardly expected to influence salience associated with negativity as it is orthogonal to valence.

Additional studies are required to better assess the influence of affective-meaning on the interpretation of different kinds of anaphoras in context.

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¹ In total, 31862 different sentences (179*178) can be generated using this method.

² Relative-Value of Noun₁ = (ValueNoun₁ - ValueNoun₂) / (ValueNoun₁ + ValueNoun₂).

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The murderer sees the janitor. He...

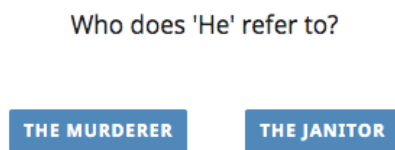


Figure 1: Experimental Item from Participant's view

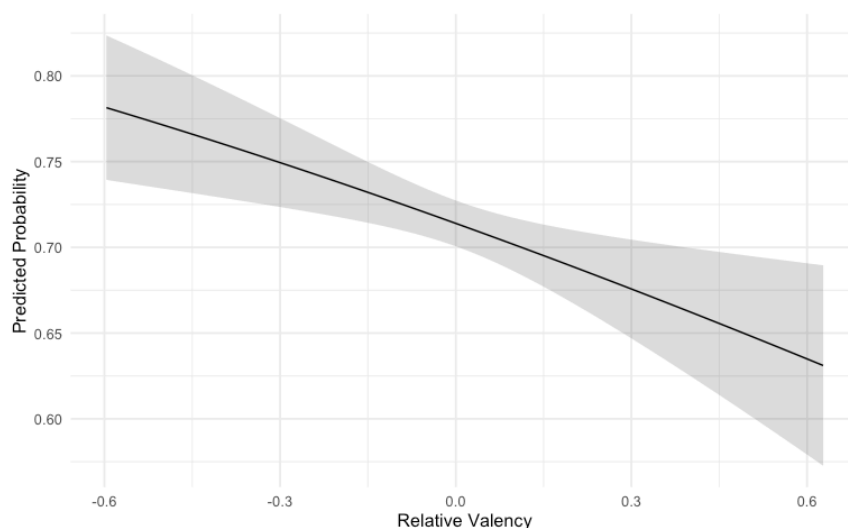


Figure 2: Predicted Probability of Subject-Referent-Resolution as a Function of Relative Valency

502 Words (including in-text-citations)

A New Typology of Event Conceptualization

The aim of this paper is to propose a typology of event conceptualization within the framework of Cognitive Grammar (Langacker 2008, etc.). Three parameters will be provided for the typology: intersubjectivity, interactive/conceiving, and viewing arrangement (Fig.1). The classification along these parameters will give some account for some systematic differences between languages.

We propose that there are two different communication stances (face-to-face vs. side-by-side), which leads to two distinct types of intersubjectivity (D-Intersubjectivity vs. A-Intersubjectivity). Based on the face-to-face communication stance, the speaker and the hearer establish an intersubjectivity (called D-Intersubjectivity) by the speaker dissimilating others' perspectives, which evokes the potential to create a surrogated self in partially overlapped objective scenes (OSs). In A-Intersubjectivity, on the other hand, the speaker's and the hearer's perspectives are assimilated or synchronized, based on a sense of self-other identification induced by side-by-side communication stance. As illustrated in Fig. 1, D-Intersubjectivity (IV, V, VI) contains two separated perspectives ($S \neq H$) while A-Intersubjectivity (I, II, III) has only one assimilated perspective (S/H). Event-internal viewing arrangement (IVA) and Event-external viewing arrangement (EVA) virtually correspond to Langacker's ego-centric viewing arrangement and optimal viewing arrangement, respectively. The last parameter pertains to the interactive or conceiving relation between the subject and the object of conception.

The typology of event conceptualization explains the cognitive mechanism of overt vs. covert grounding systems, explicit vs. implicit pronouns, and the probability of so-called "ellipsis" in a unified way. We propose that the baseline of the Japanese system pertains to A-Intersubjectivity, which does not necessarily require the speaker to direct the hearer's attention to the referent because sharing attention between them has already been established by definition. That makes some tacit elements possible in Japanese. English, on the other hand, has developed based on D-Intersubjectivity, which requires the speaker to direct the hearer's attention to the referent explicitly. That is why using tacit elements is strictly confined to some limited cases in English.

These two intersubjectivities are flexible in reality since communication stances are dynamically interchanged. The two viewing arrangements are also altered frequently by a cognitive operation called "objectification of the subject of conception (cf. Langacker 1990, Tomasello 1999). For example, when a doctor says to his patient "How are we feeling today?" he assimilates himself with his patient to show his empathy (Quirk et al. 1985). Here this *we* (paternal *we*) is the objectively construed subject of conception in A-intersubjectivity (II). Our proposal also explains some deictic differences in languages. The deictic centers have to be different between A- and D-Intersubjectivity. In fact, unlike English, the distal demonstrative affix "*a-*"(*that*) in Japanese cannot refer to things in the hearer's vicinity because the deictic center in Japanese is the integrated speaker/hearer, which inevitably makes the hearer's vicinity proximal to the speaker.

The typology in Fig.1 has the potential to open a new perspective to capture language diversity systematically.

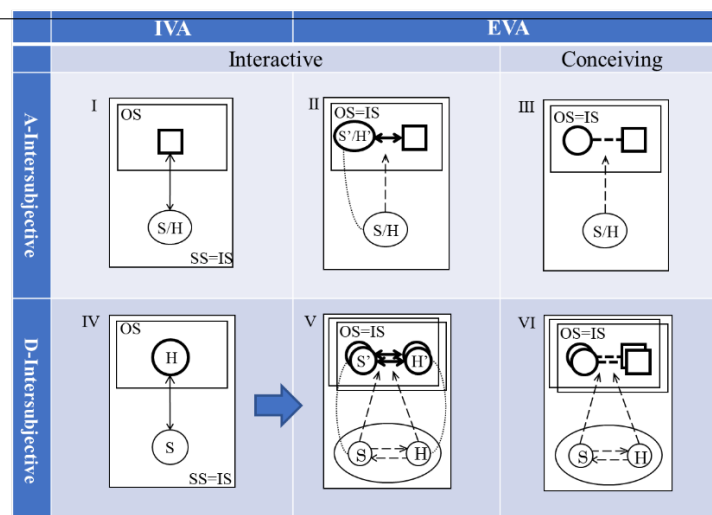


Fig. 1 Typology of Event Conceptualization

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Conceptual metaphor in the political discourse of the Catalan pro-independence conflict

As Lakoff and Johnson (1980) demonstrated, metaphor, far from being an exceptional resource of poetic language, is a tool of conceptualization, which constantly permeates language. Moreover, it is a common conceptual framing strategy in political communication. A large part of the ideological substratum of political parties crystallizes in metaphorical frameworks. This type of narrative simplifies the complexity of political processes by creating a narrative of archetypal characters (good versus evil or democrats versus external enemies) or by establishing Manichean categorical boundaries (democracy versus totalitarianism). Political discourses are usually sifted through a metaphorical sieve that makes the narrative simpler and more accessible to the electorate.

This paper focuses on the parliamentary discourse elaborated by the four major Spanish parties during the XII legislature (2016-2019) regarding the Catalan independence conflict. It describes, from a cognitive approach, the main metaphorical outlines used to frame the territorial conflict by the Partido Popular, Partido Socialista, Unidos Podemos and Ciudadanos.

The framing of the Catalan *procés* has attracted the attention of numerous investigations in the last decade (Ballesteros, 2015 and 2016; Moragas-Fernández, Montagut and Capdevila, 2019; González, 2019, 2023), but almost all of them have focused on the autonomous politics of Catalonia. The studies usually analyze the discourse of pro-independence parties or media, or establish a comparison between supporters and detractors of the nationalist project, almost always taking the Catalan framework as a reference. Therefore, there was a lack of an overall picture of the national discourse on the conflict.

Like any pro-independence conflict, the discourse of the *procés* has been crossed by numerous frames since its birth in 2010. The political and media polarization between supporters and opponents of independence has been nourished by different metaphors with which the political issue has been simplified (Moragas Fernández, Montagut and Capdevila, 2019: 90). Some of the most frequent have been the personification of Catalonia and Spain, the conceptualization of the conflict as a war, a sport or a game, or the conception of the process as a journey whose goal was the independence of the Catalan region.

Although some of these conceptualizations may seem innocent or go unnoticed, it must be taken into account that mental schemes such as the coup d'état -in relation to the failed declaration of independence-, the disease -in reference to Catalan nationalism- or the war -in allusion to the conflict- contribute to polarization and establish a vision in which the adversary is conceived as an illegitimate enemy.

The classification of metaphors and their analysis provide interesting conclusions: it has been found that there are frames preferred according to political parties. For example, war metaphors are more frequently used by conservative parties. In short, the work shows that the analysis of conceptual metaphors is a valuable tool to delve into the underlying message of the political discourse and to know the ideological elements that are transmitted in each case.

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Comprendre les Gilets Jaunes à travers le prisme des cadres sémantiques et des métaphores conceptuelles : une analyse captivante de la presse espagnole

Notre proposition constitue une analyse linguistique approfondie visant à examiner comment la presse espagnole a décrit et interprété le mouvement des Gilets Jaunes en France, qui a marqué la période de 2018 à 2020. Notre objectif principal est d'explorer les cadres sémantiques et les métaphores conceptuelles qui ont joué un rôle fondamental dans la perception qu'a eue le public espagnol de ce mouvement social (Lits, 2012 ; Zizek, 2012). Nous avons choisi de nous concentrer sur ces cadres et métaphores, car ils sont susceptibles d'influencer significativement l'opinion publique et la compréhension du mouvement (Fillmore *et alii.*, 2003 ; Fillmore, 2006 ; Faber, 2012 ; Sánchez-Cárdenas & Ramisch, 2019 ; Sánchez-Cárdenas, 2021). Par exemple, la presse a pu dépeindre les Gilets Jaunes comme des "héros populaires" ou comme des "perturbateurs", des représentations qui ont des implications différentes. La question de recherche centrale de notre étude est la suivante : quels sont les cadres sémantiques et les métaphores conceptuelles qui ont émergé dans la presse espagnole lorsqu'elle a couvert les Gilets Jaunes entre 2018 et 2020 ? Pour répondre à cette question, nous avons mis en place une méthodologie rigoureuse basée sur des typologies sémantiques sur l'outil Atlas.ti (Friese, 2019) en sélectionnant un corpus spécifique d'articles provenant de quatre grands journaux espagnols : *El País*, *El Mundo*, *ABC* et *La Razón*. Ces journaux ont été choisis pour leur large diffusion et leur impact sur la société espagnole. L'analyse se focalise sur la période de 2018 à 2020, englobant ainsi les moments clés du mouvement des Gilets Jaunes en France. Notre recherche s'inscrit dans le domaine de la linguistique cognitive (Lakoff & Turner, 1991 ; Lakoff & Johnson, 2002 ; Langacker, 2008), mettant en évidence l'importance des cadres sémantiques et des métaphores conceptuelles dans la construction du discours médiatique et leur rôle crucial dans la représentation des mouvements sociaux. L'originalité de notre recherche réside dans notre exploration spécifique des cadres sémantiques et des métaphores conceptuelles dans le discours médiatique des mouvements sociaux, un domaine relativement peu étudié jusqu'à présent. Nous avons réalisé une analyse qualitative des articles qui couvrent les manifestations, révélant que la presse espagnole a largement utilisé des métaphores conceptuelles pour expliquer les actions et les événements liés aux Gilets Jaunes. Ces métaphores ont souvent contribué à créer une image du mouvement social en le présentant comme quelque chose de lointain et d'étrange pour les lecteurs espagnols. En outre, plusieurs cadres sémantiques ont été activés, notamment ceux liés à la manifestation, à la violence et à l'arrestation. En somme, notre étude met en lumière le rôle essentiel du récit médiatique dans la presse, en particulier la façon dont la presse espagnole a couvert le mouvement des Gilets Jaunes entre 2018 et 2020. Les cadres sémantiques et les métaphores conceptuelles jouent un rôle clé dans la construction de significations et d'interprétations du mouvement, contribuant ainsi à rendre compréhensible un phénomène social complexe et étranger pour le public espagnol. Cette recherche apporte une contribution significative à notre compréhension de la linguistique cognitive et de l'analyse des discours médiatiques relatifs aux mouvements sociaux.

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493 words

Despite their probable universality across the languages of the world and their ubiquity in usage (Kockelman, 2003; Wierzbicka, 1999, p. 276), interjections remain under-investigated in linguistics (Colombat & Lahaussais, 2019; Dingemanse, 2017, 2023; Wilkins, 1992). In the last few decades, a number of case studies have described individual interjections (Evans, 1992; Goddard, 2014; Levisen, 2019 *inter alia*; Ponsonnet, 2014; e.g. Schourup, 2001). However, because they mostly focus on individual languages, these studies haven't yet allowed us to generalize upon the relations between interjections and human cognition or experience.

In this study, we begin to fill this gap in our cross-linguistic knowledge about emotions by investigating cross-linguistic regularities in the functional range of interjections expressing pain and disgust. We harvested data from more than a hundred languages across four continents (Asia, Africa, Latin America, Australia), using published dictionaries, either directly from volumes based on digital files, or via online repositories). We collected 230 individual interjections expressing pain, and 89 expressing disgust. All tokens were coded for the following semantic nuances, when recorded in our sources :

- *Specialisation*, e.g. for certain quality of pain, disgust from specific sources, like in Camëntšá, where *sho* [ɕo] expresses disgust inspired by bad smell (isolate, Columbia, Jacanamijoy & Juan (2018)).
- *Colexifications*, i.e. when interjections express other states than pain and disgust, usually emotional states. For instance, in Ewe *áwò!* [awo] is glossed as pain, amazement and fear (Gbe, West Africa, Rongier (2003)¹).
- Other functions, usually conative functions such as seeking attention.

We will open our presentation with some methodological caveats regarding the data and data collection. We will then focus on the profile of pain interjections, for which we have more data, and use disgust interjections for comparison. In our sample, the most commonly reported nuances are colexifications (around 70% of all nuances), and these overwhelmingly concern emotional colexifications. In this respect, pain and disgust present clearly differentiated profiles. The emotions most frequently colexified with pain are surprise, which represent around 20% of the colexifications for pain interjection. This proximity is illustrated for the Kaytetye language in (1). With pain interjections, surprise colexifications are closely followed by 'generic' negative emotions – sorrow and sadness –, fear, and compassion (in this order).

- (1) Kaytetye (Pama-Nyungan, Australia, Turpin & Ross 2012)
Yekaye! Apene nge arlenge ertnwethele arre ntethe alarrerrantye akake.
'Hey! Get away from me because you are hitting me with your elbow.'

The colexification profile of pain contrasts with disgust, where socially oriented, negative emotions are prevalent, mostly around dislike, disapproval, fear and contempt, as illustrated for Malay in (2).

- (2) Malay (Austronesian, Indonesia, Wilkinson (1932)²).
Choma lima sen sahaja, chis

¹ Via <https://reflex.cnrs.fr/Africa/>

² Via <http://www.sealang.net/library/>

‘What, only five cents? — how disgusting’

While the variation across continents is not negligible, the trends for the most prevalent emotions remain relatively consistent across our sample. We will close the presentation with a discussion of what the observed patterns they tell us about the experiences of pain, disgust, and how humans communicate about them.

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Does <i> have confidence in their own opinion?

In English, the first person subject pronoun is 1SG, and always majuscule <I>. Recent studies in sociolinguistics and CMC in particular have shown that the use of non-standard orthography and non-standard typography (minuscules) is not random, and is used to convey attenuation in the absence of universal non-lexical markers of de-emphasis. We suggest that: Like its standard parent 1SG (<I>), the NS1sg (<i>) has a functional layer in the syntax, and a lexical layer. The functional layer is the same, the lexical (descriptive) layer is different. < i > is a composed element, an allomorph, and it is a variant that is unstressed but isn't syntactically distributed as an argument. In graphemic terms, the NS1sg is the graphic sign of a primary that denotes uniquely to its state of grapheme, a direct mediator with scalar valence. Its attenuation can be achieved via visual iconicity, or via what we call *aural implicature*: The prosodic effects of the graphemic reduction. Our working hypothesis is that the NS1sg and other non-standard minuscules are employed in statements by authors who are not entirely confident in their own opinion.

In two perception/reception experiments, we investigated reader faith in the author's knowledge-based opinion, dependent on the presentation of the pronoun <I> or <i>. Experiment 1, conducted with 123 French 'Cinquièmes' students, utilized a three-option questionnaire featuring a quasi-unsolvable linear algebra question. The same experiment was conducted in the UK in July 2023 with 82 schoolchildren of the same age. The goal was to assess faith in the author's opinion without solving the mathematical problem. Participants, given 30 seconds to select from options A, B, or C, indicated their choice based solely on visual perception. Three versions of the questionnaire were used to mitigate bias.

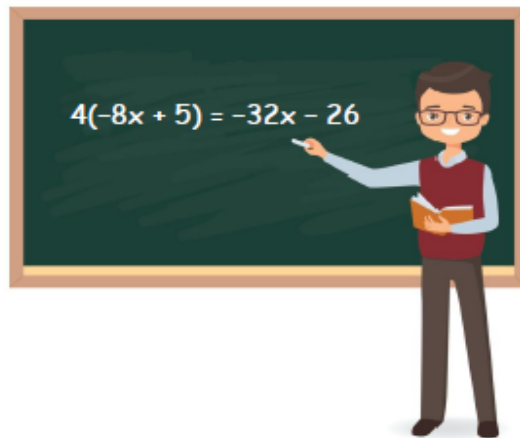
The results to Experiment 1 were significant (at α 0.01, $p < .001$). In Experiment 2, carried out in the UK, results were slightly less so, but also significant (at α 0.01, p -value was .0003). The combined results show significantly more participants put their faith in a student using the standard 1SG, and significantly fewer participants showing confidence in the NS1sg.

These findings support the proposition that readers exhibit greater confidence in the opinions of those using the standard form of the personal pronoun; thus highlighting the impact of non-standard typography on perception of authorial opinion and ensuing credibility. The fact that the ESL students' response was even more highly significant than their 1st language counterparts in the UK is very interesting since their response would have been more reliant on the visual iconicity of the form—since they only had two years of English as a foreign language tuition under their belts, and they would not encounter the form in their everyday lives.

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Élève A: "I think the answer is $\{-5\}$ "

Élève B: "I think the answer is $\{-4\}$ "

Élève C: "i think the answer is $\{-3\}$ "

Question: Qui a donné la bonne réponse ?

Réponse : Élève

Figure 1 Form given to French school students; Experiment 1.

Political storytelling, Brexit narratives and cognitive persuasion: towards a critical approach.

Abstract: Within the fields of narratology, cognitive linguistics and political discourse analysis, this paper adopts a critical approach to narrative analysis in order to provide an empirical study of Brexit discourse. By doing so, we propose to contribute, modestly, to the prolific field of critical discourse analysis (CDA) by attempting to determine whether political storytelling elements, which we understand as comprehensive and independent narrative units, with a beginning, a middle and an end and some sort of implicit moral – and which are often discarded as mere anecdotes or irrelevant digressions – might constitute a credible driver of political persuasion.

As such, our approach is thematic and our attention is on the interactional and social work that narrators do through stories and on the cognitive effects and consequences of narrative talk, which means that our research falls within one particular branch of narrative analysis, according to Mishler's typology, whose study centres on the investigation of narrative functions in social contexts.

Storytelling is a relatively old and polymorphous marketing technique, whose aim is to arouse interest and support by telling stories to audiences. We posit that the storytelling elements in any given political speech are purposeful, and when analysed critically and methodologically, they reveal the underlying narrative arc at work in the text, which arguably, plays a key role in the process of persuasion, as they contribute to the elaboration of worldviews and political ideologies.

We will first clarify the rationale and explain why political storytelling represents a suitable candidate for CDA, mainly because of its cognitive and structural dimension. We will then specify how this approach can make a positive contribution to CDA thanks to a corpus-based analysis focusing on how Vote Leave's pro-Brexit arguments were narrativized through storytelling.

Key words: storytelling, cognitive linguistics, narrative analysis, Critical Discourse Analysis, political speeches, persuasion, Brexit

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**On the conceptualisation of locative events:
the analysis of co-verbal eye-movements in a describing-matching task**

In the last few decades, cognitive linguistics have witnessed a renewed attention for the influence of one's language on the verbalisation (and hence the conceptualisation) of motion. Various elicitation tasks have shown that the encoding of motion events is highly constrained by one's habitual linguistic preferences (Slobin, 2004; Hickmann, 2006; Soroli, 2011), which may have an influence as far as on the non-verbal conceptualisation of such events (Papafragou et al., 2008; Engemann et al., 2015; Hickmann et al., 2017). Some studies have gone a step further by addressing the *live* conceptualisation of motion via the analysis of co-verbal eye-movements, i.e. recorded while the participant speaks (e.g., Soroli, 2011, 2012; Soroli & Hickmann, 2010). Our study builds on these previous studies and investigates the conceptualisation of locative events (e.g., *the vase on the table*) - both at the level of verbalisation and of gazing behaviours - for French, English, and Dutch. These three languages differ greatly in their habitual encoding of location (Lemmens, 2005; Lemmens & Slobin, 2008; Lesuisse, 2022). Dutch obligatorily uses Cardinal Posture Verbs (CPVs, 'SIT', 'LIE', 'STAND') to express the orientation of the object, French prefers orientation-neutral existence verbs like *être* 'be' and English straddles the middle with the possibility to use CPVs despite a marked preference for *be*. Lesuisse (2022) has recently shown that these linguistic preferences ripple out into differences both for verbal and non-verbal conceptualisation (see also, Bosse & Papafragou, 2018; Flecken & Van Bergen, 2019). This is also reflected in the way the speakers look at the locative events with the Dutch and the English participants paying more attention to orientation.

Our talk addresses this question further and reports the findings of a describing-matching task performed by L1 speakers of French, English, and Dutch ($N_{\text{dyads}}=93$) which aimed at exploring the influence of conversational needs on the expression of orientation and on the co-verbal eye-movements cross-linguistically. During this task, the describer sees 14 locative events on a computer screen equipped with an eye-tracker and they describe these events to the matcher, sitting in their back, who needs to place the objects back in a real setting. A first analysis of the data has confirmed the expected typological preferences with the Dutch participants favouring the use of the CPVs and the French and English participants preferring the neutral *be* and expressing the orientation outside the verb when needed. These cross-linguistic differences are reflected on the co-verbal eye-movements; the French and English participants adopt similar gazing strategies but the English group shows more interest for orientation, like the Dutch speakers, *independently* of the linguistic strategy used. One could then wonder whether Dutch-like linguistic strategies (expressing orientation in the verb) correlates with more Dutch-like gazes (attention towards the orientation of the object). This talk therefore proposes a more refined analysis of the data. A first pilot study reveals that the English speakers visually attend to orientational features that they do not encode. Our talk will evaluate this tendency against the analysis of the whole data set.

(498 words)

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No equivalence: A computational model

This paper presents the *principle of no equivalence*, a new principle of no synonymy (Goldberg 1995: 67), and considers the design of an agent-based simulation model for the validation of its predictions.

No equivalence was born from a critical discussion questioning no synonymy avoidance in language. Goldberg's (1995: 67) principle of no synonymy - which states that when two constructions differ in form, they must be semantically or pragmatically distinct - has raised increasing concerns as to its theoretical and descriptive accuracy (e.g. Kinsey et al. 2007; Uhrig 2015; Laporte et al. 2021). The aim of this paper is twofold. First, taking stock of the arguments put forward, we show that while the principle of no synonymy is neither overrated nor inaccurate, it would gain in precision and explanatory power if it were to be reframed under a new name:

The Principle of No Equivalence: If two competing constructions differ in form (i.e. phonologically, morpho-syntactically or even orthographically), they must be semantically, pragmatically and/or socially distinct.

Second, in addition to spelling out the theoretical remit of No Equivalence, we present an agent-based simulation model (ABM) for the validation of its predictions. Agent-based modeling is an emerging method in cognitive linguistic research, including cognitive approaches to language variation and change (e.g. Landsbergen et al. 2010; Pijpops 2022), where it is used to test minimal conditions under which a linguistic process can emerge. In our ABM, given a community of speakers and a three-dimensional functional space for linguistic communication (including semantic, pragmatic, and social meaning), agents are assigned random meanings to express in every interaction. Across interactions, they create new constructions when a meaning to express is too distant from that of the closest existing construction in their grammatical inventory, and they store and update constructions that they hear. Over time in the community, we expect the following effects:

- (i) The agents start to converge on the prototypical meaning of each construction (they are never identical among different agents, but they become ever closer in proximity)
- (ii) The meaning space becomes optimally divided among the constructions used throughout the community, such that there aren't any 'gaps' in the meaning space that aren't covered by a word that's reasonably close, as shown in [Figure 1].

Effect (ii) entails the emergence of No Equivalence: there are no equivalent words, or no words with (closely) overlapping meanings. In particular, No Equivalence emerges as the combined result of usage affecting grammar (Bybee 2010) and lazy cognition/least effort (Bloomfield 1933, Zipf 1949, Haiman 1983, Park and Clark 2022): not only do agents update their cognitive meaning representations through linguistic conventions, but in doing so they optimize the functional coverage of each construction.

The results of this agent-based simulation thus provide computational evidence of the plausibility of No Equivalence as an organizing principle of linguistic knowledge and use.

[WORD COUNT: 475]

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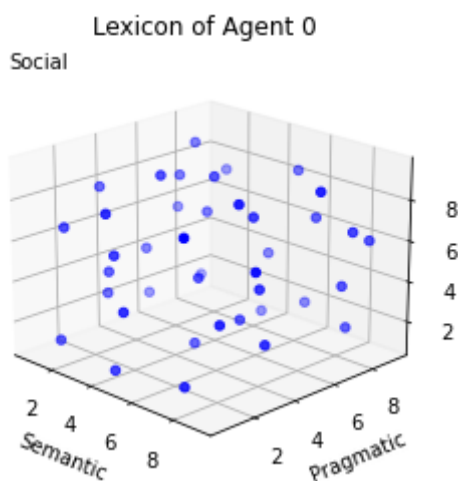


Figure 1. An agent's construction after 10,000 interactions

Selon la théorie de la cognition incarnée, il existe un lien étroit entre l'expérience physiologique et les états psychologiques. Ainsi, le processus de cognition n'est pas un processus psychologique, mais un processus de compréhension psychologique et physiologique de l'environnement externe (Ye 2010). Lié à cela, le système verbotonale postule que le son est le résultat de la globalité corporelle et que le corps est essentiel pour améliorer la production et la perception de la voix (Guberina 1970). Aujourd'hui, personne ne doute de l'importance de notions comme la proprioceptivité ou la cinesthésie par rapport à l'apprentissage des langues (Guberina 1955, Verine 2019). Cependant, peu d'études ont analysé l'impact des postures et des gestes sur la production de la langue parlée. L'étude Flory et Stone (2015) et celui de Delhoume et Ferragne (2018) se sont focalisés sur l'influence de différentes postures lors de productions vocaliques alors que celles de Krahmer y Swerts (2007) ainsi que celles de Pouw et Dixon (2019) le font sur l'impact des gestes.

Notre recherche se veut d'analyser les modifications acoustiques sur la production de certaines voyelles en français et en catalan, selon différentes postures et gestes ainsi que leur utilisation conjointe, l'objectif étant de déterminer quels seraient les modèles de gestes, postures et de combinaisons posturo-gestuelles plus idoines à proposer à des apprenants de français et de catalan. Plus concrètement, l'analyse de l'impact des gestes et des postures sur la production de trois voyelles catalanes, s'est réalisé grâce à un corpus constitué de logotomes, avec les voyelles /a/, /ɛ/ et /ɔ/ dans un contexte consonantique /p/,/t/,/k/ produit par 13 femmes catalanophones universitaires de 20 à 25 ans et par 9 femmes francophones de 20 à 55 ans. Tous les logotomes ont été prononcés selon différentes postures: debout /assise/couchée et différents gestes : sans geste / geste centrifuge (facilitateur) / geste centripète (inhibiteur). Pour pouvoir analyser les effets des postures et des gestes sur le corpus, nous avons procédé à une analyse acoustique des trois voyelles, segmentées avec Praat à partir de 4 variables susceptibles d'être influençables par les gestes, les positions et les voyelles : le F0, F1 et F2 et l'intensité des voyelles.

La comparaison des productions vocaliques catalanes et françaises (Carrera-Sabaté et al, 2023) ont révélé certaines différences en fonction de la langue du stimulus. En catalan, les gestes affectent le F0 et le F1, alors que les postures affectent plutôt l'intensité et le F2. Par contre, en ce qui concerne les voyelles françaises, le F0 et le F1 sont impactés aussi bien par le geste que la posture. Le F2 n'étant pas affecté. Finalement, l'intensité se voit modifiée aussi bien avec le geste qu'avec la posture en français et en catalan. Il semble, donc, que l'utilisation conjointe de gestes et de postures devrait être un instrument efficace de remédiation de la production langagière en catalan et français.

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489 words

This study aims at identifying regular gestural correlates to irony in political discourse. We investigate how politicians use their hands, faces and whole bodies to express irony, as we identify co-occurring gestural features and estimate their frequency.

Numerous studies have found evidence supporting the notion that multimodal cues play a role in explicitly demonstrating ironic intent in multi-party interactions (Poggi *et al.*, 2007; Tabacaru, 2020; De Vries *et al.*, 2021). Ironic segments of speech have been linked with multimodal cues such as eyebrow rises (Tabacaru, 2020), blinks (Kreuz, 2020), smiles (de Vries *et al.*, 2021), and body repositioning (*ibid.*). However, it is not clear whether the same cues are found in monological, political discourse, where speaker status is intertwined with political persona.

Due to its inherent appeal to audiences, irony is indeed heavily used in the context of politics, particularly in high-stakes events like presidential debates (Nuolijärvi and Tiittula, 2010). It has specifically been shown that the use of irony can enhance one's own position relative to opponents (Nuolijärvi and Tiittula, 2010). However, very few analyses of irony in politics rely on multimodal methodologies despite the insight they provide on the way gestures act as framing devices (*e.g.* Jacob *et al.*, 2016).

We used YouTube video datasets (total duration: 3 hours 4 minutes) that were sourced from a variety of media, including the Correspondents' Dinner, Al Smith dinner, presidential campaigns, interviews, and presidential debates. All videos were recorded between 1982 and 2016 and feature 10 speakers using different varieties of American English. The videos were transcribed and annotated using ELAN for gestures and types of irony. Specifically, we annotated eyebrow movement (rises, frowns), head movement (beat, nod, tilt, shake), hand gesture size (small, medium, big), hand gesture type (iconic, metaphoric, pointing, beat, emblem, adaptor), and handedness (one hand, two hands). Our annotation also targeted smiles, blinks, shoulder shrugs, body repositioning, mouth movement (pressed lips, other), as well as silent pauses and laughter.

In total, we identified 291 ironic segments. These segments were further categorized into five types of irony as proposed by Gibbs (2000) and refined by de Vries *et al.* (2021). The irony types include jocularity, sarcasm, hyperbole, rhetorical questions with humorous assertion, and understatement. We also categorized each ongoing discourse sequence type into narratives, argumentations, Q&As, and descriptions.

A series of chi-square tests of independence was conducted to examine the relation between the proportion of gestures and types of irony, and between the proportion of gestures and embedding sequence types. Our findings specifically revealed strong associations for eyebrow frowns, smiles, and small-sized hand gestures. On the contrary, eyebrow rises, head beats, eyeblinks, silent pauses, and body repositioning were evenly distributed across types of irony. We also noted a co-occurrence between pressed mouth and silent pauses. We discuss how gestural features map out the different discursive functions at play during irony with examples, then suggest potential explanations along with developments.

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Stance and legitimation in corporate responsibility reports: A corpus-based ecolinguistic approach.

Corporate discourse, understood as “the set of messages that a corporation chooses to send to the world at large, and to its target markets or existing customers” (Breeze 2013: 19), is usually employed by companies to build legitimacy and credibility (see Vaara & Tienari 2008; Turcan, Bakhtiar & Marinova 2012; Lin 2021, among others). With experimental methods, Fuoli and Hart (2018) tested whether intersubjective and attitudinal stance-taking acts serve trust-building functions in corporate discourse. The results showed that exposure to expressions of stance in discursive strategies does enhance the company’s ethical commitment and integrity as perceived by a target audience (Fuoli & Hart 2018). In this context, this paper explores how linguistics resources conveying stance, i.e., the set of “personal feelings, attitudes, value judgments, or assessments” (Biber et al. 1999: 966) on and towards the proposition being expressed, contribute to the construction of an environmentally committed image by means of legitimizing strategies. Legitimation is usually defined as “a macro-function through which speakers seek social approval of the Self, where the Self is either the individual speaker or an institution or social group the speaker identifies with, or accreditation for social actions and relations” (Hart 2011:7). Consider example (1):

- (1) “As a clean, low-carbon, safe and efficient energy, natural gas *will* play an important role as transitional energy in the global energy transition, and is the main energy for China to achieve energy security and "carbon peak and carbon neutrality" targets, which has broad development prospects.” (Petrochina 2021)

In this excerpt from Petrochina’s 2021 corporate social responsibility (CSR) report, the use of *will* as a marker of epistemic certainty profiles the company as an authority in the assertion about natural gas and further legitimizes the company’s role in its production and distribution. Thus, the specific linguistic resources selected for investigation are, among others, certain makers within the categories of attitudinal stance, epistemic stance and modality (e.g. *can*, *may*, *be able to*, *have to*, etc.) (see Fuoli 2017). Regarding the methodology, this study draws from corpus-assisted ecolinguistics (Poole 2022) and Critical Discourse Analysis (van Leeuwen 2008; Hart 2014; Stibbe 2015). The corpus chosen for the analysis consists of corporate social responsibility reports; within the broader field of corporate discourse, CSR reports, which may be named differently depending on the company, are documents intended to reflect the companies’ commitment toward environmental, social and governance issues (Breeze 2013: 166). Two main groups of companies will be considered: (1) a group in the sector of basic materials, energy sources and utilities (mostly encompassing gas and oil drilling and refining industries), and (2) a group of consumer goods and services sectors comprising industries which manufacture beverages, meat and dairy products, processed and packaged goods, textiles, etc. Therefore, the main aim is to answer two main research questions: (1) how do the stance markers under analysis intervene in legitimizing strategies found in environmentally related contexts? (2) how are they distributed between sectors in the corpus?

Keywords: stance, legitimation, corporate discourse, ecolinguistics, corpus linguistics

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The Source/Goal (a)symmetry in Negidal: encoding Grounds in a Tungusic language

The literature on Motion events and especially on the encoding of Path has put forward a tendency among speakers of languages of the world to favor the marking of the Goal to the detriment of the Source, thus creating a spatial asymmetry (Kopecka & Vuillemet, 2021, Bourdin, 1997, Ikegami, 1987). This asymmetry is attested at different levels in languages: by a more frequent encoding of the Goal, by a greater diversity of strategies available in languages to express the Goal, or by a morphosyntactic “straightforwardness” (following Bourdin, 1997) of Goal-encoding (Kopecka & Vuillemet, 2021: 3). However, this asymmetry is not attested in all languages of the world.

Tungusic languages display developed case marking systems, which include dedicated spatial cases, as well as other cases that can encode spatial events among other functions. Tungusic languages are little described as part of studies on spatial events and spatial (a)symmetries. Hence, they can shed new light on our understanding of crosslinguistic variability in this field of study.

Negidal is a moribund underdescribed North-Tungusic language spoken in Far Eastern Siberia (Pakendorf & Aralova, 2018). Like its sister languages, Negidal notably resorts to spatial cases on nouns or relational nouns to encode the different Grounds defining a Path of motion: the Source, the Goal and the Median (see (1) & (2)).

The aim of this presentation is to investigate spatial (a)symmetries in Negidal, a language which has not been the subject of research on this topic. The main objective is to examine whether there is a Source/Goal asymmetry in Negidal in the expression of Grounds expressed by case-marked nouns, and to which extent it corroborates the tendency described in the literature. To do so, I will focus on Negidal’s spatial case marking system.

For this research, I extracted 3700 utterances displaying translocational spontaneous motion from a corpus of 206 narratives of various genres from 9 different speakers (Pakendorf & Aralova, 2017). I coded the utterances following the coding rules elaborated by Slobin (2005) and Lemmens (2010). Analysis was then run on nominal items targeting case distribution possibilities and frequency of elements encoding a Source or a Goal of motion.

Preliminary results show that among a sample of 1300 utterances, around 23% of case-marked nominal elements (nouns or relational nouns) encode the Goal, whereas 3% of them encode the Source (see Table 1). The Source can be expressed by the ablative and exceptionally the prolative, the Goal can be expressed by 6 cases (allative, locative, dative, accusative, instrumental and prolative) (see Table 2). It is also observed that case-marked nouns encoding the Goal can take different derivational markers allowing more fine-grained semantic distinctions in the expression of the Goal, whereas this is not observed on case-marked nouns encoding the Source. Therefore, when a Ground is expressed, there is an asymmetry in the frequency of use and in the diversity of spatial cases in favor of the Goal. Hence, Negidal could be another example of a language displaying a Source/Goal asymmetry.

Nb. Words: 494

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- (1) *jaja-duki-n nandat jukə-li toksa-dgi-ja-n ama-ski*
 bear-ABL-3SG again ice-PROL run-REP-NFUT-3SG back.side-ADVB.ALL
 “[...] he ran back along the ice away from the bear.”
 (Pakendorf & Aralova, 2017, DIN_shatun 31)
- (2) *mulu-dukkaj tɛoŋko-laː tɛopi tɛopiː dɔgi-l-lə-n*
 tie.beam-ABL ventilation.hole-LOC away away to.fly-INCH-NFUT-3SG
 “From the tie beam to the ventilation hole and away it flew!”
 (Pakendorf & Aralova, 2017, APK_1chindakan 115)

Table 1. Percentages of case-marked nominal elements (N or Rel.N) encoding the Goal or the Source of motion per 1300 utterances

Category	Goal-encoding	Source-encoding
Noun	21.69 % (282)	2.92 % (38)
Relational Noun	1.92 % (25)	0.08 % (1)
Total	23.62 % (307)	3 % (39)

Table 2. Distribution of cases encoding the Goal or the Source of motion on nouns and relational nouns per 1300 utterances

Type	ABL	ACC	ALL	DAT	INS	LOC	PROL
Goal-encoding	-	24	151	27	3	99	3
Source-encoding	38	-	-	-	-	-	1

Expressing and understanding figurative language about emotions in Spanish as a second language

Keywords: conceptual metaphor theory, metonymy, anger, L2 acquisition, Spanish L2

Cognitive Linguistic explains how languages codify abstract concepts, like emotions, through metaphorical and metonymical reasoning. Emotions are conceptualised in various ways according to different socio-cultural environments that give rise to different emotional experiences (Ogarkova and Soriano 2018). For that reason, emotions are not understood and expressed in the same way in different languages and cultures. That could represent a difficulty in the acquisition of emotional terms and expressions in a second language (L2). This is why it is of high relevance to explore L2 learners' non-literal productions and comprehension to create teaching methods and materials that improve the L2 learner's metaphorical awareness and creativity (Littlemore 2017; Low 2019).

This paper presents a study that focuses on the acquisition of conceptual metaphors and metonymies in the description of ANGER in L2 Spanish by L1 Bulgarian learners. The goal is to examine learners' use of metaphorical language, both in production and comprehension, and determine to what extent learners' L1 knowledge and culture may affect metaphorical processing in L2. Variation across different proficiency levels (A1 to C2) is also studied.

This acquisition study consists of two parts, one dedicated to the production of expressions about ANGER in Spanish, and another to its comprehension. Written production data were collected using the elicitation materials called "Laura's Weekend" (Gómez-Vicente 2013) in both L1 and L2. Comprehension data were collected by a questionnaire that includes metaphorical and metonymical expressions in L2 that differ conceptually and linguistically from their L1 equivalents. Quantitative and qualitative analyses were conducted in both parts of the study.

Results reveal that figurative language is more frequently used than literal language, in both L1 and L2 written productions when expressing emotions. However, the most significant differences in the use of metaphorical language in L2 do not depend on the proficiency levels but rather on each learner's ability to use metaphorical language in both L1 and L2.

Interestingly, comprehension results do not reveal significant individual or group differences. However, substantial differences are found in the correct interpretation of the various types of metaphorical and metonymical expressions, depending on how culturally distant they are from the L1.

The results show how learners' awareness of embodied grounding for metaphors and metonymies serve as a comprehension strategy to understand metaphorical and metonymical expressions. It also proves that students of any level, including beginners, can understand and use metaphor and metonymy in L2 Spanish, and eventually, how metaphors can be used as a communication strategy.

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The structuring of locative information in English and in French

Information structure reflects the framing choices made by speakers, which may reveal different patterns of use. Applied to locative events (e.g. the bottle (FIGURE) in the fridge (GROUND)) in French and Dutch, Lemmens and Perrez (2018) have suggested two different ways in which locative information is commonly structured, which they call the “Onion model” (predominant in French) and the “Train model” (predominant in Dutch). A sentence like *Vous avez un premier client qui est assis sur un fauteuil vert* (‘you have a first customer who is sitting on a green sofa’) illustrates the Onion model, in which the Figure (the customer) is introduced in a first clause and the following clause provides a further layer of information on this Figure (sitting on a sofa). A sentence like *In de slaapkamer staat er een bed waar verschillende kledingstukken op liggen* (‘in the bedroom there stands a bed on which different clothes lie’), on the other hand, realises the Train model, in which the Figure (the bed) is also introduced in a first clause, but it subsequently serves as the Ground for the location of another Figure (the clothes).

Some typological studies have shown that English is closer to French than to Dutch when it comes to the expression of manner of location (Lemmens, 2005; Lemmens and Slobin, 2008; Lesuisse, 2022); it would be interesting to investigate if the same is true for information structure. This presentation reports on a study evaluating the use of the Onion and the Train models in a corpus of locative descriptions in French and English. The data are drawn from a Describing-Matching task, an interactive game in which the describer provides locative information to the matcher whose role is to place 14 missing objects in the setting accordingly.

Taking the two models proposed by Lemmens and Perrez as a starting point, our presentation addresses the following questions: How is locative information structured in elicited speech? Are there typological differences or similarities in French and in English regarding the structuring of locative information that can be compared to the contrast between French and Dutch? Our presentation also addresses the weight and the type of information provided by the locative descriptions; we examine the structure—clausal or phrasal information—and the information provided by speakers—*locative* (in answer to the question *Where?*) or *orientational* information (in answer to *How?*).

Our results show that French and English behave quite similarly when structuring locative events; both prefer the Onion strategy, although English confirms a secondary interest for the Train strategy. The two languages favour the encoding of locative information over orientational information, and they usually do so by resorting to a juxtaposition of phrases in their descriptions, as expected by the interactive nature of the task. Our findings do not fully confirm the validity of the Onion and Train models proposed by Lemmens and Perrez neither for English nor for French, and rather reveal that the locative descriptions are not structured as systematically as they have suggested.

(497 words)

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Réponses déclaratives et physiologiques au cours du processus de compréhension de l'oral en L2

L'écoute et la compréhension de la parole relèvent d'un processus cognitif complexe, qui occupe une place centrale dans les différentes phases d'acquisition de la L1 mais également pendant l'apprentissage d'une L2. Décoder un message verbal à partir du flux sonore, en L1 comme en L2, implique la mobilisation de facteurs de nature différente (anatomiques, neurobiologiques, cognitifs, etc.) et l'activation de différents processus cognitifs qui permettent à l'auditeur d'établir des relations de sens entre la matière phonique perçue et ses propres connaissances. Dépendamment du niveau de maîtrise de l'apprenant et donc du degré d'automatisation de certains processus, la compréhension de l'oral en L2 peut impliquer une charge cognitive plus ou moins importante (Gaonac'h, 2003 ; Buck, 2001 ; Roussel, 2021) et peut également générer de l'anxiété et du stress, en particulier chez les apprenants ayant des niveaux de maîtrise de la L2 plus faibles (Vogely, 1998 ; Hasan, 2000 ; Elkhafaifi, 2005 ; Zhang, 2013). Sur le plan neurophysiologique, en plus des activations d'un vaste réseau cérébral, la compréhension de l'oral en L2 pourrait donc également générer, à différents niveaux de maîtrise de la L2, des réponses au niveau du système nerveux autonome (SNA) qui se reflètent dans l'activité électrodermale (AED) et dans la variabilité du rythme cardiaque (VRC).

Cette communication sera consacrée à la présentation et à la discussion de données issues d'une étude menée dans le cadre d'un projet de recherche doctorale interdisciplinaire, en didactique des langues et en neurosciences cognitives, sur les obstacles en compréhension de l'oral L2. Ce projet se propose en particulier d'investiguer le processus de compréhension de l'oral en italien L2 lors de l'écoute d'extraits sonores auprès d'un public d'apprenants francophones natifs intermédiaire et avancé (A2, B2) en adoptant une approche interdisciplinaire. Les méthodes d'investigation des neurosciences cognitives viennent apporter un éclairage supplémentaire aux méthodes utilisées en sciences humaines et en didactique des langues, ce qui devrait permettre d'observer et d'étudier le processus de compréhension de l'oral en L2 dans toute sa complexité, tant sur le plan déclaratif-comportemental que sur le plan neurophysiologique. L'étude que nous présenterons sera menée entre janvier et mars 2024 et se focalise sur l'observation du fonctionnement de l'auditeur engagé dans une tâche de compréhension, lors de trois moments-clés : 1) compréhension fluide du message ; 2) compréhension entravée (obstacles) ; 3) retour réflexif sur les obstacles rencontrés. Nous collecterons des données déclaratives sur les obstacles rencontrés et sur leur catégorisation et, en même temps, l'état fonctionnel de l'auditeur sera observé sur le plan physiologique, tout au long de la tâche, par la mesure de l'AED et de la VRC, des mesures censées pointer indirectement les obstacles cognitivo-émotionnels à la compréhension. Les analyses des données devraient permettre : a) d'établir le degré de corrélation entre les réponses physiologiques et le moment du processus de compréhension observé ; b) d'établir des corrélations entre les mesures relevées lors des trois moments observés et le niveau des apprenants ; c) d'établir des corrélations entre les données déclaratives collectées par verbalisation et les données physiologiques.

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Exploring theories of embodied cognition in multisensory audio description (AD) in botanic gardens for blind, partially sighted (BPS) and non-blind audiences

Audio description (AD) is a growing field of study, but there are still gaps in our understanding of it as a subject discipline. For instance, there is little research that is cognitively-orientated (Holsanova, 2022), or focussed on sensory language. Multisensory approaches to the language of AD may be more effective than typical approaches to AD (e.g. purely visual description) because language based on multiple senses could help people develop richer mental imagery (Fryer, 2016). This is supported by research in cognitive science and linguistics, in the growing body of evidence that cognition (including language comprehension) is grounded in sensory/perceptual mental simulations (Barsalou, 2008).

This paper will outline the potential opportunities of exploring AD through a cognitive linguistic perspective, with a particular focus on the role of embodied cognition in AD experiences. This approach has the potential to both enhance our understanding of the impact of multisensory language in AD, as well as contribute to our understanding of embodied cognition, in that AD provides an opportunity to test these theories in an applied setting. There are limits in our understanding of how language comprehension extends to real-life situations, in that existing research often lacks ecological validity (Kok and Cienke, 2014). This presentation will illustrate how applied research in AD has the potential to overcome some of the limitations of embodied cognition research.

Firstly, this paper will describe how themes from walking interviews with blind and partially sighted (BPS) people, exploring sensory experience in gardens, were used to develop different approaches to multisensory AD. For example, by analysing the language BPS people use, the sensory experiences that BPS people prioritise, as well as how they describe constructing mental imagery.

Next, the paper will outline the methodology and initial results from an online experiment testing different approaches to AD, and explore how the findings will be applied and tested in a botanic garden setting. This study aims to explore why particular approaches to sensory description might be more effective in AD, asking: what are the most effective linguistic methods for describing sensory experience that promote enhanced vividness and clarity of mental imagery, and does this vary across sensory modalities or between groups? (e.g. blind, partially sighted and non-blind participants) The study explores whether multisensory descriptions are more effective than visual-only descriptions, and whether literal or metaphorical language is more effective.

As one of AD's primary outcomes is to enable the creation of mental imagery for what cannot be perceived and/or enhance perception for what can, measuring the vividness and modality of mental imagery is a way to measure not only the impact of AD, but also the impact of language on mental imagery creation. As Zwaan (2004) outlines in the Immersed Experiencer Framework, the comprehension of sentences, or whole texts, builds on automatic mental simulations from individual words, with the development and integration of mental models and/or imagery. Measuring an aspect of this latter process through Plymouth Multisensory Imagery Questionnaire (Andrade *et al.*, 2014) is key to this research's contribution to knowledge.

Word count for abstract: 499 words

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The mechanics of meaning. Understanding metaphors and image schemas through animacy and inanimacy.

Building on advances in cognitive science, especially on the fundamental ideas of 4E Cognition (embodied, embedded, enactive, and extended cognition) (Gallagher, 2017; Di Paolo, Cuffari, & De Jaegher, 2018) and ecological psychology (Heras-Escribano, 2022), this paper delves into the nature of perceptual activity phenomena such as *animacy* and *inanimacy* (Mandler, 1992) through the study of conceptual metaphors and their corresponding image schemas. While Cognitive Linguistics developed on the basis of the embodied mind, some of its core notions, such as conceptual metaphor and image schema (Lakoff & Johnson, 1980; Johnson, 1991; Kövecses, 2002; Hampe, 2005), need to be reevaluated in favour of a more dynamic and interactive approach that truly takes into account the unity between body, activity and environment. In this regard, the image schemas underpinning a large portion of metaphorical meanings cannot be simply understood as "(more or less) fixed instantiations of a wider pre-established conceptual system" (Jensen & Cuffari, 2014, p. 294), but rather as "emergent patterns of entire systems in action" (Gibbs, 2014, p. 30). Thus, following an enactivist approach, conceptual metaphors and image schemas may not function as pre-existing and fixed mental representations, but as "metastable emergent constraints" (Di Paolo, et al., p. 295).

Drawing on these antecedents and making use of Conceptual Metaphor Theory (Lakoff & Johnson, 1980, 1999; Johnson, 1991), this paper offers a case study of the mechanical and technological conceptualization of several domains such as GOD, WORLD, HUMAN BODY and HUMAN BEHAVIOUR, in order to illustrate how a field of tension between primary image schemata of *animacy* and *inanimacy* give rise to perceptual anomalies and how these are realised in conceptual metaphors. In this sense, this study takes a Corpus Linguistics approach by searching for the concepts of CLOCK and MACHINE in Spanish in the *Corpus del Español* (Davies, 2002-) and *Diccionario histórico de la lengua española (CDH)* (REAL ACADEMIA ESPAÑOLA, n.d.) corpora from the 16th to 19th centuries, and analyses more than 300 samples for the abovementioned target domains.

Results show how the conceptual metaphors found, related to MACHINE in general and to CLOCK more explicitly, are deeply rooted in image schemata of *animacy* and *inanimacy*. More specifically, we find an interplay of image schemas of SELF MOTION, SELF-MOVING ANIMATE and CAUSED-TO-MOVE INANIMATE, which lead to the phenomenon of AGENCY (Mandler, 1992). These image schemas, based on anomalies of our sensorimotor perception of (in)animate entities, bring out meanings that can only be explained through an active engagement with our ecological surroundings and the artefacts within it, that is, an action-based understanding of cognition. Finally, this paper also discusses a myriad of other image schemata, such as ROTATION, UP-DOWN, PATH, PART-WHOLE, EQUILIBRIUM (Hampe, 2005), among others, that contribute as well to mechanical conceptions of the world at the dawn of the Modern Age.

Keywords: conceptual metaphor, image schema, enactivism, clock, machine

Word count: 462

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motrice dans le traitement des concepts liés aux connaissances spécialisées.

La théorie de la cognition incarnée et située postule que les représentations conceptuelles sont étroitement liées aux expériences sensorielles et motrices, réactivant les patterns neuronaux impliqués dans nos interactions avec les référents physiques ou sociaux des mots (Barsalou, 2008). Cette théorie a suscité un intérêt croissant, conduisant à des recherches approfondies sur les différentes composantes de la simulation multimodale, en particulier sur la catégorisation des concepts (Conca et al., 2021).

La présente étude explore la contribution de la simulation motrice dans le traitement des concepts liés à la pratique professionnelle, englobant ainsi deux domaines scientifiques qui traitent la nature des connaissances spécialisées, à savoir la Cognition incarnée et la Terminologie. Des études précédentes ont révélé des différences dans la simulation sensorimotrice entre experts et novices lors du traitement de concepts de leur domaine d'expertise (Kim et al., 2014 ; Vilanni et al., 2021). Les experts présentent des schémas d'activation neuronale plus consolidés, et leurs représentations mentales semblent émerger de simulations motrices facilitant l'accès aux connaissances spécialisées (Hardwick et al., 2018).

L'objectif principal est d'approfondir la compréhension de la manière dont les expériences sensorimotrices professionnelles influencent le traitement des termes, en l'occurrence dans le domaine dentaire. A cette fin deux phases expérimentales ont été adoptées. Dans la première, une méthode, inspirée de la terminologie textuelle (Condamines & Picton, 2022) et de la Frame-Based Terminology (Faber, 2015) a été utilisée pour extraire, à partir d'un corpus du domaine, les termes liés à la pratique professionnelle dentaire. Les résultats de l'analyse linguistique ont été réinterprétés en collaboration avec des dentistes, mettant en évidence que les experts considèrent les termes retenus comme étant liés à l'expérience sensorimotrice. Cette étape a permis d'établir une liste de stimuli terminologiques composés de termes associés à l'activité motrice professionnelle.

Dans la deuxième phase, 21 étudiants en médecine bucco-dentaire et 21 chirurgiens-dentistes ont été soumis à une tâche de décision lexicale dans deux conditions. La condition "Posture libre" visait à évaluer l'effet de l'expertise, en supposant qu'en raison de l'implication d'une simulation motrice élaborée, les experts réagiraient plus rapidement que les étudiants lorsqu'ils traiteraient les termes. Pour préciser le rôle de la simulation motrice, une condition avec une tâche d'interférence motrice a été proposée. Il était attendu que cette tâche mobiliserait davantage les régions motrices associées à l'activité de pratique professionnelle des dentistes, ce qui aurait un impact plus important sur les experts en raison d'une activation motrice plus élevée par rapport aux étudiants.

Les résultats ont montré que les experts répondaient plus lentement que les étudiants dans la condition "Posture libre". De plus, aucune différence significative n'a été observée dans les réponses des experts entre les deux conditions, indiquant que l'interférence motrice n'a pas eu d'impact significatif sur leurs performances.

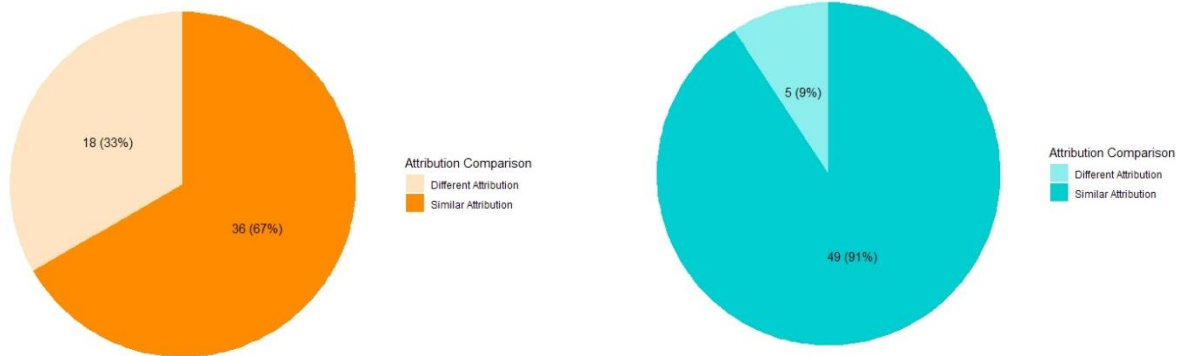
Les résultats soulignent la complexité de la simulation motrice dans le contexte des connaissances spécialisées et mettent en évidence l'importance de prendre en compte les aspects méthodologiques des constructions expérimentales, en particulier en ce qui concerne les variations entre les participants ayant différents niveaux d'expertise en fonction de la tâche.

Graphiques :

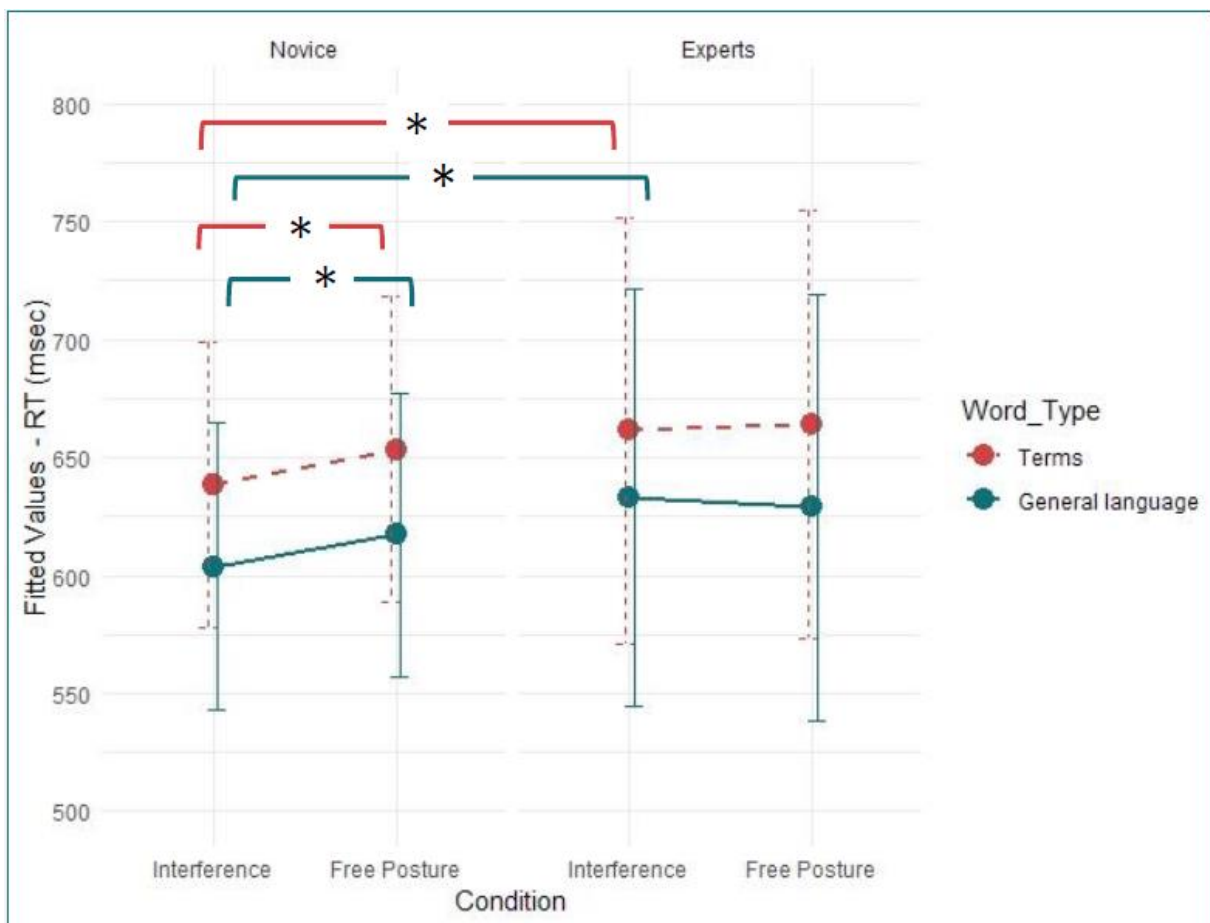
Résultats de la Phase-1 : Comparaison de l'attribution des termes à l'une des catégories ("Les termes liés à l'activité motrice professionnelle" et "Les termes non liés à l'activité motrice professionnelle") suite à l'analyse linguistique et aux réponses des dentistes expérimentés.

Les termes liés à l'activité motrice professionnelle

Les termes non liés à l'activité motrice professionnelle



Résultats de la Phase-2 : Graphique des résultats du modelé généralisé mixte (GLMM) présentant les temps de réponse moyens en fonction de la condition, du type de mot et du niveau d'expertise.



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**Teaching and testing embodied reasoning in FLT:
A case study on German motion and localization expressions**

Keywords: Embodied Teaching, Foreign Language Learning and Teaching, German, motion and localization

French speaking learners of German often face challenges due to the typological differences between their mother tongue and L2. In contrast to French, German, as a satellite-framed language, typically encodes (the manner of) motion in the verb and the path of motion in a satellite (Talmy 2000). Accordingly, in German expressions of localization or motion, the verb usually contains manner-information – which is very unusual in French and therefore challenging for French speaking learners.

In this presentation, we focus on this „manner-saliency“ (AUTHOR 2013) in two motion and localization expressions in German: First, the caused-motion-construction (1-2) and second noun-verb-phrases with posture verbs (3-4). As illustrated in the examples (1)-(4), the verb encodes manner information (coughing, beating, standing, lying) and contributes to the expression of real or metaphorical motion or localization, see (1-3) and (2-4) respectively.

- (1) Germ. *Er hustet die Postkarte vom Tisch.*
lit. ‘He coughs the post card off the table.’
- (2) Germ. *Er wurde ins Koma geprügelt.*
lit. ‘He was beaten into a coma.’
- (3) Germ. *Sein Name steht nicht auf der Liste.*
lit. ‘His name is not on the list.’
- (4) Germ. *Die Stadt liegt in Trümmern.*
lit. ‘The city is in ruins.’

This contribution describes the intervention study we carried out at three Belgian universities with the aim of testing an embodied teaching method for these challenging patterns. According to De Knop (2020) the embodiment principle plays an important role when it comes to construct meaning and should therefore be used more consistently in foreign language classrooms. Both the caused-motion construction and the noun-verb-phrases with posture verbs are particularly suitable for an embodied approach because they are grounded in bodily experience and can therefore be visualized and performed (De Knop 2020: 1381). In this way, motion in caused-motion construction can be perceived through visualization and/or gesture and the semantics of posture verbs can be explained in terms of their concrete-physical meaning. However, we also assume that it is not sufficient to restrict embodiment to the teaching level: relying on Llopis-Garcia (2021), we came up with an embodied testing method which is more likely to reveal the conceptualization strategies of the learners.

After describing the overall embodied design of our approach (teaching and testing), we address the promising results of the study: It turned out that embodied teaching facilitates a deeper comprehension of both patterns (concrete and abstract) and that students were also able to extrapolate their embodied reasoning strategies to new sentences (AUTHOR 2022). Finally, we discuss some methodological issues and perspectives for further research.

446 words

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A number of recent studies have focused on the directional expression of sensory (primarily visual) events, i.e., the usage of forms with spatial dynamic semantics to describe perceptual relations (e.g. Cappelle, 2020; Slobin, 2008; Wnuk, 2022). As suggested by Talmy (2000, p. 115; see also Huumo, 2010), perception is conceptualized in language as ‘two entities, the Experiencer and the Experienced, and <...> something intangible moving in a straight path between the two entities in one direction or the other’. In the present study we aim to examine this hypothesis by exploring data from English. In particular, we are interested in directional encoding of visual versus auditory phenomena, the semantic domain of sound being overall underexplored (Levinson & Majid, 2007). Our research questions are as follows: What types of linguistic spatial devices do we find in the expression of visual and auditory experiences? What are the similarities and differences between the two modalities as regards their directional encoding?

We have extracted instances of visual and auditory events from two contemporary novels written in English: Harry Potter and Philosopher’s Stone (Rowling, 1997) and The Da Vinci Code (Brown, 2003). In the process of data annotation, we identified two main categories of tokens: (i) *perception* (where the perceiver is encoded¹, (see examples (1) ; (2)) and (ii) *emission* (where the emitter is encoded (3) ;(4)). Finally, a number of expressions falls into a grey area which we tentatively categorized as *manifestation* events (5). In the present study we will be focusing on the first category, that of perception events.

Our preliminary analysis shows that perception events, be they visual or auditory, can be conceptualized following two main directionality patterns: (i) from the Experiencer to the Experienced; (ii) from the Experienced to the Experiencer. However, the frequency of these two constructions varies from one modality to the other.

Visual events are predominately conceptualized following the first pattern which may take various forms: (i) ‘peer verbs’ (Levin, 1993, p. 187) combined with numerous adpositions and/or adverbs (6) ; (ii) verbs of caused or spontaneous motion combined with a ‘visual noun’ (7; 8).

Conversely, auditory events are mostly conceptualized according to the Experienced → Experiencer pattern. In our sample such expressions fall into two major groups: (i) the verb ‘to come’ combined with a PP referring to the source of the auditory path (9); (ii) the verb ‘to hear’ combined with the PP headed by the directional preposition ‘from’ (10).

We hypothesize that the aforementioned conceptualization differences may be explained by the physiological nature of vision and hearing, particularly by the differential degree of ‘control’ over the phenomenon of perception. The subject of a visual experience can select a particular object by moving their eyes as well as control the time of contact with the said object. Inversely, the subject of an auditory experience seems less agentive in the sense that they neither select the stimuli nor control the time of contact with it.

¹ The encoding of the perceiver in a phrase may range from more to less explicit expression (see, for instance, example (9) where the deictic verb ‘come’ implies the figure of the perceiving subject).

Appendix : Examples

- (1) Hagrid stared wildly at Harry.
- (2) Harry heard a familiar voice.
- (3) The twinkling light that usually shone from Dumbledore's eyes seemed to have gone out.
- (4) Aunt Petunia gave a gasp of horror.
- (5) There was a loud "Ooooooh!"
- (6) Harry looked up into the fierce, wild, shadowy face.
- (7) He threw a dirty look at the Dursleys.
- (8) His eyes fell on the empty grate with the shrivelled crisp packets in it.
- (9) A soft rustling and clinking seemed to be coming from up ahead.
- (10) Harry could hear the drone of hundreds of voices from a doorway to the right.

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How do teachers adapt their multimodal behaviors when addressing L2 learners? An Exploratory Study

Foreigner talk (FT) is a specific type of communicative adaptation in which L1 speakers (L1S) adapt their language use when interacting with L2 speakers (L2S). Whereas it has convincingly been shown that FT manifested itself at various levels of linguistic analysis (a.o. Long 1981; Roche 1998; Rodriguez-Cuadrado, Baus & Costa 2018; Woolridge 2001), recent research in the domain of gesture studies has suggested that simplification strategies could also be observed in hyperforms of bodily behavior, such as big or slow gestures and sustained eye gaze (a.o. Adams 1998, Gullberg 2011). This multimodal realization of foreigner talk has also been confirmed by Authors (2021) who observed that L1S interacting with L2S produced hand gestures that were larger, performed faster, and that covered a larger trajectory.

In this context, the present exploratory study aims at analyzing the multimodal realization of FT in classroom interactions. We are more specifically studying to what extent L1 teachers adapt their bodily behavior when addressing L2 students.

To do so, we are using a within design comparing one L1 teacher respectively engaged in interactions with L2 students (experimental group) and L1 students (control group). We recorded a two-hour class given by a L1 French speaker to L2 students with an A2-level and we are going to record the same teacher teaching L1 students soon. Our coding grid is based on Tellier & Stam (2019). The analysis at the speech level consists of identifying the verbal strategy (e.g., determining whether the teacher is giving a definition, an example, linguistic information), the concept that is described by the utterance, the type of interaction (teacher to: one student, several students or the whole classroom) and the teacher space (i.e., where they stand in the classroom: front center, front left, close to student etc.) (Tellier & Stam 2019). As for the gestural level, we determine the gestures types (i.e., iconic, metaphoric, deictic, beat, emblem, interactive, butterworth, aborted), the gesture function (i.e. informing, assessing, managing) the gesture space (i.e., center, center center, periphery, extreme periphery, extended arm in front) and the gesture meaning (McNeill 1992, Tellier & Stam 2019).

So far, the first 23 minutes and 30 seconds have been analyzed, that is to say, 2.430 words and 206 gestures. Results show that the teacher produced 8.76 gestures per minute. The primary dimension of their gestures is iconic (31%) followed by deictic (21%) and interactive (20%). They tend to use gesture to inform (65%) and more specifically to give lexical information. In addition, her iconic gestures tend to last longer than other gestures types (2.37 seconds whereas the average gesture duration is 1.8 seconds). She tends to produce iconic gestures in the extreme periphery (44%) more often than other gestures types. To conclude, we can say that there is a prominent use of larger iconic gestures in L1-L2 interactions and that last longer. The future analysis of L1-L1 data will make it possible to observe to what extent these characteristics are typical of L1-L2 interactions and to specify how foreigner talk manifests itself in multimodal communication in this context.

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The impact of speed-induced language on the processing of Goal-oriented visual scenes: An eye-tracking study in Estonian

Introduction. The ecological approach to cognition highlights the dynamic relationship between the environment and the human mind, and suggests cognition is embodied (Lobo et al., 2018). Similarly, embodied approaches to language claim that language is grounded in perception and action (Barsalou, 2008; Gibbs Jr, 2006): language activates mental simulation. This means that language reactivates sensorimotor representations. To examine how detailed mental simulation is, we focus on motion speed as conveyed by language and the processing of visual scenes. Research in experimental psychology shows that fast and slow motion are processed partially unrelatedly in the brain (Yan et al., 2023); fast motion results in more enhanced neural responses (Wang et al., 2003) and faster reaction times than slow motion (Hülsdünker et al., 2019). This is because fast motion can be more harmful than slow motion, requiring faster action (Grasso et al., 2018), which is in line with ecological approaches to cognition. Furthermore, psycholinguistic studies suggest that language comprehension is sensitive to described speed. For example, English adverbs of fast motion are read more quickly than adverbs of slow motion (Stites et al., 2013) and sentences of fast and slow motion yield different visual attentional patterns (Lindsay et al., 2013; Speed and Vigliocco, 2014).

Aim and hypothesis. We aim to build on initial evidence by assessing whether mental simulation of speed can be observed in a Finno-Ugric language, Estonian. We predict fast and slow sentences will lead to differences in mental simulation observed via eye movements. Because fast motion is more Goal-oriented than slow motion, we expect participants will look at the Goal longer and earlier with fast sentences than slow sentences.

Method. We conducted a replication study of Speed and Vigliocco (2004) in Estonian. Participants (n=40) were presented with static pictures depicting either Agent and Goal (single scene condition) or Agent, Goal, and Distractor Goal (double scene condition). At the same time, participants listened to a sentence describing fast or slow motion of the Agent to the Goal (e.g., FAST: *Laps vudis puu juurde* ‘The child scurried to the tree’, SLOW: *Laps tatsas puu juurde* ‘The child toddled to the tree’) while their eye-movements were recorded. The data was analysed using a linear mixed-effects model and time-course analysis.

Results. While fast-motion sentences had longer total dwell time on the Goal in single scenes compared to slow-motion sentences, this difference was not statistically significant. In double scenes, no differences were observed. However, similar to Speed and Vigliocco (2014), the time-course analysis of the proportion of samples with fixations to the Goal indicates that verbs of fast motion trigger enhanced activation of Goal (earlier and more looks to the Goal), whereas slow verbs trigger somewhat delayed and smaller number of fixations on Goal.

Discussion. The results suggest indications of mental simulation in processing speed-induced language. A follow-up experiment is needed to assess what modulations, if any, speed introduces to mental simulation.

Key words: mental simulation, motion speed, motion verbs, eye-tracking, visual world paradigm

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L'asymétrie Source-But s'illustre particulièrement dans les descriptions de mouvements causés de placement et de préhension. Cette asymétrie opère à plusieurs niveaux : le nombre de verbes de placement est supérieur au nombre de verbes de préhension ; la description du But s'accompagne plus souvent d'un groupe prépositionnel que celle de la Source, en revanche la Source est lestée d'une plus grande complexité syntaxique (e.g. « Il pose le verre sur la table » / « Il prend le verre posé sur la table »). Si une partie de l'asymétrie Source-But est, comme il le semble, cognitive, elle pourrait trouver son origine dans notre comportement moteur. En effet les mouvements de placement et de préhension n'obéissent pas aux mêmes contraintes biomécaniques. Afin de tester cette hypothèse, nous avons créé un ensemble de 24 vidéos de mouvements de préhension (12) et de placement (12). Chacune de ces vidéos était soit présentée dans son sens naturel soit elle était inversée, si bien que le placement devenait une préhension, et réciproquement. Au total l'expérience comportait donc quatre conditions : deux de placement et deux de préhension, avec pour chacune 12 vidéos naturelles et 12 vidéos inversées. Trente-sept participants adultes de langue maternelle française ont décrit les 48 vidéos tests ainsi que 28 distracteurs au cours d'une tâche d'élicitation. Un total de 1664 descriptions (416 par condition) a été recueilli. Dans un second temps, les participants étaient invités à décider si chaque vidéo illustrait un mouvement naturel ou inversé. Leurs performances étaient meilleures que le niveau de la chance, en particulier pour identifier la cinématique naturelle plutôt qu'inversée. Les analyses descriptives des données d'élicitation actuellement en cours ne montrent pas de changement important dans l'utilisation des verbes de placement en fonction des conditions naturelle et inversée. Le verbe « poser » a été produit à 239 reprises pour décrire les vidéos à l'endroit et à 238 reprises pour les vidéos inversées ; le rapport était de, respectivement, 78 contre 80 pour « mettre ». En revanche, les verbes produits lors des descriptions de mouvements de préhension montrent davantage de disparités en fonction du caractère naturel ou modifié du mouvement. Le verbe « prendre » donnait lieu à 242 occurrences pour les mouvements naturels alors que la modification de la cinématique induisait une surutilisation de ce même verbe avec 260 occurrences. Cet emploi majeur de « prendre » était réalisé au détriment de trois verbes spécifiques de la préhension dans un contenant, tels que « sortir » (35 vs 26 occurrences), « enlever » (31 vs 16) et « retirer » (19 vs 13). Ces résultats préliminaires, tout en soulignant la difficulté des participants à identifier la cinématique inversée des mouvements de placement et de préhension, suggèrent une influence du profil de vitesse naturel ou inversé sur le choix des verbes de mouvements causés. Notre approche ouvre la voie d'une typologie sémantique incarnée où la description verbale des actions serait le reflet d'une compréhension implicite des profils de vitesse du mouvement.

495 mots

Le transfert rythmique de la parole à travers une approche multimodale

Depuis quelques années, la cognition incarnée inspire de nombreuses recherches et pratiques en didactique du FLE (Aden (2009, 2017), Eschenauer (2018), Lapaire (2014, 2022), Bottineau (2012, 2016)). Le corps autrefois opposé à l'esprit, devient un outil global d'apprentissage de premier plan à valoriser où l'apprentissage par l'intermédiaire de la conscience reliée au corps et à l'environnement, s'incarne. Cependant, dans une représentation structuraliste dominante de Saussure, la linguistique a longtemps fait l'impasse sur la corporéité du langage en opposant la langue au discours et à la parole (Meschonnic, 2005) dont l'étude s'est véritablement développée à partir des années 80 grâce aux outils d'enregistrement (Blanche-Benveniste, 1997). Par ailleurs, la complexité du lien entre linguistique et didactique (Chiss, 2011), n'a fait qu'augmenter par la volonté de cette dernière de s'affirmer comme discipline à part entière et l'avènement des approches communicatives. Ce qui paradoxalement entraîna une minoration du rôle de la manière de parler et de l'oralité en se focalisant principalement sur la "réussite" de l'interaction (Miras, 2021). Il semble par conséquent que le continu corps-langage (Meschonnic, 1982) demeure insuffisamment pensé en didactique au profit d'une vision phénoménologique favorisant la narration de l'expérience vécue au détriment de ce que fait le corps dans et par le langage. C'est pourquoi, nous nous intéressons dans cette étude au rythme multimodal à travers la prosodie et la gestualité, sans doute "premiers instruments de communication des humains" (Di Cristo, 2013). En effet, le rythme constitue le grand représentant du corps dans le langage (Meschonnic, *Ibid.*) défini comme "l'organisation du mouvement de la parole" (Dessons et Meschonnic, 1998), restreint depuis Platon à l'ordre du mouvement, confondu avec l'arithmétique de la métrique et en didactique à une sous-composante de la prosodie.

Pour chercher à sortir du dualisme dominant du signe en théorie du langage et en didactique des langues, nous avons étudié le rythme langagier de trois sous-systèmes langagiers : verbal, vocal et posturo-mimo-gestuel d'apprenants universitaires de FLE malaisophones ayant l'anglais malaisien (plus communément appelé MalE) comme langue seconde de scolarisation, et plus particulièrement le transfert du rythme d'une langue-parole à une autre à travers les différents canaux que constituent la multimodalité. Le choix des langues premières et secondes est d'autant plus intéressant qu'elles ne comportent pas de régularités prosodiques et accentuelles (Adnan, Pillai & Chiew, 2020, Yap et Pillai, 2017), telles que nous les connaissons en français par exemple.

Nous avons effectué nos analyses de corpus grâce aux logiciels PRAAT(acoustique) et ELAN (gestuelle) afin de proposer une superposition multimodale permettant de comprendre le processus d'appropriation du rythme en langue seconde et étrangère et de montrer les limites auxquelles sont confronté.e.s les apprenant.e.s et l'insuffisance du recyclage rythmique nécessaire lorsque l'on compare leur discours dans plusieurs langues.

Les résultats de cette étude rejoignent les recherches de Rohrer et al (2022) selon lesquelles la structure rythmique est reliée à la dimension gestuelle et prosodique. En effet, le transfert prosodique et gestuel s'opère de manière plus fluide chez les apprenant.e.s montrant une meilleure acquisition orale de la langue cible, avec notamment une plus grande concordance entre les apex gestuels et accentuels et une prédominance des gestes non-référentiels.

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Expressive and figurative usage of language has been found to characterize any discourse in times of crisis (Huang 2020). An aspect that has not been paid explicit attention to in the context of crisis discourse, to our knowledge, is the interplay between selecting certain imagery that corresponds to the participant’s underlying value model.

The aim of our study is to describe the interplay between values and the patterns of figurative thought and expression in public opinion during a time of a local crisis—the so-called “language crisis”—a lively dispute related to the process of modernizing linguistic norms, dictionary-making and language standardization in Estonia.

To approach the assumed interplay, we analyzed qualitatively a corpus of ca. 60 journalistic texts in a genre of (persuasive) opinion writing. According to Kivle and Espedal (2022), the bottom-up text analysis is one of the suitable means for determining values in discourse; the novelty of our approach is to combine it with a bottom-up analysis of conceptual metaphors and other elements revealing figurative thought and construction of reality. We employ theoretical and methodological tools such as Conceptual Metaphor Theory, Figurative Framing, Metaphor Scenario Analysis, Systemic Functional Linguistics, and Critical Discourse Analysis.

We focus on the conceptualization of LANGUAGE itself as a target domain. We hypothesize that the figurative conceptualization of language arises from the author’s core values and his/her engagement with language, both professionally and/or emotionally. We show that this is the case by searching for answers to the following questions: What are the core values of the disputants towards language and its maintenance? What kind of imagery is used in the discussion to conceptualize the target domain of LANGUAGE? Is there a correlation between the language-related value systems and the preferred imagery?

As a result of the qualitative analysis, a hierarchic and bipolar value model emerged representing the dichotomy between liberal and conservative value systems. Among the rich variety of source domains of metaphoric mapping also a clear preference for selecting conceptual metaphors was revealed.

The conservative-minded voices (mostly language practitioners) put high standards on the written Estonian as a TOOL; and use the demolition aspect of the BUILDING metaphor in their argumentation. They perceive language as in threat and personify it empathetically. A resulting scenario is that of language in need of urgent help and protection from wrongdoers and therefore the metaphor of SUPPORTEE gradually gets amplified into PROTEGEE and even further so into VICTIM in the broader frame of language BATTLE. A parallel scenario is LANGUAGE-AS-GARDEN in need of maintenance and protection from the intruders in which case the metaphoric equations are made that GENUINE=GOOD=PURE; FOREIGN=BAD=DIRTY.

The liberally minded and institutionally engaged linguists have a more relaxed attitude towards language and they prefer to conceptualize it either as LIVING BEING in the broader frame of evolutionary biology, as BUILDING when reaffirming its endurance and calling for renovation; as TOOL when they appreciate its flexibility and as TOY when arguing for creative self expression. They also personify language both as a SOCIAL SUBJECT and with sympathy as a fellow HUMAN BEING.

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Étude sociolinguistique du choix de structure de question partielle en français hexagonal : conclusions tirées de données expérimentales

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Mots-Clés: sociolinguistique, question partielle, français hexagonal, âge, genre, formalité, registre

*Intervenant

Le statut de la vélaire nasale et du *-ing* en français : une étude empirique

Introduction

Les emprunts anglais en français sont de plus en plus étudiés (e.g. Poplack et al., 1988; Chelsey, 2010; Ten Hacken & Panocová, 2020), et les formes en *-ing* de plus en plus nombreuses (ex. *parking, bowling...*). À l'origine inconnue des locuteurs français (Gottlieb & Furiassi, 2020), la structure morphologique est de ces emprunts se diffuse et pourrait introduire la vélaire nasale dans le système phonémique du français. Notons que la vélaire nasale, considérée non phonémique en français de référence, est toutefois présente dans plusieurs variétés du sud de la France (Coquillon & Turcsan, 2012). Nous posons donc la question suivante : quels sont le statut morphologique et les répercussions phonologiques du *-ing* en français hexagonal ?

Morphologie

La réanalyse morphologique pourrait entraîner la productivité du *-ing* en français hexagonal. La dérivation d'une base avec *-ing* est possible : *stretching* -> *stretcher* (Lewis, 2007), ce qui suggère que la morphologie du *-ing* est comprise par les locuteurs. Nous avons utilisé la technique du *matched-guise* (Casesnoves & Sankoff, 2004) pour mener une expérience avec des locuteurs natifs du français. Nous leur avons demandé d'évaluer des néologismes contenant *-age, -ness* et *-ing* attachés à 10 bases anglaises et 10 bases françaises. Les trois suffixes ne sont pas évalués de la même manière : non seulement le suffixe *-ing* est accepté, mais il est aussi le suffixe préféré des trois pour la création de nouveaux termes.

Phonologie

Dans l'histoire du français, la vélaire nasale est absente du système phonémique (Walter, 1983; Walker, 2001), mais de nos jours, son statut est moins clair, puisque l'adaptation phonétique des emprunts anglais en *-ing* est décroissante. Bien que certaines études plus anciennes refusent l'intégration du phonème en français (Greenleaf, 1921), d'autres études plus récentes attestent que [ŋ] est produit sans en tester le statut phonémique (Picone, 1996; Walker, 2001; Lewis, 2007). Il se pourrait aussi que ce soit un phonème marginal restreint au suffixe *-ing* (voir Bazell, 1952).

Les participants de l'étude mentionnée plus haut se sont enregistrés en train de lire des phrases contenant des emprunts attestés et inventés en *-ing* ainsi que d'autres cas de /ŋ/ anglais. Les stimuli ont été créés pour contrôler la voyelle précédent (pour les cas autres que *-ing*) ainsi que le contexte phonologique suivant /ŋ/. Les phonèmes ont été identifiés par des phonéticiens, et les résultats préliminaires montrent que les participants produisent régulièrement [ŋ] avec ou sans l'ajout de la consonne vélaire [g], selon le contexte phonologique.

Discussion.

Les emprunts en français hexagonal sont moins étudiés que dans d'autres variétés et le statut phonémique de la vélaire nasale et la productivité de *-ing* n'ont pas encore été étudiés de manière empirique. Cette étude morpho-phonologique nous aide à analyser l'évolution du morphème et du phonème d'une approche holistique. Cette étude empirique confirme l'intégration du morphème *-ing*, qui semble être productif en français hexagonal, et de la vélaire nasale qui semble devenir un phonème à part entière.

500 mots

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Cross-Linguistic Analysis of Information Structure in French and French Belgian Sign Language: The Case of Contrastive Focus

497 words

Analogous lexical, prosodic, and syntactic means are used to mark information structure (IS) in both spoken languages (SpLs) and signed languages (SLs) (Kimmelman & Pfau 2021). In SpLs, IS can also be encoded by gestures (e.g. Loehr 2014; Wagner et al. 2014; Brown & Prieto 2021). However, research has often neglected the role of non-manual gestures (e.g. eyebrow movements, body leans, and head movements) and combinations of gestural markers when investigating multimodality and IS in SpLs. In the case of SLs, IS has received attention for specific SLs such as Dutch SL (Crasborn & van der Kooij 2013; Kimmelman 2014) but remains underexplored in languages such as LSFb (French Belgian Sign Language). Previous research has suggested that signers employ both manual (e.g. changes in duration) and non-manual markers (e.g. head movements) to encode information units.

Given the common use of non-manual markers in SpLs and SLs, a comparative analysis of these markers is warranted but lacking. The present study aims to fill in this gap by investigating an information unit called 'contrastive focus' (CF, see Repp 2016 for a definition) in French and LSFb. The research addresses the following questions: What are the non-manual markers of CF observed in French and LSFb? What similarities and differences exist between these two languages in this regard? Data extracted from two comparable corpora, the LSFb Corpus (Meurant 2015) and the FRAPé Corpus (Meurant et al. Under Construction), were analysed. The selected data involved five LSFb signers and five Belgian French speakers, who performed tasks related to describing face drawings and categorising sets of similar objects. Non-manual cues (eyebrow movements, body leans, and head movements) were annotated on CF instances, as well as on the preceding and following prosodic units (i.e. the surrounding non-contrastive context). Qualitative and quantitative analyses were carried out.

Preliminary findings from the analysis of 325 CF instances in each language and a total of 2040 non-manual cues (552 eyebrow movements, 584 body leans, and 904 head movements) revealed that non-manual elements appeared more frequently on CF than on non-contrastive elements in both languages. Additionally, except for French eyebrow movements, non-manual cues tended to have a longer duration when appearing on CF.

However, LSFb showed a higher frequency of non-manual cues (59–63% of cases) than French. Furthermore, signers and speakers employed distinct strategies to encode CF: head or body movements in isolation in French and combinations of head, body, and eyebrow movements in LSFb. Moreover, French non-manual markers showed less systematicity, particularly in scope alignment: the scope of non-manual cues aligned with that of CF in 48% of cases, whereas LSFb exhibited an alignment rate of 62%.

This study advances our understanding of CF encoding in LSFb and French, shedding light on language typology and questioning the role(s) and status of non-manual elements in SpL and SL. It also reveals that while CF is typically marked due to its pragmatic prominence, contextual, phonetic, phonological, syntactic factors, and participant subjectivity can lead to unmarked or differently marked cases.

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De nombreuses études montrent que les enrichissements multisensoriels, incluant des gestes associés à des mots, favorisent l'apprentissage et la mémorisation de mots en langue étrangères (Macedonia et al., 2019). Ces avancées s'inscrivent dans le cadre théorique de la cognition incarnée, qui soutient que les processus cognitifs sont ancrés dans l'interaction de notre corps avec notre environnement et souligne l'importance des propriétés physiques du corps humain, en particulier les systèmes perceptifs et moteurs (Barsalou, 2008). Bien que les effets des gestes sur la mémorisation soient bien établis, les chercheurs ne sont pas d'accord concernant les mécanismes derrière ce phénomène. De ce fait, cette étude propose d'évaluer, dans un premier temps, si les effets des gestes s'expliquent par la trace motrice (Engelkmap & Zimmer 1984, 1985), ou par l'imagerie motrice (Macedonia et al., 2011; Saltz & Donnenwerthnolan, 1981). Dans un deuxième temps, elle compare les effets de la réalisation de gestes lors de la récupération. Selon l'hypothèse de la récupération du lexique de Rauscher et al., (1996), la réalisation de gestes facilite l'accès au mot lors de la récupération, tandis que l'interdiction de ces gestes pourrait potentiellement perturber la performance de la mémoire (Frick-Horbury & Guttentag, 1998). Cette étude présente un plan mixte. Trente participants apprennent 30 mots en chinois dans trois conditions: 1) sans enrichissement, 2) en imitant une action représentative, et 3) en imitant une action non représentative. Lors de la récupération, la moitié des participants est invitée à réaliser des gestes, lorsque l'autre moitié ne reçoit pas cette instruction. Nous formulons l'hypothèse que les mots appris dans la condition d'imiter une action représentative seront mieux retenus (García & Macizo, 2018), et la réalisation de gestes lors du test facilitera l'accès au lexique mental (Frick-Horbury, 2002). Nous avons réalisé une ANOVA à mesures répétées pour comparer les effets des conditions d'encodage sur la mémoire à court terme et à long terme. Ensuite, nous avons effectué une ANOVA à deux groupes indépendantes, ceux qui font des gestes lors de la récupération et ceux qui n'en font pas lors de la récupération. Les données sont en cours de recueil. Les résultats de cette étude seront présentés lors de la communication orale..

Mots clés : cognition incarnée, action, mémorisation, nouveaux mots, langue étrangère

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Construal operations as polarising discursive devices in Brazilian and Spanish far-right populist tweets: Going beyond metaphor.

This study aims to describe and compare the main construal operations other than metaphor involved in the polarising representation of social actors in a corpus of tweets of two far-right populist leaders: Jair Bolsonaro, former president of Brazil, and Santiago Abascal, leader of the Spanish far-right party *Vox*. In other words, the present contribution intends to go beyond metaphor analysis to explain how polarisation (i.e., the division between ‘Us’ and ‘Them’) is construed in Brazilian and Spanish far-right populist discourses. To do so, the approach of Critical Cognitive Discourse Studies (Hart, 2010, 2014) is adopted, as it addresses the relationship between cognitive and discursive mechanisms in context. Polarisation is understood here as a socio-cognitive discursive phenomenon based on the positive presentation of ‘Us’ (i.e., the ingroup) and the negative presentation of ‘Them’ (i.e., the outgroup) (Author, 2022). The positive and negative evaluation of these social groups has an ideological function in discourse, and thus usually serves the interests of the speaker/writer (see Van Dijk, 1998; Filardo-Llamas et al., 2021). In far-right populist narratives, the polarising representations of ingroups and outgroups have a dangerous potential, as they may serve to spread fear, anger, or hate against marginalised groups (Breeze, 2020; Hidalgo-Tenorio et al., 2019; Wodak, 2021).

There is a large body of research that demonstrates the ideological and persuasive power of metaphor in public discourse (Flusberg et al., 2018; Landau & Keefer, 2014; Musolff, 2016). However, there are fewer studies that concentrate on other cognitive-discursive mechanisms (see Hart, 2011, 2013). Based on the typologies developed by Langacker (2008) and Hart (2015), the present work looks at the following construal operations in the corpus of Bolsonaro and Abascal: schematicity, image schemas, profiling, metonymy, scanning, objectivity/subjectivity, point of view, deixis, and proximation (Cap, 2013). These operations involve different cognitive capacities, particularly gestalt (schematicity, image schemas), attention/salience (profiling, metonymy, scanning), and perspective (point of view, objectivity/subjectivity, deixis, proximation), and they may have ideological functions (Hart, 2015).

As pertains to the corpus, it consists of 4,992 tweets (152,407 words), which include the original tweets posted in Bolsonaro and Abascal’s official Twitter accounts during the Covid-19 pandemic years 2020 and 2021. It was retrieved using the software Octoparse and examined with the corpustool Sketch Engine (Kilgarriff et al., 2014). As the main focus of this study is the analysis of construal operations underlying the representations of social actors, these actors (i.e., people, social groups, organisations, and countries) were firstly extracted using the Wordlist and Keyword tools. After that, they were classified into ingroups and outgroups, based on Bolsonaro and Abascal’s ideologies and socio-political contexts, and a representative random sample of 1,000 concordances was manually annotated. Preliminary results suggest the importance of force dynamics and motion image schemas, foregrounding/backgrounding, metonymy, point of view, deixis and proximation/distancing in the construction and spread of polarisation.

Total words: 466

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Ukraine aujourd'hui, Taïwan demain? Analyse critique du discours sur l'analogie entre Taiwan-Chine et Ukraine-Russie

Cette étude explore la relation analogique entre Taïwan et la Chine ainsi qu'entre l'Ukraine et la Russie en analysant des articles recueillis dans les médias en chinois mandarin. Depuis le début de la guerre russo-ukrainienne en février 2022, de nombreux médias ont évoqué les conflits entre Taïwan et la Chine et entre l'Ukraine et la Russie pour établir des analogies en raison de certaines de leurs similitudes historiques et actuelles (Chen, 2022; Guibert, 2022; Huang, 2022; Liu, 2022; Marusic, 2022; Qin & Chien, 2022; Tocci, 2022; Wu, 2022; Zhou, 2022).

Nous avons recueilli 120 articles rédigés en mandarin contenant l'expression « 今日烏克蘭，明日台灣 » (« Ukraine aujourd'hui, Taïwan demain ») ou traitant de ces quatre pays. Nous utilisons des approches qualitatives et quantitatives. Tout d'abord, nous adaptons le cadre théorique de l'analyse critique du discours (CDA, Fairclough, 1992 ; Fairclough et Wodak, 1997 ; Van Dijk, 1993 ; Wodak, 2001) pour examiner les relations de pouvoir, les idéologies et les structures sociales présentes dans le discours entourant cette expression. Nous extrayons manuellement divers points de vue concernant cette expression et identifions les diverses idéologies mises en évidence par les différentes positions médiatiques, ainsi que la manière dont cette analogie est perçue par les différents acteurs. Plus précisément, nous examinons les similitudes et les différences mises en lumière par l'analogie entre Taïwan et l'Ukraine d'une part, et entre la Chine et la Russie d'autre part. Comment les différents acteurs interprètent-ils et perçoivent-ils ces similitudes et différences dans leurs discours ?

Cela englobe les points de vue du gouvernement taïwanais, du parti d'opposition, de la population taïwanaise, du gouvernement chinois, des médias chinois, ainsi que des pays occidentaux. Deuxièmement, nous faisons usage des outils du traitement automatique du langage (TAL) pour obtenir une compréhension globale des textes. Nous utilisons la technique de regroupement de textes pour explorer les structures ou modèles inhérents présents dans notre corpus, nous permettant ainsi d'interpréter et d'analyser les thèmes ou sujets sous-jacents présents dans les différentes actualités à travers le temps.

Les résultats révèlent que différentes entités présentent des points de vue distincts mettant en lumière diverses similitudes et différences entre Taïwan et l'Ukraine dans de multiples dimensions, notamment les facteurs historiques, la géographie, la géopolitique, la nature du champ de bataille, les avancées technologiques, les capacités militaires, les relations internationales (en particulier avec les États-Unis), la souveraineté, et les perceptions des jeunes concernant leur identité. En outre, certaines métaphores conceptuelles (Lakoff & Johnson, 1980) sont employées en conjonction avec cette analogie. Par conséquent, nous appliquons également la méthode d'analyse critique des métaphores (CMA, Charteris-Black, 2004 ; Musolff, 2012) pour analyser les métaphores en jeu (telles que les métaphores FAMILLE, AMIS et COUPLE) et examiner la motivation sous-tendant ces usages.

479 mots

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Mapping language variation in the context of Australian mobilities

The present paper is based on the analysis of a semi-ecological corpus from the PAC programme (*Phonologie de l'Anglais contemporain: usages, variétés et structure/The Phonology of Contemporary English: usages, varieties and structure*; Durand and Przewozny 2012; Przewozny, Viollain et Navarro 2020) which aims at documenting and providing analyses and models for different varieties and speech communities across nine English-speaking countries, with a focus on language change and variation and the dynamics of native English explored through a series of internal issues such as vowel shifts and external factors such as dialect contact and mobilities. Our framework of study relies on corpus phonology and variationist sociolinguistics towards a sociophonetic level of analysis. We first present a corpus of authentic spoken data from varied geographical locations in Australia: our recordings of Australian voices range from rural and urban Australian settings in Queensland, New South Wales and Victoria. As of October 2023, our oral database is composed of more than 25 hours of annotated data and corresponding sociolinguistic metadata. Our methodology favours small phonological corpora (Viollain and Chatellier 2018). The latest 2023 survey was collected using a Zoom recorder at a 44.1 kHz sample rate, transcribed using Praat (Paul Boersma and David Weenink 2013) and processed through Phonometrica (Courdès-Murphy and Eychenne 2018), with the aim of documenting spoken variation in Australian English using a dynamic approach to language change rooted in our speakers' mobilities. We examine the production of phonemes /e/ and /æ/ of 40 native speakers (20 women and 20 men) from New South Wales (Sydney, Ulladulla and Deniliquin, PAC 2003), Victoria (Melbourne, PAC 2018) and Queensland (Brisbane, PAC 2023) in an /hVd/ context. One of the common denominators between our respondents is their high level of inter- and intra-regional mobilities. Overall, more than 300 tokens were analysed in semi-spontaneous conversations, so as to identify the merger of the two phonemes /e/ and /æ/ by measuring F1 and F2 at 50% of vowel duration using Praat (Boersma & Weenink 2022). We show that the merger between /e/ and /æ/ is most advanced among New South Wales female respondents. Phonetic divergences between New South Wales respondents and the rest of the corpus shows how diachronicity was at play among sociolinguistic and geographic variations at play in AusE between 2003 and 2023. Finally, we discuss the impact mobility may have had on phonological variation in AusE and emerging dialects in relation to the different sociolinguistic variables displayed through our cohort of informants. **(417 mots)**

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<https://doi.org/10.4000/corpus.3222>

Cette communication explore la manière dont l’on se représente l’embryon en bioéthique, compte tenu de la combinatoire lexicale du mot *embryon*. En bioéthique, on rencontre des syntagmes nominaux où *embryon* est la tête du SN (*embryon viable, mort, surnuméraire, in vitro, anormal, disponible...*) ou complément du nom (*congélation des embryons, marchandisation des embryons, statut de l’embryon...*). *Embryon* apparaît aussi comme complément d’objet auprès de verbes tels *manipuler, transférer, protéger*, etc. et comme complément circonstanciel (*modifications apportées dans un embryon, recherche sur l’embryon*). Dans chaque syntagme ou expression, le sens d’*embryon* est profilé différemment (pour reprendre le terme de Cadiot & Visetti, 2001), en interaction avec les lexèmes qui lui sont adjoints ou auxquels il est adjoint. Nous nous intéressons donc au sémantisme du lexème *embryon* et à la manière dont celui-ci est profilé selon les différents syntagmes. Cette question est intéressante dans la mesure où le statut de l’embryon ne fait pas l’unanimité et reste très débattu.

L’étude est menée dans le cadre de la sémantique des possibles argumentatifs - SPA (Galatana 2018, 2022), une théorie dynamique de description du sens, qui intègre le concept de stéréotype linguistique (Putnam, Fradin) et la vision de la sémantique argumentative (Anscombe, Ducrot, Carel). Ainsi, la SPA utilise un modèle de description de la signification lexicale qui est dynamique, holistique, encyclopédique, associatif et stratifié. Suivant la démarche de la SPA, nous représentons la signification du mot *embryon* en termes de ‘noyau’, ‘stéréotypes’ et ‘possibles argumentatifs’. Nous utilisons également la notion de profilage, mais en la greffant sur le modèle de la SPA. Pour traiter de la combinatoire lexicale, notamment des préférences combinatoires, nous suivons en partie la démarche de Blumenthal (2008).

Trois étapes seront parcourues : 1) une description sémantique sera proposée pour le lexème *embryon*, sur la base des dictionnaires et d’autres discours définitionnels – description qui vise à rendre compte du potentiel de signification du lexème ; 2) un inventaire de la combinatoire lexicale pour *embryon* sera dressé, sur la base du corpus choisi – qui nous permettra de disposer d’un ensemble de syntagmes représentatifs pour les discours de la bioéthique ainsi que des préférences combinatoires d’*embryon* ; 3) quelques occurrences de syntagmes contenant *embryon* apparaissant dans le corpus seront analysées, afin d’observer comment le syntagme interagit avec le co-texte – car outre le profilage à l’œuvre au sein du syntagme, il faut tenir compte de l’interaction entre le syntagme et son co-texte.

Le corpus sur lequel se base l’étude est constitué des ‘avis’ du CCNE et des discussions en ligne lors des Etats généraux de la bioéthique 2018. Le CCNE, Comité consultatif national d’éthique pour les sciences de la vie et de la santé, est une instance consultative française, dont la mission est d’éclairer les décideurs sur les enjeux éthiques des innovations technologiques, notamment au moyen d’avis. Depuis une quinzaine d’années, le CCNE a aussi pour mission d’organiser un grand débat public national en amont des modifications des lois de la bioéthique, ce qu’il a fait en 2009 et 2018.

496 mots

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AFLiCo 9

Humor in Conversation A Cognitive-pragmatic Analysis of Banter.

In the world of conversational humor, the phenomenon of banter has been an overlooked yet intriguing domain. However, recent work by Peña and Ruiz de Mendoza (2022) brings forth a unique lens through which we can understand the significance of second-order dissociation in banter, effectively aligning it with the echoic approach to irony proposed by Wilson and Sperber (2012). This preliminary analysis, grounded in a sample of 70 examples extracted from movie and TV scripts, seeks to highlight two fundamental traits characterizing banter: mock-impoliteness and second-order dissociation.

Banter often features mock impoliteness, exemplified by phrases like "You're a meanie!" When used among closely related individuals, it neither offends nor disrupts but strengthens bonds (Leech 1983: 144). Mock impoliteness involves second-order dissociation, where the speaker not only distances from the hearer's behavior (first-order dissociation) but genuinely appreciates it (second-order dissociation). This approach leads to friendly teasing, where the speaker expresses fondness for the hearer's behavior instead of disapproval. However, the complexity of banter becomes further apparent when we consider situations in which friendly teasing serves as a tool to establish a connection that did not exist before, as seen in flirtatious banter, where apparent impoliteness transforms into mock impoliteness, fostering intimacy and rapport.

Concurrently, the data points to a distinction between attribute-based and scenario-based banter. The attribute-based category, as exemplified by the utterance "You wouldn't be capable of skipping a meal even if your life depended on it," predominantly focuses on the ascription of negative attributes to the hearer. This category further breaks down into two subtypes. The first is other-directed banter, where the speaker attributes negative qualities to the hearer. Self-directed banter, on the other hand, employs self-deprecation as a means to seek approval and closeness by projecting an image of oneself as imperfect, such as the utterance "I have a face for radio and a voice for silent movies." This form of banter cleverly exploits the divided-self metaphor (Lakoff, 1996), where speakers pretend to be unfriendly toward one aspect of themselves. Furthermore, we encounter a hybrid

category that amalgamates elements from both the previous cases: self-and-other-directed banter, as seen in the phrase, "I have such a poor sense of orientation, I wouldn't manage to find the way out of a tunnel, but I bet you would be following me".

Regarding scenario-based banter, speakers engage in mental simulations of shared humor. This category includes two subtypes: joint fantasizing (Kotthoff, 2007), which can be supportive or contestive (Holmes, 2006), depending on the participants' intentions, often achieved through frame shifting; and pretended friendliness, where individuals engaging in apparent friendly teasing hide underlying feelings.

This analysis serves as a foundational exploration of banter types, emphasizing the significance of a cognitive-linguistic approach. By combining cognitive and pragmatic perspectives, it provides a systematic framework for understanding diverse banter manifestations. Furthermore, it sets the stage for a more comprehensive study of this intriguing aspect of human interaction and humor, bringing it under a brighter spotlight within the field of linguistics.

Keywords: Banter; Cognitive Linguistics; cognitive operations; first and second-order dissociation; pragmatics.

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Embodied spatial coordination in child-pet interaction

This paper explores how human children and pet dogs and cats coordinate shared space through verbal, vocal, and bodily cues. The language of space, as all linguistic meaning (Johnson 2018), is deeply embodied, in that it stems from cognitive models shaped by sensory-motor experiences. Three frames of reference (FoR), anchored to different coordinate systems, underlie spatial language forms (Levinson 2003). Intrinsic FoR stems from entities' inherent properties (e.g. frontal dimension). Absolute FoR rests on fixed environmental coordinates. Relative FoR depends on the position of the observer. Human languages also rely on demonstrative systems which are mapped on the distinction between peripersonal and extrapersonal perceptual space, as well as interpersonal proxemics. These are closely linked to visual and action systems (Caldano & Coventry 2019).

Dogs encode simultaneously and flexibly egocentric and allocentric spatial information according to the environment (Fiset et al. 2000). In comparative studies on social cognition, dogs outperform other non-human species in their ability to use other animals' behaviour (human gaze and pointing) as a cue in regulating their own actions (Udell et al. 2008). There is even some preliminary evidence that dogs can track human perceptual experience (Lea & Osthaus 2018), although perspective-taking based on joint attention is considered as specific to humans (Tomasello 2019). Cats also display socio-spatial sensitivity to the location of a familiar human, based on vocal input (Takagi et al. 2021).

In the rich field of cognitive linguistic studies on embodied spatial coordination in language, the present paper is, to our knowledge, the first to focus on interacting human and animal bodies. Recent conversation analytic research shows that Human-Animal communication is treated by adult humans as sequentially organized social interaction (Harjunpää 2022; Mondémé 2022). In middle childhood, typically developing children have the cognitive-linguistic skills for perspective-taking and cooperative thinking. However, they are still in the process of acquiring cultural knowledge and social roles (Tomasello 2019), which may have consequences on their pet-directed behaviour.

Combining methods in cognitive semantics, phonetics, and ethology, the paper addresses the following questions: 1) Which FoRs children rely on when they convey linguistic and bodily spatial information in interspecies interaction? Do they use language forms or gestures displaying that they identify the pet's peripersonal space and anatomical specificities? Are they dealing with an assumed asymmetry in perspective-taking? 2) How dogs and cats signal spatial information when interacting with children? How do they treat human bodily dimensions, e.g. the vertical position, the use of hands? 3) What is the role of variation in interpersonal distance? The dataset includes videos with dogs and cats and French- and Finnish-speaking children (6-12 yo) interacting indoors and outdoors.

The paper shows how participants across species switch between spatial coordination strategies in accordance with the interspecies activity type and partner's response to previous cues. Human spatial language forms co-occur with indexical gestures and sounds, such as pointing and tongue clicking. These testify to children's assumptions of the semiotic and perspectival differences between participants. Dogs and cats identify human hands as an important locus of interspecies interaction. [500 words]

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Exploring the Foreign Language Effect: A Study on Emotional Responses to Taboo Words

The "foreign language effect" (FLE) is a psycholinguistic phenomenon observed in bilingual individuals, acting as an emotional "filter" that differentiates their native language (L1) from a subsequently acquired foreign language (Pavlenko, 2005, 2008; Shanahan, 2008). This disparity influences the emotional depth of language use, with L1 being more intuitive, emotionally loaded, and context dependent (Grosjean & Li, 2013; Pavlenko, 2005). The L2, acquired in formal settings, tends to be emotionally detached, resulting in a "foreign language effect" (Huang & Nicoladis, 2020; Dewaele & Pavlenko, 2002; Lai et al., 1986). This study aims to investigate the FLE, particularly in response to taboo words, and explores whether emotional reactions are primarily driven by phonological form or word meaning. The purpose of this study was to replicate the results from Rastovic (2019) and to build on it.

To investigate this issue, electrodermal conductance (EDA) measurements were employed to gauge physiological reactions. The study recruited 14 female native French speakers with English as their L2. Participants were exposed to taboo words and emotionally neutral words in both languages while their physiological responses were recorded. They performed two tasks.

In the first part of the study, known as "Experiment 1," a bilingual task was conducted. This task consisted of a total of 5 taboo words in both French and English, alongside 10 neutral words in each language. The selection of these words was guided by their potential to be immediately recognized as insulting, especially toward women. An essential criterion for these words was that they had to be a single word in length and still in contemporary use.

The second part of the study was a monolingual task conducted entirely in French. In this experiment, a total of 20 taboo words, 20 non-words derived from taboo words, 20 neutral words, and 20 non-words derived from neutral words were included. Throughout the study, the aim was to select and create stimuli that met specific criteria, considering factors like offensiveness (where the threshold to be reached during the pre-testing was an average offensiveness of 2 or more out of 5), phonological distinctiveness, and intonation normalization.

Experiment 1 demonstrated a significant language effect, with stronger reactions to taboo words in French compared to English, consistent with prior research. Experiment 2, however, revealed that reactions to taboo words and non-words were influenced by word type (non-word or word), contradicting the initial hypothesis. No significant condition effect was observed.

The study's results also highlighted individual variations, suggesting sensitivity to phonological violations. These results align with prior studies that emphasize the complex nature of the FLE.

This study enhances our understanding of how bilinguals process taboo words and the impact of language and phonological form on emotional responses. It contributes to the expanding research on the Foreign Language Effect (FLE) and emotional reactions to taboo words, which has primarily focused on decision-making and risk-taking. The insights gained here are valuable for fields such as marketing, diplomacy, and law, highlighting the crucial role of language in shaping emotions in our interconnected world.

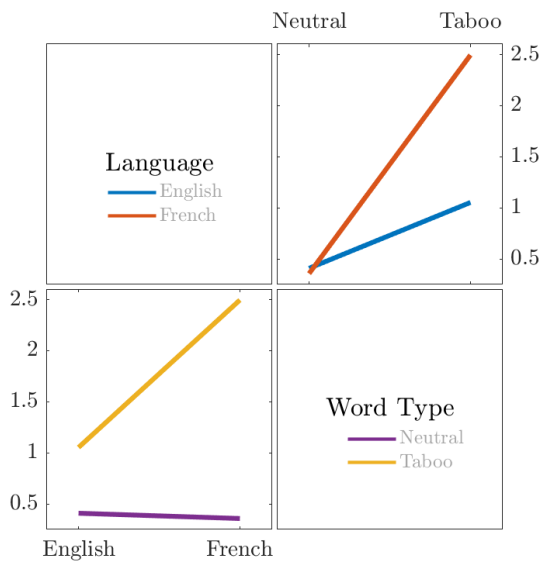


Figure 1: Interaction between language (French/English) and condition (neutral/taboo) during Experiment 1

Figure 2: Interactions between condition and language in Experiment 1

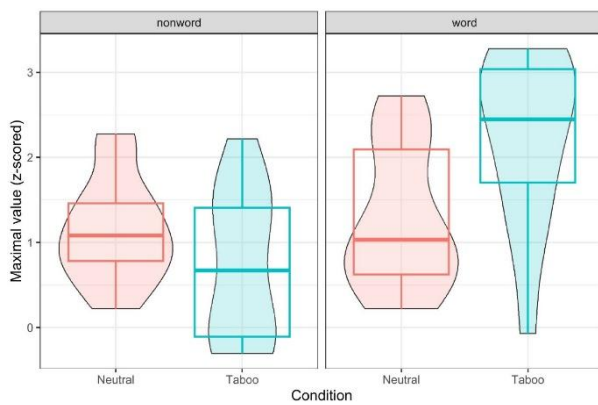
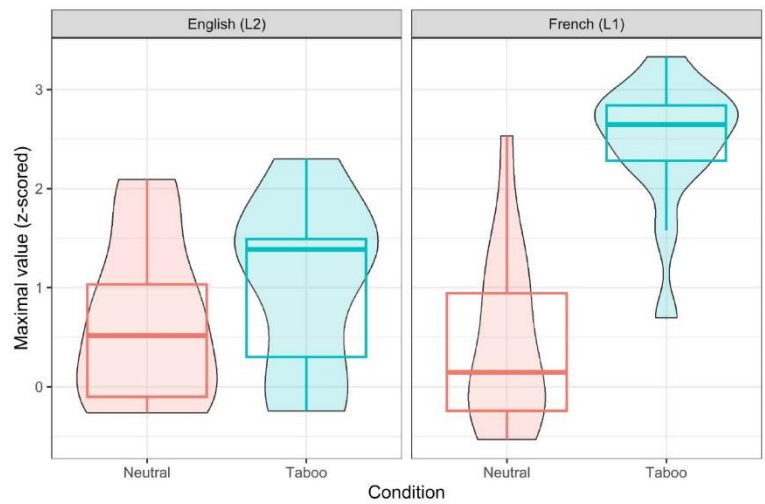


Figure 3: Interaction between lexical status and condition in Experiment 2.

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Encountering a strange erratic: the embodied animacy of a boulder stone

This paper explores the meaning construction of animacy. *Animacy* refers to the cognitive and linguistic representation of ‘being a living being’. In linguistic literature, animacy is most often treated as a binary semantic feature or a scalar meaning category (de Swart & de Hoop 2018). However, discourse analytic studies have recently addressed the problematics of situational and text-genre-related variation in the linguistic treatment of animacy (e. g. Sealey 2018). In this respect, the conceptualisation of animacy is twofold. Lexical animacy, or “animacy as such”, stems from taxonomic groups and other predetermined classifications. Perceived or “inferred” animacy is more liable to variation, as it is based on “mostly mental aspects of animacy deriving from life concept proper, including sentiency and the attribution of empathy, etc.” (Yamamoto 2006: 31). On the other hand, psycholinguistic experimental research has brought evidence that perceived animacy may override lexical animacy, when certain crucial cues for identifying animacy are detected, e. g. self-generated movement, discursive prominence. In other words, a natural force or even a stone may then be linguistically conceptualized as an animate entity (Vogels et al. 2013, Lowder & Gordon 2015). As a cognitive construct, animacy is regarded to be a cluster of conceptual variables that rely on our perception of the mental and physical properties in entities (VanArsdall & Blunt 2022).

In this sense, animacy cues stem from the possibilities of perception and action that the environment and entities composing it offer to the observer. These are called *affordances* (Gibson 1979), and linguistic meaning arises from them (Johnson 2018). Animacy is thereby an inherently interactional and embodied cognitive-linguistic concept.

The present paper approaches animacy by investigating the embodied linguistic conceptualisation of *Kummakivi* (‘strange rock’), a large (7 x 5 m) glacial erratic boulder situated in Southwestern Finland. It rests on a limited surface (0.5 m²) of a smaller convex bedrock. The aim is to identify the conceptual structures, namely the image schematic (Johnson 1987, Langacker 1987) and force dynamic (Talmy 2000) affordances, underlying the linguistic representation of the boulder stone. The analysis is based on hikers’ blogs and media articles collected in 2021. It shows that the grammatical and lexical forms used for reporting the visit to Kummakivi, and for describing the physical properties of this natural monument, encode the dynamic and interactive nature of the rock, e. g. *kivi keikuttelee* ‘the boulder sways gently’. This is discussed with regard to the boulder’s atypical physical position that challenges the image-schema of BALANCE, its anatomy that invites human visitors to a specific tactile contact, as well as its outstanding individual position in the forest. Analysing Kummakivi thereby sheds light on the animacy cues based on interactional potential and individuality. [444 words]

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I Saw Cthulhu and I Lost My Mind: Multimodal Representations of Cosmic Horror in John Carpenter's „In the Mouth of Madness“ and Beyond

A significant part of the cinematic landscape of horror (and to a small extent, science-fiction) is composed of multimodal depictions of the cosmic horror subgenre. Introduced into the horror literature by American author H.P. Lovecraft, the notion of cosmic fear relies heavily on fear of the unknown and the vastness of the universe that hides „the Otherness“. In the realm of modern cinematography, Lovecraftian visual vernacular rests not only on primary metaphors such as EVIL IS DARK and IMPORTANCE IS SIZE/VOLUME, but also reinforces them through different positions of the camera and its movement, diegetic and non-diegetic sound design, as well as colour schemas, editing, and other characteristics of film narration.

Centering itself around the main tenets of Conceptual Metaphor Theory (Lakoff & Johnson 1980), and the subsequent cognitive linguistic research in multimodal realms, in particular that of cinema (Forceville, 2013; Ortiz, 2015; Coëgnarts & Kravanja, 2015; Coëgnarts, 2019), this paper aims to explore the figurative representations of cosmic horror in John Carpenter's seminal work „In the Mouth of Madness“ (1994), and the newer reverberations of the shared Lovecraftian universe in mainstream Hollywood offerings, from „Hellboy“ (2004) to „The Cabin in the Woods“ (2011). Specifically, it attempts to show how horror film, as an exercise in embodied artistry, uses conceptual metaphors to depict Lovecraftian mythology, which is famously „undepictable“, and why this specific meaning conveyance attracts spectators to what Carroll (1990) refers to as a reaffirmation of the „instinctual intuition about reality“ (p. 162). In that sense, cosmic horror can be seen as simultaneously represented in popular culture via multimodal metaphors, and as their facilitating agent, in line with Winter's (2014) observations on the synergistic interplay of genre and environment.

In view of the main themes of „In the Mouth of Madness“ and other works in Carpenter's oeuvre (downfall of the American society, „us vs. them“ mentality, critique of consumerism), cultural distinctions of horror Americana are also discussed.

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Metaphor scenario as an explanatory tool in the pro-vaccine discourse

Serbia was one of the first countries in Europe in January 2021 to offer its citizens the possibility to get a COVID-19 vaccine. After a considerable success in its early vaccination campaign, it soon faced a waning public interest and growing scepticism in this regards, due to, *inter alia*, anti-vaccination advocates who continually fuelled distrust in vaccination. In an attempt to combat misinformation and the aggressive anti-vaccine rhetoric, the members of the national COVID-19 crisis response team as well as other doctors and scientists urgently needed to offer viable explanation to the population of the benefits of vaccination in an understandable manner and encourage the sceptics in order to speed up the immunization process. For this purpose, they exploited metaphors as one of the frequently used tools for popularizing medical scientific discourse and its transformation into “‘everyday’ or ‘lay’ knowledge” (Calsamiglia & Van Dijk, 2004: 370).

Metaphor has been established and extensively examined as one of the tools experts deploy to explain, simplify and transform complex scientific discourse into the knowledge suitable for the audience of non-experts. However, relatively little research has been conducted on metaphor scenario (Musolff, 2006, 2016) and its role in this process. Therefore, in this paper we explore how metaphor scenario as a discourse-based conceptual structure is used to explain Covid-19 vaccines’ safety and effectiveness to the population in an understandable manner in order to speed up the immunization process in Serbia. By analysing a data set gathered from various Serbian electronic news media sources published from January to December 2021, we aim to explore: 1) how the COMBAT metaphor scenario, coupled with the CONTAINER and MOVEMENT, may help simplify complex scientific concepts in the pro-vaccine discourse; and 2) how the conceptual elements of these scenarios and their interconnected relations are used for this purpose.

The findings of our analysis show that these metaphor scenarios manifest their explanatory potential by means of several sub-scenarios, whose conceptual elements establish useful mappings relying on rarely or “normally unused element of the source domain of a conventional conceptual metaphor” (Pérez-Sobrino et al. 2022: 129). The analysis confirms that metaphor scenarios may be used strategically by medical experts as an apt explanatory tool to simplify challengingly complex scientific concepts to metaphor recipients, members of the lay audience, that would otherwise be inaccessible to them.

The paper contributes to the existing body of research into the role of metaphor scenarios as one of the tools used in discursive strategies for the construction and negotiation of challenging topics, controversial issues and diverse social phenomena.

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Encoding path and manner in metaphorical motion sentences

In addition to extensive research on the typology of real motion events, the study of fictive (or subjective) motion has gained increasing attention since the seminal works of Talmy, Langacker, and Matsumoto (Talmy 1983; Langacker 1986; Matsumoto 1996; Talmy 1996). For both real and fictive motion events, the motion in space can be specified by starting point (Source), place of movement (Location), the route followed by the mover (Trajectory), and destination (Goal). In addition to the general tendency to express the destination of the moving entity most often (Ikegami 1987; Kopecka & Vuillemermet 2021), studies have found more specific patterns: manner verbs tend to combine with expressions of Location, whereas path verbs often occur with a Source or Goal (Stefanowitsch & Rohde 2004; Taremaa & Kopecka 2023), pertaining also to fictive motion sentences (Taremaa 2013).

Alongside fictive motion, metaphorical motion has also become a subject of significant interest. Prominent examples include metaphors of MOVING TIME and MOVING EGO. Furthermore, various domains such as for instance emotions are also understood through motion metaphors (Vainik 2017). Researchers have explored the expression of real and metaphorical motion in both verb and satellite languages from a typological viewpoint (Özçalışkan 2004; Özçalışkan 2005; Feist & Duffy 2020; Lewandowski & Özçalışkan 2023). Additionally, psycholinguistic brain imaging methods have been employed to investigate the distinctions between real, fictive, and metaphorical motion (Cacciari et al. 2011). However, less attention has been devoted to the event pattern of metaphorical motion compared to real and fictive motion.

In this study, we examine two motion metaphors in Estonian: CHANGE IS MOTION and LIFE IS A JOURNEY, and relate the findings to the current knowledge of the structure of real and fictive motion events. The corpus study involved two subject nouns: *asi* ‘thing’ and *elu* ‘life’ and three Estonian motion verbs: one conveying fast motion (the manner verb *jooksma* ‘to run’), one indicating slow motion (the manner verb *kulgema* ‘to move forward’), and one denoting neutral motion (the path verb *minema* ‘to go’). We randomly selected up to 300 sentences for each verb + subject noun combination from the Estonian National Corpus 2021 (1800 sentences in total). Each clause was coded for motion-related variables concerning both path (e.g. Source, Location, Goal, Trajectory) and manner. Correspondence Analysis was used as an exploratory technique to obtain an overview of the data.

The preliminary results of the study indicate that manner is the most prominent and semantically diverse category expressed in metaphorical motion sentences. We will analyse different manner categories expressed in metaphorical motion sentences (like speed, intensity, etc.). At the same time, each verb shows a different event pattern when comparing path patterns. We will show which components of the path are used in metaphorical motion sentences and for what semantic purpose. In conclusion, our study shows how the event patterns of real, fictive and metaphorical motion are comparable or even consistent.

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Tark, shperlack, burfip, and other alien bad words: investigating a sound-meaning association in swear words of English and French

Swear words, also known as taboo words, profanities, bad words, etc. are words that are socially forbidden because they are considered extremely impolite or gravely insulting. In English and French, swear words tend to contain the least sonorous consonants according to Parker's (2008) sonority scale: plosives (/p/, /t/, /k/, /b/, /d/, and /g/), voiceless fricatives (/f/, /θ/, /s/, /ʃ/, and /h/), and affricates (/tʃ/ and /dʒ/). This significant tendency can be observed not just in real-life swear words, but also in swear words in fiction.

What can explain the overrepresentation of such sounds among swear words? This might be a case of sound symbolism or systematicity, when sounds are unconsciously associated with a meaning (Bergen 2016: 52-63; Bergen 2004; Dingemanse 2015; Haiman 2018: 118-119; Sidhu 2019), i.e. an unconscious construction – in the sense of Construction Grammar.

I will describe the methodology and results of an experimental study conducted to investigate this hypothesis: asking native speakers of English or French to spontaneously invent words from alien languages, as in science-fiction works. Alien swear words playfully invented during that experiment do tend to contain more unsonorous consonants compared to the other invented words. I will briefly mention two possible explanations in terms of iconicity, based on insights from existing literature: plosives may be associated with “violation of hearer’s space” (Haiman 2018: 209–212), or unsonorous consonants may be associated with “aggression” (Yardy 2010: 12-20; 71-78).

Swear words have an emotional, contextual meaning (Finkelstein 2018: 311, 326), like interjections (Wharton 2003). Consequently, this unusual sound-meaning pairing would involve an emotional-contextual, non-truth-conditional meaning rather than truth-conditional semantics, and be powerful enough that it influences a strong sociolinguistic convention – which words are swear words and which ones are not – suggesting that sounds may convey meaning in yet unsuspected ways. It is also up for discussion whether this association is indeed iconic (and therefore should be found in other unrelated languages), maybe embodied even, or a non-iconic specificity (existing only for swear words in English and French, or some group of languages they belong to). I will also discuss theoretical insights and issues of terminology around the different types of sound-meaning associations (systematicity, sound symbolism, and iconicity) and their opposite notions (duality of patterning, arbitrariness of the sign) – all of which can be more clearly defined and distinguished thanks to the contribution of Construction Grammar: to paraphrase Goldberg (2006: 18), it is constructions *all* the way down to sounds, not just down to words and morphemes.

(410 words)

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L'expression des expériences émotionnelles en wolof

Approches lexicologique et syntaxico-sémantique

Cette communication propose une analyse de l'expression en wolof (langue africaine parlée au Sénégal) de 7 émotions basiques. Elle porte aussi bien sur l'organisation lexicale des termes et expressions qui s'y rapportent que sur leur fonctionnement syntaxico-sémantique, et plus précisément lorsqu'ils expriment une expérience émotionnelle liant une ÉMOTION à un PATIENT et/ou un STIMULUS.

Pour ce faire, cette analyse est partie de travaux qui font consensus en sciences cognitives afin de circonscrire les notions étudiées. Car, s'il existe de nombreuses et bonnes études linguistiques sur les émotions, les notions décrites ne sont jamais les mêmes et beaucoup d'entre elles ne relèvent pas d'émotions mais plus largement d'affects comme les sentiments ou les humeurs, rendant ainsi toute comparaison typologique impossible. Nous avons donc retenu 7 notions réparties en 3 groupes (appréciatif / affectif / conatif) et classées selon les valeurs positif vs. négatif (tableau 1).

Sur la base d'un corpus constitué aussi bien d'énoncés écrits que oraux, non élicités pour la plupart, nous avons étudié au moyen de cartes sémantiques l'organisation lexicale des termes et expressions renvoyant à une de ces 7 émotions. Puis, nous avons étudié la distribution des actants prédicatifs typiques de ce genre d'expériences que sont une ÉMOTION, le PATIENT qui l'expérimente et le STIMULUS qui la provoque.

Concernant l'organisation lexicale (tableau 2), on observe entre autres qu'en wolof beaucoup de termes d'émotion sont associés à la perception sensorielle (**neex** 'être délicieux' > 'être agréable' ; **metti** 'être douloureux' > 'être triste'). On remarque aussi qu'il n'existe pas de termes spécifiques à l'expression de la tristesse ; si ce n'est au moyen d'une métaphore : **sama xol jeex** 'mon cœur est épuisé' pour dire 'je suis triste'.

Au niveau syntaxico-sémantique, on note que le wolof use majoritairement de verbes pour nommer les émotions et que l'expression de certaines expériences présente des restrictions quant aux schémas prédicatifs utilisés. Ainsi, la plupart des verbes d'émotion peuvent être dérivés au moyen de suffixes de voix pour faire alterner le stimulus ou le patient de l'expérience en position de sujet thématique (**sawar** 'être enthousiaste' / **sawarloo** 'enthousiasmer (qqn.)'). Les seuls verbes faisant exception sont les verbes se rapportant à une expérience appréciative et pour lesquels on passe exclusivement par un schéma prédicatif où le stimulus figure en position sujet (comme **neex** 'être plaisant / plaire à qqn.').

(500 mots)

Tableau 1. Discrimination des émotions étudiées

	<i>Positif</i>	<i>Négatif</i>	
APPRÉCIATIVES	plaisant	déplaisant	
AFFECTIVES	contentement joie / satisfaction	tristesse	
CONATIVES	enthousiasme	mécontentement colère / insatisfaction	peur

Tableau 2. Carte sémantique des émotions

		Positif			Négatif		
Appré- ciatives	+ sensa- tion	neex DÉLICIEUX / <i>plaisant</i> + bàneex PLAISIR			naqari DÉPLAISANT	metti DOULOUREUX <i>physiquement</i> déplaisant	
	+ concep- tion					mbégte JOIE	xol_jeex CŒUR ÉPUIÉ <i>triste</i>
Affectives	bég HEUREUX / SATISFAIT	kotaan CONTENT	xol_sedd CŒUR_FROID <i>satisfait</i>	<i>intensément</i> triste (+ metit DOULEUR / <i>tristesse</i>)	PEINANT / <i>triste</i>		
Conatives	sawar ENTHOUSIASTE			mer EN COLÈRE	rèt AVOIR PEUR		
					raglu FAIRE PEUR		
				xol_tàng CŒUR_CHAUD <i>insatisfait</i>	pat-pati TREMBLER DE PEUR		
					tiit EFFRAYÉ	tiitaange PEUR	

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Our contribution focuses on Modern Greek (MG), a language carrying different “layers” of metaphorical thinking, ranging from very old metaphors, ex. the weaving metaphor, present in Ancient Greek language and literature, ex. the *ball of wool* given by Ariane to Theseus, thanks to which the hero managed, following Plutarch’s expression (*Life of Theseus*, XVII.19), “to exit the Labyrinth - τούς ἐλιγμούς διεξελθεῖν » [to pull himself out of the [Labyrinth’s] whirl], to MG expressions, ex. Πιάστηκε στον ιστό της εφορίας, Lit.tr. He has been caught in the cobweb of the IRS / Tr.lit. Il a été attrapé par la toile du Fisc.

After a short introduction that presents a review of the literature focusing on semantic aspects of idiom processing, such as semantic transparency and conventionality, as well as the role of metaphors, we present two pieces of experimental evidence with the self-paced reading task. Metaphoric thought has been found to operate in subjects’ online understanding of linguistic meaning (ex. Nayak & Gibbs, 1990). Nevertheless, the data on this question diverge, especially when the dependent variable of the experiment concerns reading times: Glucksberg, Brown & McGlone (1993), (almost) replicating Nayak & Gibbs findings, put forward evidence contradicting the automatic activation of conceptual metaphors during processing. The experiment we present here aims to test this hypothesis for MG, i.e., the extent to which metaphors are present in readers’ minds when processing idioms, and, if so, to explore possible processing differences between metaphors. The first experiment that will be presented is a consistency judgment protocol in which idioms were presented at the end of a story-context. The context was constructed in such a way that, for each critical expression, there were 3-4 words/expressions that operated a semantic priming. We tested twelve emotional states with their corresponding metaphors (two metaphors for every state): *anger, happiness, sadness, pressure, worries, meanness, dignity*, etc. 24 story-contexts have been created and participants were divided in two lists. The 39 participants, all of Greek L1 and coming from big cities, responded to one of the two lists (no one saw both lists). For instance, for the emotional state *anger* in List 1, the first story was consistent with metaphor A’ (ANGER IS A BOILING THING) and inconsistent with metaphor B’ (ANGER IS ANIMAL). The inverse was true for the first story of List 2. The results of the self-paced reading protocol will be interpreted in the light of previous findings as well as the conceptual theory framework (Kövecses, 2010). Our results emphasise the fact that, contrary to the traditional view of figurative language, metaphors, even very old ones, are not dead, but rather “alive, sleeping and waking” to paraphrase the title of Muller (2009). Consequently, our results also address the question whether the variable ‘conventionality’ should be considered as a whole and operationalised as such in psycholinguistic experiments. In the second part of our contribution, we adopt a different coding of the critical items to test the hypothesis following which the most embodied schemata give rise to a processing benefit.

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Phrases préfabriquées interrogatives à fonction métalinguistique : vers une modélisation sous forme de phrasèmes constructionnels

Les interactions orales et écrites regorgent de phrases « prêtes à l'emploi » pour exprimer des actes de langage spécifiques pour (a) formuler un accord (*ça marche*) ou un désaccord (*dans tes rêves !*), (b) commenter le discours (*comment dirais-je ?*) ou le réguler (*tu vois*), (c) exprimer une émotion ou une évaluation (*c'est le pied, c'est la cata*), pour présenter quelques exemples représentatifs.

Ces « phrases préfabriquées des interactions » présentent de nombreuses spécificités dans leur emploi (restrictions combinatoires syntaxiques et lexico-sémantiques, emplois pragmatiques et interactionnels contraints, ...), mais on relève qu'au-delà des idiosyncrasies, il est souvent possible de mettre en évidence des patrons syntactico-syntaxiques récurrents associés à certaines fonctions pragmatiques. Par exemple, un schéma comme <C'est le N> pour exprimer l'évaluation d'une situation dans un contexte interactionnel sera particulièrement productif (*c'est le bordel, c'est le bouquet, c'est la cata, c'est la honte ...*) et pourra accueillir de nouvelles expressions (par exemple, le néologisme *c'est la hess* dans la « langue des jeunes »).

Les approches constructionnelles montrent bien de manière générale que les expressions polylexicales, loin d'être des anomalies, répondent à des schémas réguliers et s'inscrivent dans un continuum allant des expressions complètement lexicalisées à des schémas de constructions plus abstraits (Fillmore *et al.* 1988 ; Booij, 2002 ; Goldberg, 2006). De ce fait, ces approches nous paraissent particulièrement adaptées à notre objet d'études qui vise à modéliser les phrases préfabriquées des interactions, en rendant compte de leurs propriétés syntaxiques, sémantiques et pragmatiques. En particulier, les phrasèmes constructionnels, définis comme des associations structures-sens comportant des éléments fixes et des éléments variables sont particulièrement intéressants dans cette perspective (par exemple, Dobrovolskij, 2020 ; Mellado Blanco, 2021).

Dans cette communication, nous nous proposons d'aborder un sous-ensemble de phrases préfabriquées ayant une modalité interrogative et ayant principalement une fonction métalinguistique, portant à la fois sur le dire et de dit (reformulation, demande de précision, autoréparation ...). Un premier relevé effectué à partir de diverses ressources inventorie une soixantaine de ces phrases (par exemple, *comment dire/ comment dirais-je ? tu sais pas la meilleure/la dernière ? tu vois ce que je veux dire/tu me suis ?*). Notre objectif est à la fois théorique et descriptif. Il vise d'une part à proposer un modèle rendant compte du schéma constructionnel des phrases préfabriquées en intégrant à la fois des paramètres sémantiques, syntaxiques et interactionnels. Ce dernier paramètre intégrera le caractère auto- ou hétéro-adressé de la phrase, ainsi que la position dans le tour de parole. D'autre part, nous décrirons les principaux schémas associés aux phrases relevées, en nous appuyant sur une étude de corpus intégrant des romans contemporains riches en dialogue (corpus Phraséorom, romans >= 1980 ; 86 millions de tokens) ainsi que les corpus oraux CEFC-ORFEO et ESLO2 (5,2 millions de tokens).

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Proximalization of distal daily events in family dinners through words, gestures and signs

Children progressively use actions, vocalizations, words, gestures, facial expressions, gaze to co-construct with their interlocutors their reference to events that are part of their daily lives. The subtle architecture of sensory perceptions, mental states and processes can be progressively expressed through fine multimodal linguistic constructions. Family dinners are one of the cultural habitats in which children are socialized to interactive practices and the subtleties of cooperative *linguaging* both about the here and now - the food being eaten, a sibling's behavior-, and about displaced events - sharing daily experiences, remembering past vacations, arguing over the best recipe to bake an apple pie, telling stories or making projects.

This paper analyzes family dinners in French and French Sign Language collected in 8 families with two standard and one 360° cameras (Fig. 1) to tackle the issue of the socialization to and performance of narratives in situated multiparty conversations. Of particular interest are the event retellings ritually elicited by family members about the day: how was work, but especially, how was school? In other words, we focus on the narrative retellings of distal events in a proximal situation : family dinners (Dancygier 2019).

What are the available resources? How does children's cognitive and cultural development facilitate or hinder the use of these resources? To what degree are children's narratives co-constructed or scaffolded?

These questions raise both the issues of embodied and ecological language activity and call for methodological integration of cognitive linguistics with functional and interactional approaches (Linell 2009 for instance, authors in preparation).

The targeted sequences were annotated with ELAN benefiting from the different camera angles allowing us to systematically code object manipulation, participation frameworks and linguistic production as a coherent whole. The sequences were then qualitatively analyzed along three dimensions:

- gesture and embodiment following Kendon 2004, McNeill 2005;
- objects manipulation and the interaction with the material environment (Mondada 2019);
- subjectification in the narratives (Langacker 1990, Traugott 2010, Verhagen 2005) paying particular attention to the construal to the self and to perceptive and cognitive subevents.

our analyses suggest that:

- 1) Participants embody their narrations while eating, suggesting a necessary coordination of both dining and languaging.
- 2) Children tend to embody distal events by increased proportions of gestures and motions to make them more proximal (Fig. 2)
- 3) To ensure maximal concreteness and “proximalisation”, children, as well as adults, not only make use of their own bodies but also of the objects on the dinner table (Fig. 3)

Our analyses illustrate how multimodal embodied and ecological metaphors allow participants to bridge different perspectives on usage events and re-present aspects of each individual's life that would otherwise not be accessible to other family members. **(454 words)**

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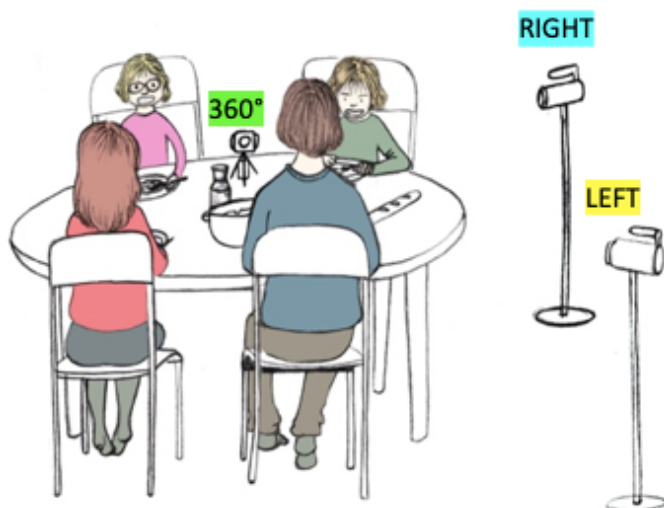


Fig. 1 : Camera set-up



Fig. 2: The child enacts his swing class



Fig. 3: Mother and child are using a lid to represent a circle.

« Pendant que la tempête traverse mon corps » : ressources métaphoriques et multimodales dans les récits d'accouchements oraux et écrits

Abordés comme comptes-rendus tout à la fois d'une expérience sensorielle, d'une activité cognitive synchrone (pendant l'événement) et asynchrone (durant le récit en post-partum) et d'un événement biographique, les récits d'accouchement à la première personne permettent d'étudier une production linguistique visant explicitement à représenter un travail de conceptualisation sur une expérience sensorielle (perception externe, intéroception - Holley 2015, Ceunen et al. 2016, Beukeboom/de Jong 2008), cognitive (compréhension, raisonnement, prise de décision) et émotionnelle. Cette étude analyse ces récits d'accouchement en tant que produit (expérience représentée) et production (expérience représentante) mettant en jeu le *linguaging* (Linell 2009), la mémoire et l'identité sociale et psychique du *je*. Le récit est-il un dialogue avec soi-même ? Quels sont les rôles du corps et de l'environnement sociomatériel dans l'expérience représentée et dans l'acte représentant ?

Le corpus a été constitué afin de tester les effets possibles du rôle du corps, de l'environnement matériel, du degré d'interactivité et de la modalité oral/écrit (Tableau 1) sur les récits produits, en français et en anglais dans différentes conditions (écrit manuscrit ou digital natif, oral conversationnel ou monologique). Ces conditions n'offrent pas les mêmes ressources corporelles, matérielles ou visuo-posturo-gestuelles.

L'analyse se concentre sur l'expression de la perception externe et de l'intéroception, deux mécanismes qui permettent l'accès au monde et à soi-même. Si la perception externe bénéficie d'un lexique dédié, l'intéroception repose largement sur des processus métaphoriques et discursifs (Auteur à paraître), qui pourraient selon les conditions de production s'appuyer sur l'environnement et/ou le corps de la locutrice. L'étude vise à tester cette hypothèse en isolant les corrélations possibles entre les conditions de production du récit et la représentation du corps et de l'environnement en postulant une mémoire du corps, à la suite de Connell et al. (2018) qui montrent la dimension multimodale de l'abstraction conceptuelle et la part importante de l'intéroception dans cette conceptualisation. On se centre sur trois phénomènes et leur expression multimodale :

- 1) L'analyse des références métaphoriques au corps propre en tant que lieu, interlocuteur, ou agent autonome qui permet d'envisager l'acte d'appropriation dans le récit.
- 2) L'analyse sémantique des références à soi qui contribuent à la représentation d'une interaction riche et complexe des parturientes avec les partenaires interactionnel.le.s mais aussi avec leur environnement.
- 3) Les verbes de cognition (*think, believe, remember*) qui représentent l'activité de conceptualisation durant l'expérience qui peut être convergente ou divergente avec celle que le récit occasionne.

In fine, l'étude envisage ces récits comme lieu d'appropriation de l'expérience et de constitution du sujet en tant que tel dans laquelle l'intéroception semble jouer un rôle clé (Holly 2020). Elle participe d'un projet d'humanités médicales basé sur la médecine narrative (Charron 2020) en opérationnalisant la linguistique cognitive, ce qui suppose des aménagements méthodologiques et théoriques pour faire entrer la linguistique cognitive dans le champ du discours et de l'interaction (après par exemple Zima/Brône 2015, Tenbrink 2020, Verhagen 2005).

(494 mots)

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Source	Écrit/oral	Interactivité	Langue	Format		Nb de mots/durée
Australien	Oral	Interaction naturelle	EN	Audio	2 locutrices +1 chercheuse	2h
Atelier d'écriture- récits	Écrit manuscrit, oral spontané	Limitée, différée	FR	visuel	10 participant.e.s	19 récits
Atelier d'écriture-entretiens	oral	Interaction semi-guidée	FR	audiovisuel	10 participant.e.s + 1 chercheuse	2 entretiens (collecte en cours)
Atelier d'écriture-séance(s)	Oral spontané + textes lus	Interaction multipartite	FR	audiovisuel	10 participant.e.s +1 animatrice (+ 1 chercheuse / bébés)	12 séances ≈ 4h+
Corpus numérique	Écrit numérique natif	Limitée, différée	EN/FR	visuel	50 récits	65.000 mots

Tableau 1 - Présentation synthétique du corpus

This is how we roll (and spin) in French from a multimodal perspective: Cross-modal analysis of rotating events

Languages display considerable systematic variation in how they encode information concerning translocational voluntary motion events, as suggested by a great deal of research drawing on Talmy's (1991) typological framework and Slobin's (1996) thinking-for-speaking hypothesis. In this regard, French behaves as a prototypical verb-framed language (Hijazo-Gascón & Ibarretxe-Antuñano, 2013): speakers can easily convey Path information, which is typically encoded in the main verb. In contrast, linguistic resources to encode Manner of motion are not readily accessible, so it tends to be omitted in oral discourse but conveyed through gestures, by means of *Manner fogs* (McNeill, 1992). Moreover, most Manner verbs of Romance languages are first-tiered (i.e. general actions, mostly hypernyms; Slobin et al., 2014), so the expression of fine-grained specific details of Manner entails higher cognitive load and multimodal discursive effort for their speakers (Hostetter et al., 2007; Kita, 2000). Although previous research on gestural production has revealed that iconic gestures reflect language-specific properties (Kita & Özyürek, 2003; Özçalışkan et al., 2001), a closer examination of the literature reveals that the multimodal expression of Manner in verb-framed languages is generally described in broad terms, with little attention paid to the finer details (Fibigerova & Guidetti, 2018; Hickmann et al., 2017).

This research delves into the multimodal expression in French of non-easily encodable events, specifically rotating events, zooming into the distinction between rotation on the X-Axis (*roll*) and the Y-Axis (*spin*), which is not salient in the language examined. More precisely, this study asks (i) whether the expression of these Manners entails a higher cognitive load (i.e. an increased number of words and gestures), and (ii) whether or not iconicity is preserved across modalities. The focus will be on situations where speakers are forced to lexicalize a fine-grained distinction.

Cross-modal analyses have been conducted in a corpus consisting of 44 video-taped oral narrations, produced by 11 native speakers of French, interviewed in pairs in metropolitan France (Auvergne-Rhône-Alpes region). Data were elicited using the *Tomato Man* tool (Özyürek et al., 2001) with counterbalanced order and following Özyürek et al.'s (2008) procedure, complemented by a think-aloud protocol. Audiovisual materials were recorded with a Sony A6600 videocamera, and annotated and coded using ELAN 6.4 (Lausberg & Sloetjes, 2009).

Results suggest that (i) the lack of readily available linguistic resources to encode the distinction of axis entails a greater effort across modalities (i.e. speakers tend to produce more words and more gestures, and to provide an increased amount of Manner information); (ii) gestures tend to preserve iconicity, which might be minimized in words (i.e. speakers typically represent the prompted Manner in gesture, but not necessarily in speech with specific words); (iii) the distinction of axes seem to arise in speech (*rouler* 'roll' vs *tourner* 'turn'), while it is not consistent across participants: they use different verbs for each axis, but counterexamples are also found within the sample (e.g. *tourner* to encode 'roll'). These findings support the relevance of multimodal fine-grained analyses to provide a clearer image of the speaker's mental representation of motion events.

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This paper presents a cognitive linguistic and eco-linguistic analysis of creative writing workshop productions. The workshop methodology used to produce the texts analysed here is based on the Agrimonde-Terra scientific foresight studies about land use and food security (Le Mouël & Mora, 2019). It was created by an interdisciplinary group of researchers with the objective of experimenting the collective invention of new narratives presenting sustainable and desirable futures. In a context of climate change, pollution, and biodiversity loss, the hope is that collective creative writing based on projection studies will contribute to the emergence of new desirable “frames that capture the reality of the situation” (Lakoff, 2010), and will inspire non-destructive human behaviour. The workshops have been held, in French and English, at universities (students and staff), high schools, with a teachers’ association, and for the general public. Most of the workshops took place over three hours; some workshops in high schools were spread out over two sessions and some over a period of several weeks. The texts produced were collected and transcribed and then analysed using a combination of some elements of Stibbe’s (2021) ecolinguistic method (notably, the identification of frames and ideologies, the examination of appraisal patterns and salience patterns) and Dancygier’s (2012) application of cognitive linguistic concepts to the analysis of narratives (frames, mental spaces, blending theory, narrative spaces, construction grammar).

The paper will attempt to answer the following questions: What does analysis reveal about the linguistic construction of collectively projected mental spaces and the narrative spaces that emerge from them? What frames are triggered by lexical and structural choices and is it possible to identify linguistically constructed novel conceptual blends of real lived experience and the projection study scenarios? Are any appraisal and salience patterns revealed which provide insight into beneficial shifts in underlying evaluations? Analysis reveals some evidence of appraisal patterns which reflect an alternative frame to the commonly shared, and ecologically problematic, “big / growth is good”. Across several texts, “small” and “sufficient” have positive appraisal patterns, whereas “big” and “excess” have negative appraisal patterns. In utopian narratives, humans are given positive agentive roles when they function collaboratively and in harmony with the natural world. In dystopian narratives, human behaviours of overconsumption, pollution, technological innovations (AI, robots, drones, GMO) are portrayed negatively. In many texts, embodied, sensory experience is given salience. Arguably, all the texts produced are blends of present reality-based mental spaces and future imagined mental spaces. The linguistic construction of these novel conceptual blends are revealed, some through examples of frame metonymy at the lexical level, others at the constructional level (blended constructional patterns). In the texts examined, frames and narrative spaces contribute to the emerging stories, often relying on the process of backward projection to cause the reader to reconstrue the original triggered frames. It is this last feature which seems to most clearly indicate the potential influence of imagined projected narratives on changing interpretations of present reality, and therefore the potential for stories to contribute to future changes in behaviour. (500 words)

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Beyond type frequency: the role of similarity and variability in the productivity of constructions

When do speakers use constructions in creative ways? Studies on this topic typically designate type frequency, i.e. the number of different items attested in a construction, as the driving factor of syntactic productivity (e.g. Bybee & Thompson 1997). The underlying logic is that speakers should be more confident that a construction can be extended to new items if they have witnessed this construction with many items than if they have seen it restricted to only a few. However, the role of type frequency could also be interpreted as an effect of variability, i.e. the diversity (especially semantic) in the items witnessed in a construction, with more variable constructions more likely to be further extended than more restricted ones, regardless of the number of items. Since more variability requires more types, and typically more types lead to greater variability, the two measures are typically correlated in natural data, thus the two factors have proven difficult to tease apart.

In this study, we attempt to separately test the role of type frequency and variability on syntactic productivity, using an artificial language learning experiment (e.g. Perek & Goldberg 2015, 2017), which allows us more control over the input provided to language users. Participants are exposed to two nonce constructions, “Verb Agent Patient-po” (e.g. *Mooped the cat the monkey-po*) and “Verb Patient-po Agent” (e.g. *Glimmed the rabbit-po the wolf*), through video clips paired with sentence descriptions. Each construction is attested with two different sets of nonce verbs with transitive meanings. In one condition, one construction has higher type frequency than the other but both have low variability (i.e. each is attested with highly similar variants of the same verb meaning). In another condition, both constructions are matched in type frequency but one of them has higher variability than the other (i.e. it is attested with a more diverse range of verb meanings). Participants are then asked to produce new sentences in the artificial language with either a verb attested in the input, a new verb similar in meaning to those in the distributions of the constructions, or a new verb that is semantically distinct from them.

Our results show that participants successfully learn the distribution of each construction in both conditions, in that they use attested verbs in the relevant structure. With novel verb meanings, we find effects of similarity, in that verbs that are highly similar in meaning to those attested in one of the constructions are used in that construction. For those novel verbs that are dissimilar to the attested items, we find an effect of variability on the choice of construction, in that the construction with higher variability is slightly preferred with these verbs in the relevant condition, but not the construction with higher type frequency in the other condition. We conclude that while similarity between a coinage and the attested items is the main factor involved in productivity, the openness of constructions, all other things being equal, seems to be driven by their variability rather than their type frequency.

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An Experimental Examination of the Stage Model in Cognitive Grammar

Our eye-tracking experiment was designed to empirically elucidate the substance of the stage model, which is an essential theory in Cognitive Grammar (CG) (Langacker 1987, 1991, 2000, 2008). The model investigates how a conceptualizer (i.e., speaker/hearer) apprehends the outside world, analogous to watching a play, in relation to processing linguistic expressions. As one views a stage from the audience and pays attention to the actors and props, participants of an event are given different levels of salience/prominence—*trajector/landmark*, *profile/base*, and *ground* in the terminology of CG. Above all, the subject of a sentence acquires the status of the most prominent thing (i.e., trajector) and the object that of the second most prominent (i.e., landmark). As such, in the theory of CG, the prominence of relevant participants in a sentence is determined simply with grammatical/syntactic statuses; however, it is highly possible that a variety of other features, such as animacy and topicality, could affect the level of salience.

We conducted an eye-tracking experiment based on the *visual world paradigm* (Tanenhaus et al. 1995) to investigate the reality of the stage model, or to uncover what determines the outstanding level of participants in a setting. The participants ($n = 14$) were asked to view one of visual stimuli, as presented in Figure 1, while listening to different sentences, and then to judge whether the content of a drawing was matched with that of an audio sentence. The experiment provided a total of 45 sentences in Japanese, changing the order of nominal phrases and/or voice, for Japanese subjects. For example, the stimulus 1 (s1) appeared together with the sentences “*otokonoko(boy)-ga(NOM) onnanoko(girl)-ni(REC) bouru(ball)-wo(PAT) nage-ta(threw)*” and “*otokonoko(boy)-ni onnanoko(girl)-ga bouru(ball)-wo nage-rare(passive)-ta (was thrown).*” Additionally, before showing such pictures and sentences, some contexts in which one of participants was the topic were presented.

The results revealed each of the following effects on the salience of NPs: (i) the order of an NP, (ii) the grammatical status (i.e., case), (iii) the overt/covert agent (i.e., profile/base), (iv) semantic roles, (v) animacy, and (vi) topicality. Note that the parameters (i)–(iii) are concerned with *syntactic* aspects of language, while the parameters (iv)–(v) and (vi) are related with *semantic* and *pragmatic* sides of language, respectively. The analysis of individual parameters as well as a multiple regression analysis generally revealed the following characteristics: while the NP order and semantic roles (i.e., (i) and (iv)) did not display statistical influence on the fixation of participants, the rest of the parameters affected the salience of participants with a statistically significant difference; in particular, the animacy and topicality of NPs (i.e., (v) and (vi)) were considerably responsible for the outstanding of NPs in a sentence.

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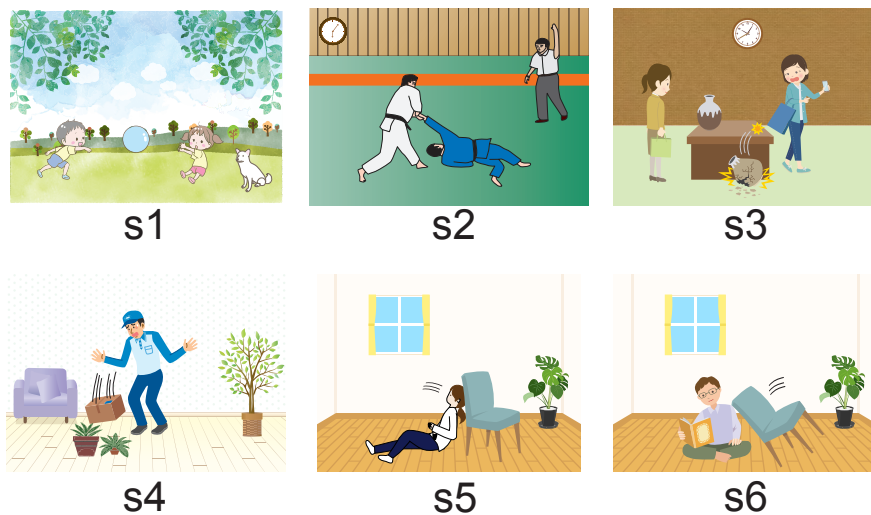


Figure 1: Visual stimuli (excluding all fillers).

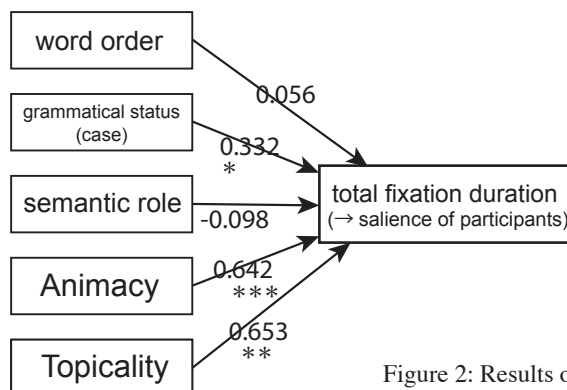


Figure 2: Results of a multiple regression analysis.

Corpus-based and experimental evidence in the study of evaluative constructions: a crosslinguistic investigation

Evaluative constructions involving Tough predicates (e.g., *This book is difficult to read*) present atypical mappings between syntax and semantics and vary greatly across the languages of the world: In some languages (e.g., English/French), speakers typically use so-called tough constructions (TCs) to evaluate an action or an event –constructions involving sentences in which the syntactic subject of the matrix is logically the missing object of an embedded non-finite verb [1-2] (but see [3] on the functional alternatives French offers); in others, such as Russian (RU) –a language without TCs–, speakers may opt for a variety of functional analogues (e.g., impersonal constructions, passives, deverbals) [4-6].

Despite a growing interest in the syntactic-semantic unalignments of TCs, their inherent semantic and morphosyntactic properties as well as their crosslinguistic asymmetries have been only superficially discussed. The aim of the present study is (a) to explore French and Russian evaluative constructions in relation to previous theoretical descriptions; and (b) to identify the properties and the contexts of occurrence of the most frequent configurations, coupling two types of data: corpus-based and experimental.

The corpus-based investigation involved data from the Opus-corpus subtitles database [7]. and allowed to compare English TCs as source patterns with French and Russian parallel translations as target alignments focusing on two of the most frequently occurring adjectives within TCs (difficult and easy). The experimental study consisted in collecting written data from native speakers of Russian and French. Participants were asked to type in a short sentence to describe a set of pictures depicting different scenes (e.g., A book difficult to read, A cat difficult to wash, etc.) using three target words presented on a screen: an animate or an inanimate noun, a tough adjective/adverb and an infinitive, counterbalancing their order of presentation.

The data do not fully confirm previous theoretical descriptions about the two investigated languages. With respect to Russian, the predicative use was indeed the most prototypical construction, as previously suggested by [4], but passive and deverbal constructions [5], although present in both datasets, occurred only marginally in this system, as opposed to French who surprisingly showed a rather frequent use of such functional analogues (see also [3]). Overall, the corpus study was much more informative as it revealed among other constructions at least two morphologically rich alternatives in the two languages: constructions with compact compound adjectives and distributed modal uses in Russian, and constructions with compact affixed adjectives combined or not with tough adverbials in French. When variation occurred, it was mostly with scenes involving an inanimate NP and when the target words were presented in non-canonical orders.

This work reveals several analogue evaluative constructions in the two investigated languages, shows some similarities and differences across the two systems, and underlines the importance to take into account both the syntactic and the semantic constraints imposed on them. The findings of the present study additionally suggest that parallel corpus and experimental investigations are both necessary for a fullest exploration of specific linguistic phenomena that present complex syntactic-semantic unalignments and crosslinguistic asymmetries.

Word count : 499

Keywords: Experimental study, Corpus Linguistics, Tough constructions, Parallel Corpora, Semantics, Syntax, English, French, Russian

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The space age is upon us, defined by unprecedented advancements in humans' interaction with and understanding of the universe. Space exploration pushes not only our physical horizons, but our conceptual and linguistic horizons as well. The wealth of new innovations, ideas, and possible actions inevitably require new ways of both thinking and speaking. The aim of this study is to investigate how these experiential and technical advancements have been conceptualized and construed linguistically. More specifically, this paper studies approximately 200 compounds of the type "space" + NOUN derived from the Corpus of Contemporary American English (COCA) (Davies, 2008). The compounds are then analyzed with regard to (1) the semantic relation between the constituents, (2) the domains of the constituents and, (3) whether these domains are evoked directly or via processes of metaphor and metonymy.

Compounds typically follow regular semantic patterns, both regarding the relation between the constituents (Levin et al., 2019) and the domains from which the constituents are derived (Maguire et al., 2010). Thus, both encyclopedic and semantic knowledge about space should influence and delimit the type of words it combines with and the relations in those compounds, and it should be possible to uncover a smaller number of productive patterns underlying the compounds. This investigation of the linguistic construal of space in these compounds can provide insights into how space has been conceptualized. Furthermore, sometimes the constituents of a compound rely on metaphorical or metonymical mappings (Benczes, 2006), which is not surprising considering Lakoff and Johnsons claim that metaphors are pervasive in our everyday life (Lakoff & Johnson, 2003[1980]). Investigating the source domains utilized in metaphorical and/or metonymical "space" + NOUN compounds might provide additional insights into the conceptualization of outer space.

This investigation encompasses compounds ranging from transparent to opaque, metaphorical to non-metaphorical, entrenched to novel. It utilizes corpus data from COCA and two different analytical procedures to account for the domains and relations respectively. For domain identification (and for establishing whether the compounds rely on metaphorical or metonymical processes), it applies a modified version of the Metaphorical Source Domain Identification Procedure (Reijnierse & Burgers, 2023) and the starting point for establishing the relation between the constituents is Levi (1978). This integrated methodological approach provides a comprehensive, nuanced and usage-based approach to the compounds. Pursuing these objectives can provide valuable insights into the cognitive underpinnings of our understanding of outer space and thereby contribute to our comprehension of what it means to be human at the dawn of the space age.

Keywords: *compound words, cognitive semantics, construal, conceptual metaphor, outer space,*

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The Intelligibility and Comprehensibility of French-accented English in an Academic Context: how do L2 productions affect recognition?

Since many L2 speakers never acquire native phonological patterns despite years of study and practice, much seminal research has been directed towards what makes speech intelligible as opposed to focusing on making learners sound like (SBE/RP or GA) native speakers (Derwing & Munro, 1995, 1997, 2015; Jenkins, 2000, 1998; Bamgbose, 1998). Yet, exactly what corresponds to intelligible pronunciation is unknown. In this complex process, both the speaker and the interlocutor may potentially impede intelligibility. A breakdown can occur when there is mismatch between what is expected and what is produced and this depends on the speaker and the listener's shared experiences and L1 (Bent & Bradlow, 2003; Gass & Varonis, 1984). While there are several definitions of intelligibility and comprehensibility, we retain that intelligibility refers to the ability to produce an acoustic signal that can be recognised by the listener (Duffy, 2013; Derwing & Munro 1995, 1997, 2015; Smith & Nelson, 2008; Jenkins, 2000; Kent et al., 1989), while comprehensibility concerns the ability to produce speech from which the listener can construct a coherent mental representation of the discourse and the situation evoked in the discourse (van Dijk & Kintsch, 1983). What remains to be seen is which phonological representations are recognisable and for which listeners. Drawing on theoretical and methodological paradigms from L2 phonology, variationist sociolinguistics and cognitive psychology, this presentation aims to describe the interphonological (segmental) system of a cohort of French adult speakers and to relate findings on the intelligibility and comprehensibility of French-accented English in an academic context.

A spoken corpus of the L2 English productions of thirteen French Psychology researchers was adapted from the interphonological and sociophonological components of the PAC protocol (Przewozny et al, 2020). We present our protocol based on reading and interactional tasks using psychology material (Xodabande, 2020, Budson et al, 2002) and videos of conference presentations the informants had given in English in a variety of ecological academic contexts. We then discuss how the analysis of this corpus contributes to the description of the French speakers' interphonological system in L2 English. Pillai scores for pairs of short vowels are discussed along with the consonantal realisations of /h/ /θ/ /ð/ and our results are compared with previous works (Kenworthy, 1987; Jenkins, 2000; Capliez, 2011; Mairano et al., 2019; Rouaud et al., 2022).

We then examine the second phase of our ongoing study for which the spoken corpus was used to create the experimental material. A set of French and English participants were asked to perform three perception tasks to evaluate the informants' intelligibility and comprehensibility. The participants had to listen and transcribe isolated words orthographically, complete a cloze test and finally they had to listen to an extract of a conference presentation and answer comprehension questions. Likert scales were also used to evaluate the participants' perception of difficulty associated with the comprehension task. We review the results with regard to the criteria of intelligibility and comprehensibility as defined in our study and discuss the implications for international academic communication.

497 mots

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Le rôle des expériences sensorimotrices et du contexte dans la représentation et la mémoire de concepts concrets et abstraits

Mots-clés : imagerie mentale ; imagination ; simulation mentale ; stratégies de mémorisation ; traitement conceptuel ; traitement de mots ; psycholinguistique ; action

Selon certaines visions incarnées de la cognition, la compréhension du langage et la mémoire seraient basées sur un mécanisme de simulation mentale (e.g., Barsalou, 2007 ; Gallese, 2005 ; Hesslow, 2012). Ainsi, récupérer une trace en mémoire nécessiterait la reviviscence des expériences perceptives, motrices et introspectives qui ont émergé précédemment, lors de l'encodage des informations. Par exemple, interagir avec des chiens produit des expériences perceptives (l'apparence physique d'un chien, la texture de ses poils, les sons d'aboiements), motrices (l'action de caresser) et introspectives (les émotions liées à ces interactions). Plus tard, lors du traitement du mot « chien », la récupération du sens de ce dernier nécessitera la simulation de ces expériences (de manière plus ou moins consciente et complète en fonction des situations). Au cours de différentes études expérimentales, nous avons cherché à démontrer que la pratique de l'imagerie mentale (visualiser l'objet auquel réfère un mot) au moment de l'apprentissage de mots permet d'activer une telle simulation pouvant, par la suite, être plus facilement rétablie au moment de la récupération, et ainsi favoriser les chances de remémoration. Pour reprendre l'exemple ci-dessus, l'accès au concept de chien, et donc à son label linguistique "chien", se ferait plus facilement si, en amont, l'on imagine un chien.

Cette hypothèse a été en partie corroborée en mettant en évidence un impact globalement positif de l'utilisation de stratégies d'imagerie mentale sur le rappel d'informations verbales. Le protocole utilisé au cours des différentes études consistait à comparer les performances de mémorisation à court et long terme de deux groupes de participants ou plus ayant différentes consignes de mémorisation, soit une consigne n'impliquant pas d'imagerie mentale, soit une consigne indiquant de s'engager dans une telle activité.

Par le biais de cette méthodologie, nous avons pu confirmer l'existence d'un gradient d'efficacité mnésique suivant un continuum d'incarnation, allant de stratégies peu incarnées n'impliquant pas d'imagerie mentale (e.g., répétition mentale du mot) à des stratégies plus incarnées impliquant une imagerie mentale des interactions sensorimotrices avec le référent du mot, c'est-à-dire, de l'imagerie motrice (e.g., s'imaginer lancer l'objet auquel réfère le mot). Une telle imagerie motrice était d'autant plus utile si elle impliquait une action exécutée dans une situation cohérente (i.e., imagerie motrice située). L'imagerie mentale s'est révélée aussi une stratégie pertinente pour la mémorisation de mots abstraits, ce qui souligne l'importance des expériences sensorimotrices pour la représentation des concepts abstraits. Bien que la littérature ait déjà montré l'utilité mnésique d'une imagerie visuelle, nos études démontrent l'efficacité d'une imagerie mettant en jeu des expériences visuelles mais également motrices, introspectives ainsi que des éléments situationnels. De plus, contrairement à la littérature préexistante, nous mettons ici en lien les effets de l'imagerie

mentale sur la mémorisation de mots avec les problématiques soulevées par la cognition incarnée.

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500 mots

Domaine et objet de la recherche : marqueurs discursifs de causalité et de concession

L'étude s'insère dans une réflexion plus générale sur la concession en français quotidien adoptant une perspective descriptive (sur corpus) et cognitive (au moyen de protocoles expérimentaux). Ici, nous proposons de nous concentrer sur les connecteurs *pourtant* et *quand même* dans des constructions du type [A *mais* B *alors* <connecteur de concession> C], où A est une prémisse en défaveur de C et B une prémisse en faveur de C (voir schéma 1).

L'hypothèse est que *pourtant* est un connecteur plus « fort » que *quand même* et que la combinaison avec *alors* permet de mettre en évidence cette différence de force. Le schéma et l'exemple 1 à la page suivante illustrent le fait que, dans une telle configuration, l'enchaînement avec *pourtant* paraît moins bon à certains locuteurs que celui avec *quand même*. Ceci pourrait s'expliquer par le fait que *pourtant* favorise un point de vue dans lequel les deux propositions qu'il relie sont incompatibles, ce qui n'est pas le cas de *quand même*, qui serait plus souple (voir Hybertie 1996 pour une hypothèse comparable pour *donc* vs *alors* et Degand & Pander Maat 2001 pour une hiérarchie en termes d'engagement du sujet en ce qui concerne les connecteurs de causalité).

Pertinence et originalité : combinaison de marqueurs et méthodologie expérimentale

Les relations de discours en général et de causalité et de concession en particulier ainsi que les connecteurs associés ont été décrits dans différents cadres théoriques, notamment SDRT (par. ex. Asher & Lascares 2003, Roze 2013), RST (par ex. Renkema 2009, Taboada & Mann 2006), argumentation (par ex. Freeman 2011, Walton 2013), théorie des espaces mentaux (Sanders et al. 2009) et de manière transversale pour le français en synchronie (par ex. Morel 1996, Nazarenko 1999) ou en diachronie (Soutet 1990, xxx). Notre approche est originale à deux niveaux : elle permet d'aborder systématiquement deux problèmes plus rarement étudiés (la combinaison de connecteurs et la différence de force entre des connecteurs apparentés) et elle met en relation des jugements interprétatifs intuitifs et une analyse objective au moyen de deux protocoles expérimentaux. Sur la base de stimuli identiques construits selon le schéma 1, deux expériences sont programmées : une expérience de jugement de phrases sur une échelle de Likert en 7 points et une analyse de l'exploration visuelle (oculométrique) où la région critique est le segment commençant à *alors*. Concernant l'oculométrie, l'hypothèse d'une différence de force entre *quand même* et *pourtant* prédit une différence d'exploration visuelle en termes de fixations sur et de régressions à partir de la zone critique dans les deux conditions (*pourtant/quand même*).

Analyses et discussion. La démarche présentée correspond à la mise en place des expériences mentionnées. Nous présenterons et discuterons les résultats de l'expérience de jugement, la mise en place du protocole pour la passation de l'expérience en oculométrie et les premiers résultats. Ceci en vue de prolonger la réflexion, si cela est pertinent, à d'autres connecteurs et à la méthodologie de l'EEG.

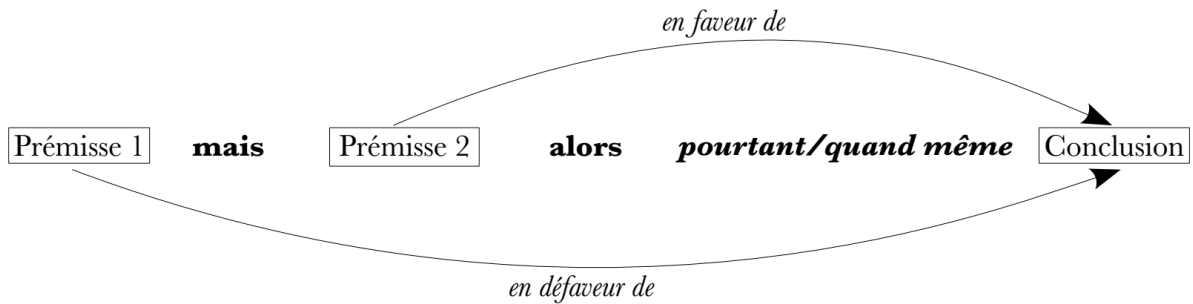


Schéma 1. Configuration de l'expérience « différence de force entre *quand même/pourtant* »

- (1) Paul n'avait pas beaucoup de temps [Prémisse 1],
mais la réunion était très importante [Prémisse 2],
alors il est **quand même** / % **pourtant** venu [Conclusion].

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A cognitive analysis of incel ideology

The discourse of the incel (blend from “**in**voluntary **cel**ibates”) community has been the topic of recent research in linguistics (see, for instance, Heritage & Koller 2020 or Bogetić 2022); other academic work also discussed the link between their ideology and terrorism (Hoffman, Ware, & Shapiro, 2020; O’Malley, Holt, & Holt, 2020). The men who identify as incels are very active on online forums and define their ideology with regards to sexual relations, which, according to them, decides someone’s social status.

The present paper explores the dangers linked to the hate speech and violence openly discussed on such websites, which allow the development of a specific language and ideology among the users. The views expressed can be transcribed through frames (Fillmore, 1976) and metaphors (Lakoff and Johnson, 1980): women, as sexual objects, should be “distributed” among the men who have inferior genes because SEX (for men) IS A NECESSITY. The incel community also seems to prefer a metonymy-based practice that links both anti-feminist and racist views (for example, the terms “foid” or “feminoid” are frequently used to refer to women, both created through blending: **female** and **android**; the term “currycel” is used to talk about a person from South Asia, etc.).

The corpus used contains 1662 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 metaphors (Lakoff and Johnson, 1980). Following these patterns, women are dehumanized, as they are only seen as sexual objects.

This topic is particularly important in relation to ideology, and the way power relations between men and women (dominance and subordination) should be kept and developed (Lazar, 2005; Fairclough and Wodak, 1997). The users consider that a woman can only be used for sex, and consent is not a factor that should be taken into account. Calls for violence against women are frequent and supported by most users on such forums. The users seem to adhere to faulty reasoning processes (if a, then b) and false biological views that they promote as “common sense.”

Keywords: incel, ideology, frame semantics, metaphor, metonymy, gender, discourse practices.

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TITLE

Lexicalization patterns and language variation under the microscope: a corpus study on motion event encoding in French, English, and German

ABSTRACT

According to Talmy [1], Verb-Framed (VF) languages like French (FR) generally allow the expression of the Path of Motion in the verb leaving the expression of Manner optional, i.e. *Une femme entre (en marchant) 'a woman enters (by walking)'*. Satellite-Framed (SF) languages like English (EN) and German (DE) allow the opposite pattern: lexicalization of Manner, and expression of Path outside the verb root, in verb satellites (particles, prefixes etc.) i.e. *A woman walked in/ Sie rannte hinein* [1-2]. Despite these general tendencies, many studies underline the fact that the languages of the world present great within- and across-type variation. For example, some VF languages, such as FR, may allow the use of particles or prefixes [3]. With respect to the encoding of spatial components and their subparts, recent studies have shown that the Goal of an event is, in most languages, expressed in a more diverse and more frequent way than the Source but in strikingly different ways from one language to another [4-9] (e.g., in FR the Goal is expressed through a broad lexicon expressing direction; in DE by focusing mainly on Ground features and endpoints). More recently, some researchers revealed that SF languages have greater semantic granularity in the expression of Manner, as opposed to VF languages [10-11]; others that Fast Motion is more often combined with expressions encoding the Goal [12].

Despite a growing interest in the expression of these spatial components and the ways in which they are expressed in the world's languages, the expression of their subtypes and their combinations in discourse are yet to be more finely explored. The aim of this study is to re-explore the relative weight of these components and their possible typological implications, based on a corpus of narrative data [13] from 36 adult speakers (12 per language).

The results show that Path is more often encoded in verbs in FR, and in verb satellites in EN and DE. However, as opposed to what is generally suggested [4-9], its initial portion (Source) is also expressed very frequently and in a very diverse way in all three languages (e.g., use of Source prefixes and particles, even in FR). The Manner of Motion is mainly encoded in verbs in EN and DE. However, as opposed to what has been previously proposed [12], the semantic granularity of Slow Motion verbs is more diverse in EN, and verbs expressing Fast Motion are mostly combined with elements expressing the Source. It deserves noting that in DE Manner is sometimes encoded in gerund phrases, which is more characteristic of the VF pattern. Finally, with respect to the expression of Deixis: although FR and EN express this component only through verbs, Deixis is encoded in both verbs and particles in DE, often combining deictic particles with Manner verbs – findings that reveal the rather hybrid profile of these languages.

The results will be discussed in the light of linguistic typology and cognitive linguistics with the aim of contributing to the debates about language classifications and across-/within-type variability.

Word count: 499

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Does language constrain spatial thinking, categorization of motion events and gaze behavior? A crosslinguistic investigation

Abstract

In cognitive science, the traditional view is that cognitive processing is modular and that high-level cognition (e.g., categorization, reasoning, decision making) is achieved through brain computations within an amodal symbol-system that is distinct and functionally separated from the perception and action systems [1-2]. Within this framework, the cognitive and the language systems are also believed to be independent and guided by universal determinants [3-7]. Over the last two decades, an opposing (situated) view has gained scientific support, arguing that cognitive processing is better understood, not as a set of isolated computations that take place solely inside the brain, but rather as emergent properties that result from the constant interaction of the brain with the body (sensorimotor system) and the environment (i.e., embodied/dynamical accounts of cognition by [8-14]). With respect to the interaction of cognition with the environment, and more specifically with the linguistic information in the environment, a more relativist approach holds that human cognition may be additionally shaped by language-specific factors [15-20].

Language-specific factors increasingly attract attention, especially in the domain of motion event encoding—a fundamental domain to human existence, characterized by great crosslinguistic variability but tractable enough to investigate language-thought relations [17, 21]. More specifically, in this domain, linguists have identified great asymmetries in how speakers from different linguistic backgrounds describe motion events in their environment. According to Talmy, in verb-framed languages (e.g., French), the framing-event of a motion (Path) is lexicalized leaving the co-event (Manner) in the periphery of the sentence or optional; in satellite-framed languages (e.g., English), the framing-event is jointly expressed with the co-event in dense construals that lexicalize Manner and express Path peripherally/in the verbal network [22]. Some studies suggest that such differences are only surface differences that cannot (or only in the moment of use) influence the cognitive processing of events [1, 7], while others support that such typological properties constrain both verbal and non-verbal cognition [17, 23].

This study aims to investigate whether speakers from different linguistic backgrounds present cognitive differences during verbal and non-verbal tasks in attention allocation and decision making, and whether any differences observed occur when language is and is not explicitly involved. English and French participants were tested in three eye-tracking tasks involving varied Manner-Path configurations and language to different degrees. Participants had to process a target motion-event and choose the variant that looked most like the target (Experiment 1), describe the events (Experiment 2), and perform a similarity-judgement after hearing a target sentence (Experiment 3). The results show massive crosslinguistic differences in production and additional partial language effects in visualization and similarity-judgement patterns—highly dependent on the salience and nature of events, and the degree of language involvement in the tasks.

The findings support a moderate version of the relativity hypothesis and additionally suggest that cognition is not as modular as once thought [1, 24-25]. Feedback and crosstalk connexions between the sensorimotor/action system and the language system need to be considered in future models to accommodate these and similar findings [26-32] and better understand the Language-Thought relationship.

Word count: 500

Keywords: Language-Thought interface, Event processing, Eye-tracking, Similarity judgments, Production

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Liste des auteurs

- Alkhateeb Dima, 23, 24
Allasonnière-Tang Marc, 66–68
Ana-Maria Cozma, 71, 72
Anastassiadis-Syméonidis Anna, 94
Aquilina Yana, 44, 45
- Barbier Laurène, 27, 28
Beale Jessica, 35, 36
Bedoin Diane, 97, 98
Biagiotti Triscia, 33, 34
Bonnet Alma-Pierre, 15, 16
Borràs-Comes Joan, 21, 22
Boulenger Véronique, 50
Buclier Adélie, 120, 121
Burnett Sophia, 13, 14
- Cadot Mégane, 31, 32
Carrera-Sabaté Josefina, 21, 22
Condamines Anne, 39–41
- Danino Charlotte, 97–100
Dargnat Mathilde, 116, 117
Darmaillacq Anne-Sophie, 76, 77
Delon-Martin Chantal, 33, 34
Duvignau Karine, 61, 62
- Errami Fennane Salma, 73–75
- Fernández-Avilés Jorge, 25, 26
Ferragne Emmanuel, 78–80
- Gallez Françoise, 42, 43
Gamba-Kresh Tilia, 51–53
Glauch Kalle, 2, 3
Goldberg Adele, 105, 106
González Gómez Carmen, 7, 8
González-Vidal Marcos, 37, 38
Grandgeorge Marine, 76, 77
Grosmann Francis, 95, 96
- He Zhang Yuting, 61, 62
Hermann Manon, 42, 43
Huet Nathalie, 61, 62, 114, 115
- Ibarretxe-Antuñano Iraide, 101, 102
- Kamp Victoria, 78–80
- Kopecka Anetta, 44, 45, 120, 121
- Labeye Elodie, 39–41, 114, 115
Le Roux David, 103, 104
Leclercq Benoît, 19, 20
Lehtonen Kim, 71, 72
Lelandais Manon, 23, 24
Lemmens Maarten, 31, 32
Lesuisse Megane, 17, 18, 31, 32
Li Peici, 66–68
Lombart Clara, 59, 60
Lopez Garcia Patricia, 21, 22
- Machida Akira, 4–6
Marre Quentin, 114, 115
Mas Erwanne, 69, 70
Masperi Monica, 33, 34
Mazet Corentin, 57, 58
Mazet, Corentin, 56
Merlot Elodie, 103, 104
Morgenstern Aliyah, 97, 98
Morin Cameron, 19, 20
- Nowak Ilhana, 83, 84
- O’callaghan Victoria, 112, 113
Omer Jérémy, 103, 104
- Paulsen Geda, 54, 55
Peiró-Márquez Laura, 101, 102
Pelissier Maud, 78–80
Peltola Rea, 76, 77, 81, 82
Perek Florent, 105, 106
Perrez Julien, 46, 47
Perrin Loïc-Michel, 91–93
Peterson Catrin, 103, 104
Peterssen Silvia, 63–65
Pijpops Dirk, 19, 20
Piot Christina, 46, 47
Ponsonnet Maïa, 11, 12
Przewozny-Desriaux Anne, 69, 70
- Rannou Nathalie, 103, 104
Roadman Arielle, 57, 58
Rodriguez-Pelaez Estéfano, 9, 10

Romagny Matthieu, 103, 104

Roy Alice Catherine, 50

Sarda Laure, 44, 45

Seredova Larisa, 39–41

Silaški Nadežda, 85, 86

Sillaire Maeva, 116, 117

Soares Da Silva Augusto, 63–65

Soroli Efstathia, 109, 110, 120–123

Souchet Jordan, 51–53

Speed Laura J., 48, 49

Sugaya Yusuke, 107, 108

Suárez-Campos Laura, 29, 30

Tabacaru Sabina, 118, 119

Taremaa Piia, 48, 49, 87, 88

Tsikulina Alina, 109, 110

Tutin Agnès, 95, 96

Törmä Kajsa, 111

Vainik Ene, 54, 55

Vallery Robin, 89, 90

Veismann Ann, 48, 49, 87, 88

Voga Madeleine, 94

Wu Yaru, 76, 77

Đurović Tatjana, 85, 86