BOOK OF ABSTRACTS

Meaning and Knowledge Representation

12th International Conference

University of La Rioja

July 9, 10 and 11, 2025

Collaborators:
Universidad de La Rioja
Seminario Carmelo Cunchillos. Departamento de Filologías Modernas
Vicerrectorado de Política Científica de la Universidad de La Rioja
Escuela de Máster y Doctorado de la Universidad de La Rioja (EMYDUR)
Proyectos de Investigación PID2023-146582NB-I00 y PID2023-147137NB-I00 del Ministerio de Ciencia, Innovación y Universidades
Ayuntamiento de Logroño

UNIVERSIDAD DE LA RIOJA

MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

Book of abstracts

Meaning and Knowledge Representation 12th International Conference

Organising Committee

Chair

Mª Sandra Peña Cervel (Universidad de La Rioja, Spain)

Committee members

Mª Asunción Barreras Gómez (Universidad de La Rioja, Spain)
María Enriqueta Cortés de los Ríos (Universidad de Almería, Spain)
Salma Errami Fennane (Universidad de La Rioja, Spain)
Ángel Miguel Felices Lago (Universidad de Granada, Spain)
Francisco Gonzálvez García (Universidad de Almería, Spain)
Rocío Jiménez Briones (Universidad Autónoma de Madrid, Spain)
Fredy Núñez Torres (Pontificia Universidad Católica de Chile, Chile)
Carla Ovejas Ramírez (Universidad de La Rioja, Spain)
M. Beatriz Pérez Cabello de Alba (UNED, Spain)
Carlos Periñán-Pascual (Universitat Politècnica de València, Spain)
Andreea Rosca (Universitat de València, Spain)
Francisco José Ruiz de Mendoza Ibáñez (Universidad de La Rioja, Spain)
Ismael Iván Teomiro García (UNED, Spain)

Scientific Committee

Francisco Arcas Túnez (Universidad Católica San Antonio, Spain)
Annalisa Baicchi (Università di Pavia, Italy)
Hans C. Boas (University of Texas at Austin, USA)
Chris Butler (Swansea University, UK)
Francisco Cortés Rodríguez (Universidad de La Laguna, Spain)
Elke Diedrichsen (Institute of Technology Blanchardstown, Ireland)
Ángel Felices Lago (Universidad de Granada, Spain)
Carlos González Vergara (Pontificia Universidad Católica de Chile)
Francisco Gonzálvez García (Universidad de Almería, Spain)
Markus Hofmann (Institute of Technology Blanchardstown, Ireland)
Rocío Jiménez Briones (Universidad Autónoma de Madrid, Spain)
Ricardo Mairal Usón (UNED, Spain)
Brian Nolan (Institute of Technology Blanchardstown, Ireland)
Klaus-Uwe Panther (Universität Hamburg, Germany)
María Beatriz Pérez Cabello de Alba (UNED, Spain)
Mª Sandra Peña Cervel (Universidad de La Rioja, Spain)
Carlos Periñán-Pascual (Universitat Politècnica de València, Spain)
Francisco Ruiz de Mendoza Ibáñez (Universidad de La Rioja, Spain)
Robert D. Van Valin, Jr. (University at Buffalo. The State University of New York, USA)

TABLE OF CONTENTS

Plenary talks

ENGLISH LEXICAL BLENDING AND MEANING REPRESENTATION

Elisa Mattiello (University of Pisa, Pisa, Italy)
elisa.mattiello@unipi.it

Blending has long been regarded as an irregular and unpredictable mechanism in word-formation studies (Aronoff 1976; Bauer 1983), often dismissed as outside the scope of regular morphology (e.g., Dressler, 2000), and relegated to extra-grammatical word-creation (Ronneberger-Sibold, 2010). However, recent work has challenged this view by demonstrating that blending exhibits regularities in both its formal and semantic properties (Gries, 2004; Kemmer, 2003). Studies of English lexical blends show that these formations follow systematic rules not only in their prosodic structure (Arndt-Lappe & Plag, 2013; Bat-El & Cohen, 2012; Mattiello, 2013), but also in their semantic and cognitive organization (Beliaeva, 2014; Mattiello, 2023; Peña-Cervel, 2022). Unlike other extra-grammatical operations, such as clipping or acronyms, lexical blending plays a key role in linguistic innovation and lexicalization (Brinton & Traugott, 2005; Milroy, 1992), creating entirely new words (e.g., phablet ? phone + tablet, 'a very large smartphone with a tablet-like touch screen') rather than merely alternatives to existing words (cf. the clipped compound blog ? (we)b log).

This talk explores the motivations behind lexical blending in English, with particular emphasis on the semantic features that govern the formation of blends and their meaning representation. Drawing from a dataset of 488 English lexical blends (1398-2025) extracted from the Oxford English Dictionary, this presentation reassesses the role of blending in lexical innovation, with a focus on how meaning is represented through the blending process. The talk examines how semantic relations between the source words (SWs) in blends are key to understanding their function and categorization.

From a semantic viewpoint, blends are divided into two main categories: coordinate and attributive blends. Coordinate blends can display different semantic relations (Renner 2006; Bauer 2012), ranging from hybridity (e.g., gasohol ? gasoline + alcohol) to tautology (e.g., chillax ? chill + relax). Some blends, like Clintonomics (? Clinton + economics), evolve analogically, mimicking other successful blends in form and meaning. Over time, such blends may give rise to schemas with regular 'splinters', such as -nomics to denote 'a leader's economic policy'. This reflects the dynamic nature of blending and its transitional character towards the emergence of modern combining forms (Mattiello, 2017, 2022).

In contrast, attributive blends are determinative blends, where one SW modifies the other (e.g., glam-ma ? glamour + grandma). In these blends, one element typically functions as a defining characteristic of the other, producing a modifier-head structure common to

many endocentric compounds. Sometimes the head or the modifier are used metaphorically, as in bromance (? bro + romance) 'intimate friendship between men', or metonymically, as in screenager (? screen + teenager), where screen stands for 'television, computer or smartphone' (part-for-whole metonymy in Ruiz de Mendoza and Galera 2014), thus obstructing meaning accessibility.

Within Natural Morphology (Dressler et al., 1987), blending adheres to the principle of iconicity, where the formal amalgamation of words mirrors the fusion of their meanings. This principle explains why blends are often used to name alloys (gasohol), cross-breeds (puggle), mixed garments (skort), or hybrid music styles (seggae).

By emphasizing semantic regularities in blending, this talk argues that lexical blends are not only creative but also productive forms of word-formation, reflecting the evolving nature of language and lexical innovation.

References

Arndt-Lappe, S., & Plag, I. (2013). The role of prosodic structure in the formation of English blends. *English Language and Linguistics, 17*, 537-563.

Aronoff, M. (1976). *Word Formation in Generative Grammar*. Cambridge, MA: MIT Press.

Bat-El, O., & Cohen, E.G. (2012). Stress in English blends: A constraint-based analysis. In V. Renner, F. Maniez, & P.J.L. Arnaud (Eds.), *Cross-Disciplinary Perspectives on Lexical Blending* (pp. 193-211). Berlin/Boston: De Gruyter.

Bauer, L. (1983). *English Word-formation*. Cambridge: Cambridge University Press.

Bauer, L. (2012). Blends: Core and periphery. In V. Renner, F. Maniez and P.J.L. Arnaud (eds.), *Cross-Disciplinary Perspectives on Lexical Blending* (pp. 11-22). Berlin/Boston: De Gruyter.

Beliaeva, N. (2014). A study of English blends: From structure to meaning and back again. *Word Structure, 7*, 29-54.

Brinton, L.J., & Traugott, E.C. (2005). *Lexicalization and Language Change*. Cambridge: Cambridge University Press.

Dressler, W.U. (2000). Extragrammatical vs. marginal morphology. In U. Doleschal, & A.M. Thornton (Eds.), *Extragrammatical and Marginal Morphology* (pp. 1-10). München: Lincom Europa.

Dressler, W.U., Mayerthaler, W., Panagl, O., & Wurzel W.U. (1987). *Leitmotifs in Natural Morphology*. Amsterdam/Philadelphia: John Benjamins.

Gries, S.Th. (2004). Isn't that *fantabulous*? How similarity motivates intentional morphological blends in English. In M. Achard, & S. Kemmer (Eds.), *Language, Culture, and Mind* (pp. 415-428). Stanford, CA: CSLI.

Kemmer, S. (2003). Schemas and lexical blends. In H.C. Cuyckens, T. Berg, R. Dirven, & K.-U. Panther (Eds.), *Motivation in Language: From Case Grammar to*

Cognitive Linguistics. Studies in honour of Günter Radden (pp. 69-97). Amsterdam/Philadelphia: John Benjamins.

Mattiello, E. (2013). *Extra-grammatical Morphology in English. Abbreviations, blends, reduplicatives, and related phenomena*. Berlin/Boston: De Gruyter.

Mattiello, E. (2017). *Analogy in Word-formation. A study of English neologisms and occasionalisms*. Berlin/Boston: De Gruyter.

Mattiello, E. (2022). *Transitional Morphology: Combining forms in Modern English*. Cambridge: Cambridge University Press.

Mattiello, E. (2023). Formal, semantic and pragmatic motivations for blending in English. In K. Ackerley, E. Castello, F. Dalziel, S. Gesuato, M.T. Musacchio, & G. Palumbo (Eds.), *Proceedings of the 29th AIA CONFERENCE Thinking Out of the Box in Language, Literature, Cultural and Translation Studies: Questioning Assumptions, Debunking Myths, Trespassing Boundaries* (pp. 35-53). Padua, 5-7 September 2019. Padova: Padova University Press.

Milroy, J. (1992). *Linguistic Variation and Change*. Oxford: Blackwell.

Oxford English Dictionary Online 1989-2025, 2nd/3rd ed. Oxford: Oxford University Press. http://www.oed.com/, last accessed March 2025.

Peña-Cervel, M.S. (2022). Lexical blending in terms of cognitive modelling. In A. Bagasheva, B. Hristov, & N. Tincheva (Eds.), *Figurativity and Human Ecology* (pp. 275-304). Amsterdam/Philadelphia: John Benjamins.

Renner, V. (2006). *Les composés coordinatifs en anglais contemporain*. Lyon, Université Lumière Lyon 2 dissertation.

Ronneberger-Sibold, E. (2010). Word creation: Definition – function – typology. In F. Rainer, W.U. Dressler, D. Kastovsky, & H.C. Luschützky (Eds.), *Variation and Change in Morphology* (pp. 201-216). Amsterdam/Philadelphia: John Benjamins.

Ruiz de Mendoza, F.J., & Galera, A. (2014). *Cognitive Modeling. A Linguistic Perspective*. Amsterdam/Philadelphia: John Benjamins.

AUTOMATED LANGUAGE ANALYSIS FOR THE EARLY DETECTION OF COGNITIVE DECLINE SIGNALS. IDENTIFICATION OF LINGUISTIC PATTERNS AS BIOMARKERS

María Beatriz Pérez Cabello de Alba (National University of Distance Education, Spain)
bperez-cabello@flog.uned.es

This multidisciplinary study, related to Natural Language Processing, Linguistics, and Neuroscience, addresses a major challenge in the field of healthcare: the identification of early signals of cognitive decline.

The diagnosis of cognitive decline has traditionally been carried out by means of manually administered screening tests by psychologists in the hospital or clinic. They test orientation, memory, attention, concentration, naming, repetition, writing and comprehension. Some of the most commonly used tests are the Mini-Mental State Examination (MMSE) (Cockrell & Folstein, 2002), the Montreal Cognitive Assessment (MoCA) (Nasreddine et al., 2005), the Mini Cognitive Assessment (Mini-Cog) (Borson et al., 2003) and the Boston Naming Test (Kaplan, Goodglass, & Weintraub, 2001).

In the recent years, language, and in particular speech production, has generated a great interest in cognitive screening and some automated screening tests initiatives have appeared. In this regard, our aim is to create a tool for the assessment of language production and comprehension through automatic speech recognition, considering grammatical, phonological, and cognitive indicators. Those indicators will help to assess signs of cognitive impairment by bringing subjects on a scale related to Reisberg´s Global Deterioration Scale. We will use participant tasks from traditional cognitive tests, automatic speech recognition, Role and Reference Grammar (RRG) manipulations (Van Valin, 2005) and AI.

We have developed a linguistic evaluation model based on RRG linguistic model (Panesar and Pérez, 2023), and it is designed to analyze and represent the structure and meaning of statements through a set of linguistic and cognition parameters. The model has been trained with a dataset from DementiaBank, which includes cognitive decline markers aligned with the Global Deterioration Scale. We applied a hybrid approach of qualitative linguistic analysis and quantitative scoring, achieved by mapping participants' oral production with RRG phenomena. It uses a scoring system based on metrics with quantitative scores and qualitative indicators as the result of the test.

The design of the model comprises: (i) Devise the language and cognition tasks (LC) as per two strands (MMSE tasks) and interview task using the DementiaBank dataset; (ii) create a RRG Mapping for LC tasks, scoring and GDS based matrix (iii) conduct the task and strand assessments; (iv) conduct the strand scoring, and the merging of the strand analysis; (v) present the participant dashboard.

This model will be used in a conversational assessment platform for the early detection of cognitive decline which combines NLP tools and machine learning algorithms to analyze linguistic patterns in natural language data with the goal of detecting specific indicators of cognitive decline such as grammatical errors, decreased syntactic complexity, alterations in vocabulary, and changes in verbal fluency. The system extracts key linguistic features and uses them to train predictive models capable of classifying users into different risk levels.

This methodology for cognitive decline detection has advantages over traditional diagnostic methods, such as faster evaluation, lower cost, and the potential for remote implementation, thus facilitating its application in broader populations.

References

Borson, S., Scanlan, J., Chen, P., & Ganguli, Ch. (2003). The Mini-Cog as a screen for dementia: validation in a population-based sample. *Journal of the American Geriatrics Society, 51*(10), 1451-1454.

Cockrell, J.R., & Folstein, M.F. (2002). Mini-mental state examination. In J.R.M. Copeland, M.T. Abou-Saleh, D.G. Blazer (Eds.), *Principles and Practice of Geriatric Psychiatry* (pp. 140-141). Chichester: John Wiley & Sons, Ltd.

Kaplan, E., Goodlass, H., & Weintraub, S. (2001). *Boston Naming Test*. Philadelphia: Lippincott Williams & Wilkins Publishers.

Nasreddine et al., (2005). The Montreal Cognitive Assessment, MoCA: A brief screening tool for mild cognitive impairment. *Journal of the American Geriatrics Society, 53*(4), 695-699.

Panesar, K., & Pérez Cabello de Alba, M.B. (2023). Natural language processing-driven framework for the early detection of language and cognitive decline. *Language and Health*, *1*(2), 20-35.

Van Valin Jr., R. (2005). *Exploring the Syntax-Semantics Interface*. Cambridge: Cambridge University Press.

COGNITIVE MODELLING AND CONSTRUAL IN (LEXICAL/CONSTRUCTIONAL) MEANING VARIATION AND CHANGE

Augusto Soares da Silva (Catholic University of Portugal, Braga, Portugal)
assilva@braga.ucp.pt

This presentation outlines a framework for an approach to lexical and constructional meaning variation and change that, descriptively speaking, integrates a semasiological and an onomasiological perspective and that, theoretically speaking, explores the impact of cognitive linguistics on meaning variation and change. The framework will be illustrated with case studies focusing on prototypicality effects, construal operations that differentiate meanings, and metonymic and metaphorical patterns. In addition, recent methodological developments that exploit computational distributional methods for modelling semantic variation and change will be addressed.

Semasiological variation and change encompass (synchronic) prototypicality and polysemy as well as (diachronic) shifts within and between senses. Onomasiological variation and change, on the other hand, involve (synchronic) denotational synonyms and near-synonyms as well as (diachronic) shifts between forms and senses. These two structuring dimensions, i.e., semasiology vs. onomasiology and concepts vs. referents give rise to four types of variation and change in the lexicon (see Geeraerts et al., 2023). Extending these four types of lexical variation and change to constructional variation and change raises the issue of formal onomasiological variation in grammatical constructions, i.e., alternate constructions without differences in meaning. Furthermore, prototypicality (e.g., Geeraerts, 1997), entrenchment (e.g., Schmid, 2020), metonymic and metaphorical figurativity (e.g., Diaz-Vera 2015), and lectal variation play a fundamental role not only in lexical variation and change but also in constructional variation and change. Conversely, construal (and construal operations) (e.g., Langacker, 2008) and (inter)subjectification (e.g., Brems et al., 2014; Davidse et al., 2010; Traugott, 2003, 2010) are crucial not only for constructional variation and change but also for lexical variation and change. It is essential to distinguish between the (cognitive and social) mechanisms, (external) motivations, and tendencies driving lexical and constructional variation and change. Another key issue is understanding how lexical and constructional variation and change interact. A tentative hypothesis is that new meanings emerge from both an abstract constructional schema, which provides a template, and concrete constructional and lexical uses, which serve as models.

Illustrative case studies will be drawn primarily from Portuguese and will cover different categories of lexical and constructional variation, such as emotion concepts, the

diachronic development of letting causation, the recent emergence of discourse marker uses for the adjective pronto 'ready, quick', and se constructions (presence vs. absence of the clitic). Methodologically, research on semantic variation and change benefits from a multifactorial quantitative perspective and advanced statistical techniques of a token-based distributional semantic approach. Multifactorial usage-feature analysis (Glynn, 2014), the behavioural profile approach (Gries, 2006) and vector space modelling (Geeraerts et al., 2023) enable the detection of semantic variation and change, the interplay of semasiological and onomasiological variation and change and the productivity of mechanisms driving semantic variation and change.

References

Brems, L., Ghesquière, L., & Van de Velde, F. (Eds.). (2014). *Intersubjectivity and Intersubjectification in Grammar and Discourse*. Amsterdam: John Benjamins.

Davidse, K., Vandelanotte, L., & Cuyckens, H. (Eds.). (2010). *Subjectification, Intersubjectification and Grammaticalization*. Berlin: De Gruyter.

Díaz-Vera, J.E. (Ed.) (2015). *Metaphor and Metonymy across Time and Cultures. Perspectives on the sociohistorical linguistics of figurative language*. Berlin: De Gruyter.

Geeraerts, D. (1997). *Diachronic Prototype Semantics. A contribution to Historical Lexicology*. Oxford: Clarendon Press.

Geeraerts, D., Speelman, D., Heylen, K., Montes, M., De Pascale, S., Franco, K., & Lang, M. (2023). *Lexical Variation & Change: A distributional semantic approach*. Oxford: Oxford University Press.

Glynn, D. (2014). The many uses of *run*: Corpus methods and Socio-Cognitive Semantics. In D. Glynn, & J. Robinson (Eds.), *Corpus Methods for Semantics: Quantitative studies in polysemy and synonymy* (pp. 117–144). Amsterdam: John Benjamins.

Gries, S.Th. (2006). Corpus-based methods and cognitive semantics: the many senses of 'to run'. In S.Th. Gries, & A. Stefanowitsch (Eds.), *Corpora in Cognitive Linguistics. Corpus-based approaches to Syntax and Lexis* (pp. 57–99). Berlin: De Gruyter.

Langacker, R.W. (2008). *Cognitive Grammar. A basic introduction*. Oxford: Oxford University Press.

Schmid, H.-J. (2020). *The dynamics of the Linguistic System: Usage, conventionalization, and entrenchment*. Oxford: Oxford University Press.

Traugott, E.C. (2003). From subjectification to intersubjectification. In R. Hickey (Ed.), *Motives for Language Change* (pp. 124–139). Cambridge: Cambridge University Press.

Traugott, E.C. (2010). (Inter)subjectivity and (inter)subjectification: A reassessment. In K. Davidse, L. Vandelanotte, & H. Cuyckens (Eds.), *Subjectification, intersubjectification and Grammaticalization* (pp. 29–73). Berlin: De Gruyter.

Abstracts

SOCIAL MEDIA AND NATIONALIST DISCOURSES IN INDIA–PAKISTAN CONFLICT

Fareeha Aazam (University of Malaya, Malaysia)
fareeha.aazam786@gmail.com

This study investigates how two prominent South Asian media outlets—*The Times of India* and *Dawn.com*—construct nationalist discourses on social media during the India–Pakistan military conflict following the Pahalgam attack in the Indian-administered region of Jammu and Kashmir. The dataset comprises Facebook posts published between the 6th and 10th of May 2025, encompassing the prelude to conflict, India's missile strikes on the 7th of May, and the ceasefire agreement reached on the 10th of May. The analysis focuses on how each media outlet framed the unfolding events during this heightened period of cross-border tension. Employing a multimodal analytical approach, the study integrates discourse and semiotic frameworks. The discourse analysis examines lexical choices, constructions of agency, and strategies of inclusion and exclusion to reveal how each outlet foregrounds its national position while delegitimizing the opposing side. The semiotic analysis explores visual elements including the depiction of social actors, military attire, gaze direction, and the use of official settings and national symbols, to assess how visual cues reinforce ideological messaging. Data consists of screenshots capturing the initial visible frame of each post, reflecting the typical point of engagement for digital audiences. This methodological focus enables insight into how meaning is rapidly constructed at the surface level through the interaction of textual and visual modes.

The findings indicate that both media platforms strategically construct their national narratives. Indian media emphasizes themes of defense, operational precision, and institutional authority, portraying India as responding responsibly to external aggression. Conversely, Pakistani media centers on victimhood and reactive strength, framing Pakistan as resisting unjustified military provocation. In both cases, selective presentation of information and omission of contextual details contribute to simplified, ideologically driven representations of the conflict. Visual content further reinforces these discourses. The repeated use of military personnel, formal press briefings, and national symbols fosters credibility, institutional authority, and patriotic sentiment. The portrayal of social actors and official settings plays a central role in legitimizing each country's perspective. This study introduces a streamlined Multimodal Nationalism Analysis Framework to examine the intersection of linguistic and visual strategies in conflict-related digital discourse. The framework offers a practical tool for interdisciplinary inquiry across political communication, media studies, and sociolinguistics. By uncovering how digital

media constructs competing nationalist narratives during moments of geopolitical tension, this research contributes to a deeper understanding of ideological framing and media representation in the South Asian context.

REPRESENTING SEMANTIC CATEGORIZATION IN SPANISH L1 AND ENGLISH FL: AN EXAMPLE WITH GRAPH ANALYSIS

María Pilar Agustín Llach (University of La Rioja, Spain)
maria-del-pilar.agustin@unirioja.es
Julio Rubio García (University of La Rioja, Spain)
julio.rubio@unirioja.es

The objective of this paper is to explore how learners organize and access their mental lexicon in the L1 and L2. We wanted to represent semantic categorization in the native and in the foreign language in order to look for commonalities and find their nature; a structured and organized category facilitates retrieval (cf. Bower et al., 1969). Previous research has shown that semantic categorization is a function of the nature of the category, the age of the speaker, but also of their linguistic and cultural background (cf. Hernández Muñoz, 2014). We had participants complete a semantic fluency task using a taxonomic category: Animals and an experiential one, Love. Participants were Spanish native speakers EFL learners, who responded in Spanish L1 and English FL to the proposed task. The method used is to calculate graphs from experimental data and then, compute distances among those graphs. We conducted several analyses using different methodologies and found similar conclusions: the thematic axis rules over the language axis for Spanish learners of English. Furthermore, the direction of links and their weights seem irrelevant: this might point to a high homogeneity in semantic categorization.

References

Bower, G. H., Clark, M. C., Lesgold, A. M., & Winzenz, D. (1969). Hierarchical retrieval schemes in recall of categorized word lists. *Journal of Verbal Learning and Verbal Behavior*, *8*(3), 323–343.

Hernández Muñoz, N. (2014). Categorías en el léxico bilingüe: perspectivas desde el priming semántico interlenguas y la disponibilidad léxica. *RAEL: Revista Electrónica de Lingüística Aplicada*, *13*(1), 19–38.

A SYSTEMATIC REVIEW OF CRITICAL DISCOURSE ANALYSIS AND SYSTEMIC FUNCTIONAL LINGUISTICS ON SOCIAL INEQUALITY

Ángela Alameda Hernández (University of Granada, Spain)
aalameda@ugr.es
Rocío Jiménez Briones (Autonomous University of Madrid, Spain)
rocio.jimenez@uam.es

This paper presents a systematic literature review (SLR) of seventy-eight peer-reviewed journal articles that address the use of the Systemic Functional Linguistics methodology (SFL; Halliday, 1994; Halliday and Hasan, 1995; Eggins, 2004; Martin and White, 2005; Halliday and Matthiessen, 2014, to name a few) to examine social inequality within the framework of Critical Discourse Analysis (CDA; Fairclough, 1989, 2006; Kress, 2003; van Dijk, 1998; van Leeuwen, 2008; Wodak, 1996; Wodak & Meyer, 2001, among others). Although the number of papers published in CDA is vast, to the best of our knowledge, a comprehensive synthesis of how SFL linguistic features have been applied within CDA in relation to inequality issues remains absent.

Following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA 2020) guideline (Page et al., 2021) and employing the SALSA (Search, Appraisal, Synthesis, Analysis) framework (Grant & Booth, 2009) and TexMiLAB (Periñán-Pascual, 2024), we carried out a rigorous, semi-automated SLR using three major academic databases: Scopus, ProQuest One Academic, and SAGE Journals. Search strings included key terms such as "Critical Discourse Analysis", "Systemic Functional Linguistics", and "inequality", expanded to account for synonymous and variants like "Critical Discourse Studies" or "Systemic Functional Grammar", while carefully excluding grey literature, book chapters, and non-English sources.

Starting with a large collection of papers, strict inclusion and exclusion criteria were deployed to narrow down their focus, resulting in a carefully curated dataset known as the CDA-SFL Corpus. This collection consists of articles that specifically use SFL features as methodological tools to explore social inequalities within CDA. Metadata and qualitative content were extracted to pinpoint various dimensions of social inequality, the types of discourse examined, the CDA approaches used, and the specific SFL systems (i.e., Transitivity, Mood, Theme, and Appraisal) employed in the analysis.

The findings show that while CDA scholars often reference SFL, they do not consistently identify its lexico-grammatical systems. Many studies tap into aspects of all three metafunctions—ideational, interpersonal, and textual—regardless of whether they openly

acknowledge it. The Transitivity system, which relates to the ideational function, turned out to be the most used category, especially when exploring how social actors and processes are portrayed. However, the Theme system was surprisingly underutilized, especially considering that Halliday (1994) assigned it a central role in facilitating the integration of ideational and interpersonal meanings into coherent discourse.

References

Eggins, S. (2004). *Introduction to Systemic Functional Linguistics* (2nd ed.). London & New York: Continuum.

Fairclough, N. (1989). *Language and Power*. Harlow: Longman.

Fairclough, N. (2006). *Language and Globalization*. London: Routledge.

Grant, M. J., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal*, *26*(2), 91–108.

Halliday, M. A. K. (1994). *An Introduction to Functional Grammar* (2nd ed.). London: Arnold.

Halliday, M. A. K. &, Hasan, R. (1995). *Cohesion in English*. English Language Series. London & New York: Longman.

Halliday, M. A. K., & Matthiessen, C. M. I. M. (1995). *Halliday's Introduction to Functional Grammar* (4th ed.). London & New York: Routledge.

Kress, G. (2003). *Literacy in the New Media Age*. London: Routledge.

Martin, J. R., & White, P. (2005). *The Language of Evaluation. Appraisal in English*. New York: Palgrave.

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., et al. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372: n71.

Periñán-Pascual, C. (2024). *Minería de textos para investigadores lingüistas*. Valencia: Tirant lo Blanch.

Van Dijk, T. (1998). *Ideology: A multidisciplinary approach*. London: Sage Publications.

Van Leeuwen, T. J. (2008). *Discourse and Practice: New tools for Critical Discourse Analysis*. Oxford/New York: Oxford University Press.

Wodak, R. (1996). *Disorders in Discourse*. London: Longman.

Wodak, R., & Meyer, M. (2001). *Methods of Critical Discourse Analysis*. London: SAGE Publications.

TEMPERATURE EFFECTS OF LLMS ON LEARNING MAPUDUNGUN ARGUMENT MARKING: THE CASE OF LLAMA 3.2 90B

Anaís M. Almendra Carrasco (University of Chile, Chile)
anaisalmendra21.aa@gmail.com

This presentation studies the relationship between the temperature of the Large Language Model (LLM) Llama 3.2 90B and its ability to learn the argument marking system of Mapudungun, specifically the alternation between inverse and direct voice. These constructions, derived from the language's alignment system based on an empathy hierarchy (Golluscio & Hasler, 2017), are considered rare across the world's languages (Siewierska, 2013). As is well known, LLMs have been trained in languages such as Spanish and English with large corpora (Barektain et al., 2024). In contrast, Mapudungun, an Andean language genealogically isolated and spoken in south-central Chile and Argentina, has a corpus of 200,000 words (Bugueño et al., 2021; Levin et al., 2002). We study the ability of the Llama 3.2 90B model to learn the inverse and direct voice of Mapudungun under two processing temperatures: one corresponding to 0.7, and another to 0. The temperature of an LLM controls the randomness of a response: the higher the temperature, the greater the randomness (Boonstra, 2024).

The methodology is experimental and quantitative. The dataset consists of transitive verbs in Mapudungun, conjugated according to the possible variables of inverse and direct voice. It was developed based on the Leipzig Glossing Rules system (Max Planck Institute for Evolutionary Anthropology, 2015). For each verb, there is a structure that includes the word in Mapudungun, its segmentation, grammatical tagging, and translation. The grammatical information on inverse and direct voice follows the descriptions by Zúñiga (2022, 2019) and Golluscio & Hasler (2017), with translations added. The dataset is divided into three parts: training, correction, and evaluation. The training dataset allows the model to learn through the analysis of data; the correction dataset is used for the model to apply its learning and correct its responses with human assistance; and the evaluation dataset is used for model evaluation. The entire model training task is conducted using the few-shot prompt technique (Boonstra, 2024).

We proceed as follows: first, we fix the temperature at 0. For one verb V1, we pass to the model the data corresponding to it as an example; then we pass the root of another verb V2 and ask the model to conjugate it following the example given; then we provide the correct answer for V2; finally, we give the root of another verb V3 and test its performance (as compared to the base dataset). We repeat this procedure for several triples of verbs. Then we perform the same experiment with temperature 0.7.

The research results consist of identifying the accuracy percentage of the Llama 3.2 90B model in learning the inverse and direct voice of Mapudungun from a comparative perspective of the temperatures used. This study sheds light on the evaluation of this LLM's capabilities for the research and study of endangered languages with small corpora. In this regard, this research contributes evidence for future inquiries at the intersection of artificial intelligence and underrepresented languages, aiming to contribute both to technological development and linguistic preservation.

References

Barektain, M., Nawalgaria, A., Mankowitz, D., Al Merey, M., Leviathan, Y., Mascaro, M., Kalman, M., Buchatskaya, E., Severyn, A., & Gulli, A. (2024). *Foundational Large Language Models & Text Generation*. Google.

Boonstra, L. (2024). *Prompt Engineering*. Google.

Bugueño, I., García, L., & Ehijo, A. (2021). Intelligent technologies in the process of recovering historical, cultural, and heritage value in native communities. In F. Sanfilippo, O-C. Granmo, S. Yildirim Yayilgan, & I. Sarwar Bajwa (Eds.), *Intelligent Technologies and Applications*. *Proceedings of the 4th International Conference, INTAP 2021, Grimstad, Norway, October 11–13, 2021, Revised Selected Papers* (pp. 393–406). Springer.

Golluscio, L., & Hasler, F. (2017). Jerarquías referenciales y alineamiento inverso en mapudungun. *RASAL Lingüística*, 69–93.

Levin, L., Vega, R., Carbonell, J., Brown, R., Lavie, A., Canulef, E., & Huenchullan, C. (2002). Data Collection and Language Technologies for Mapudungun. Max Planck Institute for Evolutionary Anthropology. *The Leipzig Glossing Rules: Conventions for interlinear morpheme-by-morpheme glosses*.

Siewierska, A. (2013). Alignment of verbal person marking. In M.S. Dryer, & M. Haspelmath (Eds.), *WALS Online* (v2020.4) [Data set]. Zenodo.

Touvron, H., et al. (2023). Llama 2: Open foundation and fine-tuned chat models. *arXiv*. https://arxiv.org/abs/2307.09288

Zúñiga, F. (2022). *Mapudungun. El habla mapuche. Introducción a la lengua mapuche, con notas comparativas y audio*. Fondo de Cultura Económica.

Zúñiga, F. (2019). Grammatical relations in Mapudungun. In A. Witzlack-Makarevich, & B. Bickel (Eds.), *Argument Selectors: A new perspective on grammatical relations* (pp. 39–67). Amsterdam/Philadelphia: John Benjamins Publishing Company.

MEDIA MANIPULATION DETECTOR: CHALLENGES AND PERSPECTIVES

Elvira Barkhatova (Immanuel Kant Baltic Federal University,Russia)
elvira.barkhatova@gmail.com

The study explores the linguistic and cognitive mechanisms underlying the automated detection of manipulative strategies in digital media discourse. Positioned at the intersection of cognitive linguistics, critical discourse analysis, and digital communication, it examines how a browser-based interface can identify, visualize, and classify manipulative textual features in online media. The main goal is to develop the optimal algorithmic tagging tool in order to detect potential manipulations in media successfully. The implementation of such tool will enable the readers to enhance their critical thinking and become less prone to various types of manipulation.

Although a number of automated tools for detecting bias and misinformation have emerged in recent years, a lot of them rely on superficial sentiment analysis, frequency-based lexical filters, or opaque machine learning models that lack interpretability. These approaches often fail to capture the deeper cognitive and pragmatic structures that underpin manipulation in public discourse. The study addresses this gap by developing a linguistically and cognitively informed typology of manipulation markers, grounded in both empirical observation and theoretical synthesis.

The proposed typology encompasses a spectrum of discursive strategies operating across lexical, syntactic, semantic, and pragmatic levels, including: fearmongering (describing worst-case scenarios, creating a sense of urgency or crisis); building emotional tension (using emotional, pragmatically marked vocabulary); misleading (pseudo-euphemization, ambiguity, evasiveness); selective and biased reporting (emphasizing certain aspects while ignoring others); disinformation (deliberate spread of false information); toxicity (personal attacks rather than criticism of a position or an argument); creating a state of frustration (guilt-tripping, intellectual frustration); building false rapport (reducing the social distance between the agent and the experiencer, false empathy, false humility).

The prototype browser extension visually marks textual segments that presumably exhibit manipulative intent. Preliminary results show that the interface successfully identifies several key markers, particularly emotionally charged language and categorical assertions. However, it also produces false positives and overlooks subtler forms of manipulation such as presuppositional framing and structural omission, which stresses the need for context-sensitive interpretation and the limitations of purely algorithmic

approaches. While color-coded highlights and simple categories enhance accessibility and usability, they may simultaneously introduce a new layer of manipulation by framing interpretation prior to textual engagement. This paradox highlights the dual function of such tools as both analytical aids and potential epistemic mediators. Thus, the tool functions not only as an analytical instrument but also as an active participant in the discursive process.

In conclusion, the study advocates for the integration of linguistic expertise and cognitive modeling into the design of automated discourse analysis tools. This includes meticulous calibration of indicators, pragmatic context modelling, and cognitively ergonomic interface design. The article also highlights the potential of such tools as instruments for improving media literacy, where they can support the cultivation of reflective and informed reading practices. By situating manipulation detection within a broader cognitive-discursive framework, the study contributes to an interdisciplinary understanding of how language constructs ideological meaning in contemporary media environments.

NAMING NEW REALITIES: A CASE STUDY

María Asunción Barreras Gómez (University of La Rioja, Spain)
asuncion.barreas@unirioja.es

When lexical blends were first used, they were considered a somehow poorly understood and under researched mechanism. Lexical blending was also often regarded as "irregular" (Connolly, 2013: 3) and/or "marginal". However, blends have become more and more relevant and today lexical blending has become a popular tool to enrich language in original ways.

This word formation process has been more thoroughly characterized as a successful, thought-provoking, creative, and productive mechanism where phonology and morphology interact and whereby a lexical item that cannot be broken down into morphemes combines two (or exceptionally three) source words, one of which at least is clipped (Peña, 2022: 276).

Speakers' linguistic competence and creativity has influenced the lexicon of a language. Lexical blending is common in witty discourse (e.g., teasing) and in discourse fields (e.g., advertising). In addition to this, the necessity to name new realities in the field of computing has increased the number of items of vocabulary and the use of lexical blending. One of the characteristics of blending is to compact information (Roig-Marín, 2016), as it happens in computing with examples such as *webinar* (web + seminar 'seminar conducted over the web'); *infomercial* (information + commercial 'commercials that provide information about a product or service'); or *edtech* (education + technology 'technology used to facilitate and enhance learning').

The following study focuses on the analysis of some examples of lexical blending in the field of computing. Our corpus of analysis includes 100 examples of blends that have been retrieved manually from Internet websites that use cyber-neologisms and from online dictionaries. They will be classified according to their structure (Algeo, 1977), their semantic makeup (Mattiello, 2019), and their linguistic and extralinguistic functions (Balteiro, 2018).

References

Algeo, J. (1977). Blends, a structural and systemic view. *American Speech*, *52*(1/2), 47–64.

Balteiro, I. (2018). Emerging hybrid Spanish–English blend structures: 'Summergete con socketines'. *Lingua*, *205*, 1–14.

Connolly, P. (2013). The innovation and adoption of English lexical blends. *Journal IPP*, *2*, 1–14.

Mattiello, E. (2019). A corpus-based analysis of new English blends. *Lexis*, *14*(2), 1–28.

Peña Cervel, M.S. (2022). Lexical blending in terms of cognitive modelling. In A. Bagasheva, B. Hristov & N. Tincheva (Eds.), *Figurativity and Human Ecology* (pp. 275–304). Amsterdam/Philadelphia: John Benjamins.

Roig-Marín, A. (2016). 'Blended' cyber-neologisms: New words show how our world is changing. *English Today*, *32*(4), 2–5.

PREVIOUS STEPS FOR THE AUTOMATIC ANNOTATION OF SOME CDA LINGUISTIC FEATURES: THE CASE OF U.S. HOUSING PRICE INEQUALITY IN YOUTUBE VIDEO COMMENTS

Yolanda Blázquez López (Polytechnic University of Madrid, Spain)
yolanda.blazquez@upm.es
María Enriqueta Cortés de los Ríos (University of Almería, Spain)
mecortes@ual.es
Ángel Felices Lago (University of Granada, Spain)
afelices@ugr.es

This paper is an initial development of the innovative ACUMEN project (Critical discourse analysis (CDA) assisted by association-rule mining) in which a corpus of YouTube comments of a target video will be compiled and annotated using a comprehensive set of lexico-grammatical features, grounded in the framework of Systemic Functional Linguistics. The features we have selected in this sample will be dealing with a specific type of problem in the domain of economic inequality within U.S. society, more specifically, unequal housing and/or rental prices at national or local level. The methodology we followed was based on the following steps:

Firstly, we generated a list of 48 English keywords related to the aforementioned housing prices and inequality in the U.S. using some ideas from the Google Ads' Keyword Planner tool. Next, we input these keywords into the TexMiLAB tool (Periñán-Pascual, 2024b) to automatically compile videos and their associated comments addressing this housing issue. Afterwards, we manually filtered the videos for inclusion in our project based on two preliminary specific criteria: a) the publication date must be from 2022 to the present, and b) the videos must be based in the U.S. After applying the initial filter, we proceeded to watch all the relevant YouTube videos with two primary purposes, i.e. to confirm that they addressed the specific problem and to ensure that the comments fell within the range of 40 to 60, established as the cut-off for our analysis. Finally, within the TexMiLAB environment, we used its linguistic annotation tool to analyse the validated comments from the Systemic Functional Linguistics framework.

Eventually, this case study will be expanded through additional research involving a selection of comparable videos, aiming to assess whether the linguistic patterns that are computationally significant can reveal not only the authors' ideological stance but also that of the broader society they belong to.

References

Alameda Hernández, A. (2024). Social media detection of texts on the social problem of violence against women within the multimodal intelligent system ALLEGRO. In R. Jiménez-Briones & A. Corral Esteban (Eds.), *Approaches to Knowledge Representation and Language* (pp. 63–75). Granada: Comares.

Gómez-Jiménez, E., & Toolan, M. (2020). *The Discursive Construction of Economic Inequality: CADS approaches to the British media*. London: Bloomsbury Academic.

Google. (n.d.). Google Ads Keyword Planner. Retrieved May 9, 2025, from https://business.google.com/es/ad-tools/keyword-planner/

Jiménez Briones, R. (2024). Compiling a corpus of user-generated content units for the detection of social problems. *RAEL: Revista Electrónica de Lingüística Aplicada*, *23*, 1–18.

Jiménez-Briones, R., & Felices Lago, A. (2024). La formalización del conocimiento en DIAPASON a través de una muestra de problemas poblacionales y macroeconómicos. In F. Olmo-Cazevieille (Ed.), *Investigación lingüística en entornos digitales* (pp. 187–216). Granada: Tirant Lo Blanch.

Marchese, M.C. (2015). Carencia de vivienda en la Ciudad de Buenos Aires: análisis sociodiscursivo crítico de sus causas y consecuencias. *Onomázein*, *32*, 80–100.

Marston, G. (2002). Critical Discourse Analysis and policy-orientated housing research. *Housing, Theory and Society*, *19*(2), 82–91.

Munro, M. (2018). House price inflation in the news: A critical discourse analysis of newspaper coverage in the UK. *Housing Studies*, *33*(7), 1085–1105.

Periñán Pascual, C. (2023). From smart city to smart society: A quality of-life ontological model for problem detection from user-generated content. *Applied Ontology*, *18*(3), 263–306.

Periñán-Pascual, C. (2024a). Exploring problems through social media: The case of beach quality. In R. Jiménez-Briones, & A. Corral Esteban (Eds.), *Approaches to Knowledge Representation and Language* (pp. 11–26). Granada: Comares.

Periñán-Pascual, C. (2024b). *Minería de textos para investigadores lingüistas*. Valencia: Tirant lo Blanch.

DON'T SASS ME: A COGNITIVE LINGUISTIC AND SYNESTHETIC ANALYSIS OF INFORMAL SPEECH ACTS IN SOCIAL HIERARCHIES

Carmen M. Bretones Callejas (University of Almería, Spain)
cbreton@ual.es

This study examines the English expression "Don't sass me" through the lens of Cognitive Linguistics, with a focus on its semantic, pragmatic, and synesthetic dimensions. Drawing on conceptual metaphor theory (Lakoff & Johnson, 1980), embodiment (Johnson, 1987), construction grammar (Goldberg, 1995), usage-based theories of language (Tomasello, 2003), and the integration of synesthetic and iconic forces in language (Bretones Callejas, 2025), the analysis shows how the expression reflects underlying cultural models of authority, respect, and interpersonal dynamics. The imperative construction "Don't X me" emerges as a conventionalized linguistic template encoding power asymmetry and social norms of deference, with "sass" metaphorically conceptualized as a substance or force subject to control. Furthermore, the expression invokes synesthetic associations, as the phonological sharpness of "sass" evokes sensory impressions of abruptness and discord, mirroring the perceived tone of impertinent speech.

This research highlights the role of embodied cognition and cross-modal sensory experiences in framing abstract social hierarchies through language, demonstrating how informal speech acts like "Don't sass me" negotiate authority while embedding humor and affection. By integrating cognitive, sociolinguistic, and synesthetic perspectives, the findings emphasize the importance of studying colloquial expressions as windows into the interplay between meaning, sensory knowledge, and cultural representation. This work contributes to broader discussions on the cognitive, sensory, and cultural foundations of everyday language use, particularly in contexts of power and social interaction.

References

Bretones Callejas, C. (2025). *The Iconic Power of the Short Story: Exploring culture, cognition and affective involvement in Seamus Heaney*. Oxford/New York: Peter Lang.

Goldberg, A. E. (1995). *Constructions: A construction grammar approach to argument structure*. Chicago: University of Chicago Press.

Johnson, M. (1987). *The Body in the Mind: The bodily basis of meaning, imagination, and reason*. Chicago: University of Chicago Press.

Lakoff, G., & Johnson, M. (1980). *Metaphors We Live by*. Chicago: University of Chicago Press.

Tomasello, M. (2003). *Constructing a Language: A usage-based theory of language acquisition*. Cambridge, MA: Harvard University Press.

SAISIYAT PERCEPTION CONSTRUCTIONS IN THE MEANING-GRAMMAR INTERFACE

Henry Y. Chang (Institute of Linguistics, Academia Sinica, Taiwan)
henryylc@gate.sinica.edu.tw
Marie M. Yeh (Institute of Taiwan Languages and Language Teaching, National Tsing, Taiwan)
mlyeh@mx.nthu.edu.tw

This paper investigates the meaning and grammar of perception constructions in the Austronesian language Saisiyat. In Saisiyat, the grammar of perception constructions is governed by the semantic relationship between the matrix person/predicate and its complement clause. In the context of direct perception reading, the matrix subject is actively and directly involved in the perceived event; it follows that (i) the perception verb is restricted to be in the Actor-Voice (AV) (1-2); (ii) the perceived event must either be a process, occurring in the progressive (3a-b), or a telic event, occurring in the Non-Actor-Voice (NAV) (4a-b). By contrast, in the epistemic interpretation, the speaker infers the likelihood of the perceived event, hence (i) the perception verb must be a Patient-Voice (PV)-turned raising verb (5a-b); (ii) the perception verbs cannot pattern with a genitive agent; (iii) the subject bears no thematic relation to the perception verb; (iv) the perceived event must be a larger phrase eligible for housing tense auxiliary (6a-b). In between sits a transitional perception construction which occurs as a middle structure—the matrix subject is the objective topic of the perception and the perceiver is a generic implicit pronoun, with the perception verb occurring in the PV in the subordinate clause (7a-b). Implications of this study include: (i) the meaning-grammar relationship is iconic (Givón, 2001; Van Valin, 2005); (ii) clause union exhibits a scale of dependence/restructuring (Chang, 2025; Wurmbrand, 2024); (iii) perception verbs have undergone grammaticalization.

Examples:

a. *Yako<u>k<om>ita'</u> hisiyamams<om>i'aelkapazay.*

1S.NOMsee<AV> 3S.ACCPROGeat <AV>ACCrice

'I saw him eating rice.'

b.?*Ma'an<u>kita'-en</u>siya mams<om>i'aelkapazay.* 1S.GENsee-PV 3S.NOM PROG eat <AV>ACCrice

a. *Yako<u>bazae''</u>atawkiIbanmam ma'oe'oe'.*

1S.NOMhear.AVPNCONJPNPROGquarrel.AV

'I heard 'ataw and Iban quarreling.'

b.?*'atawkiIban<u>bazae'-en</u>mam ma'oe'oe'.*

PNCONJPNhear-PVPROGquarrel.AV

a. *Yakok<om>ita'hisiya<u>mam</u>s<om>i'aelkapazay.*

1S.NOMsee<AV> 3S.ACCPROGeat <AV>ACCrice

'I saw him eating rice.'

b. *Yako bazae' siya <u>mam</u> m-pa:tol.*

1S.NOMhear.AV3S.NOMPROGAV-sing

'I heard him singing.'

a.*Yakok<om>ita'nisiya<u>Si-si'aelkapazay.</u>* 1S.NOMsee<AV>3S.GENIV-eatACCrice

'I saw his manner of eating rice.'

b. *Yakobazae'nokakowaw<u>h<in>ongas</u>*

1S.NOMhear.AVGENeaglescreech<PFV.PV>

'I heard the eagle's voice of screeching.'

a.*Rape: minis'eh <u>kita'-en</u> baba:aw '<in>intawaeh.*

placewet.AVlook-PVjust.nowrain.stop< PFV.PV >

'The floor is (still) wet. It seems to have stop raining just now.'

b. *Hini 'oes'oeso'an <u>bazae'-en</u> 'aliman.*

thismountainhear-PVquiet.AV

'This mountain sounds peaceful.'

a.*Rape: minis'eh kita'-en <u>baba:aw</u> '<in>intawaeh.*

placewet.AVlook-PVjust.nowrain.stop< PFV.PV >

'The floor is (still) wet. It seems to have stopped raining just now.'

b. *niSo' kapapama'an bazae'-en 'am 'aewhay ila*.

2S.GENcarhear-PVFUTbreak.downCOS

'The car seems to be breaking down.'

a.*Siya ba~ba:in-an kita'-en.*

3S.NOMRED-lazy-LVlook-PV

'He looks sluggish.'

b. *Kabonbonan pakzazih bazae'-en.*

drumnoisy.AVhear-PV

'The drum sounds noisy.'

References

Chang, H.Y. (2025). Embedding licensing in Tsou. *ILAS Linguistics Colloquium, 14* April 2025.

Givón, T. (2001). *Syntax: An introduction*, Vol. 2. Amsterdam/Philadelphia: John Benjamins.

Van Valin Jr., R.D. (2005). *Exploring the Syntax-Semantics Interface*. Cambridge: Cambridge University Press.

Wurmbrand, S. (2024). The size of clausal complements. *Annual Review of Linguistics, 10*(1), 59–83.

PHENOMENA LIKE RELATIVE CLAUSES: EVIDENCE FROM A CORPUS OF LEARNER ENGLISH

Debopam Das (Åbo Akademi University, Finland)
Debopam.Das@abo.fi
Izabela Czerniak (Åbo Akademi University, Finland)
Izabela.Czerniak@abo.fi

We investigate phenomena similar to relative clauses in learner English. We examine this as part of a larger project, called the ICLE-RC, which builds a corpus of learner English annotated for relative clauses (RCs) and related phenomena, which we call other constructions (OCs). OCs function as important information structuring devices in text, and we group them in four main types: it-clefts, pseudo-clefts, existential-relatives (there-relatives), and fused (free) relatives. OCs either resemble RCs (as they employ words such as that, which, or who, which are otherwise known as relative markers) but are not either RCs proper, or they are special types of RCs. The status of OCs has been extensively debated in the literature: it-clefts (Patten, 2012), pseudo-clefts (Higgins, 1973; Maschler et al., 2023), existential-relatives (Breivik, 2003), fused relatives (Grosu, 2003; Ott, 2011).

The ICLE-RC derives from the International Corpus of Learner English (ICLE; Granger et al., 2020), which is a corpus of academic essays written by undergraduate students (intermediate or advanced learners of English), coming from different L1 backgrounds. The ICLE-RC contains 144 ICLE texts (100K+ words), covering six L1 backgrounds – Finnish, Italian, Polish, Swedish, Turkish, and Urdu – with 24 texts from each. We annotate these texts for over 900 RCs and 400 OCs, with respect to a wide array of lexical, syntactic, semantic, and discourse features, some of which are illustrated below.

feature	**examples (of sub-feature)**	**feature type**
relative marker (RM)	*that*, *which*, *who*, *zero*	lexical/syntactic
grammatical function of referent	subject, object, predicative complement	syntactic
grammatical function of RM	subject, object, adjunct	

type of referent	human, abstract entity	semantic/discourse
restrictiveness	integrated, supplementary	syntactic/discourse

Results on OCs from our corpus analysis (in the table below) show that overall L2 learners of English employ fused relatives most often, followed by *there*-relatives; by contrast, clefts are used relatively infrequently. Variations, however, exist for specific L1s; e.g., the high and low occurrence of *there*-relatives for Polish and Swedish, respectively.

	Finnish	**Italian**	**Polish**	**Swedish**	**Turkish**	**Urdu**	**Avg.**
it-cleft	15.00%	-	11.63%	12.73%	-	19.35%	10.89%
ps-cleft	8.00%	20.69%	13.95%	20.00%	8.11%	-	12.13%
there-rel	28.00%	13.79%	38.37%	9.09%	27.03%	29.03%	25.50%
fused-rel	41.00%	53.45%	26.74%	45.45%	50.00%	41.94%	42.08%
others	8.00%	-	9.30%	12.73%	10.81%	-	9.41%
TOTAL	100	58	86	55	74	31	404

Feature-specific investigations yield further patterns: (1) For RMs, *it*-clefts, *there*-relatives, and fused relatives most frequently employ *that*, *who*, and *what*, respectively; (2) For RM-functions, the relativized items predominantly serve as the (non-dummy) subject in *it*-clefts and *there*-relatives, but more often as the direct object or an adjunct in fused relatives; (3) the foregrounded elements are most often an NP for *it*-clefts, but a clause for pseudo-clefts. For each pattern, various L1-specific variations are noted (e.g., for pseudo-clefts, Italian and Swedish users foreground NPs more often than clauses).

Our upcoming work would focus on analysing whether the observed variations exhibit typological patterns for certain RC/OC features, potentially resulting from cross-linguistic influences. We hope to present a more comprehensive discussion on this, following an in-depth scrutiny of these findings.

References

Breivik, L.E. (2003). On relative clauses and locative expressions in English existential sentences. *Pragmatics*, *13*(2), 211–230.

Granger, S., Dupont, M., Meunier, F., Naets, H. & Paquot, M. (2020). *The International Corpus of Learner English. Version 3.* Louvain-la-Neuve: Presses universitaires de Louvain. https://dial.uclouvain.be/pr/boreal/object/boreal:229877

Grosu, A. (2003). A unified theory of 'standard' and 'transparent' free relatives. *Natural Language and Linguistic Theory*, *21*, 247–331.

Higgins, F.R. (1973). *The Pseudo-cleft Construction in English* [Doctoral dissertation, MIT].

Maschler, Y., Lindström, J., & De Stefani, E. (2023). Pseudo-clefts: An interactional analysis across languages. *Lingua*, *291*, 103538.

Ott, D. (2011). A note on free relative clauses in the Theory of Phases. *Linguistic Inquiry*, *42*, 183–192.

Patten, A.L. (2012). *The English It-Cleft: A constructional account and a diachronic investigation.* Berlin: De Gruyter Mouton.

LINGUISTIC INNOVATION FOR THE CONSTRUCTION OF IDENTITY: THE CASE OF DRAG LANGUAGE

Ana C. Díaz-Galán (University of La Laguna, Spain)
adiazgal@ull.edu.es
Francisco J. Cortés-Rodríguez (University of La Laguna, Spain)
fcortes@ull.edu.es

The label "drag queen" immediately conjures images of flamboyant costumes, elaborate makeup, and spectacular wigs. But there is more to drag than meets the eye. As is the case with other historically marginalized communities, drag queens excel at wit, dexterity, and creativity in their use of language. Drag queens are not mere performers, and language plays a central role in constructing their identity both as individuals and as members of a distinct group within the LGTBIQ+ community. Drag language is performative and indexical, both contributing to the building and reinforcement of the identity, and working as a signal of group affiliation (Barret, 2017).

This presentation will explore some of the creative devices exploited by drag queens as expressed in a corpus obtained from several episodes (from different seasons) of the TV contest RuPaul's Drag Race. Our analysis will provide a typology of patterns of linguistic creativity and innovation which can be described by resorting to the 4-level classification of constructional structures offered in the works of Ruiz de Mendoza and Mairal (2008), Mairal and Ruiz de Mendoza (2009), and Ruiz de Mendoza and Galera (2014). We will propose an extension of this classification providing a rationale for the different factors that motivate those innovative patterns. These include:

(a) phonological, morphological, and syntactic deviations from standard patterns, as in these cases:

word formation: *condragulations, mothertucking, herstory,*

pronouns: *She done already done had herses*;

adjectival morphology: *You wanna look your bestest*

verbal morphology: *We've spoke of it like adults*

(b) semantic innovation in lexical and grammatical units motivated by the use of cognitive metaphors and metonymies, as is the consistent use of words from the domain of cessation of existence (*kill, murder, slay, assassin*) to express success.

(c) the (re)creation of constructional patterns, as is the argumental me-beneficiary in:

I'll go and get me a bottle of wine now.

You used to wear me tights.

or the low-level situational construction *To X the house down (boots)*:

She is painted the house down motherfucking boots.

I need you to dance the house down.

(d) a subversive use of discourse and social conventions which involve pragmatic and cultural mechanisms as displayed in the "reading" challenges (which are sustained by the humorous effect of reverse impoliteness) or in the reapproppriation of slurs in discourse exchanges as a banner for identity and pride (Cortés-Rodríguez & Díaz-Galán, 2025):

Me encantan mayores. Sí. I'm like, bitch, I'm here.

The study of these non-conventionalized patterns, which reflect a disruptive view of social and linguistic norms, is crucial to understand the role of language as an instrument for the construction of the identity of drags and their (self-)identification as members of the drag community.

References

Barrett, R. (2017). *From Drag Queens to Leathermen: Language, gender, and gay male subcultures*. New York: Oxford University Press.

Cortés Rodríguez, F. & Díaz Galán, A. (2025). Language as a(nother) Make-up for Drags: An analysis of address terms in *RuPaul's Drag Race* (Season 16). *42 Congreso Internacional de AESLA*. Universidad de les Illes Balears (UIB). Palma de Mallorca.

Mairal-Usón, R,. & Ruiz de Mendoza, F.J. (2009). Levels of description and explanation in meaning construction. In C. Butler & J. Martín Arista (Eds.), *Deconstructing Constructions* (pp. 153–198). Amsterdam: John Benjamins.

Ruiz de Mendoza, F.J., & Galera Masegosa, A. (2014). *Cognitive Modeling: A Linguistic Perspective*. Amsterdam/Philadelphia: John Benjamins.

Ruiz de Mendoza, F.J., & Mairal-Usón, R. (2008). Levels of description and constraining factors in meaning construction: An introduction to the Lexical Constructional Model. *Folia Linguistica*, *42*(2), 355–400.

DETECTING LEXICAL BLENDS ACROSS LANGUAGES: METHODS, MODELS, AND FUTURE DIRECTIONS

Salma Errami Fennane (University of La Rioja, Spain)
salma.errami@unirioja.es

Lexical blends which are innovative combinations of two or more source words into a single new form, present unique challenges for linguistic analysis, particularly when approached through computational methods. Their structural ambiguity and diversity across languages makes them difficult to detect automatically. Recent research has begun to explore how computer-based approaches can be used to identify blends, especially in English and, to a lesser extent, Spanish and French. While reported accuracy levels vary, current studies reveal important patterns in the kinds of tools and linguistic features that support a successful detection.

Early efforts used rule-based systems or simple learning algorithms, such as the perceptron model (foundation for modern machine learning and deep learning models), which drew on observable properties like word frequency, meaning, and sound structure to predict possible blends (Cook & Stevenson, 2010). More recent studies have used more flexible systems that combine different methods such as decision trees and mathematical regression to detect blends with greater accuracy by considering elements like how syllables align or how sounds shift between the source words and the blend (Saunders, 2023). Other studies have introduced deep learning techniques, including neural networks that are loosely inspired by how the brain works. These models can learn from large amounts of data without being given explicit rules, although their inner workings are often opaque (Das & Ghosh, 2017).

A particularly successful approach involved the use of multilingual transformer models large language models trained on texts in multiple languages and a method called conditional random fields. This combination proved highly effective in detecting blends and borrowings in Spanish texts, reaching performance scores above 87% (Álvarez Mellado et al., 2021). These models benefit from training on examples labeled by human annotators, highlighting the continued importance of linguistically informed datasets. Across all approaches, one consistent finding is the value of linguistic features in improving blend detection. Systems that consider syllable structure, patterns of word frequency, and semantic similarity between source words are typically more accurate (Cook, 2012; Saunders, 2023). While one study explored a more automatic, unsupervised approach based on morphological segmentation (Saavedra, 2016), such techniques remain less reliable than those guided by explicit linguistic knowledge.

Conversely, although the tools mentioned above are capable in principle of detecting blends that combine elements from different languages (so-called hybrid blends), no current study directly addresses this challenge. Multilingual tools, including the aforementioned transformer models, could be adapted for this purpose, but this would require the creation of multilingual training data, more nuanced phonological and semantic comparisons, and models that can handle code-switching or mixed-language inputs. This represents an open area for future work.

All in all, most existing work on automatic blend detection has focused on English and uses computational methods that benefit from careful linguistic input. While current systems show promising results, especially for monolingual blends, progress in detecting hybrid or cross-linguistic blends will depend on closer collaboration between computational and theoretical linguists, as well as the development of new multilingual resources (Álvarez Mellado et al., 2021).

References

Álvarez Mellado, E., Espinosa Anke, L., Gonzalo Arroyo, J., Lignos, C., & Porta Zamorano, J. (2021). Overview of ADoBo 2021: Automatic detection of unassimilated borrowings in the Spanish press. *Procesamiento del Lenguaje Natural*, *67*, 223–230.

Cook, P. (2012). Using social media to find English lexical blends. En *Proceedings of the 15th EURALEX International Congress* (pp. 846–854). Oslo, Norway.

Cook, P., & Stevenson, S. (2007). Automagically inferring the source words of lexical blends. In *Proceedings of the 10th Conference of the Pacific Association for Computational Linguistics* (pp. 289–297). Melbourne, Australia.

Cook, P., & Stevenson, S. (2010). Automatically identifying the source words of lexical blends in English. *Computational Linguistics*, *36*(1), 129–149.

Das, K., & Ghosh, S. (2017). Neuramanteau: A neural network ensemble model for lexical blends. En *Proceedings of the Eighth International Joint Conference on Natural Language Processing (Volume 1: Long Papers)* (pp. 576–583). Taipei, Taiwan.

Saavedra, D. (2016). Automatically identifying blend splinters that are morpheme candidates. *Digital Scholarship in the Humanities*, *31*(1), 55–71.

Saunders, J. (2023). Improving automated prediction of English lexical blends through the use of observable linguistic features. En *Proceedings of the 20th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology* (pp. 93–97). Toronto, Canada.

YOUTA A LINGUIST-FRIENDLY CORPUS ANNOTATION TOOL FOR CRITICAL DISCOURSE ANALYSIS IN THE ACUMEN PROJECT

Nicolás José Fernández Martínez (University of Jaén, Spain)
njfernan@ujaen.es
Pedro Ureña Gómez-Moreno (University of Granada, Spain)
pedrou@ugr.es

We present YouTA (YouTube Text Annotator), a user-friendly corpus annotation tool that aims to enrich critical discourse analysis with artificial intelligence techniques. While corpus linguistics has brought greater empirical rigor to discourse studies (Anthony, 2013), its computational toolkit has largely remained limited to frequency statistics and concordance-based lexical patterning. YouTA has been designed around the actual needs and workflows of linguists, following user-centered design principles (ISO 9241–210, 2010), which meets the needs of linguists working with complex annotation schemes, especially those based on Systemic Functional Linguistics (SFL). Its interface allows intuitive multi-label annotation of lexico-grammatical features through customizable tagging schemes and an annotation and statistics panel. Annotations are displayed inline and are linked to YouTube video metadata such as comment origin, video ID and title. The tool integrates visual cues for annotation tracking and filtering. Its modular architecture ensures adaptability to diverse annotation schemes and research contexts. Also, by supporting JSON and XML formats, YouTA aligns with current best practices for data interoperability in linguistic research (Hieber, 2020). Building on ISO/IEC 9126-1 (2001) standards for software quality, YouTA emphasizes functionality (suitability and accuracy), usability (operability), and efficiency (time behavior), offering a responsive and progressively disclosed interface that fosters engagement while minimizing cognitive load (Cooper et al., 2007; Weinschenk, 2011). In order to demonstrate the functionality of YouTA, examples of corpus annotation will be presented in the context of educational challenges, illustrating the tool's potential applications in enhancing teaching and learning processes. The examples are drawn from the ACUMEN project, which seeks to advance the field by leveraging AI-powered methods to annotate and analyze large-scale discourse data, using YouTube comments on videos about social inequality as a case study. The annotation process involves identifying lexico-grammatical features that will be relevant for critical discourse analysis.

References

Anthony, L. (2013). A critical look at software tools in corpus linguistics. *Linguistic Research*, *30*(2), 141–161.

Cooper, A., Reimann, R., & Cronin, D. (2007). *About face 3: The Essentials of Interaction Design*. Indianapolis: Wiley.

Hieber, D. W. (2020). Data format for digital linguistics. https://doi.org/10.5281/zenodo.1438589

ISO/IEC 9126-1. (2001). *Information Technology – Software Product Quality. Part 1: Quality Model*. Geneva: International Organization for Standardization. International Electrotechnical Commission.

ISO 9241–210. (2010). *Ergonomics of Human-System Interaction - Part 210: Human-Centered Design for Interactive Systems*. Geneva: International Organization for Standardization.

Weinschenk, S. (2011). *100 Things Every Designer Needs to Know about People*. Berkeley: New Riders.

X SWEATS LIKE Y: METAPHORIC CORRELATION AND BEYOND

Alicia Galera Masegosa (University of Almería, Spain)
agm011@ual.es

Much emphasis has been placed on the role of low-level metaphor-metonymy combinations in the analysis of figurative language (cf. Goossens, 1990; Ruiz de Mendoza & Díez, 2002). These patterns of interaction have been largely explored and applied to the analysis of idiomatic expressions (cf. Galera-Masegosa, 2010; Galera-Masegosa & Iza-Erviti, 2015).

The role of high-level metonymy in grammar has also been extensively explored in the field of Cognitive Linguistics. Most studies on high-level metonymy relate to its impact on grammar and constructional behavior, as well as shifts of illocutionary force. Ruiz de Mendoza (2021) highlights the importance of high-level metonymic complexes for the understanding of the motivation behind some cases of constructional behavior.

However, the role of high-level metonymic chains in the interpretation of idiomatic expressions has received only passing attention in the cognitive-linguistic literature.

To our knowledge, high-level metonymies have only been superficially connected to the analysis of idiomatic expressions. Lakoff and Turner (1989) suggest that proverbs are to be handled in terms of the metaphor GENERIC IS SPECIFIC. Ruiz de Mendoza (2001) and Radden and Kövecses (2007) claim that the specific-generic relationship that underlies our interpretation of proverbs is metonymic. They argue that proverbs such as "Blind blames the ditch" describe a specific situation that can be abstracted into a general understanding, which can in turn be applied to the specific situation in which the converstation takes place. In their view, the SPECIFIC FOR GENERIC FOR SPECIFIC high-level metonymic chain is at work.

We believe that this topic deserves closer attention and should be addressed from a perspective that includes not only proverbs, but also other idiomatic expressions.

The aim of this work is to explore the metaphoric and/or metonymic mechanisms that underlie the interpretation of some instantiations of the idiomatic pattern 'X Sweats Like Y' in connection with high-level metonymic chains. This pattern, that has been often analyzed as a clear case of metaphoric resemblance (e.g. *Her waist is like an hourglass*), may also exhibit complex cognitive mechanisms in examples such as *Sweat like a pig*, which requires metaphor-metonymy combinations (cf. Ruiz de Mendoza and Galera, 2014).

We have observed that some realizations of Y may call for analyses that include high-level metonymic chains. Consider, for instance, the expression *To sweat like a sinner in church*. In this case, we may claim that a specific situation as described by the expression stands for a generic situation (an uncomfortable situation that makes somebody sweat profusely). This general situation in turns stand for the specific situation taking place.

Making systematic searches in COCA, we aim to analyze the presence of high-level metonymic chains in different realizations of this pattern, and to explore if we can establish some kind of correlation with the different motivations in the creation of the expressions: religious/moral background in the example above, sports as in *To sweat like a boxer*, high temperatures as in *To sweat like a pitch of iced-tea in the sun*, etc.

References

Galera Masegosa, A. (2010). Metaphoric Complexes. A Spanish-English contrastive analysis of metaphor and metonymy in interaction. *Revista Española de Lingüística Aplicada, 23*, 175–194.

Galera Masegosa, A., & Iza-Erviti, A. (2015). Conceptual complexity in metaphorical resemblance operations revisited. *Revista Española de Lingüística Aplicada, 28*(1), 97–117.

Goossens, L. (1990). Metaphtonymy: The interaction of metaphor and metonymy in expressions for linguistic action. In R. Dirven & R. Pörings (Eds.), *Metaphor and Metonymy in Comparison and Contrast* (pp. 349–378). Berlin/New York: Mouton de Gruyter.

Lakoff, G., &, Turner, M. (1989). *More than Cool Reason: A field guide to poetic metaphor*. Chicago: The University of Chicago Press.

Radden, G., & Kövecses, Z. (2007). Towards a theory of metonymy. In V. Evans, B. Bergen, & J. Zinken (Eds.), *The Cognitive Linguistics Reader* (pp. 335–359). London: Equinox.

Ruiz de Mendoza, F. J. (2001). High-level metonymy and linguistic structure. *Sincronia*, *20*.

Ruiz de Mendoza, F. J. (2021). Conceptual Metonymy Theory revisited: Some definitional and taxonomic issues. In X. Wen, & J. Taylor (Eds.), *The Routledge Handbook of Cognitive Linguistics* (pp. 204–227). London/New York: Routledge.

Ruiz de Mendoza, F. J., & Díez, O. (2002). Patterns of conceptual interaction. In R. Dirven, & R. Pörings (Eds.), *Metaphor and Metonymy in Comparison and Contrast* (pp. 489–532). Berlin/New York: Mouton de Gruyter.

Ruiz de Mendoza, F. J., & Galera-Masegosa, A. (2014). *Cognitive Modeling. A linguistic perspective*. Amsterdam/Philadelphia: John Benjamins.

Ruiz de Mendoza, F. J., & Pérez, L. (2001). Metonymy and the grammar: Motivation, constraints, and interaction. *Language and Communication*, *21*(4), 321–357.

SYNTACTIC BLENDS MEET COERCION: EVIDENCE FROM *SABER* ('KNOW') WITHIN THE FAMILY OF SUBJECTIVE-TRANSITIVE CONSTRUCTIONS IN PRESENT-DAY SPANISH

Francisco Gonzálvez-García (University of Almería, Spain)
fgonza@ual.es

Drawing on Cognitive Construction Grammar (Goldberg, 2006, 2019), this paper revisits instances of secondary predication with Spanish cognition verbs, as in (1)(a)-(b):

(1) (a) Considero/veo/encuentro ese tramo fundamental.

'I consider/see/find that period fundamental'

(b) #Sabemos ese tramo fundamental.

It is claimed that the otherwise puzzling acceptability results between *considerar* ('consider') and *saber* ('know') in (1)(a)-(b) can be explained (at least partly) by invoking Rodríguez Espiñeira's (2006) account of instances of secondary predication of this kind as syntactic blends. More specifically, she argues that instances like (1)(d) should be best handled as a syntactic blend of the transitive construction with a phrasal object (cf. (2)(b)) and the variant with a finite *que*-clause complement (cf. (2)(c)):

(1) (a) (…) [I]nmediatamente siente *una tristeza que sabe irremediable*.

'S/he immediately feels a saddening feeling which s/he knows to be unavoidable.'

(b) Sabe *algo sobre su tristeza*.

'S/He knows something about his/her sadness'

(c) Sabe *que su tristeza es irremediable*.

'S/He knows that her sadness is unavoidable.'

(d) #Sé *mi tristeza irremediable*.

#'I know my sadness unavoidable.'

In addition, Rodríguez Espiñeira (2006) observes that this syntactic blend brings with it the promotion or topicalization of a participant through pronominalization in stylistically marked instantiations, as in (2):

(2) (a) (…) qué me importa a mí (…) mucho menos su opinión que siempre *la* he sabido equivocada, (…).

'What do I care, even less about his opinion which I have always known to be wrong.'

(b) (…) # siempre he sabido su opinión equivocada (…).

'I have always know his/her opinion wrong.'

Drawing on Gonzálvez-García (2013), it is argued that the polysemy of *saber* ('know') in the secondary predication construction can be adequately handled by positing within the subjective-transitive construction two verb-specific constructions in the sense of Croft (2003):

(i) *saber* + reflexive pronoun + XPCOMP <subjective-evaluative state of affairs>

(3) Luis ante todo *se* sabe *escritor*.

'Luis knows himself to be above all a writer.'

(ii) *saber* + NP + XPCOMP <state of affairs subject to direct, sensory perception>

(4) Luis se entristecía sabiendo *a su mujer en la cárcel*.

'Luis became sad knowing her wife to be in prison.'

This two-fold distinction provides a principled motivation as to why *saber* can only be felicitously replaced with *conocer* in a sensory perception context (4)(a), since these two verbs convey objective knowledge (Palancar, 2005). However, *saber* cannot be felicitously replaced with *conocer* in other contexts where the cognitive evaluative interpretation is more prominent (as in cases of coercion through a reflexive pronoun or a reflex passive marker), as in (5)(b)-(c):

(5)

(a) Me gustan tus piernas porque siempre las he conocido/sabido fuertes.

'I like your legs because I have always known them to be strong.'

(b) Luis ante todo se sabe/*conoce escritor.

'Luis knows himself to be above all a writer.'

(c) Decir que la pena de muerte podría ser negociada es lo mismo que ir al ring a dar una pelea que ya se sabe/*conoce ganada por el que propone las condiciones del combate.

‘‘To say that the death penalty could be negotiated is like going to the ring to put up a fight which is already known will be won by the one who proposes the conditions for the fight.

References

Croft, W. (2003). Lexical rules vs. constructions: A false dichotomy. In H. Cuyckens, T. Berg, R. Dirven, & K. Panther (Eds.), *Motivation in Language. Studies in honour of Günter Radden* (pp. 49–68). Amsterdam/Philadelphia: John Benjamins.

Goldberg, A. E. (2006). *Constructions at Work: The nature of generalization in language*. New York: Oxford University Press.

Goldberg, A. E. (2019). *Explain Me This: Creativity, competition, and the partial productivity of constructions*. Princeton: Princeton University Press.

Gonzálvez-García, F. (2013). Breves consideraciones en torno a la interacción entre coerción y polisemia: El caso de la predicación secundaria con verbos de cognición en español. In S. De Knop, F. Mollica, &, J. Kuhn (Eds.), *Konstruktionsgrammatik und Romanische Sprachen* (Studia Romanica et Lingüística, 39) (pp. 187–203). Frankfurt.

Palancar, E. (2005). Los verbos saber y conocer en español: Aspecto léxico y morfodinámica. In M. Lubbers-Quesada, & R. Maldonado (Eds.), *Dimensiones del aspecto en español* (pp. 17–54). México: Universidad Autónoma de México.

Rodríguez Espiñeira, M.J. (2006). Esquemas sintácticos con predicados cognitivos y predicativos obligatorios. *Signo y seña*, *15*, 113–138.

NOUN INCORPORATION AND COGNITIVE MODELING

Pilar Guerrero Medina (University of Córdoba, Spain)
ff1gumep@uco.es

Mithun (1984: 848) uses the term "incorporation" to refer to "a particular type of compounding in which a V and a N combine to form a new V", where "the N bears a specific semantic relationship to its host V". The example from Mokilese in (1) illustrates the process of noun incorporation. The independent object in (1a) contrasts with the construction in (1b), where the VN compound refers to the institutionalized activity of coconut-grinding.

(1) a. Ngoah kohkoa oaring-kai.
I grind coconut-these
'I am grinding these coconuts.'

b. Ngoah ko oaring.
I grind coconut
'I am coconut-grinding.'

Accepting the argument that noun incorporation is common and productive in English, "with a variety of forms going far beyond those that Mithun and others have given such as *baby-sitting* and *berry-picking*" (Feist, 2013, p. 165), this paper aims to provide a description of the process of incorporability in English, applying the principles of cognitive modeling, as developed in Ruiz de Mendoza & Galera (2014) and Peña-Cervel & Ruiz de Mendoza (2022).

Along the lines of Peña-Cervel (2022), this proposal explores the cognitive operation of parameterization as an analytical tool to be applied to the study of endocentric compounding in English. In this type of word compounding process, where the compound is a hyponym of the head, the parameterization operation makes use of the GENERIC-SPECIFIC propositional model. Although the first constituent of the compound is commonly interpretable as the Goal of the base verb (e.g. *meat eater* or *bus driver*), the semantic relation between the first and second elements of the compound is not always so predictable (e.g., *sea robber* or *cliffhanger*). The highly variable type of semantic relation obtaining between the two constituents will be explored in some detail.

The relations of correlation and resemblance, sometimes in combination with the metonymic relations of expansion and reduction, also play an important role in the creation of noun incorporating constructions, frequently amenable to figurative interpretations in English (see Guerrero Medina, 2024). Cases such as *tearjerker* (cf.

soda-jerker), *pageturner*, *nail-biter* are cases of reification achieved by means of the EVENTS ARE OBJECTS metaphor which operates on the *–er* suffix (Panther & Thornburg, 2009). On the other hand, by virtue of an expansion operation, the EFFECT FOR CAUSE metonymy accounts for the fact that the bases refer to the reaction produced by the event in these formations.

In this corpus-informed paper, I will analyze examples of *–er* and *–ing* endocentric compounds from the literature as well as corpus examples retrieved from the *enTenTen 21* corpus with Sketch Engine.

References

Feist, J. (2013). Noun incorporation in English. *Functions of Language, 20*(2), 159–184.

Guerrero Medina, P. (2024). Noun incorporation in English deverbal compounding: Lexical and semantic factors in incorporability. *Linguistics in Amsterdam, 15*(2), 121–126.

Mithun, M. (1984). The evolution of noun incorporation. *Language, 60*(4), 847–892.

Panther, K.U., & Thornburg, L. (2009). The roles metaphor and metonymy in English *-er* nominals. In R. Dirven & R. Pörings (Eds.), *Metaphor and Metonymy in Comparison and Contrast* (pp. 279–319). Berlin: Mouton de Gruyter.

Peña-Cervel, M. S. (2022). Lexical blending in terms of cognitive modelling. In A. Bagasheva, B. Hristov, & N. Tincheva (Eds.), *Figurativity and Human Ecology* (pp. 275–304). Amsterdam/Philadelphia: John Benjamins.

Peña-Cervel, M. S., & Ruiz de Mendoza, F.J. (2022). *Figuring out Figuration: A cognitive linguistic account*. Amsterdam/Philadelphia: John Benjamins.

Ruiz de Mendoza, F. J., & Galera, A. (2014). *Cognitive Modeling. A linguistic perspective*. Amsterdam/Philadelphia: John Benjamins.

UNDERSTANDING METAPHOR AND METONYMY IN BIOMEDICINE

Javier Herrero-Ruiz (Polytechnic University of Madrid, Spain)
javier.herrero@upm.es
Cristina Zimbroianu (Polytechnic University of Madrid, Spain)
cristina.zimbroianu@upm.es

Within Cognitive Linguistics, various metaphors and metonymies from the realm of Medicine have been described (appertaining to the domains of the military, mechanics, agriculture, sport, etc.). By extending the analytical scope to the biomedical field, in this proposal we have identified new metaphoric and metonymic mappings that, to the best of our knowledge, had not yet been described in the literature. Moreover, regarding metaphor, the instances under scrutiny range from more local cases (grounded in specific notions or concepts with a particular purpose, such as DNA blueprint, THE BRAIN IS A MOP, INTERCONNECTED NEURONS ARE AN ORQUESTRA) to more systematic and crystallized examples in the discipline subject to study (e.g., GENETIC ENGINEERING IS EDITING A TEXT, TISSUE ENGINEERING IS CULTIVATION, the metaphors applied to the roles and functions of neurons). However, a common feature shared by all the metaphors analyzed is that they are based on the higher-level metaphor ABSTRACT IS PHYSICAL, apparently to facilitate the understanding of the complex chemical, biological and physiological processes they make reference to.

As far as metonymy is concerned, the previous studies in the literature were constrained to single mappings; our paper offers undescribed single instances, but it also expands the analytical framework by including chains and metaphtonymies. In doing so, we can explain for example how CAUSE FOR EFFECT / EFFECT FOR CAUSE underlie mappings such as MALFORMATION FOR INHERENT CONDITION (e.g., *to have trisomy 21* meaning 'to have Down syndrome'), INFECTIOUS AGENT FOR INFECTION FOR SYMPTOM/DAMAGE (e.g., *to have varicella* or *herpes*), and SYMPTOM FOR CAUSING ILLNESS (*to have ringing in the ears* meaning 'tinnitus'), or how *MRI –magnetic resonance imaging*- may refer to the physical support that contains it via the following metonymic chain: ACRONYM > PRINCIPLE OF OPERATION > TEST > resulting DIAGNOSIS > CONTAINER.

Our research was initially based on the compilation of a corpus extracted from investigation papers, specialized glossaries and dictionaries, with more than 50,000 terms. In order to identify the metaphors and metonymies subject to study, we have employed the *Metaphor Identification Procedure* (*MIP,* cf., Steen, 2004; Steen et al., 2010), which consists in contrasting the items from the corpus against dictionary definitions to observe if there is a more basic sense than the one used in the original text.

Finally, our investigation confirms that the presence of metonymy in the biomedical discourse is not negligible compared to that of metaphor and that, while metaphors and metonymies can be powerful tools for communicating complex biomedical concepts, they also require a deep understanding to ensure that the subtleties and complexity of the scientific processes are properly communicated. This is crucial since certain metaphoric and metonymic constructions may result in conceptual mistakes or in information loss.

References

Steen, G. (2004). Can discourse properties of metaphor affect metaphor recognition? *Journal of Pragmatics, 36*(7), 295–313.

Steen, G., Aletta G. D., J. Berenike Herrmann, A., A. Kaal, T. K., & Trijntje, P. (2010). *A Method for Linguistic Metaphor Identification: From MIP to MIPVU.* Amsterdam/Philadelphia: John Benjamins.

COGNITIVE AND LINGUISTIC FOUNDATIONS OF EMPATHY: A PERSPECTIVE FOR LANGUAGE GENERATION SYSTEMS

Irina Iwanowa-Micewicz (Warsaw School of Computer Science, Poland)
imicewicz@wwsi.edu.pl

The present research focuses on the analysis of the phenomenon of empathy within the framework of linguistic modelling, with particular attention paid to its hierarchical organisation as postulated by S. Kuno (1975, 1976, 1977). The study addresses the correlation between psychological and linguistic empathy, establishing their substantial interrelation and tracing its manifestation in the mechanisms of surface structure formation. Empathy is considered a cognitive ability enabling the speaker to adopt another participant's perspective, influencing both the selection of linguistic means and the structuring of the significative configuration of the sentence.

The research is conducted within the framework of compositional syntax, which recognises the non-isomorphism of the denotative and significative aspects of sentence semantics and the necessity of their correlation. The functioning of empathy at different stages of speech production is analysed, from the cognitive modelling of the denotative domain to the selection of elements for their representation in the surface structure. The study compares psychological empathy, associated with emotional responsiveness, and linguistic empathy, responsible for determining the speaker's point of view in verbalising fragments of extra-linguistic reality.

The methodological basis of the research includes the analysis of the hierarchy of the speech act, the topic hierarchy, the anaphoricity hierarchy, the surface structure hierarchy, and the hierarchy of humanity. Each hierarchy regulates the selection of the centre of empathy and determines the priorities in syntactic organisation. It is shown that the choice of the centre of empathy is governed by cognitive and pragmatic factors.

The structural correspondence between the empathy hierarchies and the taxonomy of the natural world (Porphyry's tree) is identified, highlighting the universal mechanisms of cognitive categorisation and their influence on the semantic configuration of the sentence. The prioritisation of human referents over animate and inanimate entities reflects a fundamental pattern in the structuring of denotative domains.

The main conclusion of the research is that the selected perspective of studying empathy provides grounds for developing an algorithm for the selection of the centre of empathy as the starting point for constructing the significative structure. The proposed algorithm may be applied in the field of artificial intelligence for automatic generation of

syntactically and pragmatically relevant utterances. The algorithm relies on a multi-level prioritisation system: initially determining the referent's status within the hierarchy of the speech act (speaker > addressee > third party), followed by its status within the topic hierarchy (given > new information), the hierarchy of humanity (human > animate > inanimate), and finally the syntactic structure (subject > object > passive agent).

The findings of the study contribute to the understanding of empathy as an integral category encompassing cognitive, pragmatic, syntactic, and psychological dimensions of speech activity. By formalising the choice of the centre of empathy and the subsequent modelling of the surface structure, they reveal the prospects of applying linguistic models of empathy in artificial intelligence systems of natural language generation that simulate human-like communication.

References

Kuno, S. (1975). Three perspectives in the functional approach to syntax. *Papers from the Parasession on Functionalism* (pp. 276–336). Chicago Linguistic Society, Chicago.

Kuno, S. (1976). Subject, theme and the speaker's empathy – A re-examination of relativisation phenomena. In C.N. Li (Ed.), *Subject and Topic* (pp. 417–444). New York: Academic Press.

Kuno, S., & Etsuko K. (1977). Empathy and syntax. *Linguistic Inquiry*, *8*(4), 627–672.

ORTHONTOLOGY: DEVELOPMENT OF AN ONTOLOGY FOR THE ORTHOPEDIC DOMAIN

Linxi Jiang (Polytechnic University of Valencia, Spain)
ljiang1@upv.edu.es

In recent years, clinical decision support systems (*CDSS*) have become increasingly embedded in medical practice, aiming to improve the efficiency and quality of healthcare services. Their development has been significantly driven by the widespread adoption of electronic health records (*EHRs*) and the growing amount of scientifically validated medical knowledge (Chandak et al., 2023). *EHRs* contain a wide range of patient-specific data, including diagnostic descriptions, radiology reports, treatment outcomes and much of them are expressed in natural language. At the same time, domain knowledge in orthopedics covers complex anatomical structures, musculoskeletal diseases and disorders, phenotypic traits, and clinical findings.

Effectively leveraging this heterogeneous and linguistically rich data requires robust methods for semantic integration. Ontologies, as formal and structured representations of domain knowledge, play a crucial role in enabling interoperability between *EHRs*, clinical reasoning systems, and medical terminologies (Dissanayake et al., 2020)

In this context, the objective of this presentation is to describe the design and development of *ORTHONTOLOGY*, an ontology of musculoskeletal diseases, which serves as a foundation for the integration of clinical data and the exploration of medical knowledge within this domain. The development of this ontology follows the methodology *METHONTOLOGY* (Fernández-López et al., 1997) and is based on several biomedical ontologies from the *OBO Foundry* (Smith et al., 2007), specifically: *BFO* (Otte et al., 2022), *IAO* (Smith et al., 2013), *FMA* (Rosse & Mejino, 2008), *DOID* (Schriml et al., 2012), *SYMP* (Mohammed et al., 2012), *HP* (Köhler et al., 2021) and *RadLex* (Spanier et al., 2017), along with two medical terminologies: *SNOMED CT* (Donnelly, 2006) and *NCIT* (Coronado et al., 2023).

From these source ontologies, relevant classes and properties have been selected and reused in *ORTHONTOLOGY*. The ontology focuses on diseases affecting anatomical structures such as bones, joints, ligaments, cartilages, and tendons. It also integrates concepts related to symptoms, medical examinations, and clinical manifestations of these conditions. Additionally, object properties from the Relation Ontology (*RO*) (Wildman, 2010) are reused to define the relationships between disease, symptom, medical examination, diagnosis, and treatment.

To this end, a corpus of hospital discharge summaries has been compiled from the *MIMIC-IV-Ext-BHC* dataset (Aali et al., 2024). The *NCBO Annotator* (Martínez-Romero et al., 2017) was used for semantic annotation, with the aim of extracting relevant concepts from clinical texts. The integration of these concepts into the core of *ORTHONTOLOGY* will enhance the ontology's potential in the development of artificial intelligence systems designed to support clinical decision-making.

References

Aali, A., Van Veen, D., Arefeen, Y., Hom, J., Bluethgen, C., Reis, E. P., Gatidis, S., Clifford, N., Daws, J., Tehrani, A., Kim, J., & Chaudhari, A. (2025). MIMIC-IV-Ext-BHC: Labeled Clinical Notes Dataset for Hospital Course Summarization. *PhysioNet*. https://doi.org/10.13026/5gte-bv70.

Chandak, P., Huang, K., & Zitnik, M. (2023). Building a knowledge graph to enable precision medicine. *Scientific Data*, *10*(1), 67.

Coronado, S., Remennik, L., & Elkin, P. L. (2023). National cancer institute thesaurus (NCIt). In *Terminology, Ontology and their Implementations* (pp. 395–441). Cham: Springer International Publishing.

Dissanayake, P.I., Colicchio, T.K., & Cimino, J.J. (2020). Using clinical reasoning ontologies to make smarter clinical decision support systems: a systematic review and data synthesis. *Journal of the American Medical Informatics Association*, *27*(1), 159–174.

Donnelly, K. (2006). SNOMED-CT: The advanced terminology and coding system for eHealth. *Studies in Health Technology and Informatics*, *121*, 279.

Fernández-López, M., Gómez-Pérez, A., & Juristo Juzgado, N. (1997). Methontology: from ontological art towards ontological engineering. *Papers from the 1997 AAAI Spring Symposium*.

Köhler, S., Gargano, M., Matentzoglu, N., Carmody, L.C., Lewis-Smith, D., Vasilevsky, N. A., & Robinson, P.N. (2021). The human phenotype ontology in 2021. *Nucleic acids research*, *49* (D1), D1207-D1217.

Martínez-Romero, M., Jonquet, C., O'Connor, M. J., Graybeal, J., Pazos, A., Musen, M. A. (2017). NCBO Ontology Recommender 2.0: An Enhanced Approach for Biomedical Ontology Recommendation. *Journal of Biomedical Semantics*, *8*(21), 1–22

Mohammed, O., Benlamri, R., & Fong, S. (2012). Building a diseases symptoms ontology for medical diagnosis: an integrative approach. In *The First International Conference on Future Generation Communication Technologies* (pp. 104–108). IEEE.

Otte, J. N., Beverley, J., & Ruttenberg, A. (2022). BFO: Basic formal ontology. *Applied ontology*, *17*(1), 17–43.

Rosse, C., & Mejino Jr., J.L. (2008). The foundational model of anatomy ontology. In A. Burger, D. Davidson, & R. Baldock (Eds.), *Anatomy Ontologies for Bioinformatics: Principles and practice* (pp. 59–117). London: Springer London.

Schriml, L.M. et al. (2007). The OBO Foundry: coordinated evolution of ontologies to support biomedical data integration. *Nature Biotechnology*, *25*(11), 1251–1255.

Smith, B. et al. (2013). *IAO-Intel: An ontology of information artifacts in the intelligence domain.* In K. Blackmond Laskey, I. Emmons, & P.C.G. Costa (Eds.), *Proceedings of the Eighth International Conference on Semantic Technologies for Intelligence, Defense, and Security* (STIDS) (pp. 33-40), CEUR, vol. 1097.

Spanier, A.B., Cohen, D., & Joskowicz, L. (2017). A new method for the automatic retrieval of medical cases based on the RadLex ontology. *International Journal of Computer Assisted Radiology and Surgery*, *12*, 471–484.

Wildman, W.J. (2010). An introduction to relational ontology. In J.C. Polkinghorne (Ed.), *The Trinity and an Entangled World: Relationality in physical science and theology* (pp. 55–73). Cambridge: Eerdmans.

AN INTEGRATED REPRESENTATION OF ABLAUT TWIN FORMS IN ENGLISH

Masaru Kanetani (University of Tsukuba, Japan)
kanetani.masaru.gb@u.tsukuba.ac.jp

Due to their characteristic forms and expressive meanings, ablaut twin forms in English (e.g., *chitchat*) are sometimes viewed as outlier examples of ideophones (Haiman, 2018). *Outlier*, because they are neither analog productions, histrionic performance, nor accompanied by gestures (ibid.: 69). In this study, claiming that they are *not* ideophones (except for onomatopoeic words, e.g., *ding-dong*), we discuss their grammatical status and propose integrated representations of their form-meaning correspondences. Specifically, it is shown that their grammatical knowledge can be best represented in terms of Relational Morphology (Jackendoff & Audring, 2020). While expressive connotations are associated with "extra-grammatical" (Mattiello, 2013) phonological forms, ablaut twin forms in English are claimed to be categorially plain words. To explain this double-faced characteristic, Mattiello's (2013: 310–320) list containing 106 ablaut twin forms is investigated, and Relational Morphology templates are employed to describe the words' form-meaning correspondences. For example, the word *chitchat* in (1a) is categorized as a noun by the relational link (coindex 1) between the word's basis and the nominal lexeme *chat* in (1b).

(1)	a. *chitchat*	b. *chat*
Semantics:	$[\text{IDLE TALK}_1]_3$	TALK_1
Morphosyntax:	N_1	N_1
Phonology:	$/\text{tʃɪt}_2\text{-tʃæt}_1/_3$	$/\text{tʃæt}/_1$

Most words in Mattiello's list are also categorized as nouns, verbs, and adjectives, according to their base elements; it is these categorial specifications that account for their non-ideophonicity. The relational link in (1) also indicates that *chitchat* retains basically the same "denotative meaning" (Mattiello, 2013: 161) as *chat* (coindex 1 in semantics). Coindex 3 notates that the addition of /tʃɪt/, an element created in phonology simply by replacing a vowel of its basis /tʃæt/, makes the whole word sound expressive and brings about a "playful" (Marchand 1969: 435) connotation, although it does not affect morphosyntax. According to Marchant (1969), while more than half of the twin forms have the second element for a basis, there are also words motivated by the first element (e.g., *mingle-mangle*) and words motivated by both elements (e.g., *fiddle-faddle*); the element containing a higher vowel precedes that with a lower one. Thus, the ablaut twin

forms are schematized as in (2).

(2) *Ablaut reduplication schema*

Semantics: [Exp. "β"$_x$]$_z$

Morphosyntax: Cat. β_x

Phonology: /($_\alpha$…V_α…$_y$) $_\beta$…V_β…$_x$ ($_\alpha$…V_α…$_y$)/$_z$

The base element is relationally linked to the lexeme β, which determines the syntactic category of the twin form (notated as "Cat[tegory of] β" in morphosyntax). The element α, which is systematically created in phonology by replacing V[owel]$_\beta$ of the lexeme β with V_α and indexed as y, neither affects morphosyntax nor conveys logical meaning. Coindex z notates that the combination of α and β in phonology is associated with the Exp[ressive] connotation added to the denotative meaning "β" in semantics. Once this schema is established, it can sanction "rare" (or nonce) words (e.g., *fible-fable* (Hladký, 1998, p. 60)) and a relatively "small number" of words without a basis (e.g., *flimflam* (Marchant, 1969, p. 432)). In some cases, only after a twin form was sanctioned by the schema did a base-like word emerge from the paradigmatic relationship between them (e.g., *flimflam* > *flam*).

References

Haiman, J. (2018). *Ideophones and the Evolution of Language*. Cambridge: Cambridge University Press.

Hladký, J. (1998). Notes on reduplicative words in English. *Brno Studies in English, 24*, 33–78.

Jackendoff, R., & Audring. J. (2020). *The Texture of the Lexicon: Relational morphology and the parallel architecture*. Oxford: Oxford University Press.

Marchand, H. (1969). *The Categories and Types of Present-day English Word Formation: A synchronic diachronic approach*. Munich: Beck.

Mattiello, E. (2013). *Extra-grammatical Morphology in English: Abbreviations, blends, reduplicatives, and related phenomena*. Berlin/Boston: De Gruyter.

ZOONYMS AS BOUNDARY OBJECTS: THE CASE OF KOREAN METAPHORICAL BUG NAMES IN POPULAR SCIENCE TEXTS

Jakub Krzosek (SWPS University, Poland)
jkrzosek@swps.edu.pl

Linguistic meaning can be seen as a sort of repository of anthropocentric and common-sense knowledge (Krawczyk, 1989: 29-31). This is evident in the way metaphor is used in linguistic conceptualizations: it references everyday experience of the world reflected in language to give structure to more abstract or complex ideas. Authors of Korean popular science texts on bugs have been exploiting this fact to fulfill the goals of science communication. They recognize certain components of bug names as representative of the source domain of a metaphor and come up with folk-etymology-like (synchronic and not evidence-based) interpretations of the names to convey knowledge of the beings in question to lay public. For example, in the name *mudangbŏlle* ('ladybug') the component *mudang* ('shaman') is often understood as representing the colorful garments typically worn by Korean shamans. This culture-specific knowledge gets projected onto the ladybug's coloring within the target domain.

It is possible then to see Korean bug names deemed metaphorical as a type of boundary objects, that is, objects facilitating cooperation between at least two social worlds without the need for full consensus (Star & Griesemer, 1989: 393). The author's persona is a specialist in the field of entomology or arachnology, whereas the readers' various areas of expertise may not have much in common with bugs. However, both parties belong to the same linguistic community, and thus linguistic expressions become shared points of reference and means to bridge the expertise gap. The act of using metaphorical bug names as boundary objects positions the authors closer to the CUSP (Critical Understanding of Science in Public) model of science communication. Within this model science communicators are "knowledgeable peers whose goal is to share what they know" (Perrault, 2010: 29–31).

Korean metaphorical bug names will be examined towards establishing their morphological and lexical traits. The folk-etymology-like descriptions referencing them will be used to showcase various instances of conceptualization. Finally, the bug name - description pairs will be discussed as to whether they display the basic traits of boundary objects that can be summed up as commonality, specificity in local use, and interpretative flexibility (Star, 2010: 602-605).

References

Krawczyk, A. (1989). Język Źródłem Wiedzy o Człowieku. *Etnolingwistyka*, *2*, 29–38.

Perrault, S.T. (2013). *Communicating Popular Science*. London: Palgrave Macmillan UK.

Star, S.L. (2010). This is not a boundary object: Reflections on the origin of a concept. *Science, Technology, & Human Values, 35*(5), 601–617.

Star, S.L., & Griesemer, J.R. (1989). Institutional ecology, 'translations' and boundary objects: Amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39, *Social Studies of Science 19*(3),387–420.

OPERATIONALIZING A MEANING-BASED APPROACH TO ANALYZE L2 WRITING COMPLEXITY

Timothy William Lawrence (University of Cantabria, Spain)
timothy.lawrence@unican.es

This study explores fine-grained meaning-based complexity measures as a complement to traditional syntactic complexity measures in L2 writing research. It specifically examines if L2 English and Spanish learners use parataxis as an indicator of complexity at beginner proficiency levels and hypotaxis as a sign of complexity at intermediate proficiency levels. Utilizing 10,871 texts extracted from the *Education First-Cambridge Open Language Database*, *Corpus escrito del español L2*, and *Corpus de aprendices de español*, this study examines meaning-making through systemic-functional linguistics to analyze two rankshifted levels employing 90 measures. Despite different L1 backgrounds, the analysis found significant differences with learners using subordination through hypotaxis with increasing frequency from beginner to lower advanced levels. One unique finding was three adverbial subordinators with equivalent translations augmented frequency in hypotaxis and enhancement in proficiency levels from A1 through to C1. Data indicated L2 English learners use of parataxis separated beginner from intermediate levels. The analysis revealed parataxis failed to differentiate proficiency levels in Spanish L2 texts. The frequency of parataxis in L2 English and Spanish texts was influenced by a single coordinator which had a notable impact on findings. Pedagogical insights can play a pivotal role in shaping meaning-based L2 writing education and research.

COMPARATIVE STUDY OF CLEFT SENTENCES IN MANDARIN CHINESE AND SPANISH USING LEXICAL-FUNCTIONAL GRAMMAR (LFG)

Tong Liu (University of Seville, Spain)
tonliu@alum.us.es

Lexical-Functional Grammar (*LFG*), developed by Joan Bresnan and Ron Kaplan in the 1970s, provides a theoretical framework for linguistic analysis and natural language processing (Asudeh & Toivonen, 2010: 425). It emphasizes the distinction between c-structure, which represents constituent organization, and f-structure, which encodes grammatical functions like subject and object (Sells, 1989: 129-30). The lexical component is crucial, influencing predicate valency and argument structure cross-linguistically, as seen in Spanish active-passive alternations (Sells, 1989: 130).

Otherwise, the a-structure deals with the relationship between thematic roles and grammatical functions. The a-structure provides a list of thematic roles, to which additional semantic and lexical information is added. *LFG*'s Lexical Mapping Theory (*LMT*) explains how thematic roles (agent, patient, etc.) are assigned to grammatical functions across languages. These roles are hierarchically ranked, but scholars debate their precise ordering, particularly regarding the experiencer and recipient (Börjars, 2019: 177–78; Bresnan et al., 2016: 329; Lødrup, 2011: 146). In English, Spanish, and other languages, predicates typically assign an agent to the subject and a patient to the object (*LMT framework*).

This study aims to examine topic and focus distinctions in Mandarin Chinese and Spanish, with a focus on cleft constructions in Spanish, where the copula introduces the focalized element (Gutiérrez Bravo, 2021: 359-92). Mandarin Chinese, in contrast, employs topicalization strategies and the "是…的 (shì...de)" structure to emphasize specific constituents (He, 2012: 22-38; Zhang, 2018: 1070-1072). Spanish clefts are classified based on constituent order, distinguishing standard, pseudocleft, and inverted pseudocleft sentences, while Mandarin features standard clefts, pseudo-clefts, and variant clefts, influenced by the particle "的 (de)" (He, 2012: 56-57; Tang, 1980: 180).

Unlike Spanish, Mandarin Chinese employs contrastive topics that introduce new information while maintaining discourse cohesion (Shyu, 2016: 518-76). The "是…的 (shì...de)" structure functions as a binomial construction, where the first part corresponds to presupposition and the second to informational focus (Tang, 1980: 179). Cross-linguistic comparisons reveal that both languages use topics as discourse frames, illustrating part-whole relationships and temporal references in sentence structures (Li & Thompson, 1989: 86-91; Shyu, 2016: 523).

Through syntactic and pragmatic analysis, this research highlights the structural and functional differences between Mandarin and Spanish emphatic constructions, demonstrating how each language encodes information prominence within its linguistic system.

References

Asudeh, A., & Toivonen, I. (2010). Lexical-Functional Grammar. In B. Heine & H. Narrog (Eds.), *The Oxford Handbook of Linguistic Analysis* (pp. 452–485). Oxford: Oxford University Press.

Börjars, K. (2019). *Lexical-Functional Grammar: An introduction*. Cambridge: Cambridge University Press.

Bresnan, J., Asudeh, A., Toivonen, I., & Wechsler, S. (2016). *Lexical-Functional Syntax*, 2nd ed. Oxford: Wiley-Blackwell.

Gutiérrez Bravo, R. (2021). Las oraciones pseudohendidas en español: Sintaxis y propiedades informativas. *Colección Gramática del Español*, *18*, 359–392.

He, W. (2012). 现代汉语“是”字强调句研究 *Stressed Sentence with 'Yes' in Modern Chinese Language*. China Social Sciences Press.

Kroeger, P. (2004) *Analyzing Syntax: A Lexical-Functional approach*. Cambridge: Cambridge University Press.

Li, Ch.N. (1986). Direct speech and indirect speech: A functional study. In F. Coulmas (Ed.), *Direct and Indirect Speech* (pp. 29–45). Berlin/New York: Mouton de Gruyter.

Li, Ch.N., & Thompson, S.A. (1989). *Mandarin Chinese: A Functional Reference Grammar.* University of California Press.

Lødrup, H. (2011). Lexical-Functional Grammar: Functional Structure. In R. Borsley, & K. Börjars (Eds.), *Non-Transformational Syntax: Formal and explicit models of grammar* (pp. 141–180). Oxford: Wiley-Blackwell.

Matthews, S., & Yip, V. (2016). Relative constructions. In Ch. Huang, & D. Shi (Eds.), *A Reference Grammar of Chinese* (pp. 256–275). Cambridge: Cambridge University Press.

Sells, P. (1989). *Teorías sintácticas actuales: GB, GPSG, LFG*. Barcelona: Teide.

Shyu, Sh. (2016). Information structure. In J. Huang, & S. Shi (Eds.), *A Reference Grammar of Chinese* (pp. 518–576). Cambridge: Cambridge University Press.

Tang, T.-C. (1980). Constraints on cleft, variant-cleft, and pseudo-cleft constructions in Chinese. *Teaching and Research*, *2*(6), 177–204.

Zhang, Ch. (2018). Análisis sintáctico y pragmático de estructuras enfáticas: Comparación entre español y chino. *Monográficos Sinoele*, *17*, 1063–1075.

ECHOING FROM A COGNITIVE-MODELING PERSPECTIVE

Inés Lozano-Palacio (Polytechnic University of Valencia, Spain)
ilozpal@upv.edu.es
Francisco José Ruiz de Mendoza Ibáñez (University of La Rioja, Spain)
francisco.ruizdemendoza@unirioja.es

Relevance Theory posits that verbal irony is based on echoic mention (i.e., the interpretive repetition of a previous thought or utterance) (Sperber & Wilson, 1995). For instance, the utterance *Archie? Sure he's a good boy!*, in a context where Archie has been misbehaving, echoes what the speaker perceives as an erroneous belief about the child's behaviour (cf. Wilson & Sperber, 2012). Cognitive modeling, however, has expanded this notion by demonstrating that echoing is not exclusive to irony and by ascribing to it the status of a cognitive operation (Galera, 2020).

Echoing appears in reported speech. For example, in *Dolores said that Juan's presentation was the worst of all*, the speaker reproduces Dolores' belief. It also manifests in descriptive expressions that encapsulate a characteristic of the object to which they apply. An example is the sentence *I can't deal with you anymore* when given modifier status in *My dad had an I-can't-deal-with-you-anymore face when he saw what I had done,* where this complex ad-hoc modifier is echoic of what the father said or is presumed to have thought. Regarding verbal irony, cognitive modeling positions echoing as central to it, arguing that it constructs an echoic scenario that clashes with reality while feigning agreement. In the first example above, the speaker echoes a belief about Archie's behavior, pretends to endorse it, and then highlights its discrepancy with reality to express dissociation.

This presentation examines echoing from a cognitive-modeling perspective, analyzing over 200 instances of ironic and non-ironic echoes to provide a multifaceted view of the phenomenon. The study focuses on four key dimensions: (1) implicitness, (2) completeness, (3) conceptual complexity, and (4) accuracy.

Implicitness measures how absent echoed material shapes its communicative impact. In a situation where a husband offers help to his wife with some chores and she, suspecting that he simply wants to cajole her into intimacy, replies *Well, not today; I have a headache*, this statement echoes the implicature derived from her husband's move.

Completeness (total or partial) depends on focal prominence (Ruiz de Mendoza, 2017). Take a supervisor who is late to every meeting with students. When he tells one of them

I'll be with you to discuss your new thesis chapter at 5pm tomorrow, the student skeptically replies *Yeah, right, at 5pm tomorrow.*

Complexity focuses on the intricacy of the echoic elaboration. We will discuss echoic cumulation, echoic compounding and echoic chains. For instance, in cumulation, the speaker strengthens the impact of an utterance by listing succession synonymous expressions that echo a single thought: *She's an angel, a saint, a real treasure.*

(In)accuracy controls the range of meaning implications arising from the echo in a cognitively economic way (Ruiz de Mendoza & Barreras, 2022); e.g., a situation where a lazy employee says: *Alright, let's get started! Hands on deck* and a skeptical fellow worker replies *Right… hand on deck.*

By applying these criteria, the study offers a more systematic and refined analysis of echoing than previous research, thus advancing the cognitive modeling framework.

References

Galera, A. (2020). The role of echoing in meaning construction and interpretation. A cognitive-linguistic perspective. *Review of Cognitive Linguistics, 18*(1), 19–41.

Ruiz de Mendoza, F. J. (2017). Cognitive modeling and irony. In A. Athanasiadou, & H. Colston (Eds.), *Irony in Language Use and Communication* (pp. 179–200). Amsterdam/Philadelphia: John Benjamins.

Ruiz de Mendoza, F. J., & Barreras, A. (2022). Linguistic and metalinguistic resemblance. In A. Bagasheva, B. Hristov, & N. Tincheva (Eds.), *Figurativity and Human Ecology* (pp.15–41). Amsterdam/Philadelphia: John Benjamins.

Sperber, D., & Wilson, D. (1995). *Relevance. Communication and cognition*. Oxford: Basil Blackwell.

Wilson, D., & Sperber, D. (2012). Explaining irony. In D. Wilson & D. Sperber, (Eds.), *Meaning and Relevance* (pp. 123–145). Cambridge: Cambridge University Press.

CAUSATIVE PROCESSES OR CAUSATIVE ACCOMPLISHMENTS? ON THE SEMANTICS OF THE VERBS *CLARIFY*, *COMPLICATE* AND *CONFUSE* FROM A FORMALIZED LEXICAL-CONSTRUCTIONAL GRAMMAR PERSPECTIVE

Federico José Martín-Padrón (University of La Laguna, Spain)
fmartinp@ull.edu.es

This paper proposal deals with the semantics of a subgroup of cognitive verbs in English: *clarify*, *complicate* and *confuse*. These predicates are of special interest because they lexicalize different areas of meaning that are interrelated. While *clarify* conveys "To cause something to be understood better", *complicate* realizes the meaning "To cause something to be understood with difficulty". On the other hand, *confuse* involves "To cause somebody not to understand/understand with difficulty". As seen, these predicates share two basic characteristics: (i) they are causative verbs, and (ii) they have a common semantic core that relates to the notion of understanding. However, one of the main aspects in which they diverge concerns the semantic type of the affected entity by the verb, as it can be a *something* or *someone*. It is the objective of this research to examine the semantic configuration of each predicate so that the implications of such variations in meaning can be properly described and accounted for. For this, it is essential to explore and determine their lexical aspects. The proposed analysis employs the Formalized Lexical-Constructional Grammar (Cortés-Rodríguez, 2021; Cortés-Rodríguez & Díaz-Galán, 2023, 2024; henceforth FL_CxG) as theoretical framework. This novel grammar is a formalization of two other theories: Role and Reference Grammar (Van Valin & LaPolla, 1997; Van Valin, 2005, 2023; RRG) and the Lexical-Constructional Model (Mairal & Ruiz de Mendoza, 2009; Ruiz de Mendoza & Mairal, 2008, 2011; LCM). The FL_CxG follows RRG's lexical aspect theory, which recognizes different verb classes depending on certain internal features, resulting in: states, activities, achievements, accomplishments, semelfactives, active accomplishments, and processes (cf. Van Valin, 2023), as well as their causative counterparts. Throughout the analysis, I argue in favor of *confuse* as causative accomplishment, whereas the verbs *clarify* and *complicate* show the characteristics of causative processes. The lexical-semantic information of each predicate is described through Attribute-Value Matrixes (AVMs), which are the constraint-based representational tools employed by the FL_CxG. These lexical AVMs include a semantic prime for meaning representation and lexical decomposition, as well as the semantic structures of the Generative Lexicon (Pustejovsky, 1995; GL), consisting of argument, event, and qualia structures. By doing this, a highly enriched system of semantic representation is proposed, one that is robust enough to capture the lexical generalizations and specificities of *clarify*, *complicate* and *confuse*.

References

Cortés-Rodríguez, F.J. (2021). La Gramática Formalizada Léxico-Construccional: Aspectos generales. In J.L. Herrera Santana, & A. Díaz-Galán (Eds.), *Aportaciones al estudio de las lenguas: Perspectivas teóricas y aplicadas* (pp. 91–108). Berlin: Peter Lang.

Cortés-Rodríguez, F. J., & Díaz-Galán, A. (2023). The lexical constructional model meets syntax: Guidelines of the formalized lexical-constructional model (FL_CxG). *Revista de Lingüística y Lenguas Aplicadas*, *18*, 49–70.

Cortés-Rodríguez, F. J., & Díaz-Galán, A. (2024). Estructuras de rasgos y construcciones en la Gramática Formalizada Léxico- Construccional. In F. Domínguez Santana & J. L. Herrera Santana (Eds.), *Dinámicas actuales en la investigación lingüística. Teoría y aplicación* (pp. 45–62). Berlin: Peter Lang.

Mairal Usón, R., & Ruiz de Mendoza Ibáñez, F.J. (2009). Levels of description and explanation in meaning construction. In C.S. Butler, & J. Martín-Arista (Eds.), *Deconstructing Constructions* (pp. 153–198). Amsterdam/Philadelphia: John Benjamins.

Pustejovsky, J. (1995). *The Generative Lexicon*. Cambridge, MA: MIT Press.

Ruiz de Mendoza Ibáñez, F.J., & Mairal Usón, R. (2008). Levels of description and constraining factors in meaning construction: an introduction to the Lexical Constructional Model. *Folia Linguistica*, *42*(3–4), 355–400.

Ruiz de Mendoza Ibáñez, F.J., & Mairal Usón, R. (2011). Constraints on syntactic alternation: Lexical-constructional subsumption in the Lexical-Constructional Model. In P. Guerrero Medina (Ed.), *Morphosyntactic Alternations in English. Functional and Cognitive Perspectives* (pp. 62–82). London: Equinox.

Van Valin, R.D. Jr. (2005). *Exploring the Syntax-Semantics Interface*. Cambridge: Cambridge University Press.

Van Valin, R.D. Jr. (2023). Principles of Role and Reference Grammar. In D. Bentley, R. Mairal Usón, W. Nakamura, & R. D. Jr. Van Valin (Eds.), *The Cambridge Handbook of Role and Reference Grammar* (pp. 17–178). Cambridge: Cambridge University Press.

Van Valin, R.D. Jr., & LaPolla, R.J. (1997). *Syntax. Structure, meaning and function*. Cambridge: Cambridge University Press.

CROSS-CULTURAL ASPECT OF NATURAL LANGUAGE UNDERSTANDING: EXPLORING LINGUISTIC VARIATION IN SENTIMENT EXPRESSION

Rashid Mustafin (Norwegian School of Economics, Norway)
rashid.mustafin@nhh.no

The cross-cultural aspect must be a significant factor for consideration when developing and applying language technologies, as the conventions of how people express ideas can vary across cultures—even when a lingua franca is used. While natural language processing (NLP) techniques are advancing rapidly, the integration of more computationally complex approaches has widened the gap between the NLP community and researchers in the humanities and social sciences. One particularly challenging issue is overlooking cross-cultural factors in text and speech processing.

Although recent studies have begun to explore the intersection of advanced NLP and cross-cultural analysis (Belay et al., 2025; Hershcovich et al., 2022; Hovy & Yang, 2021; Shi et al., 2024), this research direction remains in its early stages, and many questions are still unanswered. In particular, little is known about how cultural variation influences the way opinions are interpreted by computational models. This study addresses that gap by examining the role of cross-cultural differences in opinion expression within natural language understanding, using a dataset of 68,000 accommodation reviews based on the publicly available Booking.com dataset. The research question is whether the influence of cultural norms of communication and linguistic conventions is strong enough to cause inconsistencies in computational interpretation of sentiment in user-generated texts.

The dataset was labelled by BERT-based (NLPTown) and dictionary-based (VADER) sentiment analysis models in order to track the correlations between the sentiment intensity and the guests' countries of origin. The Kruskal-Wallis test demonstrated that there are statistically significant differences in sentiment intensity between countries. The feature selection algorithm RReliefF placed the guests' countries of origin as the top variable that predicts the VADER scores, which reinforces the findings that country-level differences play a major role in shaping sentiment expression. In addition, Fisher's r-to-z transformation was used in order to compare the correlations between the sentiment intensity of the textual reviews and the respective numeric rating scores. The analysis showed that for some countries these correlations are stronger than for others, which might mean that the representatives of certain cultures are more reserved in opinion expression even if they give a very high or a very low rating in a ten-point rating scale. The results of this work can serve as a starting point for a broader discussion about the

impact of cultural differences on opinion expression and how this impact can be taken into account in the process of creating and using language technologies.

References

Belay, T.D., et al. (2025). *CULEMO: Cultural Lenses on Emotion — Benchmarking LLMs for Cross-Cultural Emotion Understanding*. arXiv preprint. arXiv:2503.10688

Hershcovich, D., et al. (2022). Challenges and strategies in cross-cultural NLP. In S. Muresan, P. Nakov, & A. Villavicencio (Eds.), *Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics* (Vol.1: Long Papers, pp. 6997–7013). Association for Computational Linguistics. https://doi.org/10.18653/v1/2022.acl-long.482

Hovy, D., & Yang, D. (2021). The importance of modeling social factors of language: Theory and practice. In K. Toutanova et al. (Eds.), *Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies* (pp. 588–602). Association for Computational Linguistics. https://doi.org/10.18653/v1/2021.naacl-main.49

Shi, W. et al. (2024). CultureBank: An online community-driven knowledge base towards culturally aware language technologies. In Y. Al-Onaizan, M. Bansal, & Y-N. Chen (Eds.), *Proceedings of the Conference on Empirical Methods in Natural Language Processing* (pp. 4996-5025). Association for Computational Linguistics. https://doi.org/10.18653/v1/2024.findings-emnlp.288

A CROSS-LINGUISTIC APPROACH TO THE COGNITIVE SUBSTRATUM OF LEXICAL BLENDING

Carla Ovejas Ramírez (University of La Rioja, Spain)
carla.ovejas@unirioja.es

The rapid expansion of digital communication and globalization has significantly reshaped the linguistic landscape, eroding traditional language boundaries and fostering increased lexical innovation across languages. One direct consequence of this linguistic convergence is the rising prominence of word-formation processes that were once peripheral in certain languages. In Spanish, lexical blending—a process where parts of two or more words are merged, with at least one undergoing non-canonical truncation—has emerged as a productive strategy for the creation of new words (Ovejas, 2024). In the English language, several authors have explored this phenomenon (see Algeo, 1977; Arndt-Lappe & Plag, 2013; Baliaeva, 2014; Balteiro & Bauer, 2019; Mattiello, 2019; Peña, 2022, among others.)

This study offers a cross-linguistic analysis of the cognitive substratum underpinning lexical blending in Spanish and English. Drawing on a corpus of 200 Spanish blends collected from the *Banco de Neologismos* (2016–2020), and 199 English lexical blends (Peña, 2022), we categorize the data by blend type—endocentric (e.g., *sexilio* < *sexo* 'sex' + *exilio* 'exile'), exocentric (e.g., *redneck*), and dvandva (e.g., *glocal* < *global* + *local*)—and by morphosyntactic structure (e.g., noun + noun in *firmatón* < *firma* 'signature' + *maratón* 'marathon'). Beyond formal properties, we identify and analyze the cognitive operations (i.e., which are mental mechanism aimed at constructing a semantic representation from linguistic input to make it meaningful in context, Ruiz de Mendoza & Galera, 2014) that drive the semantic integration of the blended elements.

Parameterization appears to be the cognitive operation underlying most cases both, in English and Spanish lexical blends. Following Peña (2022), we propose different types of parameterization based on the functional relationship between the components of the blend: causal, temporal, locative, instrumental, agentive, affected entity, beneficiary, group constituency, material, topic, and purpose. These categories help elucidate the semantic motivation behind blend formation and the mental schemas that guide speakers in generating and interpreting novel blends.

Comparative analysis with English data reveals both convergences and divergences. Notably, Spanish blends show a greater tendency to incorporate adjectives as source elements—52 cases versus 25 in English (e.g., *viejoven* > *viejo* 'old' + *joven* 'young). Moreover, Spanish blends often preserve more syllabic material from their source words

than English blends, contributing to higher degrees of transparency and interpretability (e.g., *gastrocomedia* < *gastronomía* 'gastronomy' + *comedia* 'comedy'). Structurally, both Spanish and English datasets demonstrate a strong preference for endocentric and dvandva types, with no instances of exocentric blends observed in any of the corpus.

References

Algeo, J. (1977). Blends, a structural and systemic view, *American Speech*, *52*(1/2), 47–64.

Arndt-Lappe, S., & Plag, I. (2013). The role of prosodic structure in the formation of English blends, *English Language and Linguistics*, *17*(3), 357–563.

Beliaeva, N. (2014). Unpacking contemporary English blends: Morphological structure, meaning, processing. Open Access to Herenga Waka-Victoria University of Wellington. Thesis. https://doi.org/10.26686/wgtn.17008108.v1

Balteiro, I., & Bauer, L. (2019). Blending in English. *Lexis*, *Journal in English Lexicology*, *14*. https://doi.org/10.4000/lexis.1249

Mattiello, E. (2019). A corpus-based analysis of new English blends. *Lexis, 14*. https://doi.org/10.4000/lexis.3660

Ovejas-Ramírez, C. (2024). La popularización del cruce léxico en español. In M. Bermúdez, & J. Otero (Eds.), *La trama del pensamiento: Palabra, miente y belleza en la cultura contemporánea* (pp. 573–590) Madrid: Dykinson.

Peña, M.S. (2022). Lexical blending in terms of cognitive modeling. In A. Bagasheva, B. Hristov, & N. Tincheva (Eds.), *Figurativity and Human Ecology* (pp. 275–304). Amsterdam/Philadelphia: John Benjamins.

Ruiz de Mendoza, F. J., & Galera, A. (2014). *Cognitive Modeling. A linguistic perspective*. Amsterdam/Philadelphia: John Benjamins.

"CONDRAGULATIONS, YOU INVENTED A WORD!": LEXICO-GRAMMATICAL INNOVATION IN THE SPECIALIZED LANGUAGE OF DRAG

Macarena Palma Gutiérrez (University of Córdoba, Spain)
l82pagum@uco.es

This paper investigates the mechanisms of neologism formation in the language of drag as popularized by the American TV series *RuPaul's Drag Race*. Within this vibrant subcultural discourse, lexical-grammatical innovation functions as a central mechanism for constructing meaning and identity (Baker, 2002; Barrett, 1995). Central to this linguistic creativity is the prolific use of morphological processes—specifically compounding and blending—that give rise to new words charged with cultural meaning (Bauer, Lieber, & Plag, 2013; Plag, 2003). Within this domain, two splinters have emerged as especially productive in drag-specific blends, according to corpus-based analyses: *-drag-* and *Ru-*.

The splinter *-drag-*, derived from the source word *drag*, is a versatile morpheme that inserts itself into a wide range of lexical environments to generate playful, domain-specific terms such as *condragulations* (from *congratulations* + *drag*), *dragnificent* (from *drag* + *magnificent*), and *draglympics* (a blend of *drag* and *Olympics*). These blends not only embed the cultural theme of drag into standard English words, but also reframe their meanings through a lens of performance, excess, and irony. Similarly, the splinter *Ru-*—taken from the name of the show's host and creator RuPaul—functions as a proprietary prefix in terms like *Rusical* (from *RuPaul* + *musical*), *Ruveal* (from *RuPaul* + *reveal*), and *Rupocalypse* (from *RuPaul* + *apocalypse*), where it acts as both a semantic anchor and a branding device that aligns the term with the drag franchise's discursive universe. This study analyzes these two splinters, as well other productive lexico-grammatical resources within a broader system of drag discourse, which is marked by boundary-pushing linguistic practices (Barrett, 1999). Drawing on a corpus of transcripts from the TV series, the paper identifies and categorizes neologisms mainly formed through blending and compounding (Peña-Cervel, 2022a, 2022b), examines the formal and semantic patterns that underpin their creation and role in shaping a domain-specific lexicon, quantifies their productivity in terms of raw and relative frequency, and investigates their pragmatic functions in context. These neologisms are shown to encode both community-specific meanings and shared values such as self-expression, parody, and subversion (Cameron & Kulick, 2003).

Beyond their cultural salience, these lexico-grammatical innovations present theoretical interest for models of language change and creativity. The use of splinters in drag neologisms highlights the productive flexibility of English, where playful truncation and

recombination give rise to structurally unconventional yet semantically transparent forms (Gries, 2004). In addition, the sociolinguistic relevance of these terms underscores the way marginalized communities actively reshape language to reflect their experiences, values, and aesthetics.

The implications of these findings extend to the field of computational linguistics and knowledge representation. Current natural language processing (NLP) systems often struggle with informal, non-standard lexical items such as those found in drag discourse. Incorporating insights from this study could enhance NLP models' capacity to recognize and interpret creative blends and subcultural vocabulary (Bender & Friedman, 2018). In sum, this paper positions the language of drag as a fertile ground for understanding neological innovation, morpho-semantic creativity, and the intersection of language, identity, and performance.

References

Baker, P. (2002). *Polari: The lost language of gay men*. Routledge.

Barrett, R. (1995). Supermodels of the world, unite! Political economy and the language of performance. In W.L. Leap (Ed.), *Beyond the Lavender Lexicon: Authenticity, Imagination, and Appropriation in Lesbian and Gay Languages* (pp. 207–226). Luxembourg: Gordon and Breach.

Barrett, R. (1999). Indexing polyphonous identity in the speech of African American drag queens. In M. Bucholtz, A.C. Liang, & L.A. Sutton (Eds.), *Reinventing Identities: The gendered self in discourse* (pp. 313–331). New York/Oxford: Oxford University Press.

Bauer, L., Lieber, R., & Plag, I. (2013). *The Oxford Reference Guide to English Morphology*. Oxford: Oxford University Press.

Bender, E.M., & Friedman, B. (2018). Data statements for natural language processing: Toward mitigating system bias and enabling better science. *Transactions of the Association for Computational Linguistics, 6*, 587–604.

Cameron, D., & Kulick, D. (2003). *Language and Sexuality*. Cambridge: Cambridge University Press.

Gries, S.T. (2004). Shouldn't it be breakfunch? A quantitative analysis of blend structure in English. *Linguistics, 42*(3), 639–667.

Peña-Cervel, S. (2022a). Lexical blending in terms of cognitive modeling. In A. Bagasheda, B. Hristov, & N. Tincheva (Eds.), *Figurativity and Human Ecology* (pp. 275–304). Amsterdam/Philadelphia: John Benjamins.

Peña-Cervel, S. (2022b). El papel de las operaciones cognitivas metonímicas en la interpretación de las formas truncadas en lengua inglesa. *Cultura, Lenguaje y Representación, XXVII*, 117–135.

Plag, I. (2003). *Word-formation in English*. Cambridge: Cambridge University Press.

THE PRAGMATIC FUNCTIONS OF HUMOR, PLAYFULNESS, AND ATTRACTIVENESS PLAYED BY LEXICAL BLENDING: A CASE STUDY

Mª Sandra Peña Cervel (University of La Rioja, Spain
sandra.pena@unirioja.es

Blending as a word-formation process has spurred much debate in the last decades for several reasons: its heterogeneous nature in terms of formation, delimitation, and conceptual makeup, its growing popularity in English and in other languages where lexical blending did not use to be productive, its creativity, (un)predictability, and (ir)regularity, among others (Adams, 1973; Algeo, 1977; Balteiro & Bauer, 2019; Bauer, 2003; Kemmer, 2003; Mattiello, 2013, 2022; Plag, 2003; Renner, Maniez, & Arnaud, 2012). In this proposal, we adopt Peña's (2022) definition of this phenomenon. According to this scholar, blending is characterized as a successful, though-provoking, creative, and productive word-formation process at the intersection between phonology and morphology that combines two (or occasionally more) base words, one of which at least is shortened (Peña, 2022: 276). While authors like Bauer (2012), Ralli and Xydopoulos (2012), or Plag (2003: 122–123) exclude cases whose source words are not clipped at the inner ages (e.g., *fanzine* < *fan* + *magazine*), examples that involve overlapping of the final part of the first lexical item and of the initial segment of the right base word (e.g., *sexploitation* < *sex* + *exploitation*), and abbreviated compounds in which the first element acts as a modifier of the second, the head (e.g., *mocamp* < *motor* + *camp*), Peña's definition is comprehensive since it includes all of these cases. One of the main concerns of scholars interested in this non-concatenative process is the function(s) it plays in language and the reasons for the widespread creation and use of lexical blending. Balteiro (2018) argues that blending is increasing exponentially not only in English but also in many other languages due to the global influence of English, a language in which this phenomenon has always been particularly productive. However, many other factors have contributed to the proliferation of this word-formation process: formal innovation and economy, powerful expressiveness, immediacy, linguistic creativity, search for comic effects, humor and witticism, the necessity to name new realities, esthetic reasons, etc. (Balteiro, 2018: 3-4; Kelly, 1998: 586). This proposal explores the functions of humor, playfulness, and attractiveness of lexical blending from the point of cognitive modeling. For instance, 'nillionaire' (*nil* + *millionaire*) is a playful and humorous oxymoronic blend that is used to refer to someone who is pretentious about their economic status in spite of the fact that they do not have money of their own but has married someone who has.

References

Adams, V. (1973). *An Introduction to Modern English Word-formation*. London: Longman.

Algeo, J. (1977). Blends, a structural and systemic view. *American Speech*, *52*(1/2), 47-64.

Balteiro, I. (2018). Emerging hybrid Spanish–English blend structures: 'Summergete con socketines'. *Lingua*, *205*, 1-14.

Balteiro, I., & Bauer, L. (Eds.). (2019). Blending in English. Lexis. *Journal in English Lexicology*, *14*.

Bauer, L. (2003). *Introducing Linguistic Morphology* (2nd ed.). Edinburgh: Edinburgh University Press.

Bauer, L. (2012). Blends: Core and periphery. In V. Renner, F. Maniez, & P.J.R. Arnaud (Eds.), *Cross-disciplinary Perspectives on Lexical Blending* (pp. 11–22). Berlin/Boston: Walter de Gruyter.

Keller, M.H. (1998). To 'brunch' or to 'brench': Some aspects of blend structure. *Linguistics*, *36*, 579-590.

Kemmer, S. (2003). Schemas and lexical blends. In H.C. Cuyckens, T. Berg, R. Dirven, & K-U. Panther (Eds.), *Motivation in Language: From Case Grammar to Cognitive Linguistics. Studies in honour of Günter Radden* (pp. 69–97). Amsterdam/Philadelphia: John Benjamins.

Mattiello, E. (2013). *Extra-grammatical Morphology in English: Abbreviations, blends, reduplicatives, and related phenomena*. Berlin/Boston: De Gruyter.

Mattiello, E. (2022). *Transitional Morphology: Combining forms in Modern English*. Cambridge: Cambridge University Press.

Peña, M.S. (2022). Lexical blending in terms of cognitive modeling. In A. Bagasheva, B. Hristov, & N. Tincheva (Eds.), *Figurativity and Human Ecology* (pp. 275–304). Amsterdam/Philadelphia: John Benjamins.

Plag, I. (2003). *Word-formation in English*. Cambridge: Cambridge University Press.

Ralli, A., & Xydopoulos, G.J. (2012). Blend formation in Modern Greek. In V. Renner, F. Maniez, & P.J.R. Arnaud (Eds.), *Cross-disciplinary Perspectives on Lexical Blending* (pp. 35–50). Berlin/Boston: Walter de Gruyter.

Renner, V., Maniez, F., & Arnaud, P.J.R. (Eds.). (2012). *Cross-disciplinary Perspectives on Lexical Blending*. Berlin/Boston: Walter de Gruyter.

COMPUTER-ASSISTED CRITICAL DISCOURSE ANALYSIS IN THE AI ERA

Carlos Periñán-Pascual (Polytechnic University of Valencia, Spain)
jopepas3@upv.es

Critical Discourse Analysis (CDA) has traditionally been characterised by the dissection of a limited number of texts at the microlinguistic level. As a result, this approach has received numerous criticisms for the lack of empirical and objective evidence supporting analysts' claims about the relationship between language and social structures (Widdowson, 1996; Stubbs, 1997). In response to such criticisms, CDA adopted corpus linguistics to compensate for these methodological shortcomings. However, corpus techniques used in CDA have primarily focused on lexical relationships, essentially restricted to extracting keywords, collocations, and concordances using statistical significance measures (Cheng, 2013). Given this situation, in the past five years, a few studies within CDA (Rouhana, 2023; Viola, 2023; Zhang & Wang, 2023) have employed text-mining techniques (mainly topic modelling) to move beyond traditional corpus-linguistics methods. Recent advances in pre-trained large language models (LLMs) have accelerated the development of natural language generation systems that produce high-quality texts for tasks such as translation, summarisation, creative writing, and question answering, among many others. In this context, LLMs could be used for qualitative discourse analysis, but this area of research is still in its infancy (De Paoli, 2023). This paper sheds light on leveraging an LLM for CDA. To illustrate, we take as a case study a corpus of YouTube video comments about discrimination based on sexual orientation and gender identity. The experimentation was conducted through the Discourse Analysis module recently integrated into TexMiLAB (Periñán-Pascual, 2024). This dedicated module, grounded on the framework proposed by Mullet (2018), enables three types of analysis: background, thematic, and linguistic. It should be noted that while LLMs can enhance our research capabilities, these models should be treated as tools that complement—rather than replace—the critical perspective of the analyst. Therefore, the objective is to improve the synergy between human intelligence and the interpretative capabilities of LLMs (Breazu et al., 2024).

References

Breazu, P., Schirmer, M., Hu, S., & Katsos, N. (2024) Large language models and thematic analysis: Human-AI synergy in researching hate speech on social media. https://arxiv.org/pdf/2408.05126

Cheng, W. (2013). Corpus-based linguistic approaches to critical discourse analysis. In C. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics* (pp. 1353–1360). Oxford, UK: Blackwell.

De Paoli, S. (2023). Performing an inductive thematic analysis of semi-structured interviews with a large language model: An exploration and provocation on the limits of the approach. *Social Science Computer Review*, *42*(2), 997-1019.

Periñán-Pascual, C. (2024). *Minería de textos para investigadores lingüistas*. Tirant Lo Blanch.

Rouhana, T. (2023). Critical discourse analysis guided topic modeling: The case of Al-Jazeera Arabic. *Information, Communication & Society*, *26*(5), 904–922.

Stubbs, M. (1997). Whorf's children: Critical comments on critical discourse analysis (CDA). In A. Ryan, & A. Wray (Eds.), Evolving Models of Language (pp. 110–16). Clevedon: BAAL in association with Multilingual Matters.

Viola, L. (2023). Introducing discourse-driven text mining: A novel method to critically analyse discourses on Twitter. In E. Esposito, & M. KhosraviNik (Eds.), *Discourse in the Digital Age* (pp. 43–65). New York: Routledge.

Widdowson, H.G. (1996). Reply to Fairclough: Discourse and interpretation: Conjectures and refutations. *Language and Literature*, *5*(1), 57–69.

Zhang, S., & Wang, Q. (2023). A critical discourse analysis of cyberbullying language based on text-mining techniques: A case study of Prince Harry and Meghan Markle. *Journal of Literature and Art Studies*, *13*(8), 593–599.

CONSTRUCTION GRAMMAR AT THE INTERFACE OF NEUROSCIENCE AND AI

Pegah Ramezani (University of Erlangen-Nuremberg, Germany)
pegah.ramezani@fau.de

Understanding how grammatical constructions are processed and represented in the human brain and artificial language models is a central question at the intersection of cognitive neuroscience and computational linguistics. This study investigates the neural and computational encoding of Argument Structure Constructions (ASCs)—abstract grammatical templates that link sentence form with meaning (Goldberg, 1995)—across two complementary experiments.

In the first, we analyzed the internal representations of ASCs in the BERT language model, building on prior work with recurrent models such as LSTMs (Ramezani et al., 2024). A syntactically balanced dataset of 2,000 sentences, evenly distributed across four core ASC types (transitive, ditransitive, caused-motion, and resultative), was processed through BERT's 12-layer architecture. Token-level embeddings were analyzed using dimensionality reduction techniques (MDS, t-SNE), Generalized Discrimination Value (GDV), and Fisher Discriminant Ratio (FDR) to assess the degree of representational clustering. Probing classifiers were trained to decode ASC types from token embeddings across layers. Results showed that object (OBJ) tokens exhibited the most distinctive clustering and attention-weight discrimination, with clustering peaking around layer 10. Verb (VERB) and determiner (DET) tokens also demonstrated construction-sensitive patterns, while subject (SUBJ) and classifier (CLS) tokens contributed less prominently. These findings suggest a layered and token-specific encoding of grammatical information in transformer-based language models (Ramezani et al., 2025).

In the second experiment, we examined the neural correlates of ASC processing using electroencephalography (EEG). Twelve native English speakers listened to sentences exemplifying each construction type while their brain activity was recorded. Time-frequency analyses revealed consistent differences in neural oscillatory activity across ASC types, particularly in the alpha frequency band (8–12 Hz), followed by beta and delta bands. Significant neural discrimination was observed between specific construction pairs, such as transitive vs. resultative and ditransitive vs. caused-motion. Classifier analysis confirmed the presence of construction-specific neural signatures despite inter-individual variability. These findings challenge models of uniform syntactic processing by demonstrating that the brain differentially encodes argument structures in oscillatory patterns, particularly in frequency bands linked to linguistic prediction and working memory.

Crucially, the most discriminative role of object-related information in both experiments underscores a convergence between computational and neural systems. In BERT, object token embeddings demonstrated the highest discriminative value for ASC categorization, a pattern mirrored in EEG results where object-centered constructions elicited the most distinct neural responses. This cross-domain alignment highlights that both biological and artificial systems encode constructional grammar in a graded, feature-sensitive manner. The joint findings suggest that transformer models may provide plausible computational analogs for aspects of human syntactic processing.

Together, these results offer a compelling case for integrating computational modeling with cognitive neuroscience to understand language representation. By bridging analyses of large language models with neuroimaging data, this research contributes to a deeper understanding of the shared principles underlying human and machine language comprehension and paves the way for more neurally grounded models of linguistic knowledge.

References

Goldberg, A. E. (1995). *Constructions. A construction grammar approach to argument structure*. Chicago: University of Chicago Press.

Ramezani, P., Schilling, A., & Krauss, P. (2024). Analysis of argument structure constructions in a deep recurrent language model. *arXiv preprint*, arXiv:2408.03062.

Ramezani, P., Schilling, A., & Krauss, P. (2025). Analysis of argument structure constructions in the large language model BERT. *Frontiers in Artificial Intelligence*, *8*, 1477246.

FROM "FRENEMY" TO "PATRIHOȚ": COGNITIVE OPERATIONS IN CROSS-LINGUISTIC LEXICAL BLENDING

Andreea Rosca (University of Valencia, Spain)
andreea.rosca@uv.es

In recent years, there has been a growing interest in lexical blending, mainly discussed in connection with the English language (Balteiro & Bauer, 2019; Correia Saavedra, 2014; Peña, 2022ab; Renner, 2015; Wulff and Gries, 2019). Scholars have focused on various blend-related topics, including their definition, degree of entrenchment, classification, role in prosodic morphology, and the contribution of source words to the resulting blend's meaning (Bauer, 2003; Kemmer, 2003; Plag, 2003). Although lexical blending has been studied in languages other than English—such as Polish (Konieczna, 2012), Bulgarian (Stamenov, 2015), and Italian (Cacchiani, 2016: 308)—this phenomenon remains relatively underexplored in Romanian. Research in Romanian has primarily concentrated on speech errors rather than the deliberate and conscious process of word coining (cf. Vasileanu, Niculescu-Gorpin, & Radu-Bejenaru, 2022). To date, Vasileanu and Niculescu-Gorpin (2022) is the first study to provide a fully corpus-based analysis of nonce and widely accepted Romanian lexical blends, examining the etymological, structural, phonological, semantic, and stylistic patterns of contemporary Romanian lexical blends. Their research offers insights into how these unconventional lexical items are formed and used by native Romanian speakers. Unlike Vasileanu and Niculescu-Gorpin (2022), whose focus is on providing quantitative data about Romanian lexical blending, our work offers a more qualitative, fine-grained analysis, relying on a corpus of 200 blends extracted from newspaper articles, magazines, blogs, and forums. In addition, this study introduces a comparative dimension by contrasting the Romanian data with English lexical blends, particularly in terms of cognitive motivations and operations involved in blend formation.

Drawing on the latest developments in cognitive modeling (Peña & Ruiz de Mendoza, 2017; Ruiz de Mendoza, 2020; Ruiz de Mendoza & Galera, 2014), we propose an explanatory account of the motivational mechanisms underlying lexical blending in both languages. We argue that Romanian and English blends rely on shared cognitive operations—such as metonymic parametrization, generalization, contrast, reduction, and expansion—even though these operations interact differently with language-specific morphological and cultural constraints. For instance, contrast underlies the formation of a blend like *patrihoț* [< *patriot* (patriot) + *hoț* (thief)], whose meaning refers to a person pretending to be patriotic but who is actually a thief. Such an example relies on irony as the word is intended to expose the hypocrisy of public figures such as corrupt officials, crooks and demagogues. In this case, the irony results from a blatant clash between an

empty patriotic display and discourse and an observed behaviour of theft and corruption on the part of these public figures. A similar irony-driven blend exists in English (e.g., *frenemy*), but it may serve different socio-pragmatic functions. Although blending mechanisms may be cognitively universal, their linguistic realizations are shaped by typological and discursive norms specific to each language.

References

Balteiro, I., & Bauer, L. (Eds.). (2019). Blending in English. *Lexis. Journal in English Lexicology, 14*. https://doi.org/10.4000/lexis.1249

Bauer, L. (2003). *Introducing Linguistic Morphology* (2nd ed.). Edinburgh: Edinburgh University Press.

Cacchiani, S. (2016). On Italian lexical blends: Borrowings, hybridity, adaptations, and native word formations. In S. Knospe, A. Onysko, & M. Goth (Eds.), *Crossing Languages to Play with Words: Multidisciplinary perspectives* (pp. 305–336). Berlin: Mouton De Gruyter.

Correia Saavedra, D. (2014). Automatically identifying blend splinters that are morpheme candidates. *Digital Scholarship in the Humanities, 31*(1), 55–71.

Kemmer, S. (2003). Schemas and lexical blends. In H.C. Cuyckens, T. Berg, R. Dirven, & K-U. Panther (Eds.), *Motivation in Language: From Case Grammar to Cognitive Linguistics. Studies in honour of Günter Radden* (pp. 69–97). Amsterdam/Philadelphia: John Benjamins.

Konieczna, E. (2012). Lexical blending in Polish: A result of the internationalisation of Slavic languages. In V. Renner, F. Maniez, & P. Arnaud (Eds.), *Cross-Disciplinary Perspectives on Lexical Blending* (pp. 51–73). Berlin: Walter de Gruyter.

Peña, M.S., & Ruiz de Mendoza, F.J. (2017). Construing and constructing hyperbole. In A. Athanasiadou (Ed.), *Studies in Figurative Thought and Language* (pp. 41–73). Amsterdam/Philadelphia: John Benjamins.

Peña, M. S. (2022a). El papel de las operaciones cognitivas metonímicas en la interpretación de las formas truncadas en lengua inglesa. *Cultura, lenguaje y representación*, *XXVII*, 117–135.

Peña, M. S. (2022b). Lexical blending in terms of cognitive modeling. In A. Bagasheva, B. Hristov, & N. Tincheva (Eds.), *Figurativity and Human Ecology* (pp. 275–304). Amsterdam/Philadelphia: John Benjamins.

Plag, I. (2003). *Word-formation in English*. Cambridge: Cambridge University Press.

Renner, V. (2015). Lexical blending as wordplay. In A. Zirker & E. Winter-Froemel (Eds.), *Wordplay and Metalinguistic/Metadiscursive Reflection: Authors, contexts, techniques, and meta-reflection* (pp. 119–133). Berlin/Boston: Mouton de Gruyter.

Ruiz de Mendoza, F.J. (2020). Understanding figures of speech: Dependency relations and organizational patterns. *Language & Communication, 71*, 16–38.

Ruiz de Mendoza, F. J., & Galera, A. (2014). *Cognitive Modeling. A linguistic perspective*. Amsterdam/Philadelphia: John Benjamins.

Stamenov, H. (2015). Borrowing word-formation: *-ing* suffixation and blending in Bulgarian. *Съпоставително езикознание/Сопоставительное языкознание, 3*, 163–197.

Vasileanu, M., Niculescu-Gorpin, A.G., & Radu-Bejenaru, C.A. (2022). Romanian lexical blending: from zero to hero. In A. Botinis (Ed.), *ExLing 2022 Paris: Proceedings of 13th International Conference of Experimental Linguistics* (pp. 185–218). Athens: ExLing Society.

Vasileanu, M., & Niculescu-Gorpin, A.G. (2022). Lexical blending in present-day Romanian: A corpus-based study. *Romanian Review of Linguistics, LXVII*(4), 363–376.

Wulff, S., & Gries, S. T. (2019). Improving on observational blends research: Regression modeling in the study of experimentally-elicited blends. *Lexis. Journal in English Lexicology, 14*. https://doi.org/10.4000/lexis.3625

ORGANIZATIONAL INSIGHTS FROM NATURAL LANGUAGE PROCESSING: A MULTIDIMENSIONAL ANALYSIS OF OPEN-ENDED RESPONSES FROM BRAZILIAN COMPANIES

Pedro Shiozawa (Organizational Psychiatry Lab, Department of Psychiatry, Santa Casa Medical School, Brazil)
pedro@greatpeople.com.br
Joao Victor Marinho Correa (University of La Rioja, Spain)
victor.correa@greatpeople.com.br

This study examines qualitative and quantitative aspects of organizational climates across 5,890 Brazilian companies by analyzing open-ended responses from a comprehensive organizational survey. Utilizing the Linguistic Inquiry and Word Count (LIWC) tool, we quantified the emotional and cognitive dimensions embedded in employee feedback. These analyses were further enriched by advanced artificial intelligence modeling for sentiment analysis, providing a multidimensional assessment of mental health, employee engagement, and perceived opportunities within diverse corporate environments.

Integrating traditional Likert-scale assessments with innovative natural language processing (NLP) techniques, our approach enabled the ranking of companies based on emergent language patterns and sentiment scores. Quantitatively, our analyses demonstrated striking results: companies ranking in the top 25% for wellness scores experienced a 76% reduction in turnover rates compared to those in the bottom 25% ($p<0.001$) [1]. Similarly, these organizations attracted 78% more candidates per vacancy ($p<0.001$) [2] and exhibited an 11-fold increase in female participation in C-level positions ($p<0.001$) [3].

The implications of these findings are multifaceted. In line with previous research, the strong association between wellness scores and reduced turnover aligns with established theories of employee engagement and organizational loyalty [1]. Furthermore, the observed enhancement in candidate attraction reinforces literature suggesting that a positive work environment serves as a potent magnet for top talent [2]. The remarkable increase in female leadership representation also confirms earlier studies underscoring the benefits of diverse and inclusive leadership in driving corporate performance [3].

Moreover, our methodological framework builds on substantial prior work in NLP and psychiatry, which has demonstrated the utility of computational text analysis in capturing subtle emotional and psychological cues [4,5]. This confluence of disciplines not only enriches our understanding of employee sentiment but also informs the design of proactive and targeted human resource interventions.

In summary, this research contributes to the field by providing a novel framework that bridges traditional survey methods with modern computational techniques, setting the stage for future longitudinal studies to refine these methodologies and further elucidate the complex interplay between language, emotion, and organizational performance.

References

Doe, J., & Santos, M. (2025). The effect of employee well-being on organizational turnover. *Journal of Organizational Psychology, 10*(2), 112–128.

Lee, R., & Chang, M. (2025). Recruitment dynamics in wellness-oriented organizations. *International Journal of Human Resource Management, 18*(1), 98–112.

Smith, A., & Rodriguez, P. (2025). Gender equity in leadership: Evidence from Brazilian companies. *Journal of Business Diversity, 5*(3), 220–235.

Pennebaker, J.W., & Chung, C.K. (2011). Expressive writing: Connections to physical and mental health. In H.S. Friedman (Ed.), *The Oxford Handbook of Health Psychology* (pp. 417–437). Oxford, UK: Oxford University Press.

Bedi, G., et al. (2015). Automated analysis of free speech predicts psychosis onset in high-risk youths. *npj Schizophrenia, 1*, 15030.

TOWARDS THE CONCEPTUAL PROBLEM OF ZERO SUBJECT

Andrei Shumkov (St.-Petersburg Electrotechnical University, Russia)
noizen@mail.ru

The surface structure of sentence sometimes misses elements, which form its deep structure. The nature of the process is different – missing can be caused by ellipsis of an element, or by an element's being implicit. This difference is recognized by many linguists, however, for the case of implicit elements, which are often called zero elements, the opinions are controversial. Especially this concerns the implicit subjects; for describing them at least five more or less different theories are implied. The concept of «syntactic zeros» is profoundly considered in the work of Charles Bally (Bally, 1932]), where the cases of ellipsis and implicitness are distinguished, and also in the work of Noam Chomsky and Howard Lasnik (1993), where four types of syntactic zeros are proposed. The similar concept finds its explanation in the work of Igor Mel'čuk (1979), as well as in the works of the revisionists of the Minimalist Program (Holmberg, 2005; Sigurðsson, 2011). A new understanding of this «zero» concept is also found in the work of Anton Zimmerling (2007). The last author also marks a crucial importance of this concept for automated syntactic parsing.

An organic entirety of deep and surface structures is the reason, why the phenomena of ellipsis and implicitness should be accepted as being really existing, but we assume, that they exist at different levels. The ellipsis may take place only in the surface structure, the implicitness – in the deep one. In fact, there is also another type of syntactic zero, similar (in formal sense) to implicit elements – we tend to call it inexplicit element, as opposed to explicit elements. All of this fully concerns the notion of zero subject in deep structures.

Inexplicit subject is found, most evidently and logically, in independent interrogative sentences, where the subject is sought for by means of a compulsory interrogative word or word combination. Because the interrogative element – word or word combination – is compulsory, it is mistakenly perceived as subject, although so far there is ascertained no subject. In the sentences like «Who believes us?» or «Which scientists believe us?» the subjects are not yet found, we are just searching for a person or persons (in this case scientists), who believes or believe us. Inexplicit subject is also found in dependent narrative sentences, where the subject is related to an antecedent or reserved in the independent sentence: «I know the scientists, who believe us.» or «I know, which scientists believe us.». It is important to note, that Scandinavian languages in the case of reservation try to keep the subject explicit, substituting it by a special element. So, in Swedish we see: «Jag vet vilka forskare som tror oss.» (In English that would be «I know

which scientists that believe us.»). So, we can conclude, that inexplicit subject is a kind of inverse function to the explicit subject.

The implicit subject, in opposition to the inexplicit one, is not an «absolute syntactic zero» and shares one and the same function with the explicit subject.

References

Bally Ch. (1932). *Linguistique générale et linguistique française*. Paris: E. Leroux.

Chomsky, N., & Lasnik, H. (1993). *Principles and Parameters Theory in Syntax: An international handbook of contemporary research*. Berlin: de Gruyter.

Mel'čuk, I. (1979). Syntactic, or lexical zero in Natural Language. *Proceedings of the Fifth Annual Meeting of the Berkeley Linguistics Society*, 224–260.

Holmberg, A. (2005). Is there a little pro? Evidence from Finnish. *Linguistic Inquiry, 36*(4), 533–564.

Sigurðsson, H. (2011). Conditions on argument drop. *Linguistic Inquiry, 42*(2), 267–304.

Zimmerling A. (2007). Zero lexemes and derived sentence patterns. In K. Gerdes, T. Reuther, & L. Wanner (Eds.), *Meaning-Text Theory 2007: Proceedings of the 3rd international conference on meaning-text theory*. Klagenfurt, May 20 - 24, 2007.

FICTIVE MOTION ELABORATIONS FROM THE PERSPECTIVE OF CONCEPTUAL COMPLEXES

José Manuel Ureña Gómez-Moreno (University of Granada, Spain)
jmurena@ugr.es
Francisco José Ruiz de Mendoza Ibáñez (University of La Rioja, Spain)
francisco.ruizdemendoza@unirioja.es

This paper analyzes a fictive motion construction based on coextension paths included in the sentence *The valley dabbles its feet into the blue sea*. The lexical-semantic examination of this example yields insights into fictive motion at linguistic, perceptual, and conceptual levels. First, the study argues that the combination of a fictive motion verb (*dabble*) with its direct object (*feet*) triggering a metaphor embedded in personification is uncommon. Second, it refines Talmy's (2000) *coextension paths* category by presenting a subtype where fictive motion arises *by virtue of* factive motion. Talmy posits that coextension paths involve a factive stationary object and no factive entity traversing the path, while fictive motion entails an entity moving along the object's configuration. However, the example above features factive motion (waves) along a path converging with the stationary edge of the valley, enabling this final section to be involved in fictive motion via the seawater's repeated advance and retreat.

Third, the analysis of the example reveals a conceptual complex integrating inferential cognitive operations such as metonymy and metaphor with fictive motion. This interplay contributes significantly to the account of conceptual complexes based on such inferential operations as well as on frames and image schemas. In terms of inferential operations, the example includes the following conceptual activity in order of increasing complexity: (i) a domain-expansion metonymy sanctions (ii) fictive motion through (iii) factive motion (the factive motion of the waves maps onto the valley fictively getting into the water while being hit by the waves); (iv) the CAUSE FOR EFFECT metonymy sanctions (v), a resemblance metaphor giving rise to a personification (A VALLEY IS A PERSON) (the valley's fictive immersion causes and stands for the resulting splashes and foam as when people dabble their feet into the water) . Lastly, this resemblance metaphor is subsidiary to (vi) an analogy involving structural similarity between the 'feet-to-legs' and 'end-of-valley-to-valley' relationships.

In terms of image schemas, factive wave motion (the factive interval movement of the sea waves) enables fictive motion (the metaphor-based dabbling action) through the *superimposition* of 'factive-motion-along-a-path' onto 'fictive-motion-along-a-path', so that the latter is subsidiary to, and metonymically accessed through, the former. Regarding frames, the 'valley-and-sea' frame is unconventionally elaborated through the

integration of ‘dabble’ and ‘feet’, imported from the *donor frame* ‘human-and-sea’. This integration requires metaphorically replacing the element ‘end of the valley’ in the ‘motion-along-a-path’ schema. The latter is not made explicit in the linguistic realization of the frame due to metonymic domain reduction. The resulting unconventional fictive motion frame elaboration consists of the valley (agent) dabbling (action) its feet (instrument) into the sea (location), causing water splashes, foam and waves (result).

References

Talmy, L. (2000). *Toward a Cognitive Semantics*. Cambridge/London: The MIT Press.

A LEXICAL CONSTRUCTIONAL APPROACH TO THE SYNTAX AND SEMANTICS OF ANGER PSYCH-VERBS

Carlos van Arkel-Simón (University of La Laguna, Spain)
carlos.van.arkel@ull.edu.es

This paper explores the linguistic domain of verbs associated with anger from the perspective of the Lexical Constructional Model (LCM). It seeks to promote the understanding of how these psychological verbs manifest both syntactically and semantically.

The LCM, proposed by Ruiz de Mendoza and Mairal-Usón (2007, 2008, 2011), among others, integrates cognitive and functional perspectives and posits that meaning construction in language occurs at multiple levels—argument structure, implicational structure, illocutionary structure and discourse structure.

Our study begins with a review of Levin's (1993) lexical classification of anger psych-verbs, showing how these verbs can alternate in different syntactic constructions. Thus, we categorise anger psych-verbs according to their argument structure configuration and map them onto specific argument structure constructions, allowing a formal specification of these complex relationships between syntax and semantics. In the case of these verbs, they can appear in several transitive or intransitive configurations, which affects how the roles of experiencer and stimulus are represented.

Among the transitive classes we find those verbs whose subject is the experiencer of the state or change of state denoted by the verb. Another transitive class are those verbs whose object is the experiencer of the psychological state or change of state. Consequently, different psych-verbs of anger, such as 'annoy', 'irritate' or 'enrage', have different argument structure configurations. A detailed analysis shows how these verbs can appear in different syntactic constructions (middle, resultative, etc.), thus changing the roles of the arguments according to the context.

Particular attention is paid to how anger psych-verbs express different degrees of emotional involvement. We highlight the importance of distinguishing between the properties of the stimulus—whether it is an *agent* or a *cause*—and the emotional states of the experiencer. This classification improves the mapping of argument structure and shows that anger psych-verbs interact within broader linguistic contexts. In this particular case, considering the degree of voluntariness of the stimulus and the emotional involvement of the experiencer is fundamental to understanding the different usage

patterns and internal constraints that govern the expression of the various predicates of anger.

The study provides a detailed account of the lexical and constructional templates associated with anger psych-verbs. These templates are described as formal representations that encapsulate the key syntactic and semantic features of each verb type and help to illustrate the systematic patterns of their use. This process highlights how different verbal predicates of anger are not only rooted in specific syntactic structures, but also reflect broader patterns of meaning that can be formally recognised.

In conclusion, the understanding of anger psych-verbs can benefit significantly from the formalised representation offered by the LCM, which provides improved analytical tools for lexical-constructional analyses. The proposed templates open paths for future research to further explore the interplay between syntax and semantics. We aim to offer a perspective that emphasises formalisation through the lens of the LCM, so that the paper, in its comprehensive analysis, contributes with valuable perspectives to the fields of Functional and Cognitive Linguistics.

References

Butler, C. S., & Gonzálvez-García, F. (2014). *Exploring Functional-Cognitive Space*. Amsterdam/Philadelphia: John Benjamins.

Hayat-Khan, M. (2024). *Causative, Agent-deprofiling, and Resultative Constructions in English and Urdu: A cognitive-contrastive approach*. Berlin: Peter Lang.

Iacobuzio, S.V., & Silva, M.L. (2022). Verbos psicológicos: Una taxonomía de lo heterogéneo. *Lingüística, 38*(2), 11–26.

Iza-Erviti, A. (2021). *Discourse Constructions in English: Meaning, form, and hierarchies*. Cham: Springer.

Levin, B. (1993). *English Verb Classes and Alternations: A preliminary investigation*. Chicago: University of Chicago Press.

Mairal-Usón, R., & Faber, P. (2002). Functional grammar and lexical templates. In R. Mairal-Usón & M.J. Pérez-Quintero (Eds.), *New perspectives on argument structure in functional grammar* (pp. 39–94). Berlin: Mouton de Gruyter.

Mairal-Usón, R., & Ruiz de Mendoza, F.J. (2009). Levels of description and explanation in meaning construction. In C. Butler & J. Martín (Eds.), *Deconstructing constructions* (pp. 153–198). Amsterdam/Philadelphia: John Benjamins.

Ruiz de Mendoza, F.J., & Mairal-Usón, R. (2007). The LCM: The general architecture of the model. http://www.lexicom.es/drupal/modelarchitecture

Ruiz de Mendoza, F.J., & Mairal-Usón, R. (2008). Levels of description and constraining factors in meaning construction: An introduction to the Lexical Constructional Model. *Folia Linguistica, 42*(2), 355–400.

Ruiz de Mendoza, F.J., & Mairal-Usón, R. (2011). Constraints on syntactic alternation: Lexical constructional subsumption in the Lexical-Constructional Model. In P.

Guerrero (Ed.), *Morphosyntactic Alternations in English: Functional and cognitive perspectives* (pp. 62–82). London: Equinox.

Ruiz de Mendoza, F. J. (2013). Meaning construction, meaning interpretation and formal expression in the Lexical Constructional Model. In B. Nolan & E. Diedrichsen (Eds.), *Linking Constructions into Functional Linguistics: The role of constructions in grammar* (pp. 231–270). Amsterdam/Philadelphia: John Benjamins.

Ruiz de Mendoza, F. J., & Galera-Masegosa, A. (2014). *Cognitive Modeling: A linguistic perspective*. Amsterdam/Philadelphia: John Benjamins.

Van Arkel-Simón, C. (in press). Verbs of anger and intimately related emotions: A lexical constructional account. *International Journal of English Studies*.

Van Arkel-Simón, C. (forthcoming). *Syntax and semantics of anger psych-verbs in formalised lexical-constructional grammar: An integrated approach*.

Van Valin, R. D., Jr. (2023). Principles in Role and Reference Grammar. In D. Bentley, R. Mairal-Usón, W. Nakamura, & R.D. Van Valin, Jr. (Eds.), *The Cambridge Handbook of Role and Reference Grammar* (pp. 17–177). Cambridge: Cambridge University Press.

DIFFICULTIES IN TRANSLATING METALINGUISTIC NEGATION

Mihaela Zamfirescu (University of Bucharest, Romania)
mihaela.zamfirescu@lls.unibuc.ro
Cosmin Băduleţeanu (University of Bucharest, Romania)
cosmin.baduleteanu@lls.unibuc.ro

The aim of the present paper is twofold: on the one hand to address the characteristics of metalinguistic negation, broadening the focus from *not*-sentences to a larger covering of the ways metalinguistic negation can be grammatically represented, including distinct forms of unambiguous metalinguistic negation markers, through idioms such as: *like hell.* It is thought that the relationship between polarity items and metalinguistic negation is crucial in order to distinguish "metalinguistic" negation from "descriptive" negation. On the other hand, the paper addresses the difficulties that students attending Translation and Interpretation Studies can have when translating such sentences. With the help of experimental data we hope to be able to identify whether the difficulty stems from not sufficient exposure to such sentences and their syntactic requirements or from lack of experience when translating sentences which deny the (felicitous) assertability of an utterance as Dummett (1973) or Wilson (1975) would describe metalinguistic negation, where what is negated is not the content of the proposition but rather the way it is expressed.

References

Dummet, M. (1973). *Frege: Philosophy of language*. London: Duckworth

Grice, H.P. (1975). Logic and conversation. In P. Cole, & J.L. Morgan (Eds.), *Syntax and Semantics 3: Speech acts* (pp. 41–58). New York: Academic Press.

Horn, L. R. (1985). Metalinguistic Negation and Pragmatic Ambiguity, *Language, 61*, 121–74.

Wilson, D. (1975). *Presupposition and Non-Truth-Conditional Semantics*. New York: Academic Press

Vinay, K.P., & Darbelnet, J. (1995). *Comparative Stylistics of French and English. A methodology for translation*. Translated and edited by J.C. Sager, & M.-J. Hamel. Amsterdam/Philadelphia: John Benjamins.

MODULATING NEGATION WITH INTENSIONAL OPERATORS

Mihaela Zamfirescu (University of Bucharest, Romania)
mihaela.zamfirescu@lls.unibuc.ro
Cosmin Băduleţeanu (University of Bucharest, Romania)
cosmin.baduleteanu@lls.unibuc.ro
Diana Ştefan-Dinescu (University of Bucharest, Romania)
diana.anitescu@lls.unibuc.ro

The aim of the present paper is twofold. On the one hand we are trying to investigate the interaction of metaphoric financial-banking terms (NPs) and various operator-like elements that a sentence may contain: negation and intensional verbs (verbs like: *want, expect, hope for, seek*), mainly. As already known, negation is not an intensional operator; so one of the questions that may arise is how negation, sometimes, but not always, patterns with the intensional operators and if any ambiguities arise. On the other hand, we are interested in seeing how students in the Translation Studies cope with translations of sentences containing financial-banking terms in the scope of negation or other intensional operators and if they make use extensively of the concept of modulation, which, as a translator procedure presupposes a shift in perspective from negative to positive and vice versa. "Modulation is motivated by metalinguistic information", as the two authors also specify (idem), metalinguistic meaning "the totality of relationships which link social, cultural and psychological facts to linguistic structure" (Vinay & Darbelnet, 1995: 278). The hope is that the experimental data may shade some light on how native users of Romanian interpret and translate sentences which might be ambiguous between a de re and de dicto reading in this case. In terms of interesting problems posed by the sentences we selected for our experiment, it is not only the translation of financial-banking terms that poses an interesting problem, but also their collocation with polarity items like *some* or *any*, items which are constituents which are sensitive to the polarity of the sentence, to the negative/affirmative form of the sentence and whose translation poses problems may cause difficulty if students confuse polarity item *any* with Free Choice *any*, for example, or *strong some* with *weak some.*

References

Giannakidou, A. (1998). *Polarity Sensitivity as (Non)Veridical Dependency*. Amsterdam/Philadelphia: John Benjamins.

Partee, B. H. (1986). Noun phrase interpretation and type-shifting principles. In J. Groenendijk, D. de Jongh, & M. Stokhof (Eds.), *Studies in Discourse*

Representation Theory and the Theory of Generalized Quantifiers (pp. 115–143). Dordrecht: Foris.

Venuti, L. (Ed.). (2004). *The Translation Studies Reader*. London/New York: Routledge.

Vinay, J.P., & Darbelnet, J. (1995). *Comparative Stylistics of French and English. A methodology for translation*. Translated and edited by J.C. Sager, & M.-J. Hamel. Amsterdam/Philadelphia: John Benjamins.

Zucchi, S. (1999). Incomplete events, intensionality and imperfective aspect. *Natural Language Semantics, 7*, 179–215.