



## Introduction to the Dossier: Neurocognitive Linguistics: Towards a (More) Visible Theory of Language

*La Lingüística Neurocognitiva: hacia una teoría (más) visible del lenguaje*

**Paul Buzilă**

University of Bucharest  
Department of Romance Languages and Literatures,  
Classical Studies and Modern Greek  
Rumania

[paul.buzila@lls.unibuc.ro](mailto:paul.buzila@lls.unibuc.ro)



<https://orcid.org/0000-0003-2728-3787>

The objective of science is the search for truth. I dare not say the "discovery" of truth, because in that case, it could rarely be affirmed that we are truly engaging in science. History has shown us time and again that this search consists of a long series of discoveries from which we formulate our best theories, only to then make new findings that refute them and lead us to build more precise ones. This mode of proceeding progressively brings us closer to a truth that we may never come to know in its entirety, but for the moment, it constitutes the only way to continue advancing our knowledge.

The science of language follows this very model. From the studies of Antiquity, through historical linguistics, structuralism, and the theories of the second half of the 20th century, linguists have always attempted to propose models and theories that more adequately and plausibly explain the faculty of language. The comparative method represented a great progress compared to the lack of rigor of previous efforts; Saussure's

structuralist vision provided greater clarity regarding the object of linguistic study; and the generativist proposals to study language as a natural object represented a laudable attempt to bring linguistics closer to the field of the natural sciences. Faithful to the definition of science formulated above, each of these schools has sought the truth in its own way and has revealed new aspects of language. Nevertheless, respecting the inescapable rule of scientific activity, none of these models has managed to definitively explain how language works.

Part of the problem lies in the multifaceted nature of the reality studied, which, despite being given a single name — *language* — does not seem to constitute as unified an object of analysis as we would wish. Therefore, all linguistic studies should clarify the type of object they address, at least from the perspective of two fundamental distinctions: linguistic system vs. production of the system and individual vs. supra-individual (social) level. All approaches are valid, but it is essential to clearly specify whether the interest lies in the texts produced by the speakers' linguistic systems or in the understanding of the internal functioning of that system. Likewise, it is necessary to specify whether the discussion concerns an individual psychophysiological phenomenon—the capacity to produce and comprehend language—or phenomena related to the diffusion and functioning of linguistic variants in groups of speakers, that is, the social aspect. Many theoretical models that aim to explain the capacity for language are confusing precisely because they mix these planes.

This special issue (or *monographic issue*)<sup>1</sup> is dedicated to a linguistic theory that is part of the tradition of models with increasing explanatory power. The theory had its first systematic formulation under the name of **Stratificational Grammar** (Lamb, 1966). Over the subsequent three decades, this initial proposal was subject to a profound re-elaboration and expansion, notably emphasizing its progressive convergence with advances

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<sup>1</sup> I wish to express my gratitude to the editors of *Anales de Lingüística* for proposing the publication of this special issue, as well as to the anonymous reviewers, whose evaluations and suggestions have decisively contributed to ensuring the quality of the contributions gathered here.

in neurosciences. The result is the current, notably more exhaustive and refined formulation, which is called **Relational Network Theory** (RNT) or **Neurocognitive Linguistics** (Lamb, 1999).

The decision to dedicate a thematic issue to this theory is justified by two reasons. Firstly, I consider that its fundamental ideas present a superior explanatory power to that of previous theories and constitute a highly plausible proposal. Secondly, despite being a very promising model, almost sixty years after its initial formulation and more than twenty-five years after its publication in complete form, the RNT remains little known among the majority of linguists.

Its explanatory capacity has been highlighted both by its creator and by other authors who have corroborated the model's postulates with knowledge from other scientific fields (García, 2010; García et al., 2017; Gil, 2010; Lamb, 2016). This capacity is fundamentally due to the fulfillment of three plausibility criteria. Firstly, the model presents operational plausibility, meaning it is capable of describing how people use their linguistic systems in real time, given effective processing constraints. Secondly, it has developmental plausibility, as it explains how the system is acquired by children, but also how it expands and restructures, not only in its initial phase but throughout one's entire life. Finally, the proposal has neurological plausibility because it is consistent with what is known about the structure and functioning of the brain, and consequently, it is capable of showing how it could be implemented in neural structures.

Regarding the theory's relative lack of recognition among linguists, this is due, in the opinion of its creator, to the fact that relatively little has been published about it. This, in turn, is a consequence of the author's decision not to publish during the early stages of the theory's elaboration until he was sufficiently sure of his claims (see the interview with Sydney Lamb in this volume).

The intention of gathering these works in a special issue is, therefore, to grant greater visibility to a theory that, in light of the most recent advances in neurosciences and in a context where these are gaining increasing

scientific relevance, acquires growing plausibility. To be precise, and in accordance with the distinctions mentioned above, the RNT represents a theoretical model of the functioning of the linguistic **system** at the **individual** level; that is, it aims to explain the mechanisms by which a real speaker comes to produce and comprehend language.

In this way, RNT constitutes a solid foundation for a scientific understanding of individual linguistic capacity, from which other aspects can be addressed, such as linguistic variation in speaker groups (sociolinguistics), linguistic change over time (historical linguistics), the various phenomena related to language use in specific situational contexts (pragmatics), and many others. In other words, having a plausible and scientific explanation of the individual linguistic system can contribute to clarifying numerous aspects of language related to the other levels of analysis.

The first part of this dossier serves as an introduction to Neurocognitive Linguistics. Through an interview with the creator of the theory, "Language, the Mind and Everything: An Interview with Professor Sydney Lamb", conducted in 2020, the reader makes a first contact with the author's fundamental ideas and discovers his way of conceiving language, the human mind, and the world in general.

The interview is complemented by "A Historical Survey Through the Origins of Lambian Linguistics", an inquiry into the history of the theory and its basic concepts prior to the consideration of the cerebral implementation of linguistic processes. This contribution (written by Adolfo Martín García) shows that the current neurological plausibility of Lamb's theory stems from its purely linguistic foundations, which diverged from dominant mid-20th-century proposals and were built on unbiased empirical bases.

The historical evolution of the theory is completed with the Spanish version of an article previously published in English by Sydney Lamb himself, "Language and the Brain: When Experiments Are Unfeasible, You Have to Think Harder." In it, the author analyzes the abundant empirical evidence from the neurosciences that strongly supports a connectionist conception

of linguistic information. He demonstrates that, despite the difficulty of obtaining direct verification of the model, the RNT provides an explanation of cerebral processes consistent not only with numerous details concerning cortical anatomy and function, but also with quantitative estimates of brain capacity.

The second part of the dossier gathers a series of applications of the RNT to different areas of speakers' linguistic competence. These contributions offer relational interpretations of phenomena that, from a more traditional perspective, would be ascribed to different levels of linguistic structure (e.g., phonology, syntax, semantics).

In the article "On the Path to Intelligibility: Phonological Networks and English Vowel Learning," Ana Cristina Chiusano and Luis Luchini propose a relational interpretation of the results from a study on the impact of a pedagogical approach based on the Principle of Intelligibility on the production of English vowels by Spanish-speaking translation students in Montevideo, Uruguay. Their findings underscore the pedagogical relevance of integrating segmental analysis with relational models to foster clearer and more intelligible pronunciation in professional training contexts.

For her part, Gisela Elina Müller, in "A Neurocognitive Approach to Two Syntactic-Discursive Phenomena: Relational Network Theory in Dialogue with Cognitive Grammar", establishes a fruitful dialogue between the RNT and Cognitive Grammar (CG). Her objective is twofold: to confirm the neurocognitive reality of the analytical tools employed by CG and to enhance the explanatory scope of certain hypotheses formulated within the framework of the RNT. This reinforces the deep compatibility between both models, a compatibility that Sydney Lamb himself has pointed out on several occasions.

The two final contributions highlight the extraordinary explanatory capacity of the RNT by addressing not only canonical cases but also marginal or anomalous phenomena that are especially difficult to explain within other theoretical frameworks.

In “The Relational Nature of Language as Revealed through Anomalous and Creative Cases,” José María Gil applies the relational model to cases of misunderstandings, linguistic and conceptual errors, slips of the tongue, puns (both involuntary and intentional), and poetic creativity. The author demonstrates that these supposedly marginal cases are, in reality, a privileged path to access the functioning of language, revealing that communication is not so much a linear and fluid transmission of information as it is an incessant process of activation and transformation within relational networks.

In turn, Paul Buzilă, in “A Relational Explanation of Code-Switching,” applies the RNT model to language contact situations and explains code-switching, a typical phenomenon in bilingual speech, in strictly relational terms. The author shows that this approach not only accounts for the alternation between languages but also allows for the integration and explanation of the diverse extralinguistic factors identified in the literature that influence language choice.

The dossier concludes with the review by Herminia Navarro Hartmann, dedicated to the work of Juan Héctor Painequeo Paillán, Gastón Salamanca Gutiérrez, and Aldo Berrios Castillo, *Pu Mapuche ñi N'emül'. Una Introducción al Estudio de la Lengua Mapuche*, a rigorous and up-to-date synthesis of the state of the art concerning Mapudungun, the language of the Mapuche people of Chile and Argentina.

Even knowing that one swallow does not make a summer, I hope this collection of articles contributes to a greater dissemination of the Relational Network Theory and the ideas of Neurocognitive Linguistics, and that, in the future, more colleagues (linguists and specialists from other areas of cognitive science) will begin to pay greater attention to the proposals of this model.

I trust that, beyond personal pride and the pressures imposed by scientometric criteria, those of us who seek the truth about the functioning of human language will know how to distinguish between theories that are convenient or simply popular and those that are truly plausible. Whether

we like it or not, future discoveries will confirm some and refute others, as has always happened in the history of science.

Last but not least, I believe I speak on behalf of all the authors contributing to this special issue when I affirm that publishing this collection is also a way of thanking the creator of the RNT for having offered us the opportunity to be his "co-explorers of these hidden paths."

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## Bionote

**Paul Buzilă** is a Professor at the University of Bucharest, where he teaches courses in Hispanic Linguistics, General Linguistics, Sociolinguistics, and Neurocognitive Linguistics. He holds a Ph.D. in Philology (2015) and a Master's degree in Cognitive Science (2020). He has been a Visiting Professor (Erasmus and CEEPUS programs) at various universities in Spain, the Czech Republic, Hungary, and the Republic of Moldova, and in 2020 he was a Fulbright Scholar (Visiting Scholar) at Rice University in Houston.

His research focuses on language contact phenomena and bilingualism, which he addresses from sociolinguistic, demolinguistic, and neurocognitive perspectives. He is the author of several articles on the speech of Romanian immigrants in Spain, the demolinguistics of Spanish in Romania, and the neurocognitive bases of bilingualism. He is also the author of two books dedicated to these topics: *El rumano hablado en España* (2016) and *Senderos del cerebro bilingüe* (The Paths of the Bilingual Brain) (forthcoming).

He participated in the international project *El español en Europa* (Spanish in Europe) and, as a result, is a co-author of the volume *Demolinguística del español en Rumanía*,

*Bulgaria y Moldavia* (Demolinguistics of Spanish in Romania, Bulgaria, and Moldova) (2024). He currently organizes and moderates the Neurocognitive Linguistics Circle, an activity of the Center for Comparative Linguistics and Cognitivism at the University of Bucharest.