

# EDITORIAL

## Cognitive Sciences, Inclusion, and Interculturality: Towards a More Inclusive Understanding of the Mind

Ciencias Cognitivas, inclusión e interculturalidad: hacia  
una comprensión más inclusiva de la mente

Ciências Cognitivas, inclusão e interculturalidade: rumo  
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María Florencia Giuliani \*

<https://orcid.org/0000-0002-5892-4527>

Argentina

Sebastián Urquijo \*\*

<https://orcid.org/0000-0002-8315-9329>

Argentina

### Abstract

This special issue of the journal *Ánfora* delves into the intersection of cognitive sciences, inclusion, and interculturality, exploring the need to transcend traditional Eurocentric cognitive models. The articles collected here provide a broader and more complex view of mental processes, acknowledging the diversity of ways of thinking, feeling, and relating to the world. By analyzing cognition in intercultural contexts and among minority populations, the authors contribute to building more inclusive and equitable knowledge. The studies presented range from analyzing the relationship between culture and cognition, to implementing intercultural educational models, and exploring the cognitive experiences of individuals with neurodiversity.

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\* Ph.D. in Psychology. Institute of Basic, Applied Psychology, and Technology (IPSIBAT) – Researcher at the Scientific Research Commission. Email: [mariaflorenciagiuliani@gmail.com](mailto:mariaflorenciagiuliani@gmail.com)

\*\* Ph.D. in Education in the area of Educational Psychology. Institute of Basic, Applied Psychology, and Technology (IPSIBAT) – National Scientific and Technical Research Council (CONICET), Faculty of Psychology, National University of Mar del Plata. Email: [sebasurquijo@gmail.com](mailto:sebasurquijo@gmail.com)

The findings presented in these articles have significant implications for education, psychology, neuroscience, and public policy. By highlighting the importance of cognitive and cultural diversity, these studies encourage a rethinking of educational practices and the building of fairer and more inclusive societies.

**Keywords:** cognitive sciences; interculturality; neurodiversity; cultural diversity; education; inclusion; cognitive models.

## Resumen

Este número especial de la revista *Ánfora* profundiza la intersección entre las ciencias cognitivas, la inclusión y la interculturalidad, explorando la necesidad de trascender los modelos cognitivos tradicionales eurocéntricos. Los artículos reunidos aquí ofrecen una visión más amplia y compleja de los procesos mentales, reconociendo la diversidad de formas de pensar, sentir y relacionarse con el mundo.

Al analizar la cognición en contextos interculturales y en poblaciones minoritarias, los autores contribuyen a construir un conocimiento más inclusivo y equitativo. Los estudios presentados abarcan desde el análisis de la relación entre cultura y cognición, pasando por la implementación de modelos educativos interculturales, hasta la exploración de las experiencias cognitivas de personas con neurodiversidad.

Los hallazgos que presentan estos artículos tienen importantes implicaciones para la educación, la psicología, la neurociencia y las políticas públicas. Al destacar la importancia de la diversidad cognitiva y cultural, estos estudios invitan a repensar las prácticas educativas y a construir sociedades más justas e inclusivas.

**Palabras clave:** ciencias cognitivas; interculturalidad; neurodiversidad; diversidad cultural; educación; inclusión; modelos cognitivos.

## Resumo

Este número especial da revista *Ánfora* aprofunda a interseção entre as ciências cognitivas, a inclusão e a interculturalidade, explorando a necessidade de transcender os modelos cognitivos tradicionais eurocêntricos. Os artigos reunidos aqui oferecem uma visão mais ampla e complexa dos processos mentais, reconhecendo a diversidade de formas de pensar, sentir e relacionar-se com o mundo. Ao analisar a cognição em contextos interculturais e em populações minoritárias, os autores contribuem para

construir um conhecimento mais inclusivo e equitativo. Os estudos apresentados abrangem desde a análise da relação entre cultura e cognição, passando pela implementação de modelos educativos interculturais, até a exploração das experiências cognitivas de pessoas com neurodiversidade. Os achados apresentados nestes artigos têm importantes implicações para a educação, a psicologia, a neurociência e as políticas públicas. Ao destacar a importância da diversidade cognitiva e cultural, esses estudos convidam a repensar as práticas educacionais e a construir sociedades mais justas e inclusivas.

**Palavras-chave:** ciências cognitivas; interculturalidade; neurodiversidade; diversidade cultural; educação; inclusão; modelos cognitivos.

The last two special issues of *Ánfora*, dedicated to Cognitive Sciences and Interculturality, represent a further step in exploring the boundaries of human knowledge. Building on the path set by the previous issue (Gutierrez & Montoya, 2024), which addressed the need to understand the complex relationship between mind, brain, and society, this volume delves deeper into how cognitive sciences, in their quest to unravel the workings of the mind, have experienced exponential growth in recent decades. Their interdisciplinary approach, spanning from philosophy and psychology to neuroscience and artificial intelligence, has significantly advanced our understanding of mental processes (Thagard, 2023). However, it is undeniable that this field has traditionally been Eurocentric, focusing on cognitive models based on Western populations (Dotson & Duarte, 2020).

The increasing globalization and awareness of cultural diversity have highlighted the need to expand the horizons of cognitive sciences and interculturality. As a conceptual framework, it invites us to recognize and value cultural differences, as well as to seek common ground that allows us to build more just and equitable societies, which is of particular importance in Latin America (CEPAL, 2023).

The articles in this special issue of *Ánfora* invite us to rethink the relationship between mind, culture, and society. By exploring the intersection of cognitive sciences, neurodiversity, and cultural diversity, the authors offer a broader and more complex view of mental processes. From the study of indigenous cultures to the analysis of the experiences of people with autism, the works gathered here highlight the need to transcend traditional cognitive models focused on Western populations and to recognize the diversity of ways of thinking, feeling, and relating to the world. This issue stands as a milestone in building more inclusive and equitable knowledge in Latin America, demonstrating the potential of cognitive sciences to address social challenges such as education, inclusion, and the construction of more just societies.

In a first line of work, several articles explore the challenge of including cognitive variables in response to social, cultural, and ethnographic diversity in theoretical, urban, and applied contexts. Among these is the work of Chaves and Hederich-Martínez, which presents an analysis of the relationship between cognition and culture through contemporary ecocultural models, highlighting the heuristic potential of cognitive style as an indicator of cognitive functioning in intercultural contexts—a variable previously considered purely individual. This presents various methodological challenges that require the development of new technologies for its assessment.

Similarly, Vera, Pacheco, and Hernández investigate the implementation of the Educating City model in Manizales, Colombia, following its adherence to the International Association of Educating Cities. A series of recommendations based

on a participatory diagnosis is presented, highlighting the relevance of citizen participation in urban governance. Their study emphasizes the importance of synergies between civil society, universities, and the public sector to consolidate Manizales as an "*Edutropolis*," strengthening this significant advancement in urban governance and city diplomacy.

In another study, Valbuena and Rodríguez-Pedraza conduct a bibliometric analysis on co-creation and virtual learning communities, identifying future lines of research focused on the implications of these practices for learning and educational innovation. Among their conclusions, they highlight that co-creation as a learning strategy, through virtual communities, promotes and facilitates participation. Notable modalities in this review include problem-solving with interactive experiences related to future knowledge, using digital narratives, gamification, and workshops grounded in tailored learning environments—that is, ecological and intercultural—work meetings with experts, and collaborative settings for problem-solving.

Meanwhile, Gutierrez de Blume, Montoya, Henao, and Hurtado examine how self-regulated learning and metacognition are experienced by the indigenous community "Katanzama," revealing six key themes that underscore the relevance of cultural context in these cognitive processes: contextual knowledge and cultural relevance in learning, regulation and adaptation in learning processes, diversification of teaching strategies, learning from mistakes, study planning and organization, and self-criticism and continuous improvement. They then discuss the implications for research, theory, and the practice of metacognition.

Continuing the study of interculturality and indigenous populations, Peñaranda, Corrales, and Márquez explored the recognition of cultural diversity, specifically the recognition of Colombian indigenous cultures among basic education students. The results indicate that students were unaware of the existence of Colombia's ancestral cultures. However, classroom activities sparked interest in learning more about indigenous cultures, as well as fostering respect for ethnic groups that the students had previously not recognized. Consequently, the need to include such activities and content within an intercultural framework for shaping young people's identity is emphasized.

The other thematic axis structuring this special issue is cognitive sciences in the face of the challenge of diversity, addressing specific issues related to neurodiversity.

Abello-Camacho and Pabón-Gutiérrez analyze the construction of signed discourses in deaf university students, highlighting the importance of specific didactic strategies such as explicit instruction, language analysis, vocabulary development, the creation of new signs, and reflective linguistic tasks to strengthen metalinguistic and metacognitive skills. This work emphasizes the need to

continuously strengthen metalinguistic processes in deaf students to improve their academic performance in higher education, underlining the necessity of creating specific teaching alternatives.

Similarly, Martínez-Álvarez and collaborators reflect on learning methods for deaf adults, emphasizing the need to understand and respect Deaf culture in contemporary methods. They identified neural methods, such as vibrotactile discrimination and the use of iconic words/signs; others validated in hearing populations tested on deaf adults, such as the Memory Simulation Test and Statistical Learning Mechanisms; serious games with animation, virtual reality, interactive games, and artistic media; three methods using technology; and two learning methods based on participants' cognitive abilities. The authors stress the need to continue this research to promote the deepening of inclusion processes for this population.

Lastly, two articles address the diversity of cognition in populations on the autism spectrum. Posada, Salazar, and Giraldo seek to understand, from an interpretive paradigm with a phenomenological approach, the lived experiences regarding cognition and learning environments for individuals with autism spectrum disorder. The results emphasize that the experiences revolve around difficulties in communication, social interaction, language, behavior patterns, interests, and the importance of sensory processing or integration adaptations through collaborative work with professionals and families.

In another study, Posada and collaborators, alongside Arboleda, explore the learning experiences of individuals with autism spectrum disorder from a social and neurophenomenological perspective. They found that autistic participants demonstrated greater heterogeneity in the functioning of the mirror neuron system and their interaction with the world, both in comparison to control participants and among themselves. Consequently, they argue for the need to develop inclusive educational strategies that respect the cognitive and cultural diversity of this population.

In summary, the articles in this issue of *Ánfora* offer an enriching overview of the intersections between cognitive sciences and diversity. By exploring cognition in intercultural contexts and minority populations, the authors contribute to broadening the horizons of this discipline and to building more inclusive and equitable knowledge. The findings presented have important implications for education, psychology, neuroscience, and public policy, and they encourage further exploration of the various ways culture shapes the mind and experience of the world. This issue represents a call to action to build a future where differences

are valued and where all individuals have the opportunity to fully develop their cognitive potential.

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