

Angelo D. Delliponti's dissertation explores the foundations and cognitive mechanisms of pragmatic competence, with a particular focus on ostensive communication — the process of expressing and recognizing communicative and informative intentions. The thesis challenges the traditional view that ostensive communication requires high-level, recursive Theory of Mind (ToM), proposing instead that low-level cognitive mechanisms such as motor simulation can underpin basic forms of ostensive communication. This claim is supported by theoretical analysis, a comprehensive review of experimental semiotics literature, and an original EEG study. Delliponti proposes a pragmatics-first model of language, suggesting that the pragmatics of communication forms the foundation of natural language and represents its evolutionary origin. Most importantly, concerning the evolution of human language, the author argues that fundamental forms of ostensive communication are shared with non-human animals.

The work unfolds through four main contributions: the first have already been published, while the final one (see the Appendix) is currently under review.

In the first two papers, Delliponti develops the theoretical framework of his dissertation. Specifically, in the first, he proposes a model of ostensive communication grounded in embodied cognition, particularly motor simulation involving phono-articulatory and semantic processes. He suggests that the former contributes to the recognition of communicative intentions whereas the latter is involved in the understanding of informative intentions. The second paper extends this topic by examining it from the perspective of language acquisition. Delliponti provides a clarification of infant development processes, showing how low-level mindreading may suffice for early language acquisition.

The third paper is a systematic review of Experimental Semiotics (ES) studies, identifying how communication systems can emerge from non-linguistic interaction, shedding light on pragmatic foundations. The authors (Delliponti et al. 2023) suggest that in ES paradigms participants communicate without using language and, thus, this is a case of "pure pragmatics". Findings from ES, thus, support the idea of a pragmatic foundation of the process of meaning making.

Finally, in the appendix, the author presents a fourth paper currently under review (Ferretti et al.). The article discusses empirical EEG evidence supporting the deflationary view of ostensive communication by demonstrating that the recognition of communicative intentions occurs rapidly and automatically, suggesting the involvement of low-level cognitive processes.

This dissertation contributes to the pragmatics-first approach in language evolution and questions long-standing assumptions about the uniqueness of human communication, suggesting evolutionary continuity with non-human primates.

The thesis represents a valuable contribution to the field and has several strengths. Delliponti brings together embodied cognition, relevance theory, and evolutionary pragmatics into a coherent model. The connection between motor simulation and communicative intention recognition is original and well-argued. The thesis includes philosophical theorization, systematic literature review, and empirical neuroscience, demonstrating an interdisciplinary approach that enriches the arguments. The EEG study offers the first empirical support for the deflationary model of ostensive communication. The author engages deeply with high-profile frameworks such as Chomsky's Universal Grammar and Scott-Phillips' accounts of human uniqueness, positioning the thesis as a substantive contribution to ongoing debates in language evolution.

With the hope that this may contribute to the author's future research, I would also like to highlight some of potentially controversial aspects of the dissertation.

While the connection between motor simulation and ostensive communication is intriguing, some theoretical steps (e.g., the mapping from infant interaction to language evolution) seems to remain speculative.

The critiques of mirror neuron theory and simulation-based models of language are acknowledged but not deeply addressed. For example, the work by Morey et al. 2021 (Morey, R. D., Kaschak, M. P., Díez-Álamo, A. M., Glenberg, A. M., Zwaan, R. A., Lakens, D., ... & Ziv- Crispel, N., 2021, A pre-registered, multi-lab non-replication of the action-sentence compatibility effect (ACE). *Psychonomic bulletin & review*, 1-14) is quoted but not discussed. At the same time, recent rearticulation of traditional view of language currently experiencing renewed attention (e.g., Fedorenko, Ivanova, Regev, 2024) suggesting that the brain's language network is exclusively specialized for linguistic functions and operates on abstract, modality-independent representations are not acknowledged in the thesis. The defence of the motor simulation framework would benefit from a more rigorous discussion and rebuttal of opposing evidence.

With regard to the ES studies, if we adopt a multimodal model of language—as the author appears to do, given his view that motor simulation contributes to the identification of communicative and informative intentions—then resources such as gestures, facial expressions, bodily movements, drawings, abstract shapes, and non-linguistic vocalizations, while not expressions of verbal language, should nonetheless be considered forms of multimodal linguistic communication. Though non-verbal, these elements constitute integral components of the language system within a multimodal framework. In the context of a multimodal framework of language, the interface between pragmatics and semantics/syntax appears less clearly delineated.

Concluding, Angelo D. Delliponti's dissertation is a rigorous, ambitious, and timely contribution to the fields of pragmatics and language evolution. By arguing that ostensive communication may rely on fast, embodied processes rather than high-level cognition, it opens new paths for thinking about language development, infant cognition, and evolutionary continuity with other species. The thesis is conceptually rich and methodologically diverse, offering a compelling case for revisiting foundational assumptions in language science.

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