

The interdisciplinary language of science, philosophy and religious studies. An introduction to the issue

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Research agencies often consider interdisciplinarity as an added value; it is sometimes regarded as an “inescapable” challenge in many research sectors, and as a real exigency for the advancement of human knowledge as such. This Special Issue of *RIFL* (Rivista Italiana di Filosofia del Linguaggio) goes exactly in that direction. The specific viewpoint is about *language* and how it – in its many functions and disciplinary specifications – can prompt, or hinder, interdisciplinary debate, discussion, collaboration and confrontation. Though language indeed is an interdisciplinary issue in and of itself, reflection about its roles in interdisciplinary contexts has not been extensively enquired.

Interdisciplinary endeavours often involve “close” disciplines – i.e., disciplines sharing many aspects of their objects of study and methodologies both on the empirical and the theoretical sides. However, especially in the last decades, the idea of letting “distant” disciplines interact fruitfully – also cutting across the boundaries of natural and human sciences, for example – has often been promoted and sometimes intensely practiced by groups of open-minded scholars in several fields. This includes, notably, attempts at integrating advancements in the life sciences with research in the humanities (cultural studies, sociology, economics, linguistics, aesthetics, etc.).

One such endeavour is certainly represented by the so-called “science and religion” field (sometimes also labelled as “science and theology”), which usually involves disciplines in the domain of *Religious Studies*. Here, the challenge of pursuing a dialogue among natural sciences, philosophy and theology is taken up by a number of scholars versed in both scientific disciplines and theological matters, especially about so-called “big question” (e.g., the origin of the universe, life and intelligence, or issues such as free-will, consciousness, evolution, emergence, etc.). In the first era of such an enterprise (especially during the 1970s to the 1990s) key epistemological issues have been enquired about the very possibility of pursuing such a broadly interdisciplinary endeavour. In most recent years, more focused efforts have been developed to tackle with specific issues on the content level: what cosmological or evolutionary theories tell us about divine action; what neurobiology suggests about human openness to transcendence (in relation to, e.g., language, free-will, morality or spirituality); how physical anthropology and theological anthropology may interact in view of a comprehensive understanding of the human person and humanity as a whole; etc.

However, within the theoretical landscape just outlined, minor attention has been given to language and the various roles it may play in such a context. For this reason, we have proposed a call for papers addressing this very issue.

The topic, anyway, is quite broad, both because of the number of disciplines potentially involved and because of the array of specific approaches, questions, reference-authors, or specific issues possibly relevant to the debate. The papers included in this special issue reflect such broadness and variety. We invited 2 papers, and received 16 submissions, among which 10 passed the peer-review process and were accepted for publication. The order in which the papers are presented reflects one of the many possible orderings in which they might have been organized.

The opening article is an invited one, by Michael A. Arbib, titled *Bridging languages for the constructed realities of different scholarly domains*. This paper interestingly integrates neuroscience and philosophy of science in reflecting upon the very possibility to build up an interdisciplinary language of science, philosophy and religious studies. For this reason, we thought this might have been the best way to open the following collection of articles. Moreover, Arbib's contribution challenges the very question of the call for papers at the basis of this Special Issue, maintaining that building a language able to ensure mutual and fruitful interaction between natural sciences, philosophy and religious studies as a whole is not possible. The focus of the paper, then, is to show how, in some cases at least, it is possible to build up "bridging languages", not across whole fields of knowledge but among more limited *scholarly domains* as defined by specific research questions, empirical procedures and theorizing styles. Throughout a fascinating path across a number of thought-provoking discussions, and thanks to the analysis of the cognitive neuroscience of linguistics as a case study for the cross-domain conversation among linguistics, psychology and neuroscience, the paper ends up highlighting that, though a real "translation" between different disciplines may remain an impossible task, interdisciplinary conversation sustained by the developments of a bridging language may turn out – sometimes – in the emergence of novel research questions and, hence, in new scholarly domains.

Arbib's opening paper is followed by three contributions that address the topic of the Special Issue through the lenses of the interaction between science and *philosophy*.

Luigi Bruno's *Scienza e metafisica. Immanenza e trascendenza del linguaggio* [Science and metaphysics. Immanence and transcendence of language] enquires into the relationships between science and metaphysics starting from the consideration that both find their fundamental "tool" in language, and emphasizing how science exhibits a tendency to immanence whereas metaphysics aims at transcendence. The realization of this creates, according to the author, the condition for a reciprocal openness between the two domains.

In the paper titled *Materia prima \equiv Vuoto quantistico: una correlazione a lungo raggio* [Prime matter \equiv quantum void: a long-range correlation], Francesco Panizzoli proposes that quantum void is the contemporary physical entity possibly playing the conceptual role of Aristotelian prime matter and, consequently, that (a) the realist Kripke-Putnam's causal theory of reference, (b) *Quantum Field Theory* and (c) the Aristotelian-Thomistic hylomorphism-based philosophical framework can mutually enrich each other in pursuing our understanding of reality.

Jacopo Colelli and Mirko Di Bernardo's article – *L'inconscio incarnato: un progetto per la fenomenologia nelle scienze cognitive* [The embodied unconscious: a project for phenomenology within the cognitive sciences] – claims that the conceptual framework of the "hermeneutics of the living" has resources to compose the debate between neurobiological "fundamentalism" and irreducible-intended phenomenological

explanations. The project hinges on the notion of the living-being understood as a whole (a radically embodied subjectivity that entertains an intentional relationship with its world-environment), and emphasizes the phenomenological method as the most appropriate epistemological tool to enrich neurobiological research.

After that, the Special Issue presents four contributions that address the issue of interdisciplinarity from the specific viewpoint of *philosophy of language* pursuing varied and complementary approaches in the field.

Silvia Pieroni's paper, entitled *Interdisciplinarietà come Aufhebung del linguaggio: un problema per la filosofia della traduzione* [Interdisciplinarity as language's *Aufhebung*: a problem for the philosophy of translation], addresses the issues of translation across single sciences' *technical* languages by focusing on the translations of the German term "*Aufhebung*". Thanks to a careful analysis of some of the "translation vicissitudes" of that term, the paper discusses some ethical and aesthetic aspects of the interdisciplinary work and of the role philosophy can play in current scientific research.

Francesco Galofaro's *Wittgenstein's Creed: Mythology and Axiomatic Systems* describes a syntagmatic structure shared by axiomatic systems and creeds that, following insights from Wittgenstein, can be compared to "hinge statements". Hence, it is argued that hinge statements in an axiomatic system generates orthodoxy and heresies, philosophical and political conflicts. On this basis, the author claims that religious discourse can be as rational as philosophical and scientific ones (there is *logos* in the *mythos*), as well as that axiomatic scientific discourse projects conceptual ("noological") categories onto reality, producing a "cosmos" (there is *mythos* in the *logos*).

In his article *Sull'uso della similitudine e del paradosso nel Tractatus di Wittgenstein e nel buddhismo* [On the use of simile and paradox in Wittgenstein's *Tractatus* and in Buddhism], Tomaso Pignocchi shows how paradoxical similes play the role of deconstructing and challenging our preconceptions of reality so to prompt a deeper understanding of both the world and ourselves. To this aim, the article takes into account Wittgenstein's ladder metaphor and the Buddhist simile of the raft.

Gioia Sili's contribution – *L'infinito del linguaggio. La poesia come esperienza bi-logica e la scrittura degli haiku* [The infinite of language. Poetry as a bi-logical experience and haiku's writing] – opens with the consideration of Ignacio Matte Blanco's epistemology of the bi-logic. Hence, from this viewpoint, the author investigates the relationship between bi-logic and poetry, paying attention particularly to the smallest existing composition, the haiku. The paper closes with an enquiry on how the spirit of haiku can only exist within a fixed formal structure which is not a limitation but a potentiality for the haiku's expressive efficacy.

The Special Issue ends up with a set of four papers that, though from different standpoints and using varied approaches, broadens the scope of interdisciplinary discourse so to encompass religious and theological topics.

The paper *Grasping abstract notions via embodied language in Mark's Gospel* by Claudio Tagliapietra, Ivan Colagè and Giovanni Buccino (the second invited contribution in the Special Issue) addresses the issue of the religious language employed in Christian sacred texts through the lenses of the neuroscientific theory of embodied language, also thanks to a discussion of the empiricist philosophical tradition and the understanding of the process of abstraction. To this aim, the paper analyses four parables from the Gospel of Mark.

Giulio Maspero's *Negative Language and Gödel's Incompleteness in Cappadocian Theology* discusses the convergence between the epistemology underlying the "negative theology" of the Three Cappadocians and the incompleteness emphasized by contemporary logic. The paper focuses on the conceptual introduction of an infinite gap between the first

principle and the world in those developments, especially considering the relationship between (God's) eternity and ("worldly") time.

The contribution by Antonino Drago – *New relationships among science, philosophy and religious studies* – first shows that religious contents acquire clear and specific rational meaning according to non-classical logic (following Cusanus' insights). Then, it is also discussed how at the basis of science, philosophy and religion fundamental dichotomies can be found according to the classical/non-classical distinction in the logical approach. This, finally, is argued to prompt new opportunities for a fruitful dialogue among the three domains of human thinking.

The contribution *La comprensione dell'“intelligenza” tra intelligenza artificiale, filosofia e teologia* [Understanding “intelligence” between artificial intelligence, philosophy and theology], by Giovanni Amendola, starting from the way of understanding intelligence in the context of Artificial Intelligence, makes an attempt at disambiguating the term “intelligence” in the context of Western philosophy and the Judeo-Christian theology. To this aim, the paper discusses how various distinct forms of intelligence can be understood in a unitary manner thanks to a truly transdisciplinary approach, and proposes this as a possible horizon for future creative thinking in the dialogue between science, philosophy and theology.

Thus, the contributions gathered in this Special Issue may take RIFL's readers throughout a fascinating journey across the challenges, opportunities and peculiarities of an interdisciplinary endeavor broad enough to encompass the natural sciences, philosophy and religious studies.

In concluding, we would like warmly to thank all the authors engaged in this Special Issue for their commitment, competence and collaboration. We would like to express special gratitude to Michael A. Arbib, who not only accepted our invitation to contribute a paper, but also offered a meditated and thought-provoking article that also turned out to provide an ideal opening-paper to the whole issue. Finally, our wholehearted thanks to RIFL's Editors for accepting our proposal of this Special Issue, as well as to Giusy Gallo, Pietro Garofalo and Stefano Oliva, in the Journal's Editorial Team, for their generous help and support in all the steps that eventually brought to this Special Issue.