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# Grammar and Glamour of Cooperation

Lectures on the Philosophy of Mind,  
Language and Action



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EDITION

# Introduction: Between Criticism and Defence of a Computational Reason

*All philosophy is a “critique of language” (but not at all in Mauthner’s sense). Russell’s merit is to have shown that the apparent logical form of the proposition need not be its real form.*

Ludwig Wittgenstein<sup>1</sup>

## 1. Glamour

This book is a collection of lectures I gave on cognitive psychology, psycholinguistics, developmental psychology, modern philosophy, modern cognitive and behavioural sciences. More precisely, it is the product of my intense study into grammar and syntax, the record of my research. Over the last years, thanks to the support of the Institute of Philosophy and Sociology (IFiS PAN) and the Faculty of *Artes Librales* of the University of Warsaw I was able to conduct research in my preferred direction at liberty, taking full responsibility for my research choices. From this provenance the themes appearing in this book come: the specific character of cognitive explanations, possible architectures of mind, tacit knowledge, the role of conceptual representations in explaining grammar, the modular structure of mind, the evolutionary origins of human language ability and moral authority.

Contemporary philosophies of mind, language and action are organized around Chomsky’s proposals. He introduced competence-performance distinction and made us believe there is such a thing as a language acquisition device called Universal Grammar. The so called “Chomskyan turn” in linguistics and the cognitive sciences eclipsed the behavioural paradigm. An equivalent position in political and social philosophy is that of John Rawls. His theory of justice was designed to solve a notorious problem in Utilitarianism and introduced a revolutionary new notion of justice. While the authors deserve a more prominent place in this book, there is also a large number of footnotes, citations, and paraphrases directly

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<sup>1</sup> Wittgenstein L. (1922) *Tractatus Logico-Philosophicus*, trans. Frank P. Ramsey and C. K. Ogden, Kegan Paul.: 4.0031.

and indirectly attributed to such renowned contemporary theorists of cognitive and behavioural sciences as Noam Chomsky, Ray Jackendoff, Peter Gärdenfors, Marc D. Hauser and others. On the one hand, I wish to introduce the student into contemporary debate in modern cognitive and behavioural sciences. On the other, I wish to encourage and assist further readings. For the above reasons the role of the author of this book was not so much to craft a summary of the debate but to present the views of all parties involved. I am a mere lecturer, lecturing on grammar and cooperation, or more precisely the “glamour” of cooperation – etymologically an alteration of English *grammar* with a medieval sense of any sort of scholarship, especially “occult learning” – a variant of Scottish *gramarye* meaning “magic, enchantment, spell”.

Throughout the book I ask how grammar relates to our remarkable ability to cooperate for future needs. I test the interconnections between the mechanisms governing cooperation and reciprocal altruism on the one hand and the capacity to generate an infinite range of expressions from a finite set of syntactically structured elements on the other. Throughout the book I seek a coherent epistemological and anthropological theory and struggle with the idea of practicing philosophy of knowledge today using a single map of human cognitive functioning. I believe it is of utmost importance for us to determine whether our academic efforts comprise a patchwork of research topics, random readings and eclectic reflections characteristic of cognitive disparity and mannerisms, not to say – methodological sloppiness, or provide a clear picture of who we really are, and allow us to establish relationships where *prima facie* there appeared only free associations.

Some questions arise, for example, what is knowledge? How is our thinking related to the parameters of grammar? Can we reconstruct the evolutionary sequence of events in seeking the explanation of the sources of our cognitive competences? What is imagination and how does it relate to other human cognitive powers? Finally, what is the source of human morality and does it encompass our uniqueness? These questions have always absorbed mankind, inspired further thoughts and deepened our self-awareness and self-knowledge of our place in nature. However, it seems that today the intensity of research and the methodology of research concerning these issues are not particularly byzantine and just as they offer hope, they arouse uncertainty. We hope for a method able to verify our hypotheses, yet we are still uncertain whether the explanation of human behaviour is tantamount to understanding human behaviour, and whether partial results of our cognitive endeavours actually change something in our perception of human nature and humanity in general.

## 2. Logos, Verbum, Concept

Notable chapters in Hans-Georg Gadamer's *Truth and Method* – regarding ontological turn in hermeneutics under the auspices of language, reconstruct three major intersection points of philosophy and language resulting in three stands on language in the history of Western thought: language – *logos*, language – *Verbum*, and language as a *conceptualization*. This corresponds to three key texts representing the ancient, medieval and modern times: Plato's *Cratylus*, Saint Augustine's *De Trinitate*, and Wilhelm von Humboldt's *On Language*<sup>2</sup>.

In earlier eras the integral unity of words and things was a matter of fact. A name was either a part of the referent or it substituted the designation. Plato's *Cratylus* is the first manifestation of linguistic awareness and of the presence of subject in language. Plato laboriously recreates a dispute between the proponents of conventionalism, who believe that names have come about due to custom and convention, and naturalists, persisting that the meanings of names can be derived from the very nature of things. The more contemporary dialogue between the proponents of descriptivism and anti-descriptivism, initiated *inter alia* by Saul Kripke<sup>3</sup>, is yet another instance of the same controversy regarding a complex relationship between names and things.

We may attribute to Plato a reservation that language is probably not a legitimate tool for investigating true nature of things, and a suggestion that Being as such is probably non-verbal. Running dialectics in language does not open the door to heavens of non-verbal cognition. However, it brings us to two legitimate conclusions: first, that names do not reveal the true nature of things, and second, that whether a name is suitable or not can only be judged on the basis of knowledge of things. It is Cratylus who claimed that a proper name needs to be properly reasoned and carefully selected: a name devoid of meaning would be nothing but a sound. Let us refer to this stand on language as the “objective paradigm”.

The doctrine of the Incarnation presents yet different approach to the problem of language. Of course, the idea is not to be taken literally as a manifestation of Spirit or God Incarnate. In Christian thought, the doctrine of Incarnation works best in language context. Dogmatic theology reveals a truly linguistic problem: if the Word becomes flesh and embodies the Spirit, *logos* is left without its great spiritual potential. However, just as the Stoics discriminate between the internal

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2 Gadamer H-G. (1960/2004) *Truth and Method*. trans. J. Weinsheimer, D. G. Marshall. New York: Crossroad.

3 Kripke S. (1980) *Naming and Necessity*, Harvard University Press.

and the external *logos*, so do theologians<sup>4</sup>. For them, language correlates both in the same miraculous way as the Son does with God and Spirit. therefore, the integrity of the sign is just as mysterious as that of the Trinity. This marvel stunned men for centuries until Ferdinand de Saussure in the famous *Cours de linguistique générale*<sup>5</sup> revealed that the linguistic sign is not the composite of the thing and the name (which is very likely what Cratylus had meant) but instead it combines concept and sound-image. Sound-image for Saussure is a mental reflection of sound, an image that human memory is able to store. From Augustine to de Saussure the miracle of language is in the fact that what it manifests and what is manifested in it is still contained in words. Perhaps due to the fact that *logos* translates to *ratio* and *verbum* the phenomenon of language is central to theological scholasticism while it is peripheral in Greek metaphysics. We may refer to this theology of the sign the “incarnation paradigm”.

Theology paves the way for anthropology and a new way of combining the finiteness of the human mind and divine infinity. The Word of God creates the world, but it does so in a sequence of creative ideas spanning at least the week of creation. We may assume that God can anytime express himself with a single Word. To do that much, the human mind needs to laboriously follow sequences of events and strings of cause-effect relations. Nevertheless, the human mind, from Nicholas of Cusa to Noam Chomsky, has a natural language at its disposal, a tool to express all that can be thought of. It does so regardless of its provenance and whether or not it descends from Adamic language or pre-Babel times. The human mind is amazingly productive and creative, but it is that way only thanks to language and its wonderful property – the capacity to generate an infinite range of expressions from a finite set of syntactically structured elements. For Wilhelm von Humboldt this property will be “spiritual power” and for Noam Chomsky it will be “competence” and “generativity”. In either case, the essence of human creativity remains the same: man makes infinite use of finite resources and is the creator

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4 Stoic semiotics is structured in the following way: the signifier is a corporeal utterance; the signified is a non-corporeal *lekton*; the object is a corporeal referent. *Lekta* (“things said”) are non-corporeal true or false propositions or parts of propositions that subsist in some kind of an external world and cannot directly interact with the material. In the Stoics, therefore, we find the sign’s concept of a logical character. Sign (*semeion*) is the predecessor of true implications which means it is the part of content judgment (*lekton*) in the logical sense.

5 Saussure de F. (1916) *Cours de linguistique générale*, ed. C. Bally, A. Sechehaye, with the collaboration of A. Riedlinger, Lausanne and Paris: Payot; Saussure de F. (1977) *Course in General Linguistics*, trans. W. Baskin, Glasgow: Fontana/Collins.

of infinite number of sentences. Let's call the position in which grammar is the source of human might the "conceptual paradigm".

We have, therefore, three paradigms for thinking about language, language – *logos*, language – *verbum* and language as a conceptualization. None of them is, of course, completely separable. Let us only recall that Cratylus sort of predicts the dilemma of the Trinity, and repeat that mentalist linguistics owes much to the acrobatics of the Trinity. Jacques Derrida in his a foundational text *Of Grammatology* warns against the devaluation of the word "language"<sup>6</sup> reasoning that our epoch of science, writing and sign, must either surrender or determine as language the totality of its *episteme*. *Signum-signatum* account of signification given in Augustine's semiotics resists the test of time: we still think of sign as "anything which determines something else" – *aliquid stat pro aliquot*, and the "epochs" of *Logos*, *Verbum* and *concept* overlap and carry on into the future, perhaps infinity. The difference between signifier and signified is the difference between sensory and conceptual – and a straightforward reference to *logos*. Derrida therefore concludes that the sign and divinity must have the same place and time of birth and that the age of the sign is essentially theological. The sign holds the secret to the unity of signifier and signified. Martin Heidegger's late definition of language as the "relation of all relations" and his turn from positioning language within the analytics of Being to positioning the analytics of Being within the totality of language is perhaps the most conclusive proof that the science of signs is of theological nature<sup>7</sup>.

### 3. Thresholds

Let us now move on from theology to science to illuminate the general idea of the so-called "linguistic turn"<sup>8</sup> in contemporary philosophy, the essence of which – I have come to believe – is that not only the Being of the world manifests in language, but that the Being of language is manifesting the world. In other words, the essence of the linguistic turn is not only the epistemological argument that

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6 Derrida J. (1976) *Of Grammatology*, trans. G. Spivak, The John Hopkins University Press, p. 6.

7 Heidegger M. (1953/1996) *Being and Time*, trans. J. Stambaugh, State University of New York Press, Albany.

8 Rorty R. (ed.) (1967) *The Linguistic Turn: Recent Essays in Philosophical Method*. The University of Chicago Press, Chicago and London.

language is the limit of knowledge of the world, but also the ontological argument that it is the limit for the world to manifest itself. I am inclined to believe we have just reached a dead end or there is new to come.

Ferdinand de Saussure, a father of modern linguistics, believed in the coming of a linguistics proper, aware of its object. He distinguishes three phases, or three successive approaches adopted by those who took a language as an object of study<sup>9</sup>. The first phase is that of grammar, later – normative grammar, where preoccupation with laying down rules and distinguishing between an allegedly “correct” language and allegedly “incorrect” language precludes any broader view of the language phenomenon. Despite the fact, grammarians have always been fanatic about their approach and forcefully opposed a move on from the syntax-centrism in the philosophy of language and redirecting research towards a more pragmatic approach. Granted, this would likely blur the distinction between behavioural and language activities – the stronghold of grammarians. If, however, fanaticism is driven by fear, then what grammarians fear is that language could lose integrity. The second phase was the offshoot of great philological movement of classical philology, where critical examination of texts of different periods opened up countless sources relevant to linguistic issues. This phase would be almost irrelevant to linguistics was it not for the fact that henceforth language studies were no longer directed merely towards correcting grammar. The third was the sensational phase of discovering that languages could be compared with one another, a contribution of Franz Bopp, whose comparative method broke the bonds of grammar to find fancy and inconclusive family relationships between languages. Bopp firmly believed that language is a living organism – the fourth kingdom of nature. To cross the third threshold was to assume that a language can be something else: a social phenomenon, a product of collective spirit and a repository of social conventions. This is how linguistics proper came to be.

We can safely assume that our modern way of thinking about language and signs has been completely modelled by de Saussure’s most influential work, *Course in General Linguistics* (published posthumously in 1916) and that this is the threshold we yet need to cross. Although structuralist dichotomies are still in use today – language (system) vs. speech (act), a signifier (French: *signifiant*), vs. signified (French: *signifié*), paradigmatic vs. syntagmatic axes, denotation vs. connotation – the fact is that whenever applied in research, the binary classification of concepts reproduces and reflects the binary structure of the system it is

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9 Saussure de F. (1910–1911/1993) *Third Course of Lectures on General Linguistics*, Pergamon Press.

describing. More importantly, if language is “a system of signs that express ideas”, it is then comparable to anything from fashion to Navy SEALs military signals<sup>10</sup>. If language is just one of many communication systems, it is disenchanted, even if it is the most important, paradigmatic system. The latter means that all the other systems can be understood only through knowledge of language structure, which is then re-cast on the form (structure) of language-like systems. The paradigm here is to discover the true nature of language by establishing what is common to all communication system of the same type. Only at a later stage should one address such accidental factors as the functioning of the vocal tract, and only as much as it helps distinguish the language from other systems.

Language is, therefore, what has been previously defined as language. Other structures are considered a language in so far as their architecture can be translated into the prototype language. Similar implications follow from the canonical text of Donald Davidson *On the Very Idea of a Conceptual Scheme*<sup>11</sup>. Languages that have evolved in distant times or places may differ extensively in their resources for dealing with one or another range of phenomena. What comes easily in one language may come hard in another, and this difference may echo significant dissimilarities in style and value. Speakers of different languages may share a conceptual scheme provided there is a way of translating one language into the other. Each language has a conceptual framework. Mutually translatable languages have the same conceptual framework and vice versa: a conceptual framework corresponds to a set of translatable languages. It follows that a partial or total untranslatability of languages implies that they belong to different conceptual frameworks. We yet need to consider that partially or fully untranslatable languages may belong to various conceptual frameworks, and that each conceptual framework corresponds to a set of conceptual schemes, where each set is a conceptual scheme of a possible language within such a conceptual framework. A conceptual framework does not relate to concepts as such. Two conceptual schemes within the same conceptual framework may have not even a single concept in common. Davidson refers to such fully or partially untranslatable conceptual schemes as “not intertranslatable”, which corresponds to “incommensurable” in Kuhn’s and Feyerabend’s writings<sup>12</sup>.

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10 Barthes R. (1964) *Elements of Semiology*, Publ. Hill and Wang.

11 Davidson D. (1974) *On the Very Idea of a Conceptual Scheme*, [in:] “Proceedings and Addresses of the American Philosophical Association”, 47, pp. 5–20.

12 Kuhn, T. S. (1977) *The Essential Tension: Selected Studies in Scientific Tradition and Change*. Chicago and London: University of Chicago Press; Feyerabend P. (2006)



Émile Benveniste posits that if the most outstanding a quality of language is to structure and to integrate, then not only the existence of another person but the existence of a society must be presupposed in language<sup>13</sup>. On one hand, language is a practice through which human beings have acquired definite capacities and attributes for social existence as particular sorts of person. In other words, language is in the nature of man and it is in and through language that a man constitutes himself as a subject. On the other hand, just as human societies come after language and imitate its functioning, language comes after human societies and imitates their functioning. Jacques Lacan will later add that language is not so much about communication or information as it is for evocation, summoning the Other<sup>14</sup>. There are three pathologies in language today: psychotics no longer seek recognition of the Other, hysterics go about the symptoms of their repressed desires, and scientists hush their true identity as cognitive subjects. If language is not the theology of the sign, if language is no longer *logos*, *verbum* nor *concept*, if language is more than just a system of signs and if it is more that grammar, more than scriptures, and more than the sum total of all language families combined – then what language is? I would not be surprised to see a new paradigm for the study of language ascend to prominence. There are early signs and the change is gaining momentum.

## 4. Architecture

One distinctive feature of cognitive reason is certainly a decompositive strategy applied in research, the strategy according to which there is no such a thing (substance) as mind. Instead, there is a variety of functions, properties and states which, as it is claimed, are mental (psychological). On the contrary, in contemporary cognitive science (as well as in information technology and the philosophy of mind) we encounter a probable Kantian inspiration – the concept of “architecture”. In cognitive sciences this concept describes a functionally specific internal structure of any complex system, usually hierarchical. By applying the concept of

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*Knowledge, Science and Relativism: Philosophical Papers*, Volume 3, Cambridge: Cambridge University Press.

- 13 Benveniste E. (1966–1974) *Problems in General Linguistics*, trans. M. E. Meek, 2 vols. Coral Gables, Florida: University of Miami.
- 14 Lacan J. (2006) *The Function and Field of Speech and Language in Psychoanalysis*, trans. B. Fink, [in:] *Écrits: The First Complete Edition in English*, New York and London, W. W. Norton.

architecture of the mind, the philosophers of mind ascribe to the general thesis of functionalism, namely that the mind is a functional structure. Of course, functionalists differ much in their understanding of various functions and so do the facets of the architecture of the mind<sup>15</sup>.

Ultimately, what this means is that to proceed with epistemological and anthropological reflections one needs to pursue detailed studies, systematic observations and experiments of the neural, behavioural, cognitive, and biological sciences. We could certainly contemptuously disregard it as a stance akin to Enlightenment positivism, attempting to make a science out of philosophy and to naturalize human spiritual properties which were hitherto inherently unsusceptible to naturalization. One could of course bar himself from cognitive reason and praise speculative reason, making our spiritual properties a wonder throughout the universe – the strategy I am myself familiar with having encountered it in numerous conversations. However, philosophy – at least the way I understand it – develops creatively only when challenging science, and otherwise it is arrogant, anachronistic or introverted.

In the history of philosophy there have always been attempts to naturalize human cognitive abilities, never however, have there been so many interesting results and never has this tendency been as seductive as it is today. As Steven Pinker suggests, there indeed must be a fantastically complicated machinery behind the control panel of consciousness: optical analysers; traffic control systems models of the world; a database of people and things; programs scheduling tasks; managing conflicts and so many others. Such a complication deserves a more complicated explanation; an explanation regarding a single superior force or one miracle potion sounds hollow today, be it culture, learning, self-organization or the principle of pleasure.

On the contrary, the enthusiasm of contemporary cognitive scientists paired with a sense of freedom from the philosophical tradition (and sometimes open resentment towards it) seem inappropriate and epistemologically naïve, as if cognitive science allowed for the transgression of traditional philosophy and represented a new era of scientific philosophy. Bearing in mind the current methodology of cognitive science and its potential to unravel the mysteries of consciousness, the mind and morals are as extensive as it is unsubstantiated. Problems of consciousness, imagination, and human moral authority remain unresolved. Moreover, cognitive reason often lacks self-awareness and self-reflection that would slake the cognitive thirst and make cognitive science a more conscious enterprise – cognisant both of

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15 Carruthers P. (2006) *The Architecture of the Mind. Massive Modularity and the Flexibility of Thought*, Oxford.

its capabilities and limitations. What cognitive science lacks is, in my opinion, a constructive criticism in the Kantian sense; a reflection on the possibilities of the implementation of certain research strategies. While peripheral criticism is in abundance, what seems to be missing is a centre of cognitive research providing reflection on the very foundations and the parameters of the study.

## 5. Evolutionary Explanation

Let me give an example of a constructive criticism that cognitive science desperately requires. As it is well known, the evolutionary explanation is treated today as an intellectual base that allows to understand better the architecture of the mind/brain. The supporters of this approach point out that the very existence of cognitive systems and their specific modules require an evolutionary explanation. Four assumptions are predominant: (a) computationalism – minds are information processing devices that can be called “organic computers”, (b) nativism – some aspects of human mind are innate (c) adaptationism – minds are the product of evolution, resembling a mosaic, and produced by a large number of environmentally-determined adaptations, (d) massive modularity – mind is made up of hundreds of Darwinian modules encompassing both peripheral and central systems. The problem is that the same assumptions are inherently questionable and what one needs to analyse them and their pertinence is the appropriate primary task of a well-understood critique of cognitive reason.

The critique of computational reason should, therefore, subject to reflection of both the unconscious and the conscious, primarily unopposed initial assumptions that underlie the theory of knowledge promoted by cognitive scientists. On the other hand, in defence of computational reason we should be focused on these topics, impulses and motives of research that make cognitive science such an intriguing and effective tool of research. Above all, a rational motive should be safeguarded as far as it provides logically related propositions, and an empirical motive should be safeguarded as far as it provides verification of hypotheses. Therefore, this book covers two perspectives simultaneously; it is written “against” cognitive science, where to be “against” implies being critical towards its rapacious claims, and “for” cognitive science, where to be “for” implies sharing its rationalist attitude in the belief that in our culture science is righteously a dominant cognitive narrative.

On the one hand, the computing power of self-reflection, introspection, self-analysis, natural experience, insight, reflexive knowledge, and other natural

cognitive powers should be accompanied with a method of verification. On the other hand, the empirical evidence provided by the neural and behavioural sciences needs to be confronted with a spontaneous and natural self-understanding of a man and his self-knowledge. Otherwise, this sophisticated scientific knowledge is likely to distract us from our self and to divert our understanding.

## 6. Generativity

The concept of generativity was founded on stimulating and advanced research data in cognitive linguistics. Over the years, this complex domain generated diverse and somewhat incoherent approaches to language and cognitive competence. Those of our great concern included Noam Chomsky, Ronald W. Langacker and Ray Jackendoff. My intention was to analyse and compare following aspects of aforementioned theories: (1) the ontology of mind and epistemology; (2) relations between syntax, semantics and phonology; (3) relations between grammatical and lexical elements; (4) relations between lexical elements and constituents of language user knowledge; (5) kinds of assumed categories and cognitive processes presumably inherent in cognitive subject matters; (6) distinction between linguistic and cognitive human competence.

My aim, inspired by research on the innovative, compositionality of linguistic processes, was to discuss the issue of limitations of the concept of generativity when applied to various human cognitive processes. The main objective of my investigations was to attempt implanting the concept of generativity to non-syntactical dimensions of human cognitive functioning. Had we found this idea determined by phonology and semantics, would there be no other choice but to abandon it for good?

Chomsky (generative grammar) claims that generativity refers solely to syntax; Langacker (cognitive grammar) finds it of minor importance and denies its validity. Jackendoff (conceptual semantics) negotiates these polarities and assumes that both syntax and semantics should be seen as a limited set of mental units and a limited set of paradigmatic linking that both delineate potential meanings expressed in a sentence form. Are we ready to settle this dispute?

The idea of organizing the book was the result of a growing concern of the use of the cognitive module and an increasing popularity of what is often referred to as the modularism of mind. This approach is so overwhelming, and the notion of mind so disintegrated, that some philosophy and psychology scholars go as far as to claim that we can no longer refer to mind as a substance but merely a quality,