Grammar as science:
Beauzée's theory of tense and the metaphysics of time

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Abstract

This article aims to deepen our understanding of Nicolas Beauzée's (1717–1789) attempt to establish a science of grammar modeled upon natural philosophy. At this endeavor's heart stood Beauzee's analysis of grammatical time. Beauzée's tense theory, first published in 1765, had a profound impact on our understanding of tense as a complex system of reference, establishing order relations between events described within discourse and the moment of speech. While historians of linguistics have recognized Beauzée's contribution to the theory of tense, its greater significance has not been hitherto appreciated: Beauzée reinvented general grammar as a modern science combining Cartesian and Newtonian principles. Building on Port-Royal's notion of general grammar, Beauzée sought to establish "grammatical metaphysics"—a sure foundation for a science of grammar. This aspiration, especially evident in his theory of grammatical time, together with Beauzée's numerous references to physics, astronomy, geography, geometry, and metaphysics, amounted to an elaborate strategy of scientification, taking the natural sciences not merely as inspiration but as a coveted epistemological ideal for general grammar's scientific remodeling.

Keywords

Nicolas Beauzée; general grammar; grammatical tense; time and tense; linguistics and physics; linguistics and metaphysics

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1. Introduction

"General grammar is a science" stated the Enlightenment grammarian Nicolas Beauzée (1717-1789).[1] Enthused by his era's scientific achievements, the growing popularity of metaphysics (notably in eighteenth-century France), and the thriving debates among Cartesians, Leibnizians and Newtonians over the laws of nature, Beauzée sought to establish a genuinely scientific research program for grammar. General grammar, he advocated, aspired beyond the study of particular grammars to articulate the general principles of language. It is in this sense that Beauzée construed his intellectual project as "grammatical metaphysics:" a foundational investigation inspired by natural philosophy, consisting in systematic speculation about language's general principles and corroborated by the linguistic facts of the many particular grammars of the world.

The centerpiece of this pioneering scientific endeavor was Beauzée's theory of grammatical time.[2] Theories of grammatical time explain how grammar systematizes the

[1] "La *Grammaire générale* est une science, parce qu'elle n'a pour objet que la spéculation raisonnée des principes immuables & généraux du Langage." Nicolas Beauzée, *Grammaire générale ou Exposition raisonnée des éléments nécessaires du langage. Pour servir de fondement à l'étude de toutes les langues,* 2 vols. (Paris: J. Barbou, 1767), 1:x.

[2] Beauzée first published his theory of tense as an entry in Diderot and D'Alembert's *Encyclopédie*, to which he contributed more than 140 articles (Nicolas Beauzée, "Tems [Grammaire]," *Encyclopédie, Dictionnaire raisonné des sciences, des arts et des métiers, par une société de gens de lettres* [Neufchastel: Samuel Faulche

expression of time. Such theories mainly developed in the contexts of languages wherein elaborate systems of grammatical tense encode the expression of time, establishing conventionalized order relations between the events described and the moment of speech (as with Latin and the Romance languages). By the eighteenth century, time was a traditional object of metaphysics and natural philosophy and it understandably demanded a scientific method of inquiry. Thus, considering time and tense through a single metaphysical perspective enabled Beauzée to theorize grammatical tense as a complex system of reference *à la* geometry. Thus Beauzée intended his theory of time, a central pillar of his general grammar, to demonstrate the application of scientific method to grammatical questions. "I believed," he wrote, that "I should treat the principles of language as we treat those of physics, geometry, those of all sciences."[3]

& Co., 1765], 16: 96-117). Two years later he integrated a redrafted version into his two-volume *Grammaire générale* (1:422-513). In 1786, the original reappeared (with minor alterations) in Panckoucke's *Encyclopédie méthodique*, regrouping his vast contribution to the *Encyclopédie* with some revisions and additions (Nicolas Beauzée, "Temps," in *Encyclopédie Méthodique. Grammaire et Littérature*, eds. Nicolas Beauzée and Jean-François Marmontel, 3 vols. [Paris/Liège: Panckoucke, 1786], 3:494-522). On the *Grammaire et Littérature* section in the *Encyclopédie méthodique*, see: Kathleen Hardesty Doig, *From "Encyclopédie" to "Encyclopédie Méthodique": Revision and Expansion* (Oxford: Voltaire Foundation, 2013), 154-161. In the following, when relating to the theory I will refer mainly to the original *Encyclopédie* entry.

[3] "J'ai cru devoir traiter les principes du Langage, comme on traite ceux de la Physique, de la Géométrie, ceux de toutes les sciences." Beauzée, *Grammaire générale*, 1:xvi.

General grammar, typically identified with the Port-Royal *Grammaire générale et raisonnée* (1660), constituted a crucial step towards modern linguistics.[4] Relying on rigorous standards of logic and reasoned speculation, the Port-Royal general grammar aspired to theorize those elements common to all languages. Its primary goal was pedagogical: defining and explaining the common elements of all languages was the perfect introduction to the study of any language. As Sylvain Auroux has argued, just as René Descartes's *Discourse on the Method* (1637) was an introduction to particular treatises (*Optics, Meteorology* and *Geometry*), general grammar was originally a propaedeutic—a preparatory study to the grammar of particular languages.[5] A century after the Messieurs of Port-Royal, Beauzée reclaimed the title "*Grammaire générale*", enlivening and developing this scholarly undertaking and popularizing it throughout the second half of the eighteenth century.[6]

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[4] Antoine Arnauld and Claude Lancelot, *Grammaire générale et raisonnée. Contenant les fondemens de l'art de parler* (Paris: Pierre le Petit, 1660). On the Port-Royal *Grammaire* and its role in modern linguistics, see: Marc Dominicy, *La naissance de la grammaire moderne: langage, logique et philosophie à Port-Royal* (Liège/Bruxelles: Mardaga, 1984).

[5] See: Sylvain Auroux, "Port-Royal et la tradition française de la grammaire générale," in *History of the Language Sciences*, ed. Sylvain Auroux et al., 3 vols. (Berlin/New York: Walter de Gruyter, 2000), 1:1022–29.

[6] On Beauzée's contributions to general grammar see: Barrie E. Bartlett, *Beauzée's Grammaire générale : Theory and Methodology* (The Hague: Mouton & Co. B. V., 1975); Sylvain Auroux, "Innovation et système scientifique : le temps verbal dans la grammaire générale," in *Hommage à Jean-Toussaint Desanti*, ed. Sylvain Auroux and Desanti (Mauvezin: Trans-Europ-Repress (T.E.R.), 1991), 55–86; Bernd Naumann, "Die 'Allgemeine Sprachwissenschaft' um die Wende zum 19. Jahrhundert," in *History of the Language*

While historians of linguistics acknowledge Beauzée as an important contributor to general grammar, they have rarely appraised or even discussed the strategy he employed in accomplishing his scientific enterprise: Beauzée appealed explicitly to physics, geometry, astronomy, and geography; his aspiration to upgrade general grammar and transform it into a genuine "grammatical metaphysics" was inspired by his time's philosophical developments; and his theory of tense avowedly relied on Cartesian astronomical physics.

The aim of this essay is to show how Beauzée's ambition to establish a scientific study of grammar inspired by natural philosophy motivated his greatest achievements—especially his groundbreaking theory of grammatical time. Auroux and Jean-Marie Fournier have already demonstrated Beauzée's distinctive contribution to the theory of grammatical time, setting Beauzée's work against the backdrop of other contemporaneous tense theories.[7] Situating Beauzée's work within the broader epistemological perspective of the history of linguistics as a scientific discipline, as this essay aims to do, may supplement the existing analyses and enable us to appreciate Beauzée's efforts to promote a purposefully *scientific* theory of grammar. I will argue that Beauzée's sophisticated theoretical move tying the metaphysics of time to a form of "metaphysics of grammatical tense," was a *tour de force* rendering his theory powerful and enabling him to advance a

Sciences, ed. Sylvain Auroux et al., 3 vols. (Berlin/New York: Walter de Gruyter, 2000), 1:1044–56; Michel Le Guern, *Nicolas Beauzée, Grammairien philosophe* (Paris: Honoré Champion, 2009).

[7] Auroux, "Innovation et système scientifique," and "Port-Royal et la tradition française de la grammaire générale;" Jean-Marie Fournier, *Histoire des théories du temps dans la grammaire française* (Lyon: ENS Éditions, 2013).

successful model of scientification. This model of scientification—explicitly taking natural science and particularly physics as the ideal scientific exemplar for "the science of grammar"—would emerge and reemerge in modern linguistics over generations to come.

Far more than a mere source of inspiration or metaphor, Beauzée's references to science constituted a multilayered epistemological apparatus destined to set up a scientific foundation for general grammar. His theory of grammatical time enabled Beauzée to demonstrate the full potential of this apparatus and to distance himself from a long tradition that perceived grammatical knowledge as a branch of the art of discourse. Theorizing the system of tense as a physical reference system, Beauzée determined the relations between events as the primary reference frame calibrating the temporal system. As a result, the moment of speech—the speaker's temporal position, the traditional focus for grammatical analysis—became secondary. This change in focus shifted the theory's attention from discursive ends and speaking subjects to an objective view of the temporal reference system conveyed by the verbal forms. The result finally resembled a theory of mechanics or physical astronomy much more than a traditional theory of grammar.

What was Beauzée's idea of science and how did he intend to establish a science of grammar? In the next section I examine Beauzée's perceptions of metaphysics and science and his attitude towards the grand epistemological and scientific polemics of his day, including disputes between Cartesians and Newtonians and the emerging debates between rationalists and empiricists. A close reading of Beauzée's writings enables me to explore his concept of "grammatical metaphysics" and his views about scientific method. A third section I devote to Beauzée's notion of general grammar and his aspiration to transform it into an empirically based science of grammar. Beauzée's elaborate and

thought-out epistemological enterprise does not seem to have altered his grim views about the grammar of his time, its scientific value, or its power to emerge from its own "dark ages." The distance between his scientific ambitions and the realities of grammar thus impelled Beauzée to adopt concepts and methodologies inspired by natural philosophy, as his theory of grammatical tense demonstrates. A fourth section presents this theory and explores its principles and innovations. In the conclusion, I argue that Beauzée's references to metaphysical notions and scientific methodologies amount to a strategy of scientification that renders his theory of grammatical time not only unique and theoretically powerful but also extremely significant for our understanding of the history of modern linguistics as a scientific discipline.

2. *Grammatical Metaphysics*: Nicolas Beauzée's scientific project

The term '*Métaphysique*' recurs continually in Beauzée's writings, and Beauzée was well aware that his metaphysical pursuit within the domain of grammar required some explanation: "Why would one believe metaphysics to be misplaced in a book on general grammar?" he queried rhetorically. "Only metaphysics," he answered, "the most thoughtful and analytic examination of abstract ideas," can reveal the principles of grammar.[8] "Grammatical metaphysics," he asserted, "is nothing but the nature of language uncovered, ascertained by its own facts, and reduced to general notions."[9]

[8] Beauzée, *Grammaire générale*, 1:xxxiij–xxxv.

[9] Ibid., xxx.

Diderot and D'Alembert's *Encyclopédie* represents Beauzée's immediate intellectual environment, and the *Encyclopédie*'s entry on metaphysics (attributed to Diderot) confirms the understanding of the notion as a canon of general principles underlying the practice of a specific art or science:

> METAPHYSICS, n. is the science of the reasons of things. Everything has its *metaphysics* and its practice: […] Ask a painter, a poet, a musician, a geometer, and you will compel him give an account of his operation, that is, to come at the metaphysics of his art.[10]

This conception of metaphysics as a foundational project—setting the foundations for each and every domain of knowledge, whether practical or theoretical, and thus furnishing the indispensable basis for a genuine scientific investigation—Beauzée's generation had received from Descartes. For Descartes, metaphysics was the primary and fundamental part of philosophy, "the root of the tree," providing the principles for true philosophy. According to Descartes's renowned metaphor in *Principles of Philosophy* (1647), the tree of knowledge in its entirety relied on first philosophy, and thus the benefits of philosophy—the fruits of the many sciences that the tree grows—likewise depended on the quality of those metaphysical roots.[11]

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[10] "MÉTAPHYSIQUE, s. f. c'est la science des raisons des choses. Tout a sa *métaphysique* & sa pratique : […] Interrogez un peintre, un poete, un musicien, un géometre, & vous le forcerez à rendre compte de ses opérations, c'est-à-dire à en venir à la *métaphysique* de son art." Diderot, "Métaphysique," *Encyc.*, 10:440.

[11] These ideas are central to Descartes's work and are apparent especially in his *Discourse on the Method* (1637), *Meditations on First Philosophy* ([1641] 1647), and *Principles of Philosophy* ([1644] 1647). In the following I will use the standard citation format for Descartes's works. Hence, 'AT' refers to René Descartes,

Descartes's work on first philosophy profoundly influenced Beauzée, who virtually modelled his entire scientific enterprise along Cartesian lines. Beauzée explicitly mentioned Descartes on several occasions, and a strong Cartesian imprint is evident at several places in his work. Specifically, when Beauzée argues that the study of languages should reasonably begin with the general principles of the art of grammar—that is, "if one hopes to make some progress there"—his words clearly echo those of Descartes.[12]

Beauzée laid emphasis on his scientific aspirations—his ambitions to found a general science of grammar—in many of his works. Every so often, he opted for a more explicit designation than Port-Royal's generic term "general grammar," stressing the scientific character of his grammatical endeavor. Thus, alongside the term 'grammatical metaphysics' ('*Métaphysique grammaticale*'), we also find in his writings such expressions as 'grammatical science' ('*Science grammaticale*'), 'The science of utterance' ('*Science de la parole*'), or 'philosophy of language' ('*Philosophie du Langage*')—all in

Œuvres de Descartes, ed. Charles Adam and Paul Tannery (Paris: J. Vrin, 1996), and 'CSM' to René Descartes, *The Philosophical Writings of Descartes*, trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch (Cambridge: Cambridge University Press, 1985). According to Descartes's metaphorical description of philosophy as a tree, metaphysics constitutes its roots, physics its trunk, and the branches signify all the other sciences, principally medicine, mechanics and morals. This celebrated simile appears in the introduction to the French translation of *Principles of Philosophy* published in 1647 under Descartes's supervision (AT IXB 14; CSM I 186).

[12] Compare Beauzée's words with Descartes's : "[…] si l'on veut espérer d'y faire quelques progrès," Beauzée, *Grammaire générale*, 1: xiij ; "[…] des progrès que j'ai espérance de faire à l'avenir dans les sciences," Descartes, *Discours de la méthode* (AT VI 78).

reference to his own enterprise.[13] Beauzée reserved the label of "Grammarian Philosopher" ("*Grammairien philosophe*") for those illustrious grammarians who had, in his eyes, advanced general grammar.

This terminological plethora aimed to highlight the scientific character of Beauzée's undertaking, which he compared repeatedly to physics and geometry. Thus for Beauzée the various scientific inquiries—whether in language, physics, geometry, or yet other realms—all originated in our cognitive faculties. "We have only one logic", he reasoned, "and the human mind […] is necessarily subject to the same mechanism, whatever the topics that occupy it."[14] This primitive theory of cognition allowed Beauzée to justify the analogy between general grammar and the natural sciences. The similarity between the domains of investigation extended, however, beyond the mental procedures underlying scientific activity to methodology as well, according to Beauzée:

> It is everywhere as it is in physics: we cannot, regarding any kind of matter, know the causes but by their effects, and the principles of the arts by their productions.

[13] Similar terms reoccur in many of Beauzée's works, such as the introduction to his *General Grammar* (Beauzée, *Grammaire générale*, 1:v–xlij), and his articles on "Grammar" and "Time" in Diderot and d'Alembert's *Encyclopédie* (Beauzée and Douchet, "Grammaire," *Encyc.,* 7:841-847; Beauzée, "Tems," *Encyc.*, 16: 96-117). As for the expression 'Science de la parole,' Beauzée explicates that it can refer to either spoken or written utterances ("C'est la science de la parole prononcée ou écrite," Beauzée & Douchet, "Grammaire," *Encyc.,* 7:841). Thence, I translate it as 'The science of utterance' (rather than 'The science of speech'). The term '*Philosophie du Langage*' ('Philosophy of Language') appears in Beauzée's introduction to his translation from the Latin of Gaius Sallustius Crispus, *Les histoires de Salluste, traduites en françois* (Paris: Barbou, [1770] 1781).

[14] Beauzée, *Grammaire générale*, 1:xvj.

> Only a long series of experiments, observations and comparisons may allow us to appraise the true value, scope and limits of a principle.[15]

Beauzée's interest in scientific method seems to allude once more to Descartes, and Beauzée himself reaffirmed that his general grammar followed "the method of examination proposed by Descartes for all the philosophical matters."[16] However, in reality, it appears that Beauzée's notion of method fell under the sway of his contemporaries' shift toward empiricism and thus drifted from its Cartesian foundation. Whereas Beauzée determines in this passage that "we cannot […] but know the causes by their effects"—that is, on the basis of their observable consequences—Descartes advocated the opposite procedure: deducing effects from their primary causes. The Cartesian precept that consists of identifying perfect science with "the knowledge of effects through their causes," was no offhand remark, easily dismissed, but an essential element in Descartes's line of reasoning, recurring in three of his major works on first philosophy: *Discourse on the Method* (1637), *Meditations on First Philosophy* ([1641] 1647), and *Principles of Philosophy* ([1644] 1647).[17] Whether Beauzée intended to overhaul Cartesian epistemology or merely

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[15] "Il en est partout comme en physique: nous ne pouvons, dans quelque genre que ce soit, connoître les causes que par les effets, ni les principes des arts que par leurs productions ; & il n'y a qu'une longue suite d'expériences, d'observations, & de comparaisons, qui puisse nous mettre en état d'apprécier la juste valeur, l'étendue, & les bornes d'un principe." Ibid., xiv–xv.

[16] Ibid., xxvii.

[17] Compare with Descartes's relevant passages: "First I tried to discover in general the principles or first causes of everything that exists or can exist in the world. […] Next I examined the first and the most ordinary effects deductible from these causes." *Discourse* (AT VI 64; CSM I 143–4). "Now it is manifest by the

to recommend some amendments, the next paragraph may shed light on the motives behind Beauzée's post-Cartesian suggestions:

> Descartes, that powerful genius, the honor of his age and of his homeland France, seduced by the deliriums of his fertile imagination, crafted in his cabinet the ingenious system of vortices to explain that of the universe; Newton, of such vast genius, and made wiser by the very deviations of our philosopher, came with facts and experiments—repeated, verified, and compared; and Descartes's vortices disappeared.[18]

Indeed, Newton's *Principia* adamantly attacked Descartes's vortex theory and finally overthrew it.[19] While Beauzée's reservation regarding Descartes's physics does not invalidate his avowed Cartesianism, it does, however, indicate Beauzée was aware of the

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natural light that there must be at least as much <reality> in the efficient and total cause as in the effect of that cause. For where, I ask, could the effect get its reality from, if not from the cause?" *Meditations* (AT VII 40; CSM II 28). "This is the way to acquire the most perfect scientific knowledge, that is, knowledge of effects through their causes." *Principles* (AT VIIIA 14; CSM I 201).

[18] "Descartes, ce génie puissant, l'honneur de son siècle & de la France sa patrie, séduit par les délires de son imagination féconde, fabriqua dans son cabinet le système ingénieux des tourbillons pour expliquer celui de l'univers ; Neuton, génie aussi vaste, mais rendu plus sage par les écarts mêmes de notre philosophe, vint avec des faits & des expériences répétées, vérifiées, comparées ; & les tourbillons de Descartes disparurent." Beauzée, *Grammaire générale*, 1:xjv.

[19] Newton's *Philosophiae Naturalis Principia Mathematica* (1687) did not immediately provoke debate on the Continent. However, the second edition's introduction, published in 1713, included an explicit attack on Descartes's vortex theory, which incited reactions. See: Victor V. Kozlov, *Dynamical Systems X: General Theory of Vortices* (Berlin/New York: Springer, 2003).

"Newton Wars" rocking the intellectual circles of his time, and moreover, of the expectation he must take a side. As J. B. Shank has shown, the reception of Newton's work in France was tumultuous, the struggles between Cartesians and Newtonians in the Paris Academy of Sciences only subsiding in the 1750s when the triumph of the Newtonian faction was conclusive.[20] Interestingly, when Diderot eulogized Beauzée's *Grammaire générale* upon its publication in 1767, he referred to the work as echoing "the mathematical principles of Newton, and all that is the most abstract in metaphysics." "The chapter on verbal tenses," he specified, "is a masterpiece of this genre."[21] In accordance with the changing intellectual climate, Beauzée's interest in Newton seems therefore to have grown more pronounced from the 1760s on. In 1787 he even edited and brought to publication Jean-Paul Marat's translation of Newton's *Opticks*.[22]

3. *General grammar* and why grammar does not suffice for a "science of grammar"

Beauzée's ambition to establish a science of grammar on the basis of a consistent and reliable grammatical metaphysics faced an obvious challenge: The observed realities of the languages of the world indicated that grammar(s) are plural and markedly diverse rather than homogenous and uniform. Beauzée tackled this time-honored problem head-on: The

[20] J. B. Shank, *The Newton Wars and the Beginning of the French Enlightenment* (Chicago/London: University of Chicago Press, 2008).

[21] Diderot in Friedrich Melchior Grimm's *Correspondance littéraire*, cited by Le Guern, *Nicolas Beauzée*, 12.

[22] Isaac Newton, *Optique de Newton*, ed. Nicolas Beauzée, trans. Jean-Paul Marat, 2 vols. (Paris: Leroy, 1787).

object of grammar, he claimed, "the enunciation of thought through the spoken or written word," commanded a dual scientific enterprise standing on two pillars. The first, more fundamental pillar is general grammar, whose truthful principles are immutable and whose universal use "derives from the nature of thought itself." The second pillar consists of particular grammars in the plural, whose hypothetical principles "depend on the fortuitous, arbitrary, and mutable conventions which gave rise to the different languages."[23]

While Beauzée's general grammar is a science, particular grammar is an art. Accordingly, general grammar's object is "reasoned speculation" as to the general principles of language, while particular grammar is the art of connecting "the arbitrary and ordinary institutions of a particular language" with those general principles.[24] Thus the relation between the general and the particular grammars does not correspond, as we might suppose, to a general law applied to particular cases. Instead, Beauzée describes particular grammar as a procedure consisting of "applying" or harnessing raw facts to the general principles and not the other way around. This epistemology relies on Beauzée's conception of the empirical reality of language and grammar—how language actually functions and how grammars develop: General grammar precedes all languages because its principles, "the same ones directing human reason in its intellectual operations," allow language to exist at all. On the other hand, particular grammars "succeed all languages, because the use

[23] Beauzée, *Grammaire générale*, 1:ix.

[24] Ibid., x.

of languages must exist before one can relate them artificially to the general principles of language." Thus grammatical art arises from "observations made on preexistent uses." [25]

Beauzée's empirical sensibility may also account for the subtle dialectical relationships between general and particular grammars: The science and the art are interdependent, insists Beauzée, and investigations of the two are inseparable. The reason is twofold: First, argues Beauzée, "the art can provide the practice no certainty, unless it is enlightened and directed by the lights of speculation." Second, he continues, "science cannot grant the theory consistency if it doesn't carefully study the combined uses and different practices, in order to ascend progressively toward the generalization of principles."[26] Thus, the grammatical science and the grammatical art seem to be linked by an intricate association of deductions and inductions mandated by epistemological prerequisites.

Whereas his views on the relations between the two pillars of grammar demonstrate Beauzée's positioning as a modernist and his move toward empiricism, the universal standing he assigned general grammar reflected his deep religious sentiment—another motive, no less important, behind his theory. For Beauzée, both the general principles of grammar and the human mind that conditioned them were designed by and in harmony with Divine reason. The same theological logic connecting the Divine with the created governed the relations between reason and the many languages that incarnated it:

[25] Ibid., x–xj.

[26] Ibid., xij–xiij.

> That which is essential in language is essential in them all, because they are all based on the immutable reason of God Himself, whose influence shows in all the languages without exception […][27]

This theological argument for the universality of language and reason did not, however, prescribe a project of universal grammar, since Beauzée perceived a stark difference between "universal grammar" and the notion of "general grammar." The conceptual distinction between "universal" and "general" allowed Beauzée to address the conundrum of languages' plurality while clearing the way for a general science of grammar. We may formulate the problem Beauzée faced as follows: A scientific project of language must surmount the multitudinous diversity of languages to study "that which is essential" in all languages. But how could one attain knowledge of those essential elements—common to all languages—without having compiled the facts and rules of all languages?[28]

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[27] "Ce qui est essentiel dans la langue, l'est dans toutes, parce qu'elles ont toutes pour fondement la raison immuable de Dieu même, dont l'influence se fait remarquer dans tous les idiômes sans exception […]." Ibid., 310.

[28] The contemporary concept of Universal Grammar (UG) addresses the same problem by different means. Following Noam Chomsky's work, the term 'Universal Grammar' generally refers to the innate cognitive apparatus enabling the human faculty of language. Hence, we consider grammar to be universal inasmuch as its structural features represent the biologically determined mental faculties universally shared by the species. Thus, contemporary UG is a theoretical device meant to account for "that which is essential" in all languages, and as such is equivalent to Beauzée's notion of general grammar. However, the recurrent controversies around UG's capacity to account for the diversity of linguistic phenomena demonstrate that the theoretical problem preoccupying Beauzée persists.

As Auroux has pointed out, the very notion of general grammar emerged in an attempt to address the diversity of languages. The problem arose during the Renaissance subsequent to European expansion, and the challenge of linguistic diversity pertained to both theoretical and practical concerns: on the one hand, linguistic multiplicity demanded theoretical explanation, while on a more practical level a great number of languages had to be mastered and taught. *Port-Royal general grammar*'s profound ingenuity, explains Auroux, lay in favoring the principle of distributive totality over additive totality: its authors, Antoine Arnauld and Claude Lancelot (known as the "Messieurs of Port-Royal"), sought to explain those elements present in all languages rather than cataloguing all elements in all languages.[29] Beauzée underscores this important distinction when he writes:

> General grammar considers the principles which are or may be common to all languages, and takes interest in the particular processes of this or that language only inasmuch as they represent facts that establish general perspectives. But the idea of a Universal grammar is a chimerical one; no man can know the specific principles of all languages.[30]

Whereas we must not confound general grammar with universal grammar, or with an ultimate list of principles summing up "the grammar of all languages," the general principles it proclaims must be compatible with the real facts of a vast number of languages.

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[29] Sylvain Auroux, "Port-Royal et la tradition française de la grammaire générale."

[30] "La Grammaire générale envisage les principes qui sont ou peuvent être communs à toutes les langues, et ne considère les procédés particuliers des unes ou des autres, que comme des faits qui établissent des vûes générales : mais l'idée d'une Grammaire universelle est une idée chimérique ; nul homme ne peut savoir les principes particuliers de tous les idiomes." Beauzée, *Grammaire générale*, 2:146.

How to achieve that goal? Beauzée explicates his empirical methodology, the virtues of induction, and the need to corroborate general principles with the facts of a great number of languages (a task, he argues, grammarians had failed to accomplish).[31] Thus, the ambition to outline "the principles which are or may be common to all languages" transforms general grammar into a falsifiable theory: if the empirical realities of a certain language contradict the general principles described, it ensues that the theory is unsuccessful and requires emendation. Although Beauzée does not articulate a notion of falsifiability, his insistence on the necessity of robust empirical procedure—including the empirical validation of general principles or their refutation—endows his general grammar with the potential of becoming a scientific theory in the modern sense of the term.

Beauzée's notion of general grammar stands out by dint of its novelty, its empirical guidelines, and its emergent potential for scientificity, and yet it had developed progressively. Several stepping-stones had led to this historical evolution: Resuming a medieval tradition, the grammarian Jules César Scaliger (1484–1558) had defined grammar as a science (in the Aristotelian sense) and sought to attain "assured knowledge" surpassing grammar to reach the "causes" of language's rational organization (*cognitio certa per causas*).[32] Following Scaliger's work, the Spanish humanist Franciscus Sanctius (1523–1601) emphasized the rational principles of language, and his influential work *Minerva, seu de causis linguæ latineæ* (*Minerva, or the Causes of the Latin Language*,

[31] See Beauzée's discussion in *Grammaire générale*, 1:xiv-xx.

[32] Claire Lecointre, "La transformation de l'héritage médiéval dans l'Europe du XVIIe siècle," in *History of the Language Sciences*, ed. Sylvain Auroux et al., 3 vols. (Berlin/New York: Walter de Gruyter, 2000), 1:1002-6.

[1562] 1587) set the example for future works of theoretical grammar. While Arnauld and Lancelot positioned themselves in this lineage, their work, written in French (instead of Latin), was set in a new scientific and social context and articulated novel ambitions. Hence, the *Grammaire générale et raisonnée* (1660) fashioned grammatical theory as a reasoned explication of general linguistic categories and addressed the problem of linguistic diversity through a systematic discussion of the logical properties of language.

Swayed by an empirical, post-Cartesian model of science, Beauzée saw the problem of multiplicity in a new light. This in turn shaped not only his perception of the purpose of general grammar and the role of "general laws" therein but also his sense that an adequate scientific methodology must meet the challenge diversity posed. Examining seventeen different grammars—including not only Western European ones but also Syriac and Chaldee (dialects of Aramaic), Sami (north Scandinavian), Chinese, and Quechua (native Peruvian)—Beauzée reimagined the Grammarian Philosopher's work as a modern scientific practice: "I perceived the different uses of languages," he wrote, "as grammatical phenomena, whose inspection should serve as a basis for the system of general principles."[33]

The works of two of Beauzée's contemporaries indicate he was not alone in his desire to institute a scientific study of language. Charles de Brosses (1709–1777), famous for his radical materialism, and whom Beauzée, apparently well-acquainted with his work, quotes amply, was primarily interested in etymology and phonation. "My first goal is to observe the bodily operations of the vocal organ," he asserted in his major work on

[33] Beauzée, *Grammaire générale*, 1:xv.

language. "Studying the operations of the human mind in the use of speech and in the making of words is only the second," he added.[34] While De Brosses's work clearly differs in theoretical focus and scope, it shares resonance with Beauzée's in its scientific aspirations, as its title discloses: *Treatise of languages' mechanical formation and the physical principles of etymology* (1765).[35] The choice of the terms "*méchanique*" and "*principes physiques*"—references to natural philosophy—indicates that De Brosses shared Beauzée's ambition to attain analogous rigor and similar success in the study of language.

Under the title *Hermes: or, a Philosophical Inquiry Concerning Language and Universal Grammar*, the English grammarian James Harris (1709-1780) published in 1751 a speculative investigation reminiscent in some respects of Beauzée's intellectual project. Well-versed in classical philosophy, a specialist in Aristotle and a close reader of Sanctius, Harris sought to apply philosophical principles to the study of universal grammar. Furthermore, Harris was probably the first to attempt illustrating the temporal relations between tenses through geometric demonstrations. Although Beauzée published his theory of tense and his *Grammaire générale* more than a decade later (in 1765 and 1767

[34] Charles De Brosses, *Traité de la formation méchanique des langues et des principes physiques de l'étymologie*, 2 vols. (Paris, 1765), 1:§6, 27.

[35] Beauzée was aware of De Brosses's work well before the *Treatise*' publication in 1765, as his references to De Brosses's *Mémoires* in several of his contributions to the *Encyclopédie* indicate (e.g. "Langue", *Encyc*., 9:249-266). According to Nobile, Beauzée referred thereby to De Brosses's earlier texts, dating 1751 and 1753. See: Luca Nobile, "De Brosses, Jakobson et l'ontogenèse phonologique," *Histoire Épistémologie Langage* 29, no. 1 (2007): 107–8.

respectively), it is unclear when Beauzée first came across *Hermes* and to what extent it influenced his work. As Le Guern indicates, Beauzée mentioned Harris later in his career, in the second volume of the *Encyclopédie Méthodique* (1784) wherein he described Harris's work favorably as "philosophical researches on general grammar."[36]

These authors' ambitions to promote a scientific study of language clashed with the actual state of grammar at the time: Associated with children's education and ill-reputed for its obscure terminology,[37] grammar did not seem to be tailored for the ambitious "science of grammar". Deploring this state of affairs, Beauzée was aware both of the epistemological and of the social challenges awaiting his endeavor:

> The uninformed decisions of the first grammarians, scrupulously repeated from age to age without ever having been submitted to examination, were slavishly applied to all languages without distinction or modification. These misconceptions only multiplied errors, thickened the darkness around the true principles, and debased

[36] In "Général, Universel", *Encyclopédie Méthodique*, 2:146 B. See also in Le Guern, *Nicolas Beauzée*, 121 note 8.

[37] Beauzée's critique of grammatical terminology is especially keen regarding tenses' denomination; see Beauzée, "Tems," *Encyc*., 16:96–117. Similar critiques of grammatical terminology were not uncommon among grammarians of the eighteenth century; see for example, Gabriel Girard (L'abbé Girard), *Les vrais principes de la langue françoise, ou la parole réduite en méthode, conformément aux lois de l'usage, en seize discours*, 2 vols. (Paris: Le Breton, 1747), II:4.

> science itself. […] Good minds have been careful not to engage seriously in a despised object, merely abandoned to puerility and pedantry.[38]

4. The metaphysics of grammatical tense

Beauzée's aspiration to establish a general science of grammar achieved its most immaculate expression in his theory of grammatical time. Time, a cherished theme of metaphysics, common to both grammar and natural philosophy, had the potential to extricate grammar from the "puerility and pedantry" associated with its prescriptiveness to the heights of science, from darkness and error into light. Since the French word '*temps*' (or occasionally '*tems*') indicated both *time* and *tense*, Beauzée used the same term to designate both natural and grammatical time and did not care to distinguish between the two.[39] The resulting nexus of time and tense led to an indispensable affinity between metaphysics and grammar, as Beauzée cleverly suggested in the opening paragraph of his famous encyclopedic entry on grammatical time:

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[38] "Les décisions informes des premiers grammairiens, répétées scrupuleusement d'âge en âge sans avoir jamais été soumises à l'examen, ont été servillement appliquées à tous les idiômes sans distinction & sans modification : ces méprises multipliées n'ont fait que multilpier les erreurs, épaissir les ténèbres autour des vrais principes, & avilir la science même. […] Les bons esprits n'avoient garde de s'occuper sérieusement d'un objet dédaigné, & uniquement abandonné à l'enfance & au pédantisme." Beauzée, *Grammaire générale*, 1:xix–xx.

[39] In many languages a single term denotes both physical and grammatical time (English, unusual among Western European languages, is an exception).

> Tems, s. m. (Gramm.) If we wish to judge their ideas by the denominations they designate, Grammarians seem to have had so far only very confused notions of tenses and their different species. Hoping to avoid the blind pursuit of the multitudes' flow and to adopt only informed decisions, let me resort here to the blazing torch of metaphysics, the only one that can indicate all the ideas comprehended in the nature of *tenses*, and the differences that their species may constitute. When it has pronounced on the possible points of view, it will only be a question of recognizing them in the usages known to languages, either by considering them in a general way, or by examining them in the different modes of the verb.[40]

According to this line of reasoning, it is necessary to turn to metaphysics as the only truthful knowledge suitable for examining time and temporal relations. While Beauzée did not overtly claim that grammatical time and natural time (the object of metaphysics and natural philosophy) were one and the same thing, the indistinguishability of tense and time was the unstated premise on which his argument relied. Disowning

[40] "Tems, s. m. (Gramm.) les Grammairiens, si l'on veut juger de leurs idées par les dénominations qui les désignent, semblent n'avoir eu jusqu'à présent que des notions bien confuses des *tems* en général & de leurs différentes especes. Pour ne pas suivre en aveugle le torrent de la multitude, & pour n'en adopter les décisions qu'en connoissance de cause, qu'il me soit permis de recourir ici au flambeau de la Métaphysique; elle seule peut indiquer toutes les idées comprises dans la nature des *tems*, & les différences qui peuvent en constituer les especes: quand elle aura prononcé sur les points de vue possibles, il ne s'agira plus que de les reconnoître dans les usages connus des langues, soit en les considérant d'une maniere générale, soit en les examinant dans les différens modes du verbe." Beauzée, "Tems," *Encyc*., 16:96.

traditional grammar and seeking the graces of metaphysics was not, however, a mere rhetorical artifice on Beauzée's part but a genuine way to express the *raison d'être* of his scientific project, the cause of his grammatical metaphysics: the scientification of grammar.

In the next paragraph, Beauzée determines the metaphysical foundation of the theory of grammatical time he is about to present. He selects for this purpose a definition of time proposed by Étienne Simon de Gamaches, a member of the *Académie des sciences* known for his Cartesian positions and whose work, *Astronomie physique* (1740),[41] had stood at the forefront of the debates between Cartesians and Newtonians more than twenty years earlier:[42]

> According to Mr. de Gamaches (dissertation no. I. of his *Physical Astronomy*), whom one can consider in this respect as representative of the whole Cartesian school, time is the very succession attached to the created being's existence.[43]

When Beauzée wrote these lines, the initial context of Gamaches's work was to a large extent irrelevant. Why, then, did Beauzée find it imperative to highlight Gamaches's positioning as a Cartesian? Descartes had famously argued for the discontinuous nature of time and asserted that "the nature of time is such that its parts are not mutually dependent,

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[41] Étienne Simon de Gamaches, *Astronomie Physique, Ou Principes Généraux de La Nature* (Paris: Jombert, 1740).

[42] See Shank, *The Newton Wars*, 357–361.

[43] "Art. I. Notion générale des tems. Selon M. de Gamaches (dissert. I. de son Astronomie physique) que l'on peut en ce point regarder comme l'organe de toute l'école cartésienne, le tems est la succession même attachée à l'existence de la créature." Beauzée, "Tems," *Encyc*., 16:96.

and never coexist."[44] Defining time as "the very succession attached to the created being's existence" may not contradict the Cartesian conception, but it does seem more characteristic of Leibniz. The *Leibniz-Clarke Correspondence*, which was (and still is) one of the most cited philosophical controversies of the eighteenth century, included a long debate on this subject: Leibniz repeated his definition of time as a relative "Order of Successions," and Clarke, Newton's disciple, refuted the hypothesis that "Time was nothing but the Order of Succession of created Things," while making the case for an absolute conception of time.[45] There is a good reason to believe that both Gamaches and Beauzée were familiar with Leibniz's ideas on time and space, which were popular in their intellectual circles. Johann Formey had also meticulously discussed the *Correspondence* in his Encyclopedic entry on "Time in Metaphysics," lined-up as first—and just before Beauzée's—out of eighteen articles on time in different domains.[46] As a matter of fact, Beauzée may have been acquainted with Formey's article even before writing his own, as it was one of the earliest texts contributed to the *Encyclopédie* in the 1740s, before Diderot and D'Alembert had assumed their editorial positions.[47] As we saw earlier, Beauzée did

[44] Descartes, *Principles* (AT VIIIA 13; CSM I 200).

[45] Samuel Clarke and Gottfried Wilhelm Leibniz, A Collection of Papers Which passed between the late Learned Mr. Leibnitz and Dr. Clarke, in the Years 1715 and 1716. Relating to the Principles of Natural Philosophy and Religion. With an Appendix. (London: James Knapton, 1717), 57, 79.

[46] See Formey, "Tems," *Encyc.*, 16: 93-96. Johann Heinrich Samuel Formey (1711–1797) was a Prussian intellectual, perpetual secretary of the Academy of Berlin, and one of the first initiators of the *Encyclopédie*.

[47] Formey probably wrote his entry on "Time in Metaphysics" by 1747 at the latest. See François Moureau, "L'Encyclopédie d'après les correspondants de Formey," *Recherches sur Diderot et sur l'Encyclopédie* 3 (1987): 125–45.

not oppose Newton but on the contrary, related deferentially to his scientific success. Consequently, it is most likely that for Beauzée, picking this definition of time and emphasizing the Cartesian character of his metaphysics did not signal a distinct position on the disputes among Cartesians, Newtonians, and Leibnizians but rather meant to convey that the reader should approach and appreciate what followed—his theory of grammatical time—as any other theory of mechanics, relying on robust metaphysical foundations.

Among other things, Gamaches's definition of time allowed Beauzée to convert metaphysics into a useful geometry-like theoretical instrument: "the successive existence of beings," asserted Beauzée, "is the only measure of time that is within our reach."[48] To render this successive motion measurable, we must break the free flow of existence by establishing fixed points of reference. Beauzée termed these points "epochs" ("*époques*")—from the Greek '*ἐπέχειν*', to stop. A portion of time demarcated between two such "stops" in duration—caught between beginning and concluding epochs—he labeled a "period." A period, asserted Beauzée, is bounded on all sides, "just like a space around which one can turn."[49] This graphic depiction led Beauzée to a general definition of tense as a system of reference in which "tenses are verb forms expressing different existential relations to the various epochs that one can imagine in time."[50]

This system of reference yielded three major divisions of tenses, each allowing further subdivisions:

[48] Beauzée, "Tems," *Encyc*., 16:96.

[49] Ibid.

[50] Ibid.

I. **The first division of tenses** consists of three types of possible relationships between existence and the "epoch of comparison" (i.e. the given point of reference): **simultaneity, anteriority,** and **posteriority**. The different **present tenses** include all verb forms expressing **simultaneity** between existence and the epoch of comparison. **Preterits** are those verb forms expressing the **anteriority** of existence and **future tenses** express **posterior** existence in relation to the epoch of comparison—an existence which is "yet to come."

II. **The second division of tenses** concerns the aspect under which one considers the epoch of comparison: one may view it as general and undetermined or as specific and determined. Thus, one can express simultaneity, anteriority, or posteriority with or without reference to a defined epoch. We should therefore distinguish between the **defined present**, relating to a precise and determined epoch, and the **undefined present**, a verb form expressing simultaneity of existence with no defined epoch. Similar distinctions follow concerning the **preterits** and the **future tenses**.

III. **The third division of tenses** evokes the more traditional relationship between the moment of speech and the event depicted. The moment of speech is to the speaker as the meridian is to the geographer, writes Beauzée—a prime point of reference. Hence, within the definite tenses we should distinguish three different possible relationships between the moment of speech and the epoch of comparison: the **actual epoch** coincides with the moment of speech; the **anterior epoch** precedes it, and the **posterior epoch** follows it. Accordingly, the **defined present**, **defined preterit**, and **defined future** may be **actual, anterior**, or **posterior** depending on the relation they establish between the epoch of comparison and the moment of speech.

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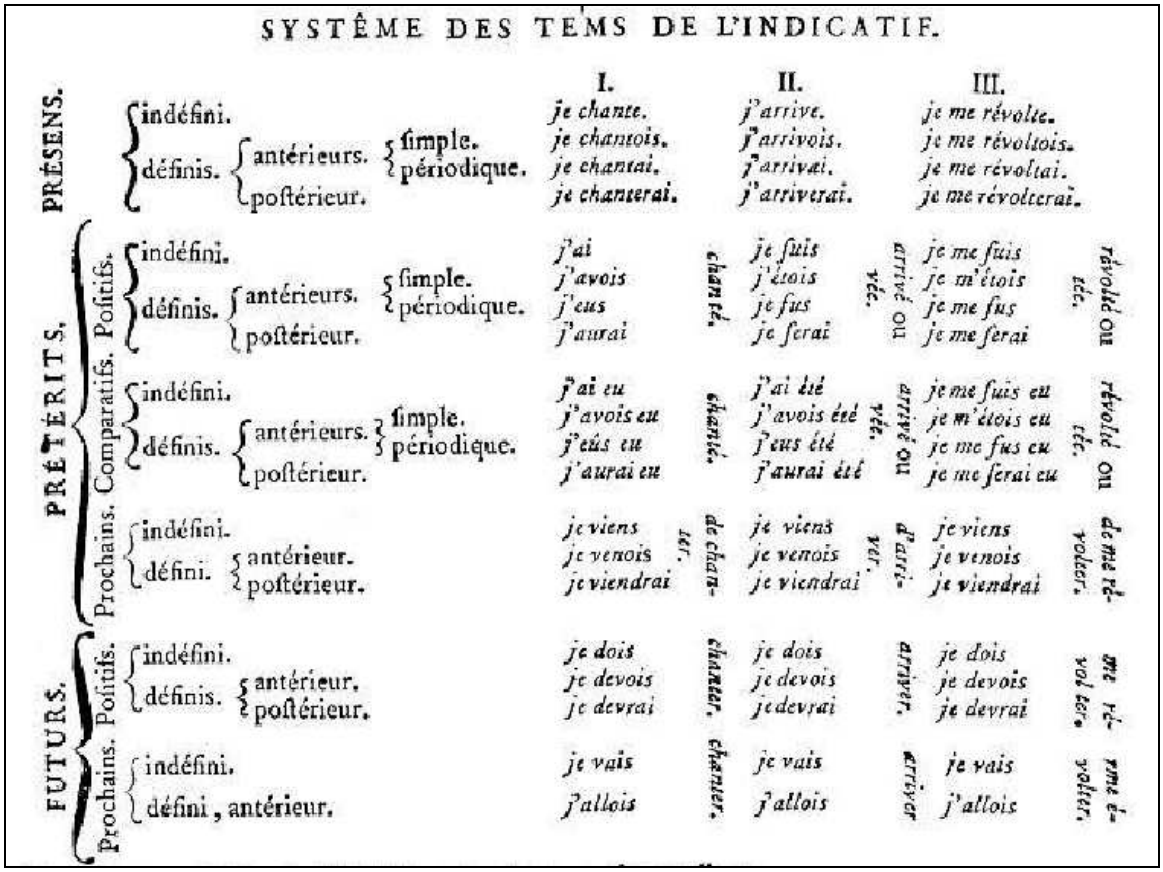
Beauzée devotes the bulk of his article to applying these principles to the entire tense system and pointing out the advantages of his innovative analysis over previous, more traditional theories of tense. Undoubtedly the most surprising element in Beauzée's theory is his unconventional idea of the present tense. What grammarians usually identify as the present tense, observes Beauzée, is the **undefined present**: *I am, I praise, I admire.* We use it as an **actual present** when we say: *I praise you for doing this action*. "My action of praising," explicates Beauzée, "is expressed as coexistent with the act of speech."[51] It is notable that Beauzée selects the performative verb form "I praise" to demonstrate the simultaneity of one's action and one's moment of speech, and that he does so a couple of centuries before the notion of "speech act" was available for him.[52]

[51] Ibid., 98.

[52] To what extent was Beauzée aware of the deictic and the performative functions of tense? Swiggers argues that Beauzée failed to emphasize "the double function" of the moment of speech (Pierre Swiggers, *Grammaire et théorie du langage au dix-huitième siècle: "Mot", "Temps", et "Mode" dans l'Encyclopédie Méthodique* [Villeneuve d'Ascq: Presses Universitaires de Lille, 1986], 66–67). The moment in which speech is produced, Swiggers explicates, serves as a temporal reference to discourse and the events it portrays. Thus, on a first degree, speakers relate the events described in discourse to the moment of speech. On a second degree, the moment of speech also plays a part in the way speakers design temporality within their own discourses (as opposed to the referential act of "speaking about events" and situating them in time). This "meta-function," as Swiggers calls it, does not receive explicit treatment in Beauzée's theory. Yet, certain passages in Beauzée's text (e.g. "I praise") seem to provide cursory evidence Beauzée may have had incipient intuitions regarding pragmatic phenomena such as deixis and performativity and their relation to the essentially temporal character of discourse.



SYSTÊME DES TEMS DE L'INDICATIF.

					I.	II.	III.
PRÉSENS.		indéfini.			je chante.	j'arrive.	je me révolte.
		définis.	antérieurs.	simple.	je chantois.	j'arrivois.	je me révoltois.
				périodique.	je chantai.	j'arrivai.	je me révoltai.
			postérieur.		je chanterai.	j'arriverai.	je me révolterai.
PRÉTÉRITS.	Positifs.	indéfini.			j'ai chanté,	je suis arrivé ou arrivée,	je me suis révolté ou révoltée, etc.
		définis.	antérieurs.	simple.	j'avois	j'étois	je m'étois
				périodique.	j'eus	je fus	je me fus
			postérieur.		j'aurai	je serai	je me serai
	Comparatifs.	indéfini.			j'ai eu chanté,	j'ai été arrivé ou arrivée,	je me suis eu révolté ou révoltée,
		définis.	antérieurs.	simple.	j'avois eu	j'avois été	je m'étois eu
				périodique.	j'eus eu	j'eus été	je me fus eu
			postérieur.		j'aurai eu	j'aurai été	je me serai eu
	Prochains.	indéfini.			je viens de chanter.	je viens d'arriver.	je viens de me révolter.
		défini.	antérieur.		je venois	je venois	je venois
			postérieur.		je viendrai	je viendrai	je viendrai
FUTURS.	Positifs.	indéfini.			je dois chanter.	je dois arriver.	je dois me révolter.
		définis.	antérieur.		je devois	je devois	je devois
			postérieur.		je devrai	je devrai	je devrai
	Prochains.	indéfini.			je vais chanter.	je vais arriver.	je vais me révolter.
		défini, antérieur.			j'allois	j'allois	j'allois

Fig. 1: ***System of the indicative tenses*.**
Nicolas Beauzée. "Tems [Grammaire]". *Encyc*. 16:109.

We use the same tense, proceeds Beauzée, as an **anterior present** when we recount: *I meet him on the way, I ask him where he goes, I see that he's embarrassed*. The sentence establishes simultaneity between my actions: *meet, ask, see*, and the third person's actions: *goes* and (*being*) *embarrassed*. All the verb forms in this sentence express simultaneous existence with an epoch anterior to the moment of speech: all actions took place prior to their narration. Similarly, we also use the same tense as **posterior present** when we say: *I leave tomorrow*, situating my action of leaving as simultaneous with the epoch marked by *tomorrow*, which must be posterior to the moment of speech. Finally, one can also use the

present tense in abstraction of all epochs, a use suitable for the expression of such eternal truths as *God is just* or *The three angles of a triangle equal two right angles*.

In all these cases, resumes Beauzée, it is plain that the indefinite present lends itself to the discursive circumstances. In the absence of a specific epoch of comparison, the moment of speech is the sole reference point and the discursive requirements alone determine the verb form selected. Thus, in the example discussed earlier, the narrator may replace: *I meet him on the way*, with: *I met him…*etc. Traditional grammar would depict this as a transition from the present to the past tense but, according to Beauzée's analysis, the reference system as a whole remains unchanged: Despite the different verb form, the sentence still expresses the anterior present. Yet, remarks Beauzée, a certain additional distinction is required: The French tense system distinguishes between two kinds of past tenses, traditionally named *preterit* (or *simple past*) and *imperfect*. In the example above, the so-called preterit would generally express the main narration (*I met him* [*je le rencontrai*]; *I asked him* [*je lui demandai*]), and the third person's actions would appear in the imperfect (*where he was going* [*où il alloit*]; *that he was embarrassed* [*qu'il s'embarrassoit*]). As a result, the sentence would include two different verb forms: *I met him on the way, I asked him where he was going, I saw that he was embarrassed*.[53] These two verb forms differ in their comparison terms, observes Beauzée: The third person's actions express the **simple anterior present**, but the narration of my actions is

[53] " je le rencontrai/trouvai hier en chemin, je lui demandai où il alloit, je vis qu'il s'embarrassoit " Ibid., 98, 99.

simultaneous with the whole period, including the third person's actions—which we should thus term the "**periodic anterior present**" (See Fig. 1).

"I talk here to those who grasp the metaphysical proofs, those who appreciate them and are satisfied by them,"[54] asserted Beauzée somewhat defiantly, conscious of the extravagance of his theory. As Beauzée knew well, descriptions of tense systems commonly consider the moment of speech as their main reference point. In fact, they tend to reproduce, in more or less sophisticated fashions, the simplest temporal reference system—that based on indexical nominal cues, identifying *now* or *today* with the present, *yesterday* with the past and *tomorrow* with the future. Beauzée's three-layered verbal reference system, however, refers to the moment of speech as a secondary reference point (described by the third division of tenses), while its main reference point—the one calibrating the reference system altogether—is the epoch of comparison. Unlike the moment of speech, the epoch of comparison is integral to the discursive content: it is "what is talked about." As such, it is the primary point of reference in relation to which one determines the flow of time, or what Beauzée calls *existence*.

This shift in perspective from the moment of speech to the epoch of comparison revolutionized the tense system—in the most basic sense of the word, like a planet revolving around its axis—and accorded his analysis, argued Beauzée, vital advantages. First and foremost, Beauzée's theory aspired to provide the most precise and objective description of the temporal reference system. Accordingly, in Beauzée's eyes the principal role of the tense name label was to portray via one nominal expression the entire referential

[54] Ibid., 99.

situation the verb form conveyed. We must seek to understand in this light Beauzée's peculiar naming system, along with his recurring complaints about the common grammatical terminology and its cumbersome Latin legacy. *Apropos* the French *surcomposés* tenses—double-compounded tenses in which the auxiliary verb is itself an auxiliary— Beauzée wrote the following:

> [I]t is evident that the name *surcomposés* indicates absolutely nothing about the nature of the *tenses* to which it is applied, and that it strictly designates the exterior form of these tenses, which is absolutely accidental. It could be useful to mention this property when generating tenses, […] but to make of it its distinctive character is a mistake and perhaps an error of logic.[55]

Traditional grammar's logical murkiness is not merely an affair of tense labels, argued Beauzée, but an essential handicap disclosing traditional grammar's inability to describe the actual use of the tense system. Traditional tense theories interested themselves more in a verb form's grammatical structure than in the temporal relations it expresses. Consequently, they do not represent actual use and cannot make sense of the fact that "the present sometimes signifies the future, and other times the preterit, and the preterit is sometimes used for the future."[56] However, these are neither inaccuracies nor incidental errors, asserts Beauzée, but genuine expressions of the correct function of the tense system.

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[55] "[I]l est évident que le nom de *surcomposés* n'indique absolument rien de la nature des *tems* auxquels on le donne, & qu'il ne tombe que sur la forme extérieure de ces *tems*, laquelle est absolument accidentelle. Il peut donc être utile, pour la génération des *tems*, de remarquer cette propriété ; […] mais en faire comme le caractere distinctif, c'est une méprise, & peut - être une erreur de logique." Ibid., 107.

[56] Ibid., 105.

Focusing on the temporal reference system, Beauzée construes verb forms not as morphological types to catalogue but as geometry-like representations of composite temporal relations. His interest in the relational status of verb forms allows Beauzée to integrate the question of actual use into his tense theory.

Last but not least, Beauzée believed that his theory of tense could answer the need for a general grammar of tense and could provide a proper account of the diversity apparent in the world's languages. "[T]he notions of tenses I have provided," he asserted, "are a sure means of conciliation between languages, which constantly employ different tenses to express the same thing."[57] While Beauzée's theory referred mainly to the French tense system, he seems to have realized that a truly general grammatical metaphysics—apt to portray tense relations in the most diverse languages—is a challenge necessitating the highest degree of abstraction.

5. Conclusion

Modeled upon metaphysics and natural philosophy and endowed with its own original epistemological strategies, Beauzée's theory of grammatical time puts to the test his project of a science of grammar. The theory not only addresses complex problems in the French tense system but also offers a superb example of Beauzée's ideas about grammatical metaphysics, scientific method, and the subtle relationships between particular grammars and general grammar, empirical phenomena and general principles. Ultimately, it is an

[57] Ibid., 106.

exemplary case of applying scientific strategies, such as reference systems, to theoretical problems of grammar.[58]

The outstanding originality of Beauzée's work is evident in various aspects of his rich theoretical œuvre. Nonetheless, Beauzée was also deeply immersed in the grammatical traditions of his time and his writings overflow with references to Varron, Scaliger, Sanctius, and the Messieurs of Port-Royal, as well as to many contemporaries upon whose work he builds. Beauzée's elaborate relationships with the works of others may well have motivated some researchers to raise the question "What did Beauzée invent?," to which Fournier, for example, justly replies with a long list of innovations, including Beauzée's notion of the indefinite tenses and his reconceptualization of the present tense.[59] Yet, while key features of his tense theory have only rarely resurfaced in modern theories of grammatical time,[60] Beauzée's scientific prospects for general grammar and his strategy of scientification have been realized, embraced and fostered by subsequent scholars beyond

[58] Demonstrating the sophistication of Beauzée's analyses, Portine attempted to reconstruct Beauzée's geometry-like reference systems employing contemporary mathematical tools. See Henri Portine, "Repérages et rôle de la géométrie dans l'analyse des temps verbaux. L'example de Beauzée," *Mathématiques et sciences humaines* 130 (1995): 5–26.

[59] Fournier, *Histoire des théories du temps*, 130-139.

[60] A notable exception is Reichenbach's logical analysis of verbal tense (Hans Reichenbach, *Elements of Symbolic Logic* [New York: Macmillan, 1947]), clearly reliant on Beauzée's categories. On this subject see: Louis de Saussure, "L'approche référentielle: de Beauzée à Reichenbach," in *Le temps des évenements*, ed. J. Moeschler *et al.* (Paris: Kimé, 1998), 19–43; Sylviane R. Schwer, "Représentation du temps, relations temporelles et théories des temps verbaux," in *Interpréter les temps verbaux*, ed. N. Flaux, D. Stosic, and C. Vet (Peter Lang, 2010), 227–52.

all expectations. In that sense, Beauzée's most significant and long-lasting contribution to the history of linguistics was the reinvention of general grammar as a modern science on the model of the natural sciences.

Beauzée's strategy of scientification depended on his carefully orchestrating several key elements: Introducing the notion of grammatical metaphysics while discrediting traditional grammar; launching a quest for a Cartesian-like scientific foundation, as well as promoting a theory of general grammar; generating a sophisticated affinity between tense and time and grounding the linkage between the object of grammar and the object of natural philosophy in a geometry-like system of reference. In that sense, Beauzée's theory of tense does not merely imitate theories of mechanics but stands as a genuine scientific theory in its own right: his description of the tense system as a reference system is not a metaphor, but a first-hand appraisal of what the tense system actually expresses. Favoring the relations between two events over their relation to the moment of speech is a game-changer: it makes the point-of-view of the speaker secondary and thus shifts the point-of-view of the grammatical description to a zero position. This move renders grammatical analysis objective: it disengages the analysis from the speaker's subjectivity, extricates it from discursive interests, and permits a re-positioning outside the system of reference—similar to the way theories of mechanics or astronomical physics function. By doing so, Beauzée severed ties with a generations-long tradition associating grammar with pedagogy and rhetoric and examining grammar from the point-of-view of discourse, the speaker's goals and intentions, stylistic norms and conventions. Abandoning that traditional perspective, Beauzée attained a form of objectivity coveted by generations of linguists to come.

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Beauzée sustained his model of scientification via his approach to scientific method—a careful dialectic between strict rationalism and primitive empiricism. Hoping to appease the tension between the science and the art—the philosophical pursuit of general grammar and the much-needed teachings of the many particular grammars—Beauzée's theoretical project produced several unintended results that anticipated modern linguistics. Notably, the juxtaposition of the notion of general principles with his embryonic conception of the "linguistic fact" turned Beauzée's general grammar, at least potentially, into a falsifiable theory. In reality the theory did not yet possess an operational apparatus such that it could deliberate specific cases and adjust its general principles accordingly, and so, it understandably primarily addressed problems presented by French grammar. However, Beauzée's work did endorse and develop an epistemological model that would later become widely accepted, according to which the general science of grammar has the task of articulating general laws which the different particular grammars should confirm. Beauzée's "grammatical metaphysics" of tense, which sought to reframe each and every existing expression of tense in the terms of the reference system's general logic, put the theorization of this relation between the general and the particular, the metaphysical and the empirical, to the test. A rather personal comment in the introduction to his *Grammaire Générale* suggests Beauzée was aware of the originality of his ambitious enterprise:

> Without pretending to single myself out, I took a road that had not yet been tried, although many indications pointed to it as the best one. I made my observations, compared between them and the received opinions; I aimed at tracing the fundamental principles of language by the analysis of grammatical facts; I followed

the thread of this analysis, often with difficulty, sometimes with astonishment, always with fidelity; & my system is merely the sincere exposition of my results.[61]

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[61] "Sans prétendre me singulariser, j'ai pris une route qu'on n'avoit pas encore essayée, quoique bien des indices la désignassent comme la meilleure : j'ai fait mes observations, je les ai comparées entre elles & avec les opinions reçues ; j'ai pensé à remonter aux principes fondamentaux du Langage, par l'analyse des faits grammaticaux ; j'ai suivi le fil de cette analyse, souvent avec peine, quelquefois avec étonnement, toujours avec fidélité ; & mon système n'est que l'exposition sincère de mes résultats." Beauzée, *Grammaire générale*, 1:xxviii.

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