

# Jozef Maria Hoene-wronski | Encyclopedia.com

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(*b.* Wolsztyn, Poland, 23 August 1776; *d.* Neuilly, near Paris, France, 8 August 1853)

*philosophy, mathematics.*

Hoehne was the son of Antoni Hoehne, the municipal architect of Poznan, and Elzbieta Per-nicka. Educated in Poznan and Warsaw, he took part as a young artillery officer in the national uprising of 1794, commanding a battery during the siege of Warsaw by the Prussian army. In the same year he was taken prisoner by the Russian army, which he joined for a short period. He was released about 1797 and, living on money left to him by his father, spent the next few years studying philosophy at several German universities. In 1800 Hoehne settled in Marseilles, where he became a French citizen and addressed himself to scientific research. At first he took occasional jobs in scientific institutions, working at the Marseilles astronomical observatory and as secretary of the local medical association. In later years he earned his living by giving private lessons in science and philosophy. At various periods he was supported by patrons who had been converted to his philosophical doctrine and thus obtained the funds for his prolific publishing activity.

About 1810 Hoehne married Victoire Henriette Sarrazin de Montferrier, sister of the mathematician Alexandre Montferrier. At approximately the same time he adopted the surname Wroński, which he used alternatively with Hoehne; but most of his writings are signed Hoëné-Wroński, without a first name.

In 1810 Hoëné-Wroński moved to Paris and submitted to the Institut his first memoir on the foundations of mathematics, "Premier principe des méthodes analytiques." The paper received a rather sketchy review by Lacroix and Lagrange, and the ensuing polemic initiated by Hoëné-Wroński quickly led to a break in relations with the Institut. During his first years in Paris, he conducted intensive research in mathematical analysis, subsidized by the financier Pierre Arson, who was at first a devoted disciple. Their relations dissolved in a violent quarrel over financial arrangements that resulted in a trial, famous at the time, in 1819.

From 1820 to 1823 Hoëné-Wroński tried unsuccessfully to obtain the award of the British Board of Longitude for research on the determination of longitude at sea. He also failed in attempts to interest the [Royal Society](#) in his writings on hydrodynamics. In both cases Hoëné-Wroński became embroiled in polemics that quickly extended to ex-trascientific matters. He continued his mathematical research after returning to Paris, although his main interest had turned to the explication of his Messianic philosophy. In the 1830's Hoëné-Wroński investigated locomotion and sought to build vehicles that could compete both technically and economically with the newly developing railways, but the caterpillar vehicles that he designed did not progress beyond the model stage. His last years were spent in poverty.

Hoëné-Wroński's extant manuscripts and published writings cover a wide range of knowledge. His philosophy, which is central, forms the basis for reforming various branches of the exact and social sciences. Hoëné-Wroński's philosophical notions were formed under Kant's influence; and his first published work, *Philosophie critique decouverte par Kant* (Marseilles, 1803), was the first exhaustive presentation of Kant's teachings in French. Hoëné-Wroński's philosophical system was based on the sudden revelation of the "Absolute," a concept never made precise, from which all aspects of existence evolve. This universal and rationalistic "absolute philosophy" could, according to its author, solve all theoretical and practical problems. Three main concepts constitute its framework: the "highest law," the foundation of reality independent of human influence; the "universal problem," man's supplementing of the Creation by introducing new realities; and the "final concordance," that harmony among various aspects of reality which is humanity's ultimate aim.

Hoëné-Wroński applied his philosophy to mathematics in a series of works that began with *Introduction a la philosophie des mathematiques*. In these writings rigorous mathematical proof retreated before arguments of the absolute philosophy—which, with the specific nomenclature introduced, made the reception and evaluation of his works difficult. Hoëné-Wroński criticized the standpoint taken by Lagrange in his *Théorie des fonctions analytiques*, disagreeing with both Lagrange's insufficient grounds for the use of the series development and his opposition to the introduction of infinite quantities in analysis. According to Hoëné-Wroński, the "highest law" in mathematics consisted in the development of any function in the series

$$F(x) = A_0 \Omega_0(x) + A_1 \Omega_1(x) + A_2 \Omega_2(x) + \dots,$$

where  $\Omega_i$  denotes any function of the variable  $x$ . The "highest law" was to constitute the basis of the entire theory of differential equations. The lack of proof and imprecise range of applicability rendered its evaluation difficult; it is functional analysis that

can determine the scope of Hoëné-Wroński theorem. The determinants used to compute the coefficients  $A[i]$  are known as Wronskians, a term introduced by Thomas Muir in 1882.

In 1812 Hoëné-Wroński published his universal solution of algebraic equations, *Resolution generate des équations de tous les degrés*. Al-through Ruffini's research had already demonstrated that this solution cannot be correct, it is applicable in particular cases. Several errors were found in Hoëné-Wronski's papers in other branches of sciences, for instance, in his treatment of the laws of hydrodynamics. His [celestial mechanics](#)—although based on a law allegedly more general than Newton's — was in fact equivalent to it. On the other hand, his method of resolving perturbative functions contained new ideas and was later found to be feasible.

A recurrent pattern in Hoëné-Wronski's relations with various institutions, both academic and social, indicates a marked psychopathic tendency: grandiose exaggeration of the importance of his own research, violent reaction to the slightest criticism, and repeated recourse to nonscientific media as allies against a supposed conspiracy. His aberrant personality, as well as the thesis of his esoteric philosophy (based on a revelation received on 15 August 1803 or, according to his other writings, 1804), tempt one to dismiss his work as the product of a gigantic fallacy engendered by a troubled and deceived mind. Later investigation of his writings, however, leads to a different conclusion. Hidden among the multitude of irrelevancies are important concepts that show him to have been a highly gifted mathematician whose contribution, unfortunately, was overshadowed by the imperative of his all-embracing absolute philosophy.

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