

Advertisement

Opinions

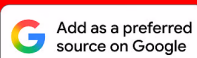
A century and half since his birth, it is worth revisiting the leader's opinion on science, a largely ignored aspect of Gandhian thought



MS Santhanam

Updated on: 07 Oct 2019, 3:07 am · 4 min read

Add TNIE As A Trusted Source



The first 50 years of Mahatma Gandhi's lifetime coincided with some of the momentous discoveries in science. The decade preceding Gandhi's birth, largely 1860s, saw some major ones – Darwin's theory of evolution, the laws of electromagnetism that revealed the nature of light, and the periodic table that organised all the chemical elements. By the time Gandhi returned to India from South Africa in 1915 and plunged headlong into India's struggle for independence, the exciting ideas of quantum physics and theory of relativity were unravelling the fundamental mysteries of the universe.

In spite of living in these heady times, Gandhi did not quite flow with the tide. For the most part, he was largely unconcerned by the scientific achievements of his era. His comments on the science and modern machinery expounded rather forcefully in *Hind Swaraj* published in 1909, suggests that he was not an enthusiastic camp follower of science, or possibly a sceptic at best. However, if Gandhi's life is studied in entirety, a nuanced picture emerges of a man who was not anti-science and, on the contrary, subjected himself to the quintessential scientific method of continuous self-corrections based on empirical evidence. A century and half since his birth, it is worth revisiting this largely ignored aspect of Gandhian thought.

Though Gandhi was a prolific writer, he probably never commented on the significant developments in science as they unfolded in his lifetime. His formative years in South Africa were marked by intense criticism of the achievements of science, firstly for having become an instrument for war and violence and also for not offering any moral succour to humanity. Writing in the *Indian Opinion* in 1909, Gandhi remarked that “the boast about the wonderful discoveries and the marvellous inventions of science, good as they undoubtedly are in themselves, is, after all, an empty boast. They offer nothing substantial to struggling humanity.” More hard-hitting is his opinion about machinery in *Hind Swaraj*: “machinery has begun to desolate Europe. Machinery is the chief symbol of modern civilization; it represents a great sin.” Though this signifies a hardened position on modernity, as it emerges in later years, these utterances form a part of Gandhi’s evolving thought process on science and technology.

Gradually, Gandhi's opinion evolved and sharpened into a criticism of what he thought were the misplaced priorities of science, rather than science itself, and that

Why all that glitters not be gold

Satyajit Das · 21 hours ago



Pratik Kanjilal · 21 hours ago



Sugata Srinivasaraju ·
16 Oct 2025



Kajal Basu · 16 Oct 2025

Advertisement



the priority list ignored the needs of the suffering millions in the country. Speaking at Delhi in 1921, he praised the “spirit of research that fires the modern scientists” and went on to say that “my quarrel is not against that spirit. My complaint is against the direction that spirit has taken ... for merely material advances.” Around the same time, Gandhi declared that “no disturbance had been created by machinery that could not be corrected. It was a mental state that had to be put right.” These mark a shift in Gandhi’s outlook towards science and machinery. They can be accommodated provided they do our bidding. Remarkably, in 1929, Gandhi held a contest for the inventors, with a prize money of Rs 1 lakh, for designing a charkha machine that would convert raw cotton into yarn. This machine was meant to make the

Indian handloom weaver remain competitive with the textile mills of Britain.

Perhaps a clearer explanation was his address to the students at Trivandrum in 1925: “It is a common superstition in India, and more so outside India that I am an opponent, a foe, of science. Nothing can be farther from truth than a charge of this character. It is perfectly true, however, that I am not an admirer of science ... I think that we cannot live without science, if we keep it in its right place.” By now, Gandhi believed in coexistence with science if it did not distort humanity. Two years later at the Indian Institute of Science, he focussed on science for the benefit of the downtrodden, saying that “just as some of the experiments in your laboratories go on for all the 24 hours, let the big corner in your heart remain perpetually warm for the benefit of the poor millions”. He cited P C Ray, chemist and entrepreneur, as a model for aligning science with the progress of the society. In effect, Gandhi wanted science to take cognisance of the pressing concerns of humanity.

If his words expressed scepticism about scientific research for its lack of a humanising force, his actions were often reminiscent of the scientific process itself. Throughout his life, he refused to accept dogma of any kind. The opening note to the reader of Hind Swaraj says, “I am not at all concerned with appearing to be consistent. In my search after Truth I have discarded many ideas and learnt many new things. What I am concerned with is my readiness to obey the call of Truth.” The practice of discarding ideas if they are inconsistent with facts and learning new things best illustrates the processes in science. Gandhi was not stopping science in its tracks, but was only pointing to alternative directions where humanism took precedence.

M S Santhanam

Physicist and a professor at the Indian Institute of Science Education and Research, Pune

Email: santh@iiserpune.ac.in

[Follow The New Indian Express channel on WhatsApp](#)

[Download the TNIE app to stay with us and follow the latest](#)

