



## Mains Marathon

**Day 23:** Fostering rationality and scientific temperament is an effective instrument to combat superstition. Critically Analyse. (150 Words)

02 Aug 2022 | GS Paper 4 | Theoretical Questions

### Approach / Explanation / Answer

#### Approach

- Briefly define superstition and write how India promote scientific temperament in its constitution.
- Describe reasons behind the failure to remove superstition.
- Suggestions to remove superstition by developing scientific temperament and rationality.
- Conclude by summarizing the answer.

#### Answer

Science and superstitions are poles apart. Yet they are the two sides of the same coin unknown of their interdependence. Superstitions are self-imposed selfish beliefs, something imaginary yet unimaginable disbelief, or mere beliefs. But science – the most well-known and popular word of this era. Science is believed to be something realistic which even makes the unreal real; the unachievable achievable.

The **fundamental duties of Indian Constitution** mentions that the duty of each citizen “to develop the scientific temper, humanism and the spirit of inquiry and reform” (Article 51A). Jawaharlal Nehru was the first to use the expression “scientific temper”, which he described with his usual lucidity in The Discovery of India. And yet, decades later, superstitious practices abound in India, including among the highly educated.

Internationally, increasing numbers of people live happily without need for superstition. The most appalling beliefs and rituals have largely been eradicated the world over — such as blood-letting in medicine to human sacrifice, and in India, practices such as sati. This is due to the efforts put in by social reform campaigners, education and empowerment (of women in particular). Yet, surviving superstitions can be dangerous too, for example when they contradict medical advice.

#### Reasons behind persistence of superstitions:

**Because of deep-seated habituation:** We have all had uncomfortable feelings when trying to do something differently, even if it seems to be logically better: whether it’s a long-standing kitchen practice, or an entrenched approach to classroom teaching, or something else in daily life. Perhaps we are all hypnotised by our previous experiences, and superstition, in particular, is a form of deep-seated hypnosis

that is very hard to undo. It is undone only when the harm is clear and evident, as in the medieval practices alluded to earlier. Such beliefs are strengthened by a confirmation bias and other logical holes. Recent research even shows how seeing the same evidence can simultaneously strengthen oppositely-held beliefs.

**Disagreement in science:** Dogmatism about science can be unjustified too. All scientific theories have limitations. Newton's theories of mechanics and gravitation were superseded by Einstein's. Einstein's theory of gravity has no known limitations at the cosmological scale, but is incompatible with quantum mechanics. The evolution of species is an e

mpirical fact: the fossil record attests it, and we can also observe it in action in fast-breeding species. Darwinism is a theory to explain how it occurs. Today's version is a combination of Darwin's original ideas, Mendelian genetics and population biology, with much empirical validation and no known failures. But it does have gaps. For example, epigenetic inheritance is not well understood and remains an active area of research.

### **Suggestions to remove superstition**

Not only, as the evidence suggests, by preaching or legislating against it. Awareness campaigns against dangerous superstitions along with **better education and scientific outreach** may have some impact but will be a slow process.

**Persuasion** is popular in psychology, social science and marketing communities. Perhaps scientists have something to learn here too. Pascal, whom Nehru cited on reason, wrote on persuasion too. He observed that the first step is to see the matter from the other person's point of view and acknowledge the validity of their perception, and then bring in its limitations. People are generally better persuaded by the reasons which they have themselves discovered than by those which have come into the mind of others.

Such a strategy may be more successful than the aggressive campaigns of rationalists such as Richard Dawkins. Nevertheless, harmless superstitions are likely to remain with humanity forever.

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