

Remember the Pythagorean theorem? "The square of the hypotenuse of a right triangle is equal to the sum of the squares on the other two sides." The man who discovered and gave his name to this theorem was an early Greek philosopher-mystic whose contributions to Greek thinking went far beyond this useful bit of mathematics.

Pythagoras was born on the island of Samos, off the coast of Asia Minor, around 569 BC, but eventually migrated to the southern Italian town of Croton to found a school. His students, including both men and women, were known as his "Society of Followers" and lived a communal life-style in which no private property was allowed. They looked upon Pythagoras not simply as a teacher, but rather as a "prophet of Apollo" who was somehow greater than ordinary mortals. In modern terms, we would call Pythagoras a charismatic guru, and he accordingly convinced his followers that he could work miracles, cure the sick, predict the future, appear in two places at the same time, control the winds, predict earthquakes, and converse with animals. He also claimed to see things that others could not see, and hear things that others could not hear, such as the "music of the cosmos". How much his alleged use of opium helped in this respect is hard to determine.

But it was Pythagoras' views on the soul (the Greek "psyche") that make him stand out among other early thinkers. First of all, he believed that the soul was immortal, and secondly, that souls were subject to reincarnation. Thus, when a person died, the soul would be released from the body and, after a period of time, would reappear in the body of another (an early version of recycling?). However, the soul could also experience transmigration, which meant that it could be reincarnated not only in a human being, but also in animals and even in certain plants. In fact, Pythagoras himself claimed to be able to recall all of his previous incarnations, asserting that, at one point, his soul had lived in the body of a son of the god Hermes. Most people, on the other hand, were unable to remember their previous incarnations.

He preached that the soul could, however, eventually win its release from the cycle of reincarnation/transmigration and achieve a state of nirvana. Thus he taught his followers to live a life purified by study (especially the study of mathematics and music) and by self-discipline. In this latter regard, the Pythagoreans rejected the eating of meat and were strict vegetarians (animals, after all, have souls, and one would not want to disturb the soul of, say, one's great-great grandfather by eating its latest incarnation in an ox); they even avoided certain vegetables thought to be "soul food". Their most famous prohibited vegetable was the bean - because it had the power to "disturb one's inner harmony", something most of us today would agree with. Self-discipline also included abstinence from wine and from sex; indeed, Pythagoreans were only allowed to have sex during the winter months, which in the Mediterranean are fewer in number than they are here in Canada.

In the realm of mathematics, Pythagoras invested numbers with mystical powers. In short, he believed that numbers were divine entities that had an existence all their own, independent of human beings. For example, the number "1" was supreme reality; the number "2" was the source of inequality in the universe; the number "3" was the universe itself (the cosmos); the number "4" was justice; the number "5" was love; and the number "10" was the "All Perfect Number" that held the universe together - a kind of cosmic super-glue. While such ideas may strike us as curious or even bizarre, they led to the formal study of mathematics, and none other than the great Aristotle credited the Pythagoreans with being the first to advance the study of mathematics.

Other aspects of Pythagoreanism strike us as less bizarre: for example, Pythagoras preached reverence for all living things; he advocated moral reform and civic harmony; he taught his followers to respect their elders and even to love their enemies; he believed that rulers must be good people; and he rejected the institution of slavery, believing that all people were equal. In his scientific studies, he came to the conclusion that the earth was a sphere, and that the moon was illuminated by the sun. He contributed greatly to the theory of music by discovering the mathematical basis of music, e.g., that the musical intervals between the notes of a lyre (a common Greek instrument) could be expressed numerically.

So, if Pythagoras strikes us as eccentric in some ways, in others he was ahead of his time. Even Plato, one of the finest thinkers produced by ancient Greece, took up some aspects of Pythagoreanism, and the beliefs of Pythagoras were also popular in Imperial Rome, centuries after his death around 470 BC. Like him or loathe him, Pythagoras left a vivid mark on the history of Western thought.