

The Great Petricor Book

Fallacies

73. Einstein was a good student

Despite what they say, especially regarding his bad grades in math, Einstein actually began studying calculus three years earlier than the rest of his classmates. It's true that he received help from other mathematicians, including Mileva Maric, his first wife, to further his work, but we are not talking about high school problems here, we are talking about the equations that support the theory of relativity.

74. Is it true that there is no Nobel prize for mathematics because Alfred Nobel's wife was unfaithful with Gosta Mittag-Leffler, a mathematician who could have won the prize?

According to Snopes, although Nobel had three significant lovers, he never married. On the other hand, there were candidates who could have competed with Mittag-Leffler for the award, such as Henri Poincaré and David Hilbert.

We don't know why there isn't a Nobel prize in mathematics, but it could be because the king of Sweden already funded the prize awarded by the *Acta Mathematica* journal (founded by Mittag-Leffler) and perhaps Nobel didn't want to compete with royalty. It's also possible that he considered it to be a science that was just too theoretical or perhaps he was just uninterested.

75. Edward Murphy formalized Murphy's Law

Murphy's law states that if anything can go wrong, it will go wrong. The Murphy in question was Edward Aloysius Murphy, an aerospace engineer. He came up with his law in 1949 after discovering that all the electrodes in a harness, which was made to measure the effects of acceleration and deceleration on pilots, were badly connected. Apparently (this point is unclear), the original statement was "if there's more than one way to do a job, and one of those ways will result in disaster, then somebody will do it that way."

76. Charles Darwin did not coin the phrase "survival of the fittest"

It is true that Darwin wrote the phrase, but only in the introduction to the fifth edition of *On the Origin of Species*, quoting Herbert Spencer, who had coined it in his *Principles of Biology* after reading the first edition of Darwin's book. Darwin wrote that he had used the term natural selection, "but the expression often used by Mr. Herbert Spencer of the survival of the fittest is more accurate, and is sometimes equally convenient."

77. How many wise men were there?

As Umberto Eco reminds us in the *Book of Legendary Lands* and in his novel *Baudolino*, the Gospels only refer to wise men, without indicating how many there were, what their names were or if they were kings. Although there were three gifts, traditionally there were said to be between two and twelve wise men, with names like Hormidz, Jazdegard, Hor, Basander, Karundas... In the 5th century, Pope Leo I decided on the number three and in the following century they were given names. Moreover, Balthazar was not black until the end of the Gothic era, when it was decided that there would be a white man, an Arab and an African, "to suggest the universality of redemption." We must remember that at that time only three continents were known: Asia, Africa and Europe.

78. The iron maiden was invented for torture museums

This sarcophagus with nails on the inside was invented by the archaeologist, Johann Siebenkees who, to accompany his invention, created a story in 1793 based on traditional tales.

79. Why is north shown at the top of maps?

It seems so obvious to us that maps are oriented northward that we forget this is nothing but a convention and that north and top are not synonymous. "There is no purely geographical reason why one direction is better than any other, or why modern Western maps have introduced the assumption that north should be at the top," writes Jeremy Brotton in *A History of the World in 12 Maps*. In fact, on medieval Judeo-Christian maps and until the end of the 15th century, the Earth was depicted as east-facing, with Asia at the top, Europe on the bottom left and Africa on the bottom right. After all, "orientate" comes from "Orient," i.e. the east. The east was preferred in many cultures because the sun came up there, south was the second preferred direction. West was associated with decay and death, and north, "with darkness and wickedness." Not everywhere however: Babylonian and Chinese maps, for example, were oriented to the north, like the maps proposed by the astronomer Ptolemy in the second century A.D. It does make sense to have navigation maps take into account the north-south axis, given the use of compasses, but Brotton reminds us that they could just as easily have opted for the south.