

Title:

Should we believe the experts? (Part III)

Word Count:

767

Summary:

Why do we use experts? To predict the future. Should we believe these experts? History tells us that accurate predictions of the future are rare. Many examples exist where the brightest and most qualified individuals failed to see the future.

Keywords:

Focus Group, Interview, Survey, Qualitative Research, Qualitative Analysis, Investment Analysis, Open-ended questions, decision making, how to negotiate, conversation analysis, negotiations, text analysis

Article Body:

Why do we use experts? To predict the future. Consider a patient who is asking a physician about the future effects of a certain drug, or the investor who is asking a stock analyst about the future prices of a certain stock, or the manager who is asking a human resource manager about the future performance of a certain candidate, or the brand manager who is asking a market researcher about the future sales of a certain new product. Should we believe these experts? History tells us that accurate predictions of the future are rare. Many examples exist where the brightest and most qualified individuals failed to see the future. This series of articles presents examples from the arts (see part I), business (see part II), and science (see part III).

Should we believe the experts in science?

In science, the predictions made by Sir Rayleigh and Lord Kelvin on heavier-than-air flying provide two famous examples of misguided intuition.

John William Strutt Lord Rayleigh (1842-1919) was a leading British physicist. In 1876 he was elected as President of the London Mathematical Society. In 1879, he was appointed as the second Cavendish professor of experimental physics at Cambridge (the first was the famed James Clerk Maxwell). In 1905 Sir Rayleigh was elected President of the Royal Society. In 1908, he became chancellor of Cambridge University. Sir Rayleigh is perhaps most known for the discovery of the inert gas argon in 1895, which earned him the 1904 Nobel Prize in physics. Sir Rayleigh was also interested in flight. In 1883 he published

The soaring of birds, and in 1889, The sailing flight of the albatross.

In 1896, a year after making his seminal discovery, Sir Rayleigh commented, "I have not the smallest molecule of faith in aerial navigation other than ballooning." (Martin 1977, p 12)

Another great physicist who expressed an opinion about heavier-than-air flying is William Thomson, better known as Lord Kelvin (1824-1907). Thomson was an infant prodigy in mathematics. In 1841, at the age of 11, he entered the University of Glasgow. Thomson published his first paper in mathematics at the age of 16. In 1846, at the age of 22, Thompson became a Professor of Natural Philosophy at Glasgow University. In 1847, he first defined the absolute temperature scale, which was subsequently named after him. In 1851, Thompson published ideas which lead to the introduction of the second law of thermodynamics. In 1856, Thompson coined the term "kinetic energy." Thompson also showed an interest in practical problems. In 1854, he participated in the Cyrus Field's efforts to lay a transatlantic telephone line. He improved the design of the cables, and traveled on the ships laying the cables to supervise the process. In 1858, Thompson invented and patented the galvanometer as a long distance telegraph receiver meant to detect faint signals. He also invented an improved a gyro-compass, new sounding equipment, and a tide prediction machine with a chart-recording. Lord Kelvin published more than 600 scientific papers and was awarded 70 patents. In 1890, Thompson was elected as the president of the Royal Society. In 1866, Thompson was knighted. In 1892, he was raised to the peerage as Baron Kelvin of Largs, which title he chose from the Kelvin River, near Glasgow. When he died in 1907, he was buried next to Isaac Newton in Westminster Abbey.

In 1895, Lord Kelvin proclaimed that "Heavier-than-air flying machines are impossible."

On December 17, 1903, less than a decade after Sir Rayleigh and Lord Kelvin made their predictions about the impossibility of heavier-than-air flying, the Wright brothers made their first manned airplane flight in Kitty Hawk, North Carolina, proving that both great scientists were dead wrong in their predictions of the future.

Another example of misguided intuition is Sir Woolley's prediction on the future of travel in space. Sir Richard van der Riet Woolley (1906-86) was the Eleventh Astronomer Royal. He studied at both Cape Town University and Cambridge (where he worked with Sir Arthur Eddington, the physicist who first confirmed Einstein's relativity theory). In 1929, Woolley moved to California and began work at Mount Wilson Observatory. In 1931, he returned to Cambridge. Woolley

joined the Royal Greenwich Observatory in 1933 as Chief Assistant. In 1939, he became the Director of the Commonwealth Solar Observatory at Mount Stromlo in Canberra, Australia. In 1955, Sir Woolley was appointed the Astronomer Royal, a position he continued to hold until his retirement in 1970.

In 1956, a year after being appointed Astronomer Royal, Sir Woolley announced to the press that "space travel is utter bilge." (Martin 1977, p. 9) A year later, in 1957, the Soviet Union launched Sputnik I, the first man-made object in space, and five years later, in 1961, the first space traveler, the cosmonaut Yuri Gagarin in Vostok 1.

Martin J. Future Developments in Telecommunications. Englewood Cliffs, NJ, Prentice-Hall, 1977.