

Spurious correlations?

- Shark attacks and ice cream sales
- Shark attacks and votes against the incumbent president
- Shark attacks and tornadoes

Each of these pairs correlates positively in some data set(s), but which of the following is true?

- One thing causes the other
- Both have a common cause, but neither causes the other
- The underlying processes are actually independent; the correlation in the data set is due to random chance, and would go away in a larger sample.