

The method of difference can also potentially uncover fallacious reasoning in the example of women's rights. If you can find examples of societies that have little or no separation of public and private spheres but have diminished women's rights, these examples call the causal relationship into question. Similarly, if you can find examples of societies that have strict separation of private and public spheres but simultaneously have excellent records of women's rights, the causal relationship also may be fallacious. The method of difference allows you to verify the validity of your causal reasoning: if your reasoning is correct, the elimination of the cause should lead to the elimination of the purported effect. If that does not occur, most likely you have identified the wrong cause.

The method of correlation can be used to support a cause-and-effect argument by demonstrating that as the amount of the cause increases (or decreases), the effect will also increase (or decrease). Using this method, you would present examples that have varying degrees of the supposed causes and effects. If the cause-and-effect relationship is valid, you will be able to show that an increase in the cause corresponds to an increase in the effect or that a decrease in the cause leads to a corresponding decrease in the effect.

Using the method of correlation, you might observe a variety of different kinds of mulch that gardeners use, noticing that some mulches are high in nitrogen while some are low. By ordering these examples from the lowest nitrogen content to the highest, you might then investigate which of the gardens produced the biggest and sweetest berries. If you discovered that as the amount of nitrogen in the mulch increases, the size and sweetness of the berries increases, then you would be able to say that the size and sweetness of the berries are dependent on the nitrogen content of the mulch.

Examples of societies where the degree of separation of the public and private spheres corresponds to the extent to which women's rights are protected provide further evidence of a causal relationship between the separation of private and public spheres and women's rights. By discovering an example of a society that, over time, closed the gap between the private and public sectors and that, over that same time, increased the protection of women's rights would provide good support for a causal relationship.

Earlier we noted that the method of difference could be used as a check on faulty causal reasoning. Similarly, correlation also is a check on a false cause-and-effect argument. If our earlier argument that H_2O causes intoxication were correct, using the method of correlation, you ought to be able to demonstrate that mixing greater and greater amounts of H_2O with whiskey, gin, scotch, rye, vodka, wine, and brandy would produce greater and greater degrees of intoxication. Failure to find a correlation between the amount of H_2O and intoxication refutes the causal relationship between H_2O and intoxication.

A frequently cited fallacy of causal reasoning is that "correlation does not equal causation." On the surface, the statement of that fallacy seems incompatible with using the method of correlation to support a cause-and-effect argument. Paradoxically, although correlation does not equal causation, correlation can support a cause-and-effect argument.

In the pure sense, correlation does not prove causation because you can never