

Spurious Relationships Unveiled

SOCIOLOGY 350

DIRECTIONS: Examine these curious correlations cited below and attempt to identify what third variable might be responsible for this observed correlation.

- 1) A recent suicide study conducted by Kathleen MacMahon at the Harvard School of Public Health, is based on an analysis of 185,887 suicides in the United States. The data reveal that Monday is the most common day for suicides and Saturday is the least common. What do you suppose might account for this? Does the solar and lunar influence that exists whenever Monday comes around somehow cause people to commit suicide at a greater rate?
- 2) Research clearly shows that women are more likely to commit child abuse than are men. In other words, a person's sex and their likelihood of committing child abuse are strongly correlated. Is there something in the genetic structure of women that makes them more inclined towards violence towards children than is true for the "more gentle" male sex?
If not, what then?
- 3) A scientific "genius" recently demonstrated that there is a strong positive correlation between a person's shoe size and his or her ability to solve mathematical word problems involving the speed of trains and how much time it would take before Billy's train crashed into Sally's train while traveling in opposite directions on the same set of train tracks. How can you account for this remarkable finding?
- 4) A few years ago Dr. Nina Bickel reported in the American Journal of Public Health that despite the fact that male gynecologists performed 60 percent more hysterectomies than females, it was untrue that male gynecologists were "sexist pigs" as had been alleged by some. Dr. Bickel's conclusion was based on a control variable that she introduced into this correlation that resulted in male doctors being no more likely than female doctors to perform hysterectomies. What might that third (i.e., control) variable be?
- 5) A recent study reported that whiskey drinkers were more likely to get lung cancer than non-whiskey drinkers. Does this prove that drinking whiskey causes lung cancer? If not, how might we account for this correlation?
- 6) Babies whose mothers smoked during their pregnancy are at a higher risk of growing up to be criminals, new research suggests. Does smoking during pregnancy cause babies to grow up and become criminals or is there an alternative and more plausible explanation for this correlation?
- 7) Research findings show that race minorities are more likely to be arrested for child abuse than are non-minorities. Does this correlation prove that race minorities are more likely to commit child abuse? And even if we grant that the former proposition may be true, how might this correlation be explained without making any reference at all to the race of the child abuser?