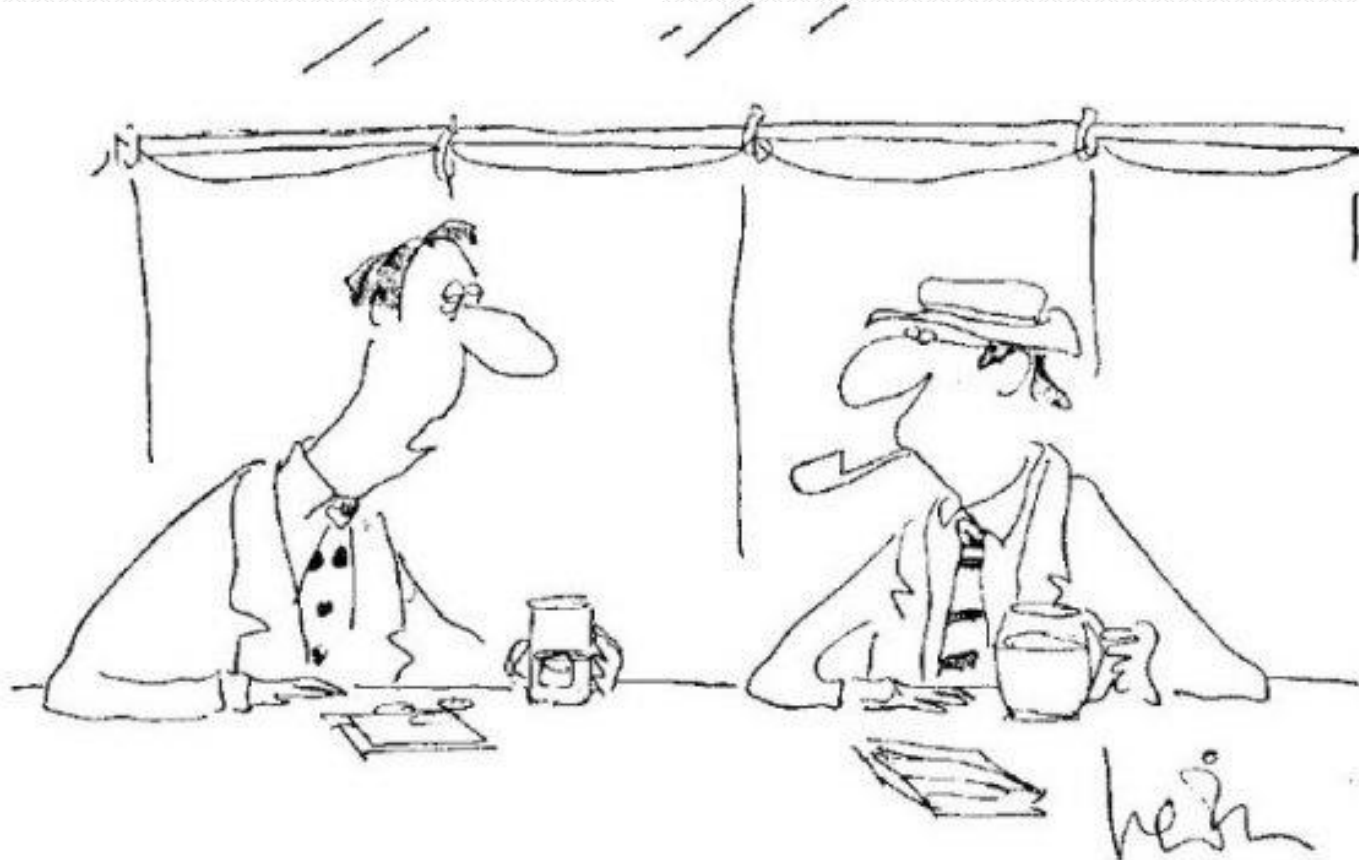


Choosing the Correct Statistical Test



“Well, I’ll be damned if I’ll defend to the death your right to say something that’s statistically incorrect.”

SPSS Overview

2

- **Overview of SPSS**
 - [SPSS for Beginners](#)
- **Open Files in SPSS: SPSS, Excel, Text Files**
 - [Importing Data](#)
- **Three Bonus Tricks for Using SPSS, Excel, & Word for Tables**
 - <https://youtu.be/qtpWVJtdD5E>
- **Getting Started:**
 - [How to Create Variables in SPSS](#)
- **File Manipulation: Select Cases, Split File**
 - [Select Cases](#)
 - [Split File](#)
- **Transformation of Variables: Compute & Recode**
 - [Recode](#)
 - [Compute](#)

How Do I Know Which Statistical Test to Use?

3

- **THINGS TO CONSIDER**

- **How many variables do I have**

- ✦ How many IVs are there?

- ✦ How many DVs are there? (typically, there is just one)

- **What Types of Variables do I have?**

- ✦ Is the IV(s) continuous or categorical?

- ✦ Is the DV continuous or categorical?



How Do I Know Which Statistical Test to Use?

4

- **Continuous** (sometimes called quantitative variables):
Called **Scale** data in SPSS.
 - Interval or ratio data where the values can change continuously and you cannot count the number of different values. (e.g., weight, price, profits, counts, etc.)
- **Categorical** (sometimes called qualitative, discrete, or dichotomous variables): Called **Ordinal** and **Nominal** data in SPSS.
 - Ordinal are ratio data are values that have a meaning to the order or are in categories, such as ranking TV programs or colors.

Bivariate Statistics

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- Used to examine the relationship between **two variables**
- Typically examined at one point in time (cross-sectional)

IV	DV	Analysis
Continuous	Continuous	Correlation
Categorical (Can be more than two groups)	Categorical (Can be more than two groups)	Chi-Square
Categorical (2 groups)	Continuous	Independent Samples T-Test and Dependent (Paired) Samples T-Test
Categorical (>2 groups)	Continuous	One-Way Between Subjects ANOVA and One-Way Within Subjects (Repeated Measures) ANOVA

Multivariate Statistics

6

- Used to examine the relationship between **≥ 3 variables**
- Can be cross-sectional or longitudinal

IV1	IV2	DV	Analysis
Continuous	Continuous	Continuous	Regression and Path Analysis (Beyond the Scope of this Class)
Continuous	Continuous or Categorical	Continuous	Stepwise Regression and Hierarchical Regression (Controlling for a variable, doesn't matter if controlled variable categorical or continuous)
Continuous (1 or more)	Categorical (1 or more)	Categorical	Logistic Regression
Categorical	Categorical	Categorical	Log-Linear Model
Categorical	Categorical	Continuous	2 X 2 ANOVA and One-Between-One-Within ANOVA
Categorical	Categorical or Continuous	Continuous	ANCOVA (Controlling for a variable, doesn't matter if controlled variable categorical or continuous)
Categorical (1 or more IVs)	Categorical (Optional)	Continuous (2 or more)	MANOVA

LAB

7

- Using the “Choosing Your Analysis” Handout from week 4 as an aid complete the following Labs:
 - This week’s labs due by next Tuesday
 - Collaborate on Research Projects
 - **Consent forms & Respearch Propoals Papers (Papper #2)**
Due Sunday, Oct 21st
 - ✦ Abstract, Introduction, Method, Possible Outcomes/Discussion Sections & Reference Sections (75 pts)