

Types of Explanation

_____ explanation of a

- The more you study, the
- The more you attend class,

When Two _____ Occur _____
or In a _____

Sometimes Called:

_____ or _____
(Two _____ Together)

or _____
(There is a _____ between Two _____)

We can also think about an _____ as being a
_____ or Prediction

Other terms that are essentially synonymous:

An _____
(_____) Describes a
Trend or _____

Most _____ in the social sciences are not “perfect”

For Example:

When the Barometric Pressure decreases, Rain is More Likely

- Knowledge of the Barometric Pressure Helps Us Make
- Knowledge of the Barometric Pressure Contributes to

A _____ Describes the Accuracy of a Generalization

_____ are Seldom

- ...is Something More Likely or Less Likely...
- Or Whether Something Tends to Be

_____ Coefficient

How _____ or
Prediction Is

A _____ Coefficient is between

...well, actually between _____ to be precise

____ = No _____ (no ability to predict)

____ = Perfect _____ (perfect ability to predict)

$$\begin{array}{c}
 \text{_____ Knowledge} \\
 \\
 \text{_____ Knowledge} \\
 + \\
 \text{Knowledge of the Amount of _____} \\
 = \\
 \text{_____ Knowledge}
 \end{array}$$

C.R. Rao

Uncertain _____ Are Useful

Meteorologist:
 There is a 60% Chance of Rain Today

Statistician:
 The _____ Between Rain and the
 Current Atmospheric Conditions is .6

Negative and Positive Correlation

Positive Correlation

Individuals With High Income

Negative Correlation

Individuals with High Income

The Black Swan Fallacy

Swans are white.

...but I once saw a black Swan.

Social Scientists are almost always
interested in explaining _____
(_____) - not individuals. (_____
Explanations)

-
- An _____ is a _____ that is Sometimes Used by _____ to Incorrectly “_____” Their Point/Theory.
 - _____ are Often the _____ to the Rule or an _____ to the Trend.
 - _____ are Only Useful to _____
 - Social Science is Interested in _____
 - One Exception to the _____ is Typically _____

Correlation

How well can you predict?

1	1
3	3
3	3
5	5
7	7
3	3
4	4
8	?

Correlation =

Correlation

How well can you predict?

1	3
3	5
3	5
5	7
7	9
3	5
4	6
8	?

Correlation =

Correlation

How well can you predict?

1	3
3	5.1
3	4.9
5	6.8
7	9.2
7	8.9
8	10
9	?

Correlation =

Correlation

How well can you predict?

1	10
3	1
3	9
5	10
6	2
7	3
8	9
8	?

Correlation =