

Bonus Table  
Threats to Statistical Conclusion Validity

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| <u>Threat</u>                                    | <u>Result</u>  |
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| Low statistical power.                           | Can result in an incorrect conclusion that the independent and dependent variables are not related.                    |
| Violated assumptions of statistical tests.       | Can result in overestimating or underestimating the size and significance of an effect.                                |
| Fishing and the error problem.                   | Can result in incorrectly concluding that the independent and dependent variables are related.                         |
| Unreliability of measures.                       | Can result in an incorrect estimate of the relationship that exists between the independent and dependent variables.   |
| Restriction of range.                            | Can result in an underestimate of the relationship between the independent and dependent variables.                    |
| Unreliability of treatment implementation.       | Can result in an underestimation of the effect of the treatment.   |
| Extraneous variance in the experimental setting. | Can reduce the probability of detecting a relationship that may exist between the independent and dependent variables. |
| Heterogeneity of units.                          | Can reduce the probability of detecting a relationship that may exist between the independent and dependent variables. |
| Inaccurate effect size estimate.                 | Will result in an overestimate or underestimate of the size of an effect   |

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