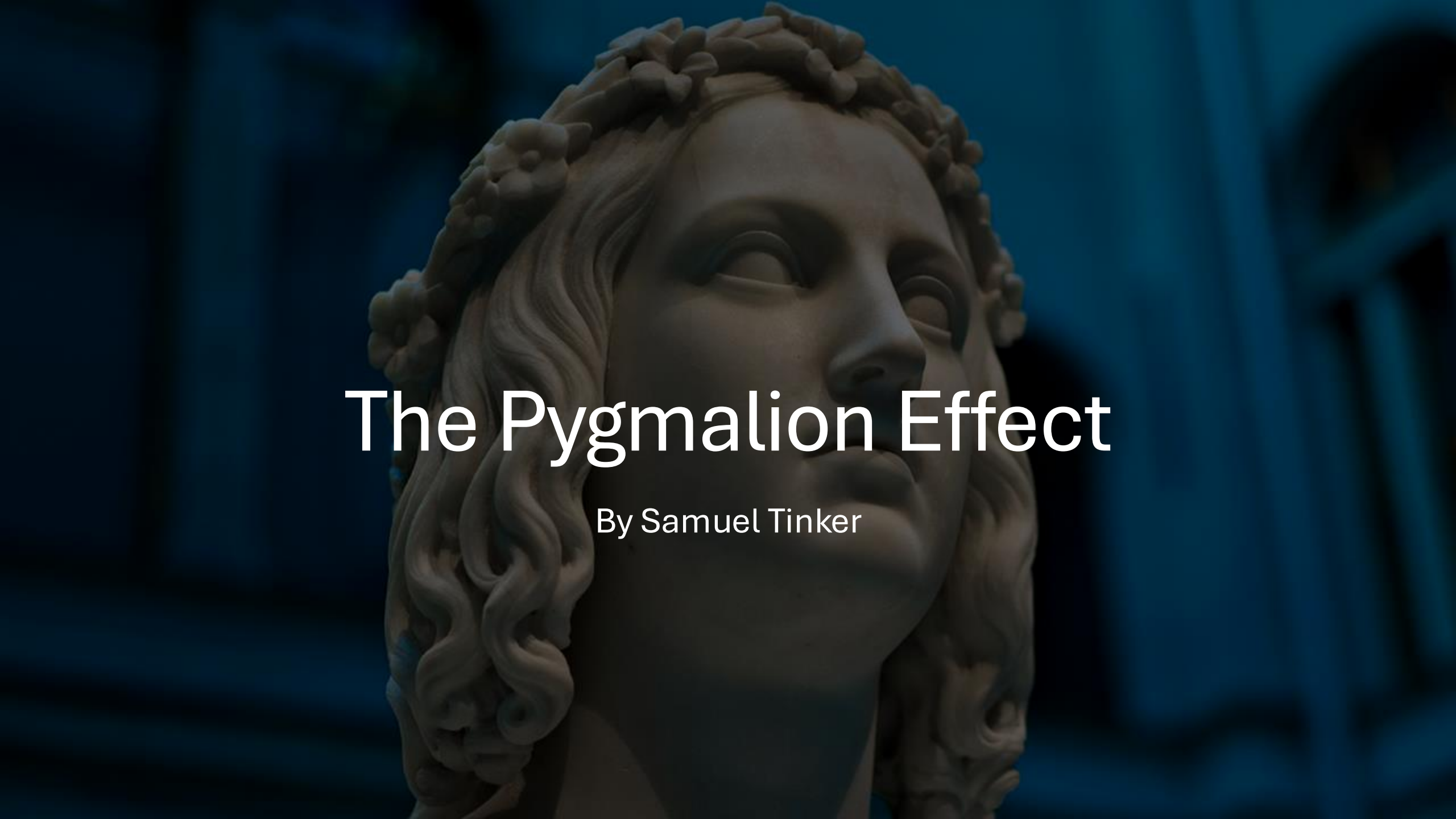
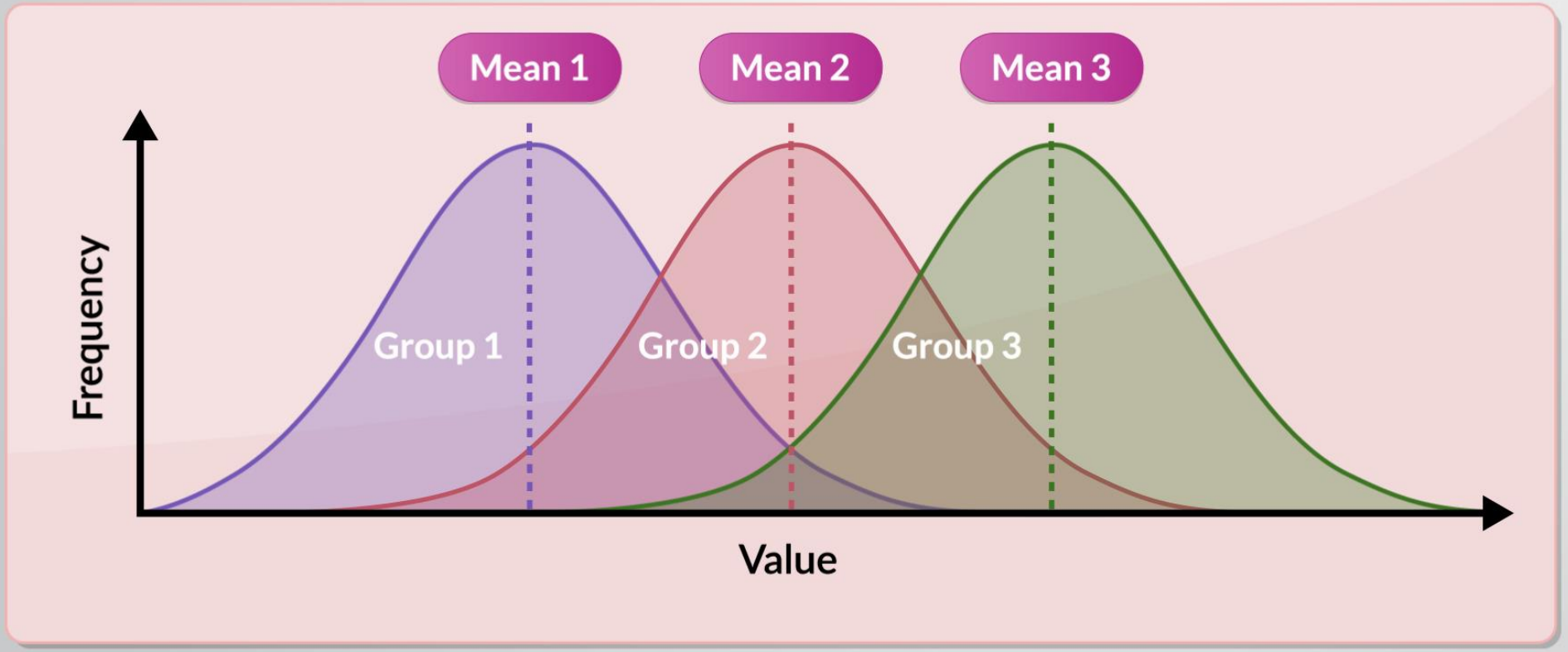


The Pygmalion Effect

By Samuel Tinker

ANOVA



ANOVA

Machine 1	Machine 2	Machine 3
150	153	156
151	152	154
152	148	155
152	151	156
151	149	157
150	152	155
$\bar{x}_1 = 151$	$\bar{x}_2 = 150.83$	$\bar{x}_3 = 155.50$

- **Null hypothesis**: $H_0: \mu_1 = \mu_2 = \mu_3$
- **Alternative hypothesis**: H_a : Means are not all equal

Check at 95% confidence level.

- $SS_{\text{between(or treatment, or column)}}$
- $SS_{\text{within(or error)}}$

$$F = \frac{\frac{SS_{\text{between}}}{df_{\text{between}}}}{\frac{SS_{within}}{df_{\text{within}}}} \qquad F = \frac{MSS_{between}}{MSS_{within}}$$

ANOVA

Regular Article

Stereotype Threat and Women's Math Performance ☆, ☆☆, ★

Steven J. Spencer [a], Claude M. Steele [b], Diane M. Quinn [c]

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https://doi.org/10.1006/jesp.1998.1373 ↗

Abstract

Study One

Two-Way ANOVA Table (Study 1: Sex × Test Difficullty)

Dependent Variable: GRE-style math performance

Source	*df*	*F*	*p*
Sex	1,52	3.99	.050
Test Difficulty	1,52	137.27	<.001
Sex × Test Difficulty	1,52	5.34	.025
Error	52	—	—
Total	56	—	—

Dependent Variable: *GRE*-style math performance

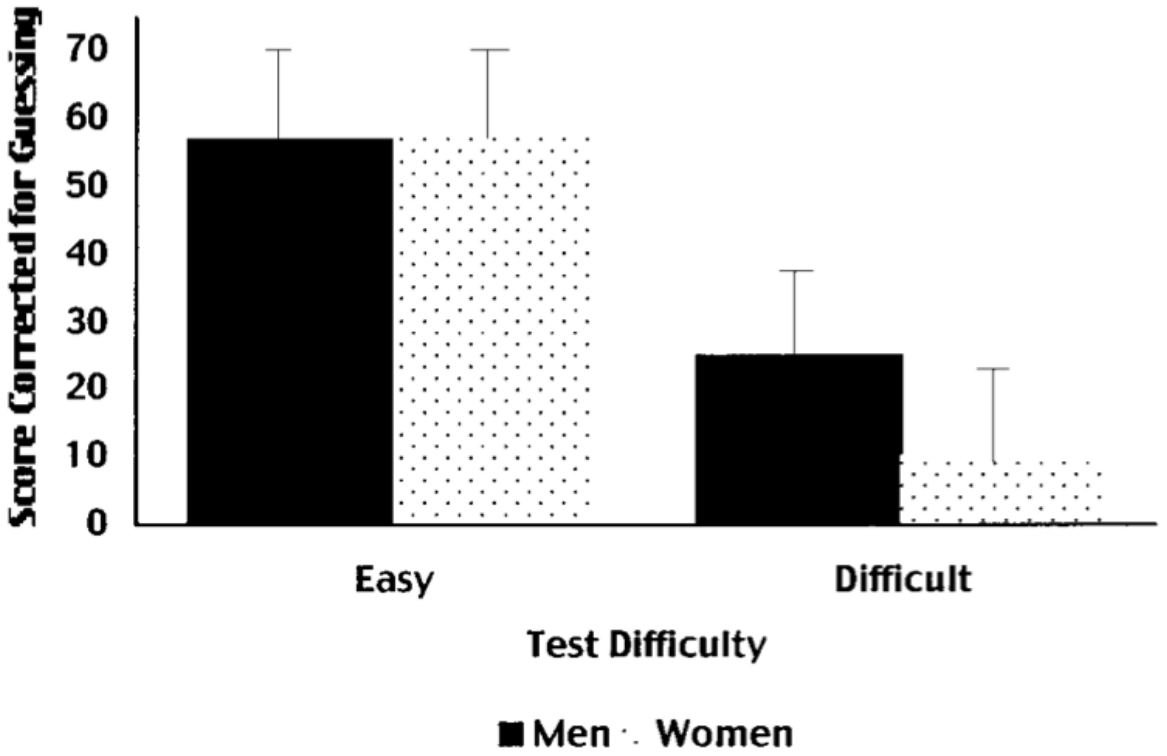

FIG. 1. Performance on a math test as a function of sex of subject and test difficulty

“Our position is that women experience stereotype threat—the possibility of being stereotyped—when taking math tests, and this stereotype threat is especially likely to undermine performance on difficult tests.”

Two-Way ANOVA Table
(Study 2: Sex × Test Characterization)

Dependent Variabe: Math test performance (first test only)

Source	df	F	p
Sex	1,50	5.66	<.05
Test Characterization	1,50	—	n.s.
Sex × Test Characterization	1,50	4.18	<.05
Error	50	—	—
Total	54	—	—

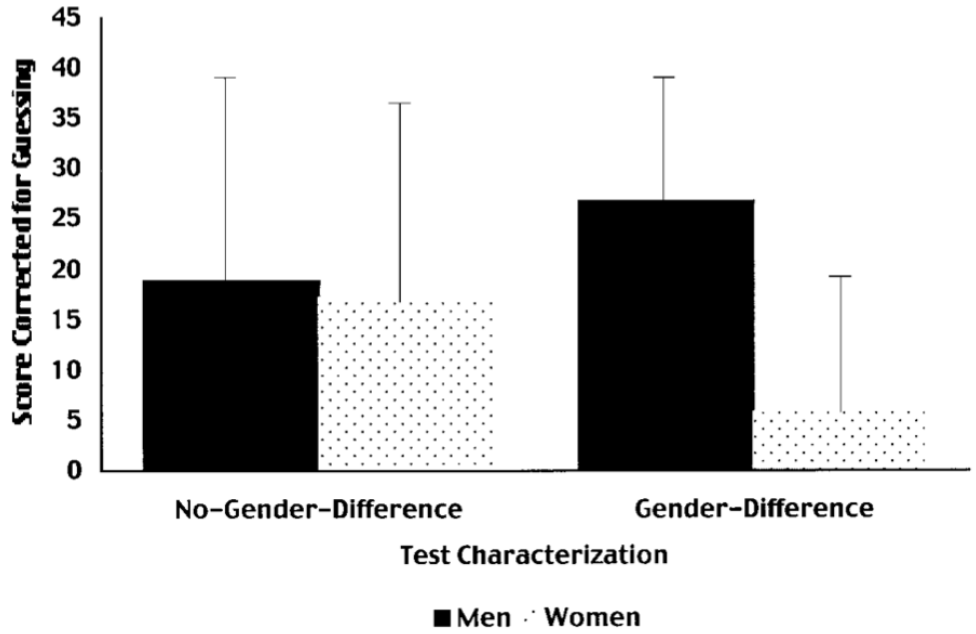

FIG. 2. Performance on a difficult math test as a function of sex of subject and test characterization

“in any situation where the stereotype applies, behaviors and features of the individual that fit the stereotype make it plausible as an explanation of one’s performance. "

Journal of Applied Social Psychology

Full Access

Stereotype Threat, Inquiring About Test Takers' Ethnicity and Gender, and Standardized Test Performance[1]

Lawrence J. Stricker, William C. Ward

2006, n= 725

December 2012, Vol. 34, No. 4, pp. 465–488
DOI: 10.3102/0162373712452629

Sticks, Stones, Words, and Broken Bones: New Field and Lab Evidence on Stereotype Threat

Thomas E. Wei
Georgetown Public Policy Institute, Georgetown University

2012, n = 212,000

Does stereotype threat influence performance of girls in stereotyped domains? A meta-analysis ☆

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ABSTRACT

Although the effect of stereotype threat concerning women and mathematics has been subject to various systematic reviews, none of them have been performed on the sub-population of children and adolescents. In this meta-analysis we estimated the effects of stereotype threat on performance of girls on math, science and spatial skills (MSSS) tests. Moreover, we studied publication bias and four moderators: test difficulty, presence of boys, gender equality within countries, and the type of control group that was used in the studies. We selected study samples when the

N= 4,261
Experiments = 31
Effect sizes = 47

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