

Creativity Analysis: Comparing Intrinsic and Extrinsic Treatments

A Statistical Exploration of Motivation and
Creativity

Jonathan A. Rocha

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Objectives of the Analysis



- Explore the effect of intrinsic vs. extrinsic treatments on creativity scores.



- Perform statistical tests to determine significance.



- Provide actionable insights based on findings.

Methodology

- DATA SOURCE: 47 CREATIVITY SCORES CATEGORIZED BY TREATMENT TYPE (INTRINSIC/EXTRINSIC).



- STATISTICAL METHODS: DESCRIPTIVE STATISTICS, BOXPLOT VISUALIZATION, AND T-TEST.

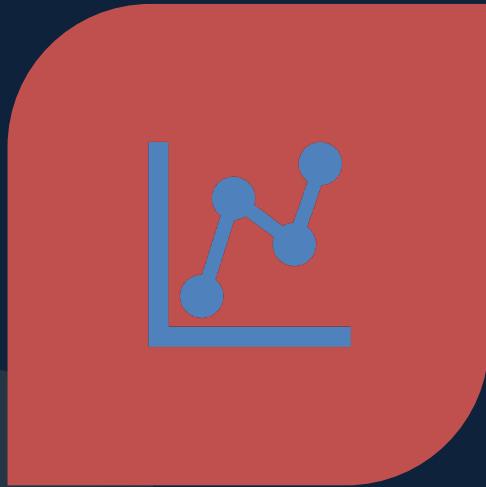


- SOFTWARE: R AND PLOTLY FOR ANALYSIS AND VISUALIZATION.



Descriptive Statistics

- SUMMARY OF MEAN, MEDIAN, STANDARD DEVIATION, AND RANGE FOR EACH GROUP.



- KEY INSIGHTS: DIFFERENCES IN MEANS AND VARIABILITY.



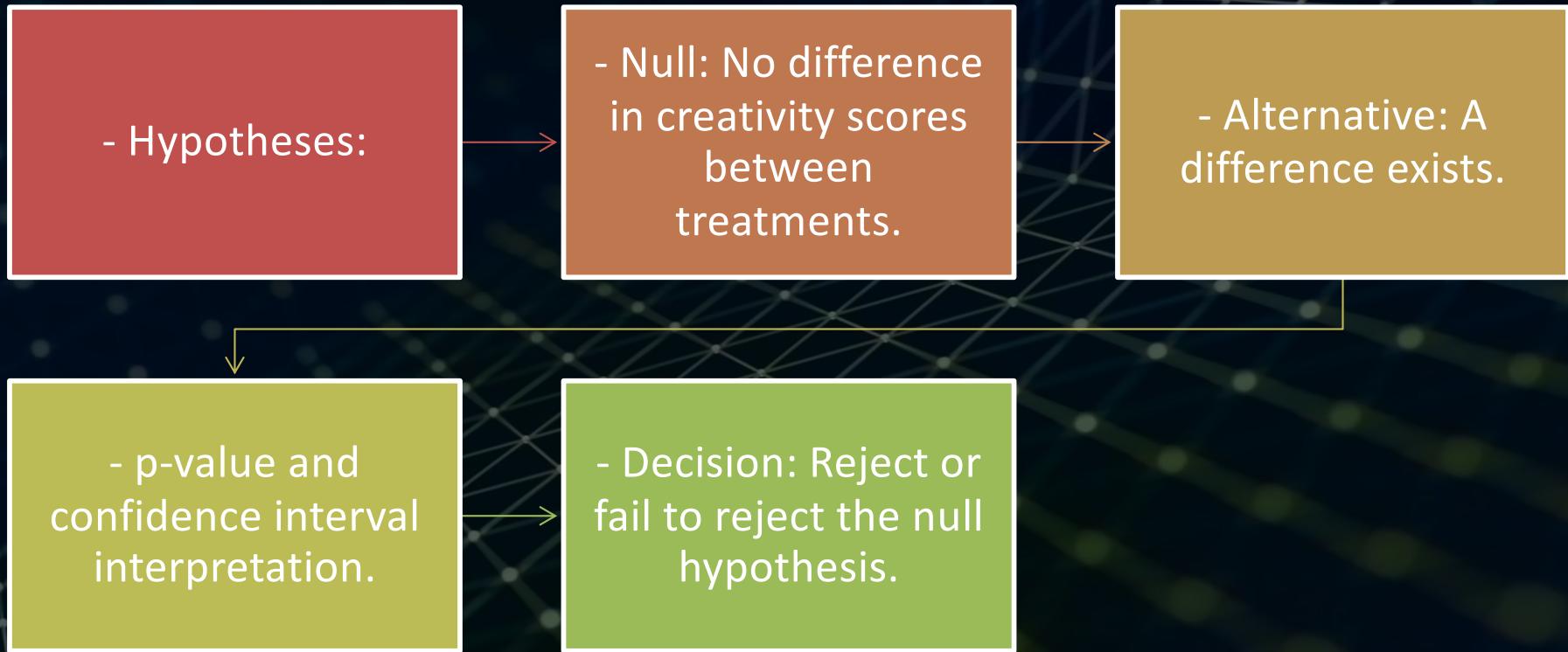
Data Visualization

- Boxplot illustrating distribution of creativity scores by treatment.

- Overlay of individual data points and mean values.

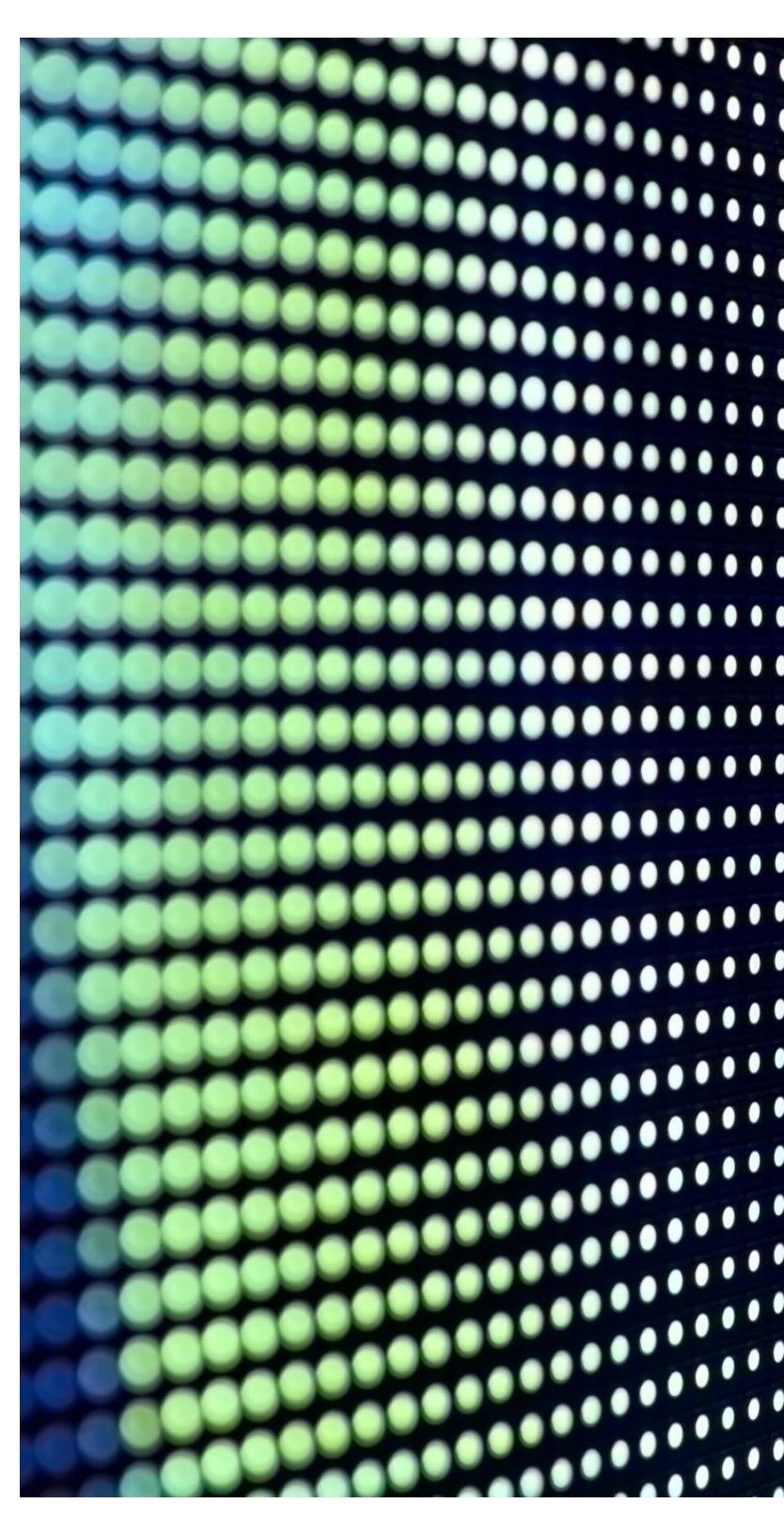
- Key findings highlighted in annotations.

Two-Sample T-Test Results



Key Insights and Practical Implications

- Extrinsic treatment shows higher mean creativity but also higher variability.
- Use intrinsic motivation for consistent creativity.
- Consider external costs or practicality for extrinsic motivators.



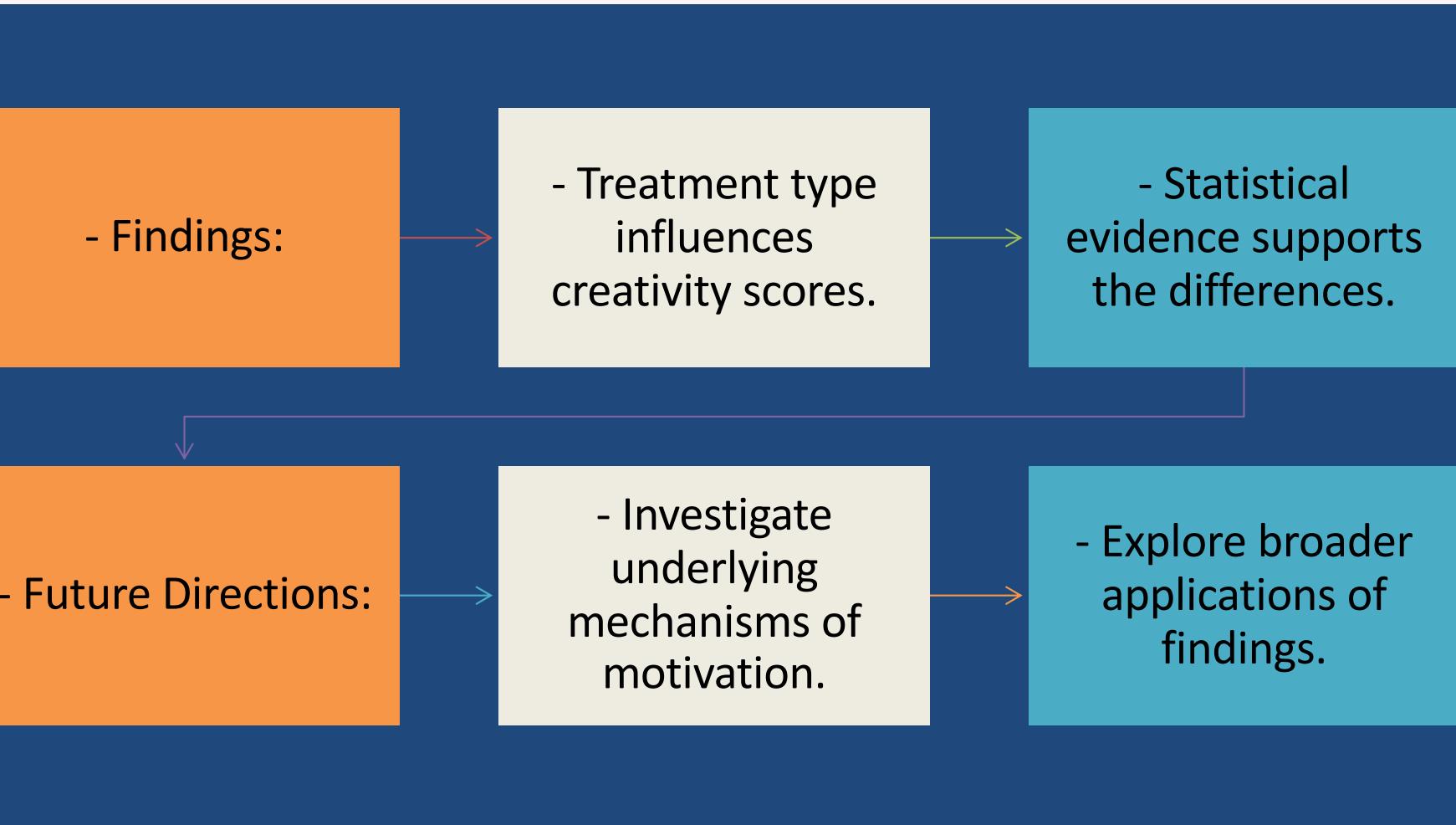
Practical vs. Statistical Significance

- Statistical Significance:
Interpretation of p-value and confidence intervals.

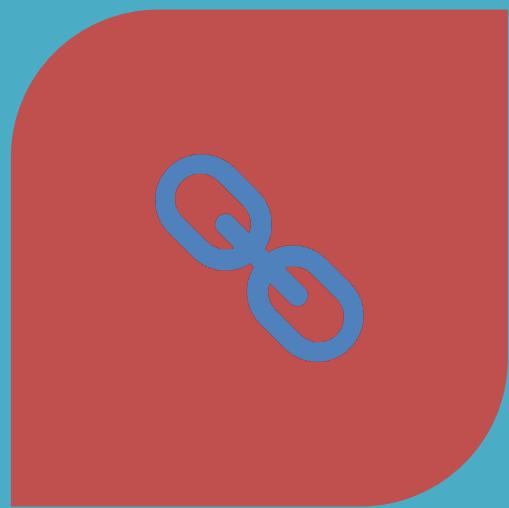
- Practical Significance:
Real-world application of findings.

- Cost-benefit analysis for motivation strategies.

Conclusion and Next Steps



Interactive Demo and Q&A



- LINK TO INTERACTIVE
VISUALIZATION FOR EXPLORATION.



- OPEN FLOOR FOR AUDIENCE
QUESTIONS.

Thank you for your
attention.

- Email: jarocha@smu.edu
- GitHub repository: <https://github.com/jonx0037/-ds6371-unit-2-fls>