FIRST ANNUAL SUNY UNDERGRADUATE RESEARCH CONFERENCE

APRIL 10, 2015

The College at Brockport, State University of New York
SURC Volunteers check in . . . ready for the day
Welcome to SURC 2015!
They arrived in groups of 2 and 3 and by the busload!
SURC 2015 congratulates ~ over 500 student presenters . . .
Performances!
and Oral Presentations!
Dominant Western Directors, Subservient Subaltern Performers: Subjectivity in Mahesh Rao's *The Smoke Is Rising*

by Lucki Cooper
and

posters . . .

posters . . .

Posters!
The Splice Site of the Nuclear Gene, SGST, in Mitochondrial Genome Stability in Saccharomyces cerevisiae

Kathryn Werthling, Christopher Frey, and Roy A. Fao
Department of Biology, The College at Brockport, State University of New York, Brockport, NY 14420

![Diagram of experimental setup and data analysis](image-url)

**Conclusion**

- Average Mitochondrial Homologous Recombination Events per Cell Division in MEF Mef1 and MEF Mef1 Cells
- Average Mitochondrial Homologous Recombination Events per Cell Division in MEF Mef2 and MEF Mef2 Cells
- Average Mitochondrial Homologous Recombination Events per Cell Division in MEF Mef3 and MEF Mef3 Cells

**Fluctuation Analysis**

- Fluctuation analysis of mitochondrial genome stability
- Analysis of splicing site variance in mitochondrial DNA

**Experimental Setup**

- Assay of splicing site in mitochondrial DNA
- Characterization of splicing site activity

**Data Interpretation**

- Comparative analysis of splicing site efficiency
- Evaluation of splicing site impact on mitochondrial genome stability

**Results**

- Significant difference in splicing site efficiency
- Increased stability in mitochondria with corrected splicing site

**Discussion**

- Implications for biological function
- Potential applications in genetics

**Acknowledgments**

- Thanks to advisors and collaborators for support

**References**

- Literature on mitochondrial genome stability
- Studies on splicing site function

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SURC 2015 offered multi-disciplinary research approaches from visual arts and dance, to wildlife ecology and history, from computer science and psychology, to gender studies and creative writing.
Does Perceived Attractiveness Depend on Contextual Information Integrated Over Time?

Scott Niedopitelski & Alexia Toskos Dils
Psychology Board of Study, Purchase College, SUNY

Abstract

Questions

Results

Background

Method

Discussion

The Effect of Race

- [Text content]

- [Graphs, images, and data]

- [Further analysis and conclusions]
DEVELOPING AN EFFECTIVE ROUTE FOR EDUCATION IN WIND RENEWABLE ENERGY
SURC welcomed amazing faculty mentors . . .
High mobility group B proteins modulate histone methylation in Mouse Embryonic Fibroblasts.

Okechukwu A. A. Okwunodu, Robert Bronstein and Stella Turka

Abstract

Introduction

Methods

Results

Future Studies

Discussion/Conclusion

References
The Effect of Race on Mentees’ Experience of Mentoring

Nedia Lopez

Purcell College

Method

Participants:
- 100 mentor-mentee pairs from various institutions
- Randomly assigned to experimental and control groups

Findings:
- Mentees in the experimental group showed significantly higher levels of satisfaction and engagement
- Mentors in the experimental group reported increased motivation and effectiveness

Conclusions:
- Race plays a significant role in the quality and outcomes of mentoring relationships
- Addressing racial diversity in mentoring programs can lead to improved experiences and outcomes

References:
President John Halstead, The College at Brockport welcomes SURC 2015

Keynote Speaker
~ Dr. George Kuh
Over 700 for lunch at SERC House of Fields!
Javier - examined how Midwestern Native Americans interacted with the natural environment from 1700 BC to 1500 AD.

Sarah - investigated how to use computer processing and three-dimensional printing in architecture.

Nicole - experimented with the properties of a new class of chemical compounds.
Nitrous Oxide Detection in Dental Operatores

Abstract

Background

Methods and Materials

Results

Desired Outcomes

Conclusion

References
The Interplay of Science Education and Cultural Context
Antara Majumdar & Sushmita Gelda
University at Buffalo, The State University of New York

SCIENCE COMMUNICATION
1. Letter Writing
2. Building Models

Acknowledgements

Future Directions: The development of a blog where students can discuss environmental issues on a global scale.
SURC 2015 hosted 39 SUNY campus cohorts . . .
CAN MUSIC BE USED TO REDUCE RACIAL BIAS?

Ainigriv Morrison and Dr. Meagan Curtis
Purchase College, SUNY

Introduction

There is a current degree of suspicion towards novel people who may influence their social interactions. Therefore, to decrease any potential bias, the use of music in this case is being explored. The study was designed to explore the effects of music on reducing racial bias. Specifically, the study aimed to examine whether listening to music while performing the Implicit Association Test (IAT) would affect the test results.

Methods

The IAT was performed in a laboratory setting with a total of 100 participants. The participants were divided into two groups: those who listened to music during the test and those who did not. The music played during the test was either classical or pop. The test was administered using a computer program.

Results

The IAT scores for the music and non-music groups were compared. For the white musician condition, the music group had lower IAT scores compared to the non-music group, indicating a decrease in racial bias. For the black musician condition, the music group also had lower scores, but the difference was not as significant.

Discussion

The results suggest that listening to music while performing the IAT may reduce racial bias. The effect was more pronounced for the white musician condition, which may indicate that music has a greater impact on reducing bias for minorities.

References


Citations

For the IAT, consult the manual provided by the test developers.
Beliefs About Romantic Relationships

Lia Monteleone

Sponsor: Yanine Hess
Department of Psychology, SUNY Purchase

Introduction

Romantic relationships can be complicated by a variety of factors, including the beliefs that individuals hold about relationships and how these beliefs influence their behavior. In this study, we investigate the beliefs that participants hold about romantic relationships and how these beliefs predict relationship satisfaction.

Materials

Subjects were undergraduate students who completed a survey about their beliefs about romantic relationships. The survey included questions about the importance of romantic relationships, the qualities that make a good partner, and the behaviors that are expected in a relationship.

Method

Participants were recruited through email and social media. The survey was administered online, and participants were paid for their participation.

Results

The results of the survey indicate that participants hold a variety of beliefs about romantic relationships. The most common beliefs include the importance of communication, commitment, and compatibility.

Future Work

Future research will explore the relationship between beliefs about romantic relationships and relationship satisfaction.

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>Participants believe that commitment is an essential part of a successful relationship.</td>
</tr>
<tr>
<td>Communication</td>
<td>Participants believe that effective communication is necessary for a successful relationship.</td>
</tr>
<tr>
<td>Compatibility</td>
<td>Participants believe that compatibility is important for a successful relationship.</td>
</tr>
</tbody>
</table>

Predictions

We predict that individuals who hold positive beliefs about romantic relationships will report higher relationship satisfaction. We also predict that individuals who hold negative beliefs about romantic relationships will report lower relationship satisfaction.

Conclusion

In conclusion, this study provides insight into the beliefs that individuals hold about romantic relationships and how these beliefs influence their behavior. Future research will explore the relationship between beliefs about romantic relationships and relationship satisfaction.
The Lying Game: The Role of Acting Experience in Lie Detection
Kathleen E. Dengler
Stephen Flusberg, Sponsor

Abstract
The ability to tell whether or not someone is lying has practical value in both the criminal justice system and in daily life. This research has demonstrated that lying in acting can enhance accuracy, but there are no studies concerning the role of acting experience in lie detection. The purpose of this study was to examine the role of acting experience in lie detection. Participants were divided into two groups: those with some acting experience and those with no acting experience. The former group exhibited a higher rate of accuracy in lie detection compared to the latter group. Future research on the role of acting experience in lie detection is needed.

Methods
1. Microexpression Identification Task
   - Faces were drawn from the IREIF Database.
   - 3 Emotions: Anger, Fear, Sadness
   - Half male faces, half female faces
   - 40 Trials (20 per emotion) presented in randomized order

2. Lie Detection Video Task
   - Videos taken from Lewis, Shaw & Shuman (2013)
   - Participants watched 30 videos (20 Truths, 10 Lies)

3. Questionnaires
   - Dengler Arts Experience Scale
   - Shaver & Lee Empathy Scale

Results
- A higher rate of accuracy in lie detection for those with some acting experience
- Future research on the role of acting experience in lie detection is needed

Discussion
- The role of acting experience in lie detection requires further investigation

References
- Dengler Arts Experience Scale
- Shaver & Lee Empathy Scale
- Lewis, Shaw & Shuman (2013)
The Impact of Race on the College Experience of Minority Students

Tomasilienne Lewis-Jones

Introduction
According to previous research there are important differences in the college experience of underrepresented minority students in comparison to the college experience of majority students. These differences include weaker feelings of engagement, and lower academic performance. The current study focuses on examining the efficacy of an intervention designed to improve the experience of both minority and majority students through class based mentoring and brief psychological interventions.

Hypothesis
Experiencing class-based peer-led mentoring sessions which include two brief social psychological interventions (Affirmations and Sense of Belonging) will lead to an increase in the feelings of engagement, grit, and comfort discussing ethnicity for ethnic minority students and majority students.

Method
Participants
101 undergraduate college students
70 Female Participants and 31 Male Participants
53 Underrepresented Minority Students
16 African American, 23 Hispanic, 23 M/lat, 3 Asian
Students completed surveys during the 7th and 9th week assessing:
1) Connection to Campus (Cronbach’s alpha = .70)
2) Grit (Cronbach’s alpha = .70)

Procedure
Four senior psychology students implemented a mentoring program in which students in lower level courses were given brief intervention in which they met in small groups once a week for six weeks. A senior psychology student who was a major in the department and had experience with the intervention served as the learning assistant’s for the class. The psychology students also served as the learning assistants for the class. Half of the participants were monitored during the first four weeks of the course and the other half of the participants are currently being monitored.

Results
1) Mentored students spoke significantly more often in class than non-mentored students regardless of ethnicity or mentor matching (p < .05).
2) Mentored students made significantly more references to ethnicity in class comments and written work than non-mentored students regardless of ethnicity (p < .05).
3) Mentored students expressed more grit in class comments and written work than non-mentored regardless of ethnicity (p < .05).
4) Students who received mentoring from a mentor of the same ethnicity made significantly more references to academics in class comments and written work than students who received mentoring from a mentor of a different ethnicity or students who have not received mentoring.

Conclusions
Class-based mentoring paired with brief psychological interventions benefited both minority and majority students.
- Mentored students made more references to ethnicity non-mentored students.
- Mentored students spoke more in class than non-mentored students.
- Mentored students made more references to grit than non-mentored students.
- Perhaps mentoring allowed students to feel more comfortable in a large lecture class.
- Mentoring with mentors of the same ethnicity produced more reflections on academic performance than mentors who had mentors of a different ethnicity.
- Perhaps mentoring is more effective when there is a match between the ethnicity of the mentor and student.
- Unexpectedly, there were no differences in feelings of belonging to campus for minority students and majority students.
- Perhaps this will take longer than 4 weeks to occur.
The Effect of Familiarity with Motor Actions on Object Perception
Kasey Bury and Alexia Toskos
Psychology Board of Study, Purchase College, SUNY

Abstract

Background

There have been several studies that have shown that familiar actions can influence object perception. In a study comparing the perception of familiar and unfamiliar actions, participants were more likely to perceive objects as familiar when they had performed the action before. This suggests that familiar actions can alter object perception, with familiar actions being perceived as more important and salient. In the current study, we explored the role of motor actions in object perception. Participants were presented with a series of objects and asked to rate their familiarity with each object. Our results showed that participants were more likely to perceive objects as familiar when they had performed the action before. This suggests that motor actions can influence object perception, with familiar actions being perceived as more important and salient.

Methods

We used a within-subject design, with each participant performing two different actions. The first action involved a simple movement, while the second action involved a more complex movement. Participants were then asked to rate the familiarity of each object in each condition. Our results showed a significant difference in the ratings between the two conditions, with participants rating objects as more familiar in the complex movement condition.

Results

The results of this study suggest that motor actions can influence object perception, with familiar actions being perceived as more important and salient. This has implications for how we understand the role of action in perception, and suggests that motor actions can play a significant role in shaping our perception of the world around us.

Discussion

The results of this study suggest that motor actions can influence object perception, with familiar actions being perceived as more important and salient. This has implications for how we understand the role of action in perception, and suggests that motor actions can play a significant role in shaping our perception of the world around us.
Abstract:
This project examines the role of the Statewide Department of Transportation in response to climate change. The analysis focuses on state transportation agencies as they implement policies and strategies to adapt to the effects of climate change.

Keywords: Transportation, Climate Change, Adaptation, Policy Response.
Waiting for the bus home . . . safe travels!
See you at SURC 2016!!
SURC 2015 thanks . . . the countless volunteers of SUNY and Brockport - students, faculty, and staff