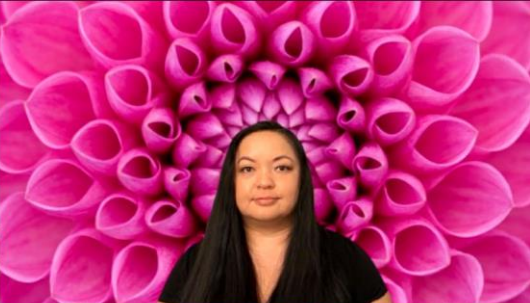


Building Bridges

The Zoom Years

2020-2022

Building Bridges People









Building Bridges Abstracts 2020

Advertising

Psychographic Profiles: A Digital Invasion of Self-Determination

Presenter: Victoria Nea, Pasadena City College
Mentor: Professor Shane Underwood

The rise of psychographic profiles in advertising is generating a multibillion-dollar industry that drives the demand for a new, valuable commodity: personal information. Data companies construct digital profiles to draw inferences about an individual's values and personality— invaluable information for marketers. Consequently, the demand for demographics has been displaced by the more intimate revelations available in psychographics.

This study seeks to expose how the commodification of personal information in the data industry incentivizes an invasive race among companies that compromises consumer privacy at the information and decisional levels, an invasion that catalyzes the encroachment upon a fundamental human right: self-determination. The digital relationship between data companies and consumers emerges as a critical subject for reevaluation, which this research approaches with a hermeneutic focus that considers the perspectives of various modern philosophers.

Thomas Rickert's concept of ambience reveals the ontological digital space that develops when companies employ psychographic profiles to elicit the desired consumer responses. This unidirectional domination restricts consumers' potentiality for critical engagement. Jürgen Habermas's theory of the public sphere calls for emancipation from such restrictions, advocating for social spaces that invite one's use of reason.

Hans-Georg Gadamer's attribution of expanded understanding to an active second party suggests that the critical component for the reshaping of digital engagement is the conscious, informed consumer. Increasing data transparency invites the consumer as an active second party to act and counteract the messages generated by psychographic profiles-- a shift that reshapes the digital space into one that welcomes critical engagement to preserve self-determination.

Works Cited

- Gadamer, Hans-Georg. "The Ontology of the Work of Art and its Hermeneutic Significance." *Truth and Method*. Bloomsbury Academic, 2013, pp. 106-35.
- Habermas Jürgen. *The Structural Transformation of the Public Sphere: an Inquiry into a Category of Bourgeois Society*.

Massachusetts Institute of Technology, 1991.

Rickert, Thomas. "Diffractions of Ambience." *Ambient Rhetoric: The Attunements of Rhetorical Being*. U of Pittsburgh P, 2013, pp 41-45.

Stephens, John. "California Consumer Privacy Act." *American Bar Association*, 14 Feb. 2019.

United States, Congress, Senate, Committee on Commerce, Science, and Transportation. *What Information Do Data Brokers Have On Consumers, and How Do They Use It?* U.S. Government Publishing Office, 2015. 113th Congress, 1st session, Senate Report 113-693.

Anthropology

The Cost of Nationalism— How American Citizens are Paying a High Price.

Presenter: Julia Barrios, Mt. San Jacinto College
Mentor: Professor Erik Ozolins

Nationalism can bring a nation together or tear it apart, depending on how each individual person interprets it. It is a liminal concept with infinite possibilities. It is meant to promote unity, but that goal will always be subject to change. Nationalism in the United States is a socially

constructed concept that primarily starts in the educational system. Most school age children recite the “Pledge of Allegiance” out of tradition and without patriotic expression or understanding (Martin 2012). Children are indoctrinated to perform ritualistic acts in the name of allegiance to one's country.

The paper focuses on key ideas like “threshold concepts” and troublesome knowledge—the idea that a student can receive information initially and have a “troublesome,” way of thinking about a subject (Meyer, Jan and Land Ray). There are “conceptual gateways” that will then lead the student to seek out information elsewhere. It is this “troublesome knowledge” that can eventually cause a student to have a transformed internal view of the subject matter, or world view. This shift in the perception of the subject can become irreversible, and integrative.

Evidence shows that nationalism is liminal in nature and will always be subject to change based on different factors. Outside influences such as church groups, family members, political affiliation all play a part in how a person will perceive and process information (Freire 1970).

These concepts were used to evaluate James Field Jr., who was responsible for the murder of Heather Heyer, at the “Unite the Right” rally in Charlottesville, Virginia. Fields’ involvement with white nationalist extremist

organizations occurred after he sought out secondary knowledge on the internet. His radicalization was a slow process that was influenced by his environment. He received positive feedback from sources which only strengthened his flawed thinking. A photographer who was there to cover the Charlottesville protest for the *Associated Press* told *newsone.com* that he saw Fields Jr. holding a shield with the symbol of Vanguard America on the front, a group whose manifesto declares that “a government based in the natural law must not cater to the false notion of equality.” This symbol illustrates Fields Jr. patriotic fervor that he chose to align with.

There is a need for Americans to reevaluate learning environments in public schools. Critical thinking skills must be taught if we want citizens to understand the importance and value of democracy.

References

- Freire, Paulo. (1970). *Pedagogy of the oppressed: 30th anniversary edition*. The Continuum International Publishing Group Inc, New York, NY, https://commons.princeton.edu/inclusivopedagogy/wp-content/uploads/sites/17/2016/07/freire_pedagogy_of_the_oppressed_ch2-3.pdf.
- Martin, L. A. (2012). Blind patriotism or active citizenship? How do students interpret the Pledge of Allegiance? *Action in Teacher*

Education, 34(1), 55-64. doi:10.1080/01626620.2012.642288.

Meyer, Jan and Land, Ray. *Threshold Concepts and Troublesome Knowledge: Linkages to Ways of Thinking and Practising within the Disciplines*. Universities of Edinburgh, Coventry and Durham, 2003.

“Very Fine People Guilty: Twitter Reminds Trump What He Called Charlottesville Killer James Alex Fields.” *Newsone.com*. 07 Dec 2018. <https://newsone.com/playlist/very-fine-people-twitter-reacts-james-fields-verdict/item/2>.

The Merging Destruction of Neanderthals

Presenter: Laya Jabalameli, Pasadena City College
Mentor: Professor Sarah Muno

The cause of the Neanderthals’ disappearance is one of the great mysteries of anthropology. Neanderthals are known to be early ancestral species of humans, and it is known that when modern humans (*Homo sapiens*) arrived in Europe, the Neanderthal population was already quite small. To this day scientists debate whether this was due to violent replacement, the intelligence and brain size difference, the inability to adapt to the new environment or interbreeding (Sanchez-Quinto, Lalueza-Fox 2015).

When two similar species are living in the same

environment, the chance of mating with one another (hybridization) is likely. If mating takes place, the increase in genetic variation within the gene pool may solely cause the new generation to flourish while the elder generation perishes. With new species, comes adaptation to a new environment, and through natural selection, it is decided which species, if any, will go extinct: survival of the fittest. Broadly, this is what took place with Neanderthals and modern humans. Other scholars assert that climate change was a possible cause of Neanderthal elimination (William Davies & Piers Gollop 2003). As the climate warmed, the Neanderthals were unable to change methods of living, due to their intelligence, to survive. Unable to create new tools and hunting methods for their daily tasks, they were taken over by *Homo sapiens*. According to the research I have conducted, the most important reason for Neanderthals extinction is the interbreeding that took place between Neanderthals and *Homo sapiens*.

Works Cited

Harvati, Katerina.
 “Neanderthals and Modern Humans: An Ecological and Evolutionary Perspective (Review).”
Human Biology, vol. 77, no. 3, 2005, pp. 409-13.
ProQuest,
 doi:10.1353/hub.2005.0047

Gollop, Piers, and William Davies. *Neanderthals and*

Modern Humans in the European Landscape during the Last Glaciation: Archaeological Results of the Stage 3 Project. Vol. 1, 2003, pp. 131-44.
 McDonald Institute Monographs, 2004.
www.arch.cam.ac.uk/files/neanderthals_toc.pdf.
 Sánchez-Quinto Federico and Lalueza-Fox Carles.
 “Almost 20 Years of Neanderthal Palaeogenetics: Adaptation, Admixture, Diversity, Demography and Extinction.” 370. *Phil. Trans. R. Soc. B*,
<http://doi.org/10.1098/rstb.2013.0374>

Marshall, Michael.
Neanderthal Sex, the Aftermath. Vol 221, no. 2954, Feb. 2014, pp.9.
Ebscohost,
 doi:<https://caccl-pcc.primo.exlibrisgroup.com/discovery/fulldisplay?>
 GibbonsJan, A.,
 Rochmyaningsih, D.,
 KaiserApr, J., Wadman, M., Couzin-Frankel, J., ReardonApr, S.
 BrainardApr, J. Genetic data on half a million Brits reveal ongoing evolution and Neanderthal legacy
 January 2019,
<https://www.sciencemag.org/news/2019/01/genetic-data-half-million-brits-reveal-ongoing-evolution-and-neanderthal-legacy>.

Taxonomic Failure: The Tarsier Dilemma
Presenter: Helayna Walton, Mt San Jacinto College
Mentor: Professor Erik Ozolins

Humans possess an inherent desire to make sense and order of the world around them, and when faced with something that doesn't fit neatly into their predetermined ideas, it causes both internal and external discord. A topic of anthropological discussion that exemplifies this phenomenon is the tarsier debate, in which great uncertainty revolves around which suborder of primate tarsiers fit into taxonomically. The field of anthropology is a unique field of study because it is holistic and attempts to consider various perspectives in its approach to data collection and analysis. While this fluidity has great potential for stimulating new discoveries and methods of looking at anthropological situations, it also creates challenges in establishing an accepted answer to debatable topics such as tarsier classification.

There currently exist two main methodologies for determining taxonomic classification: traditional and cladistic. Traditional classification focuses primarily on an assessment of the overall morphological similarities between organisms and is not concerned with identifying ancestral-descendant relationships, while the

cladistic method uses anatomical and genetic evidence to establish ancestral-descendent lines. These two different methodologies of analysis have led to opposing conclusions regarding the correct taxonomic placement of tarsiers, with each developing their own sets of labels for the primate suborders. Considering this variation in methodology and the opposition that it creates, it then becomes important to determine whether having several methods of classification, is worth the constant debate that inevitably results when an outlier appears, or if there is in fact value in this uncertainty.

References

- Ankel-Simmons, F. (2007). *Primate Anatomy: An Introduction* (3rd ed.). Amsterdam, The Netherlands: Academic Press.
- Cowan, J. (2006). Are tarsiers really a taxonomic enigma? *Lambda Alpha Journal*, 36, 18-29. http://soar.wichita.edu/bitstream/handle/10057/1455/LAJ36_p23-34.pdf?sequence=1.
- Larsen, C.S. (2015). *Essentials of physical anthropology*. New York, NY, United States: WWNorton & Co.
- O'Neil, D. 1998-2012. *Principles of Classification*. http://anthro.palomar.edu/animal/animal_2.html.

Art

Fantasies of the Orient: 19th Century European Perceptions of the Harem
Presenter : Anita Bouscatie, Saddleback College
Mentor: Professor Margot Lovett

This paper explores European male painters' accounts of harems, as a representation of what they expected an inferior culture to be, as well as a projection of their own sexual fantasies of untamed female sexuality. These depictions were purely imaginary because European men were not allowed into harems, which were actually private living quarters for the female members of a family (Herath 33).

Some painters depicted bondage, bestiality, and hinted that women engaged in homosexuality, not for their own enjoyment, but as a spectacle for men (Golley 19). European men could not fulfill these fantasies in their own culture because proper European women did not engage in these activities. Artists such as Eugene Delacroix and Jean Auguste Dominique Ingres used a realistic style of painting to communicate their own perception about harems as personal brothels for wealthy Arab men, filled with bored, sexually available women whose life's purpose was to serve their husbands.

Some European women travelers who did visit harems wrote sensationalized fictional accounts that fit the dominant European male

narrative of the Orient as an exotic place of decadence, female oppression, and sexual wonders not tolerated in proper Christian Europe (Herath, 33).

Others wrote more accurate accounts. Lady Mary Montagu argued that Middle Eastern romantic behaviors were not different from European courting, while Lady Hester Stanhope argued that having separate living quarters in the house where men could protect children and women was like the homes of the European bourgeoisie (Stanhope 181).

Works Cited

- Delacroix, Eugene. "Femmes D'Alger dans leurs appartements."
- Golley, Nawar Al-Hassan. *Reading Arab Women's Autobiographies: Shahrazad Tells Her Story*, U of Texas P, 2003.
- Herath, Thisaranie. "Women and Orientalism: 19th Century Representations of the Harem by European Female Travellers and Ottoman Women." *Constellations*, vol. 7, no. 1, 2015, pp. 31-40.
- Ingres, Jean Auguste Dominique. "Le Bain Turc"
- Stanhope, Hester Lucy, Lady. *Memoirs of the Lady Hester Stanhope*. H.Colburn, London. 1846. <https://archive.org/details/32882019292898-memoirsofthelad/page/n8/mode/2up>.

Orientalism through the Lens of Postcolonial Theory
Presenter: John Kelley,
MiraCosta College
Mentor: Professor Leah Cluff

Orientalism, rather than celebrating the best of Eastern culture, represents a Western narrative patronizing the East's culture as both emotionally unstable and immoral. Paintings in the Orientalist style presented these perceptions of North Africa and the Middle East to a European audience. While originating in France, orientalist paintings appeared throughout the rest of Europe as these nations' curiosity about their colonies grew. They utilized the already developed French Oriental dialogue in their paintings. Central to this Western dialogue about the Orient was the presentation of the East as "other." The West viewed itself as rational and moral. Therefore, a distorted image of the East was propagated, highlighting or imaginatively portraying practices and events that would be perceived by Western audiences as immoral or overly emotional.

Often the paintings displayed cultural traditions with no understanding of the cultural significance behind them. Ironically, the Orientalism style, in inviting people of the West to view the East as morally inferior, gave license to these artists and their audiences to themselves engage in the objectification of women. Orientalist paintings

represent the emergence of a distorted representation of the East. The Orientalist style introduced forms of cultural appropriation, objectification of women, and racism, which still affect our political discourse and media. However, contemporary artists are fighting hard to change this reality by reappropriating their cultural imagery. This poster presentation will showcase the dishonesty inherent in Orientalism, using postcolonial theory as a lens, and discuss how twentieth and twenty-first century artists are correcting those perceptions.

Works Cited

- Barry, Peter. *Beginning Theory: An Introduction to Literary and Cultural Theory*. Manchester UP, 2009.
- Mitchell, Timothy. "Orientalism and the Exhibitionary Order." *The Art of Art History: A Critical Anthology*, edited by Donald Preziosi, pp. 445+, Oxford UP, 1998.
- Nochlin, Linda. *The Politics of Vision: Essays on Nineteenth-Century Art and Society*. Harper & Row, 1989.
- Ramli, Aimillia Mohd. "Contemporary Criticism on the Representation of Female Travellers of the Ottoman Harem in the 19th Century: A Review." *Intellectual Discourse*, vol. 19, no. 2, June 2011, pp. 263–79.
- Said, Edward W. *Orientalism*. Pantheon, 1978.

Beauty
Judging the Book by Its Cover: Facial Disfigurement and Discrimination
Presenter: Monineath Bunyay,
Riverside City College
Mentor: Professor Carter Thatcher

"Beauty, as defined by society at large, seemed to be only about who was best at looking like everyone else," as Lucy Grealy, a former patient of jaw cancer, writes in her book, *Autobiography of the Face*. The standard "looking like everyone else" has generated judgments based on one's facial appearances, a standard that seem to have been encrypted in the veins of men. Because society has formulated its own heartless, systemized way of putting labels on people based on their physical characteristics, people with facial disfigurement are met with discrimination, at a level where their pursuit of happiness is disrupted.

This discrimination is built upon the "disfigured is bad" stereotype, as evidenced by a study named "More Than Skin Deep: Judgments of Individuals with Facial Disfigurement." Results showing that the individuals pretreatment were seen to have negative attributes, revealing the underlying premise behind the struggles that people with facial disfigurement have in

academic, professional and social contexts in the forms of bullying and employment bias.

Although attempts have been made in order to eradicate this discrimination through the implementation of the Americans with Disabilities Act (ADA) of 1990, and a plethora of organizations, its flaws remain to strip away the happiness of this group of people. This paper attempts to increase the effectiveness of this eradication by tackling the issue from a different standpoint by highlighting the importance of representation in media; actor versus observer's view, a bias-related method inspired by Claude Steele's *Whistling Vivaldi*; and environmental cues, how simple alterations in settings can contribute to overall positivity.

Works Cited

"Bullying and Harassment of Students with Disabilities." *PACER's National Bullying Prevention Center*, hemophiliafed.org/uploads/PACER-Bullying-and-Harassment-of-Students-with-Disabilites.pdf.

Grealy, Lucy. *Autobiography of a Face*. Houghton Mifflin Harcourt, 1994.

Jamrozik, Anja., et al. "More than Skin Deep: Judgments of individuals with facial disfigurement." *Psychology of Aesthetics, Creativity, and the Arts*, vol. 13, no. 1, pp. 117-29, <https://doi.org/10.1037/aca0000147>.

Steele, M. Claude. *Whistling Vivaldi: How Stereotypes Affect Us and What We Can Do*. W.W. Norton, 2010.

Stone, Anna, and Toby Wright. "When Your Face Doesn't Fit: Employment Discrimination against People with Facial Disfigurements." *Journal of Applied Social Psychology*, vol. 43, no. 3, 2013, pp. 515–26., doi:10.1111/j.1559-1816.2013.01032.x.

Biology

Development of Cell Culture Techniques and Determination of Temperature Preference for *Drosophila* S2 Embryonic Stem Cells
Presenter: Victoria Jeanne Mendez, Mt. San Jacinto College
Mentor: Professor Nick Reeves

Cell culture is a revolutionary laboratory process that makes it possible to grow cells taken from a living organism. In our project, we improved the *Drosophila* S2 cell culture process allowing us to cryogenically preserve and genetically modify S2 cells. S2 cell culture research is important because 75% of *Drosophila* genes are like human genes. S2 cell studies have helped researchers understand the genetic basis of human diseases like cancer.

In 1972, Imogene Schneider pioneered embryonic *Drosophila* stem

cell culture and isolated the S2 cell line used today. We set out to grow S2 cells using a standard protocol similar to Schneider's. Former honors students attempted to culture S2 cells but struggled with bacterial contamination. We used culture flasks with filtered caps and added antibiotics to prevent contamination. We also determined that that S2 cells grow best at 28°C and die off at 37°C.

After improving the S2 cell culture process, we cryogenically preserved some of our S2 cells for future experiments. Our frozen cells were then thawed to perform a genetic modification experiment. Using calcium phosphate transfection, an antibiotic resistance gene and a bacterial gene was introduced into S2 cells. We confirmed the S2 cells were genetically modified because the cells survived exposure to antibiotic. Next, we detected the bacterial gene in the S2 cells using a staining process that turned the genetically modified cells blue. Our new cell culture process and genetically modified S2 cell lines (Mosca Azul Azul and Alabaster *Melanogaster*) will be used for future honors projects at the college.

References

Boutros, M.; Kiger, Amy A.; Armknecht, Susan; Kerr, Kim; Hild, Marc; Koch, Britta; Hass, Stefan A.; Consotium, Heidelberg Fly ArrayParo, Renato; Perrimon, Normert. (2004). Genome- Wide RNAi Analysis of Growth and

Viability in *Drosophila* Cells. *Science*. VOL 303; 832-835.

Johansen, Hanne; Straten, Ariane van der; Sweet, Ray; Otto, Edward; Maroni, Gustavo; Rosenber, Martin. (1989). Regulated expression at high copy number allows production of a growth-inhibitory oncogene product in *Drosophila* Schneider cells. *Genes & Development*. 3:822-889.

Schneider, Imogene. (1972). Cell lines derived from late embryonic stages of *Drosophila melanogaster*, *J. Embryol exp. Morph.* Vol 27,2: 353-365.

Thermo Fisher Scientific Inc. *Drosophila* Schneider 2(S2) Cells User Guide. 2018. 1-19.

Analyzing Host-Microbe Relationships in Experimentally Evolved *Drosophila melanogaster* Populations

Presenter: Linette Tang, Mt. San Antonio College
Mentor: Professor Parvin Shahrestani, Cal State University Fullerton

The microbiome, or community of microbes, found within an organism affects its fitness, influencing traits such as development, immune defense, and lifespan. We studied how experimental evolution for longevity divergence in *Drosophila melanogaster* populations affects the associated microbiome. Moreover, we tested how flies from short- and long-lived populations are affected

by manipulations to the microbiome. Quantitative analysis of bacterial abundance and composition was done by homogenizing whole fly bodies and plating the homogenates on mMRS agar. From this we found that the associated microbiome of populations that have been evolved for prolonged lifespan largely consisted of bacteria from the phylum Proteobacteria. In contrast, the associated microbiome of populations evolved to be shorter-lived were dominated by bacteria from the phylum Firmicutes. To manipulate the microbiome of short- and long-lived flies, axenic flies were created by dechorionating *D. melanogaster* eggs ~18 hours after egg deposition. These eggs were subsequently inoculated with commensal bacterial species and abundance was surveyed. Preliminary results show that long-lived flies were more extensively colonized when inoculated with Proteobacteria. Short lived populations showed a more even colonization of microbes from both phyla. These results suggest that there may be a difference in the functional impact of varying bacteria on factors that influence longevity. Continued experimentation is necessary to further elucidate the interactions between the *Drosophila melanogaster* microbiome and longevity.

References

Burke, M. K., Dunham J. P., Shahrestani P., Thornton K. R., Rose M. R., & Long

A.D. (2010). Genome-wide analysis of a long-term evolution experiment with *Drosophila*. *Nature*, 467(7315), 587-590. doi: 10.1038/nature09352

Koyle M. L., Veloz M., Judd A.M., Wong A.C., Newell P.D., Douglas A.E., & Chaston J.M. (2016). Rearing the Fruit Fly *Drosophila melanogaster* Under Axenic and Gnotobiotic Conditions. *J Vis Exp*, 113. doi: 10.3791/54219

Lee, H. Y., Lee S. H., Lee J. H., Lee W. J., Min K. J. (2019). The role of commensal microbes in the lifespan of *Drosophila melanogaster*. *Aging*, 11(13), 4611-4640. doi: 10.18632/aging.102073

Newell, P. D., Douglas A.E. (2014). Interspecies Interactions Determine the Impact of the Gut Microbiota on Nutrient Allocation in *Drosophila melanogaster*. *Applied and Environmental Microbiology*, 80(2), 788-796. doi: 10.1128/AEM.02742-13

Rose M.R. (1984). Laboratory Evolution of Postponed Senescence in *Drosophila melanogaster*. *Evolution*, 38(5), 1004-1010. doi: 10.2307/2408434.

**Child Development
Impacts of Asian versus
American Parenting Styles
on Child Development
Presenter: Hoi Kiu Chan,
Mt. San Antonio College
Mentor: Professor Misty
Kolchakian**

In recent years, there has been much concern about which parenting styles benefit children the most. This literature review examines the differences between Asian and American parenting styles, and specifically, to explore the cultural aspects of various parenting styles and their impacts on self-esteem and academic performance in children and college students. Newman (2015) explains that American parenting is more inclined towards an authoritative style which shows respect children's opinions and prioritizes reasoning, but eastern parenting in collectivist societies (e.g. China and Japan) is more about authority with an emphasis of interdependence. Historically, authoritarian parenting has been viewed less positively as compared to authoritative parenting. However, research studies on the effects of authoritarian parenting on self-esteem showed mixed results, depending on the country of origin (Otto, 2017; Kim, Peng, & Chiu, 2008; Dornbusch, 1987). For Asians, there was a positive relationship between authoritarian parenting and academic achievements, but

authoritarian parenting and permissive parenting were associated with low grades among White individuals (Dornbusch, 1987). After reviewing past literature, it is clear that there is not a perfect parenting style because it depends largely on other cultural and social factors. Therefore, it is important for parents to learn about the outcomes of different parenting styles and acknowledge the cultural variations in them. As the expectations on children and goals of parenting may vary in different cultures, parents should consider their cultural values when raising their children instead of relinquishing their cultural heritage in favor of the predominant parenting style.

References

- Dornbusch, S., Ritter, P., Leiderman, P., Roberts, D., & Fraleigh, M. (1987). The Relation of Parenting Style to Adolescent School Performance. *Child Development*, 58(5), 1244-1257. doi:10.2307/1130618.
- Fulgini, A., Tseng, V., & Lam, M. (1999). Attitudes toward Family Obligations among American Adolescents with Asian, Latin American, and European Backgrounds. *Child Development*, 70(4), 1030-1044. Retrieved from <http://www.jstor.org/stable/1132260>.
- Kim, Y.-H., Peng, S., & Chiu, C.-Y. (2008). Explaining self-esteem differences between Chinese and North

Americans: Dialectical self (vs. self-consistency) or lack of positive self-regard. *Self & Identity*, 7(2), 113-128. <https://doi-org.libris.mtsac.edu/10.1080/15298860601063437>.

Newman, J., Hamide G., Shuyi G., Ji Eun L., Xian L., & Yuriko S. (2015). Relationship between Maternal Parenting Style and High School Achievement and Self-Esteem in China, Turkey and U.S.A. *Journal of Comparative Family Studies*, 46(2), 265-288. <https://doi-org.libris.mtsac.edu/10.3138/jcfs.46.2.265>.

Otto, W. J. (2018). Evolving Korean Parenting Foundations Revealed through Children's Perspectives of East Asian Parenting Beliefs, Styles and Practices. *Journal of Education and Learning*, 7(2), 34-49. Retrieved from <https://search-ebSCOhost-com.libris.mtsac.edu/login.aspx?direct=true&db=eric&AN=EJ1167083&site=ehost-live&scope=site>.

**Climate and
Environment
Solar Power Capture Using
Movable Mirrors for
Heating Applications in
Manufacturing
Presenter: Nima
Amirdastmalchi, Irvine
Valley College
Mentor: Professor Lan
Pham**

Concentrated Solar
Power (CSP) systems

maximize solar thermal energy collection by concentrating solar rays onto a receiver using mirrors. Thermal energy can then drive engines that generate electricity. Moreover, CSP systems receive \$6.37 per watt while the traditional installments of photovoltaic (PV) panels on consumer homes receive between \$0.9 and \$1.70 per watt (Banoni 9). It is more feasible to construct a few CSP systems of large magnitude than have hundreds of thousands of households to install PV panels (Banoni 9).

This study is a mathematical modeling of an array of movable mirrors that focus sunlight to a central spot to achieve high temperature for manufacturing applications. In the model, the mirrors' variable angles are adjusted to sun's location throughout the day to reflect the sun light onto the receiver. The modeling is done in a computer program that traces individual rays (ray-tracer) coming from the sun that hit the mirrors and are reflected onto the receiver. The amount of power that is generated at the receiver can then be estimated by the computer program using various laws of optics and the ray-tracer feature.

Using the programmed model, the power output of CSP systems on different landscapes can be analyzed and optimized to cut costs before they are constructed. Moreover, CSP systems can be modeled so that the solar flux density onto the receiver

is evenly distributed so that the receiver does not break down (You 1). Hence, the most power and cost efficient CSP system can be determined by the program from the data generated.

Works Cited

- Banoni, Vanessa A, et al.
“The place of solar power: an economic analysis of concentrated and distributed solar power.” *Chemistry Central Journal*, vol. 6, 2012, pp 7-10. *ProQuest*, <https://search-proquest.com.ezproxy.ivc.edu/docview/1008856356/D59DAF98F6AE41CFPQ/1?accountid=39837>.
- Freedman, Roger A, and Hugh D Young. *University Physics with Modern Physics*. Pearson Education, 2021. pp 1080-213.
- Peatross, Justin, and Michael Ware. *Physics of Light and Optics*. Brigham Young University, 2008. pp 323-33.
- You, Dongchang, et al.
“Study on Optimized Dispatch and Operation Strategies for Heliostat Fields in a Concentrated Solar Power Tower Plant.” *Basel*, vol. 12, 24 Oct 2019, pp 1-5. *ProQuest*, <https://search-proquest.com.ezproxy.ivc.edu/docview/2346444772/fulltextPDF/D59DAF98F6AE41CFPQ/11?accountid=39837>.

Our Health and the Environment Are intoxicated: The Search for Carbon Free Energy (A focus on Nuclear Energy) **Presenter: Zeinab Arafa, Irvine Valley College** **Mentor: Professor Emily Liu**

Nuclear power is often associated with political and environmental issues. The most recent nuclear accident that has spurred public attention was the 2011 accident in Fukushima, Japan. The accident was caused by the tsunami that disabled the cooling system in the reactor causing the explosion of the power plant. There are various debates on the topic of nuclear power plants and energy. However, a larger threat to the environment and our health is global warming (Daniel Headrick). There are solutions implemented in the United States to mitigate the issue of global warming, by producing carbon free energy sources. The most efficient source of energy is nuclear energy, because it does not produce any carbon dioxide or greenhouse gases (Karl Grandin). This research focuses primarily on nuclear energy that is conducted through nuclear reactors, specifically the Traveling Wave Reactor. The Traveling Wave Reactor forms a wave of reactions in order to produce the electricity and will be safe by “controlling location, speed and shape of the burn front...to reduce risk of temperature and irradiation damage” (US Fed News).

The explosions that occurred in the past were due to an overheated system, which the Traveling Wave Reactor will not have (Nicola De Blasio). This reactor will be an effective solution to combat global warming in a faster way than the other small scale solutions that have been proposed, because it produces an abundant source of fuel. This study will examine how the Traveling Wave reactor functions and the international perspectives on nuclear energy.

Works Cited

- Headrick, Daniel R. "Climate Change: Debate and Reality." *International Review of Environmental History*, vol. 5, no. 1, 2019, pp. 43-60. *ProQuest*, <https://ezproxy.ivc.edu/login?url=https://search-proquest-com.ezproxy.ivc.edu/docview/2229615871?accountid=39837>.
- Grandin, Karl, et al. "Nuclear Energy." *Ambio*, vol. 39, 2010, pp. 26-30. *ProQuest*, <https://ezproxy.ivc.edu/login?url=https://search-proquest-com.ezproxy.ivc.edu/docview/865215191?accountid=39837>.
- De Blasio, Nicola, and Richard Nephew. "Renewing Nuclear Power and Technology." *Geopolitics, History and International Relations*, vol. 10, no. 1, 2018, pp. 119-47. *ProQuest*, <https://ezproxy.ivc.edu/login?url=https://search.pro>

[quest.com/docview/2065306471?accountid=39837](https://ezproxy.ivc.edu/docview/2065306471?accountid=39837).

"US Patent Issued to TerraPower on Jan. 27 for 'Traveling Wave Nuclear Fission Reactor, Fuel Assembly, and Method of Controlling Burnup Therein' (California, Washington Inventors)." *US Fed News Service, Including US State News*, Jan 27, 2015. *ProQuest*, <https://ezproxy.ivc.edu/login?url=https://search-proquest-com.ezproxy.ivc.edu/docview/1648381960?accountid=39837>.

The Air We Breathe: The Importance of Catalytic Converters for Cleaner Air Presenter: Caroline Hom, Irvine Valley College Mentor: Professor James Ross

In recent years, carbon dioxide emissions and air pollution have increased at record high, with few actions occurring in bringing the levels down (Brinson). The solution for air pollution lies in the technological developments of catalytic converters in every mode of transportation. By reducing harmful nitrogen oxide gases and hydrocarbons into the atmosphere, catalytic converters have significantly decreased the amount of emissions in the United States. However, additional advancements for catalytic converters should continue domestically and on a global scale to further their

environmental impact. Since their implementation in 1975 due to EPA regulations, they have been used to convert nitrogen oxides and hydrocarbons into the atmosphere through a two-way system (Kahlon and Tang). Subsequently, the number of deaths related to air pollution decreased by 47% in the past two decades (Pearce). The three way converter, introduced in 1979 by chemical company Johnson Matthey, uses the reduction of NO_x into its elements of nitrogen and oxygen, oxidation of carbon monoxide to carbon dioxide, and oxidation of hydrocarbons into carbon dioxide and water (Kahlon and Tang). This process of simplifying carcinogenic air pollutants into its elements will reduce the 50% of particulate matter emissions in European countries caused by transportation, as well as greatly enhance air quality if applied globally (WHO).

Catalytic converters used in automobiles require more research and greater efficiency in purifying the air. They must be developed beyond automobiles and into larger industries reliant on combustion of fuels for the world to benefit in unforeseeable ways.

Works Cited

- "Air Pollution." *World Health Organization*, World Health Organization, 4 Aug. 2016, www.who.int/sustainable-development/transport/he

alth-risks/air-pollution/en/.

Kahlon, Avneet, and Tony Tang. "Catalytic Converters." *Chemistry LibreTexts*, Libretexts, 5 June 2019, [hem.libretexts.org/Books/helves/Physical_and_TheoreticalChemistry_Textbook_Maps/Supplemental_Modules_\(Physical_and_Theoretical_Chemistry\)/Kinetics/Case_Studies%3A_A_Kinetics/Catalytic_Converters](https://chem.libretexts.org/Books/helves/Physical_and_TheoreticalChemistry_Textbook_Maps/Supplemental_Modules_(Physical_and_Theoretical_Chemistry)/Kinetics/Case_Studies%3A_A_Kinetics/Catalytic_Converters).

Linda C. Brinson "How much air pollution comes from cars?" 29 August 2012. HowStuffWorks.com. <<https://auto.howstuffworks.com/air-pollution-from-cars.htm>> 9 Dec. 2019.

Pearce, Fred, et al. "U.S. Air Pollution Deaths Nearly Halved Over Two Decades." *Yale E360*, 19 Oct. 2018, e360.yale.edu/digest/us-air-pollution-deaths-nearly-halved-over-two-decades.

Criminal Justice

Cashing in the Clink: How Correctional Privatization Hinders Inmate Rehabilitation
Presenter: David Getzen, Pasadena City College
Mentor: Professor Shane Underwood

The American privatized the prison industry, a correctional offshoot which operates beyond governmental purview has managed to scale unprecedented heights of

monetary success; however, this hegemony is as every bit fallacious as it is adamant. Initially conceived to buttress the federal prison system as it grappled with growing recidivism rates and an ailing national infrastructure, this modality of incarceration has, unfortunately, proven woefully impotent in accomplishing such an objective; a 2018 account of prisoner recidivism conducted by the U.S. Department of Justice reveals, "An estimated 68% of released prisoners were arrested within 3 years, 79% within 6 years, and 83% within 9 years." (Alper et al. 1).

Yet, despite betraying the very purpose of its inception, the privatized prison industry has managed to retain remunerative preeminence; a look at the 2019 annual report for the GEO Group, a privatized prison conglomerate, discloses, "...2019 total revenues increased to \$2.48 billion from \$2.33 billion a year ago..." (March 3).

Ultimately, the continuation of the privatized prison industry could only be explained by one simple affirmation: the wrong criteria for determining competence is being employed.

As a privatized prison primarily serves to satisfy shareholders, the amount of revenue it generates is looked at as a confirmation of its efficacy, rather than its proficiency in rehabilitating housed inmates from their

felonious behavior. Thus, the privatized prison system engenders an industrial landscape wherein inmates are looked at as dividends and stewardship is considered an overhead expense, obscuring the innately remedial utility of the institution as it's now cast more as a franchise than as a bastion of the public's safety. Consequently, crime will only continue to proliferate as long as it's perceived as a fiscal boon, rather than a societal blight.

Works Cited

Alper, Mariel, et al. "2018 Update on Prisoner Recidivism: A 9-Year Follow-up Period (2005-2014)." *U.S. Department of Justice. bjs.gov*, May 2018, www.bjs.gov/content/pub/pdf/18upr9yfup0514.pdf.

Johnson, Barry L. "Sentencing Reform Act (1984)." *Major Acts of Congress*, edited by Brian K. Landsberg, vol. 3, Macmillan Reference USA, 2004, pp. 182-185. *Gale eBooks*, <https://link.gale.com/apps/doc/CX3407400268/GVRL?u=pasa19871&sid=GVRL&xid=0611a4b6>.

U.S. Department of Justice. *Review of the Federal Bureau of Prisons' Monitoring of Contract Prisons*. U.S. Department of Justice, 2016.

Walton, Alec, "Retributive Justice." *The Stanford Encyclopedia of Philosophy*, Winter 2016 Edition, Edward N. Zalta (ed.),

<https://plato.stanford.edu/archives/win2016/entries/justice-retributive/>.

March, Sydney M. *The GEO Group, Inc.*, 2019, investors.geogroup.com/Cache/IRCache/e8834b22-d61e-72a5-e092-5fdb26d2c9e4.PDF?O=P&DF&T=&Y=&D=&FID=e8834b22-d61e-72a5-e092-5fdb26d2c9e4&iid=4144 107.

Computer Science
A Study of Secure, Cost-efficient, and Green Cloud Computing Through Virtual Machine Placement Schemes
Presenter: Erin Tan, Mt. San Antonio College
Mentor: Professor Tuan Vo

The demand for the virtualization of data centers for use in businesses, applications, and other organizations has rapidly increased since the consolidation of cloud networks with physical machines (PM) has been found to be more efficient than data centers of only PMs. However, as a result of this virtualization, newfound problems of increased energy consumption, cyber security, high costs, and traffic congestion within a cloud network have arisen. Several virtual machine (VM) placement schemes have been developed to aid and optimize the process of VM migration, but many of their objectives contradict, affecting the overall

efficiency that a scheme can achieve.

This paper analyzes the existing literature and provides a survey of the proposed VM placement schemes, focusing on the most secure, cost-efficient, and green placement schemes between heuristic-based, Particle Swarm Optimization (PSO)-based, and Ant Colony Optimization (ASO)-based schemes that provide the required Quality of Service (QoS) within data centers. Furthermore, the capabilities, limitations, and advantages regarding security, energy-awareness, cost-awareness, and traffic control of each scheme are compared and discussed to propose the best placement schemes for differing network organization scenarios. The most efficient schemes within the three categories were compared by their measures of overall efficiencies and security, finding that most of the existing schemes aimed to meet use-related efficiencies but often neglected security as one of its priorities. It is concluded that though the use-related benefits over other placement schemes are significant, the need for more precautions regarding VM security warrants future research to be done.

Works Cited

Dashti, Sayed Ebrahim, et al. "Dynamic VMs Placement for Energy Efficiency by PSO in Cloud Computing." *Journal of Experimental & Theoretical Artificial Intelligence*,

doi.10.1080/0952813X.2015.1020519, 2015.

Masdari, Mohammed et al. "An Overview of Virtual Machine Placement Schemes in Cloud Computing." *Journal of Network and Computer Applications*, vol. 66, doi.10.1016/j.jnca.2016.01.011, 2016.

Le, Kien et al. "Reducing Electricity Cost through Virtual Machine Placement in High Performance Computing Clouds." *International Conference for High-Performance Computing, Networking, Storage and Analysis*, 22, doi.10.1145/2063384.2063413, 2011.

Ma et al. Multi-objective optimization for initial virtual machine placement in cloud data centers. 9. 5029-5038, 2012

Su, Kui et al. "Affinity and Conflict-Aware Placement of Virtual Machines in Heterogeneous Data Centers." *IEEE Twelfth International Symposium on Autonomous Decentralized Systems*, 2015.

Economics and Trade Mind the Gap: How Wealth Work is Contributing to the Divide between Lower and Upper Classes

**Presenter: Bitu Behpoor,
Irvine Valley College
Mentor: Professor Lewis
Long**

Income inequality over the past two centuries has fluctuated, but recently the concentration of wealth work occupations has oversaturated the U.S. labor market, contributing to the growing disparity between lower and upper socio-economic classes and the shrinking of the middle class. MIT economist David Autor and Utrecht University School of Economics professor Anna Salomons define wealth work as a category of low-pay, low-skill service occupation that serves consumers in the higher-wage end of the urban labor market. This increasing division between wealth work and those for whom they work creates occupational polarization, when middle-class jobs disappear “relative to the bottom, requiring few skills, and those at the top, requiring greater skills” and plays a role in giving non-college workers careers that require little skill and education (Stiglitz, 2012). Advanced technology is gradually taking over menial jobs and computerizing certain jobs to increase efficiency, which is detrimental towards lower-class individuals with job opportunities available in only low-skill occupations.

As their jobs are taken away, wealth work occupations become more attractive to those who need employment and do not have many qualifications, drawing them into the service sector and low-skill job market, and swallows up former middle-skill non-college workers who happen to be unemployed. The ever-increasing occupational polarization in America and the oversaturation of wealth work help diminish the middle class while leading to the permanent loss of routine jobs, thereby increasing the gap between low-wage wealth workers and the increasingly affluent upper classes who employ them.

References

- The American middle class is losing ground.* (2015, December 9). Retrieved from <https://www.pewsocialtrends.org/2015/12/09/the-american-middle-class-is-losing-ground/>.
- Autor, David. (2019). Work of the past, work of the future. *American Economic Association: Papers and Proceedings*, 109(5), pp. 1–32. Retrieved from <https://economics.mit.edu/files/16724>.
- Clark, J. (2006). *The Gilded Age*. New York, NY: Facts on File.
- Jaimovich, Nir, and Henry E. Siu. (2012). Job polarization and jobless recoveries. *National Bureau of Economic Research*, (18334), pp. 1-37. doi:10.3386/w18334.

Stiglitz, J. E. (2012) *The price of inequality: how today's divided society endangers our future*. New York, NY: W.W. Norton.

An Analysis on the Trade War's Effects on U.S. Consumers and Producers Presenter: David Collin, Orange Coast College Mentor: Professor Ho Jin Lee

This study examines the effects of the Trump Administration's trade war on U.S. consumers and producers. The trade tensions between China and the United States pose a risk for rising import prices. Headlines from November 2019 state that products of certain large companies will be omitted from the administration's first waves of tariffs, however, not all companies with operations internationally have the same connection with the president. Thus, this trade war poses a serious issue for U.S. parented businesses with international operations. This study also considers The People's Republic of China tariffs on U.S. exports. They potentially have a significant negative effect on our agricultural industry and the results may be a surplus of unsold products and possible spoilage of food and crops. It's easily observed that tariffs have an effect on imports and exports, nevertheless, who pays for it all in the end? This study provides an introduction to the markets and the effects of

World trade and tariffs using Gregory N. Mankiw's Principles of Microeconomics to provide this explanation. This study also provides leading discussion, research, and analysis from NBER working papers regarding the current Trump administration's trade war to further understand this. The most up to date information/data using more recently available resources, and findings discovered through research of the local economy were also used. Strong evidence concludes consumers bear the burden in this trade war.

Works Cited

- Amiti, Mary, et al. "The Impact of the 2018 Trade War on U.S. Prices and Welfare." *Nber.org*, Mar. 2019, www.nber.org/papers/w25672.pdf.
- Fajgelbaum, Pablo D., et al. "The Return to Protectionism ." *Nber.org*, Oct. 2019, www.nber.org/papers/w25638.pdf.
- Nicita, Alessandro. "Trade and Trade Diversion Effects of United States Tariffs on China." *Unctad.org*, Nov. 2019, www.unctad.org/en/PublicationsLibrary/ser-rp-2019d9_en.pdf.
- Regmi, Anita. "Retaliatory Tariffs and U.S. Agriculture." *Fas.org*, Sept. 2019, www.fas.org/sgrp/crs/misc/R45903.pdf.
- Waugh, Michael E. "The Consumption Response to Trade Shocks:

Evidence from the US-China Trade War." *NBER*, 4 Oct. 2019, www.nber.org/papers/w26353.

National Interest vs. Global Ethics: "Made in China 2025" at the Expense of the World Economy **Presenter: Nguyen Ha Tran, Cypress College** **Mentor: Professor Pawinder Sidhu**

To transform from a "world's factory" into a technology-intensive powerhouse, China's government established "Made in China 2025" (MIC 2025); this project, however, generates economic implications for the global market. Within MIC 2025, China exerts pressure to attain intellectual properties from abroad, reduces foreign participation in China's market, and provides large subsidies and protection to domestic firms (Morrison 36). This paper, based on economic models, argues that MIC 2025 exacerbates the global economy because of the market distortion and trade conflicts generated by these government interventions.

According to Alden Abbott, government interventions that empower competitive advantages of domestic firms over foreign rivals are considered "anti-competitive market distortions," which dampen competition from foreign producers. For example, before MIC 2025, China has practiced a comparable state-

led policy to provide large subsidies to its domestic solar industry, leading to overcapacity and dumping of low-priced solar panels. Kevin Bullis claimed the 60% drop in the price of solar panels from 2011 to 2013 caused the fall of major US firms such as Solyndra and SolarWorld. MIC 2025 proposes the expansion of this policy to ten other key Chinese industries, generating conflicts with foreign nations. Starting in 2018, the escalating US-China trade war has aggravated the world economy to the point that Global Economic Prospects expected global economic growth to decline to 2.6% in 2019.

MIC 2025 promises prospective development for China; however, it implies threats to the world economy because of its state-led policy that distorts the global market and provokes trade conflicts.

Works Cited

- Abbott, Alden F. "Anticompetitive Market Distortions as an Ungoverned Space, and Prospects for Reform." *SAIS Review of International Affairs*, vol. 36, no. 2, 2016, pp. 87–102., doi:10.1353/sais.2016.0022.
- Bullis, Kevin. "Why More Solar Companies Should Fail." *MIT Technology Review*, vol. 116, no. 3, May 2013, p. 24. *EBSCOhost*, search.ebscohost.com/login.aspx?direct=true&db=

f6h&AN=87418373&login.asp&site=ehost-live&scope=site.

“Global Economic Prospects, June 2019: Heightened Tensions, Subdued Investment.” *Global Economic Prospects*, May 2019, pp. 3–30., doi:10.1596/978-1-4648-1398-6.

Morrison, Wayne M. *Chinas Economic Rise: History, Trends, Challenges, and Implications for the United States*. Library of Congress, Congressional Research Service, 2015.

Education

The Relationship between Gratitude and Academic Satisfaction in College Students

Presenter: Christina Gurdzhyan, Mt. San Antonio College

Mentor: Professor Misty Kolchakian

In recent years, positive psychology has experienced considerable growth, especially in the study of gratitude. Although gratitude has been linked to various traits, such as prosociality, physical wellness, and life satisfaction, there is minimal research examining the role of gratitude in higher education. The purpose of this study is to explore the relationship between college students' gratitude and their degree of college satisfaction. The authors aim to test their hypothesis that there will be a positive correlation between gratitude and college satisfaction.

The authors also seek to answer two research questions. First, do certain demographic variables such as gender, age, and socioeconomic status have an effect on the degree of gratitude that college students exhibit? Second, will college students have a higher endorsement of items related to thoughts and feelings, as compared to actions, of gratitude?

This study analyzes data gathered from surveys completed by 83 (35 male, 42 female, 6 unspecified) students at a California community college. The data supported the authors' hypothesis and showed a statistically significant correlation between gratitude and college satisfaction ($r = 0.403$, $p < 0.005$). The data did not indicate that demographic variables had an effect on degree of gratitude. The data did show that students' endorsement of gratitude-related thoughts and feelings was higher than it was for gratitude-related actions. Given the strong association between gratitude and college satisfaction, practical implications for educators, administrators, and students will be discussed, particularly in terms of increasing academic satisfaction, retention, and success.

References

Allen, S. (2018). *The Science of Gratitude* [white paper]. Retrieved September 1, 2019, from the Greater Good Science Center at UC Berkeley:

https://ggsc.berkeley.edu/images/uploads/GGSC-JTF_White_Paper-Gratitude-FINAL.pdf.

Emmons, R. A., & Crumpler, C. A. (2000). Gratitude as a human strength: Appraising the evidence. *Journal of Social and Clinical Psychology*, 19(1), 56–69. doi: 10.1521/jscp.2000.19.1.56.

McCullough, M. E., Emmons, R. A., & Tsang, J.-A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82(1), 112–127. doi: 10.1037/0022-3514.82.1.112.

Peterson, C., Ruch, W., Beermann, U., Park, N., & Seligman, M. E. P. (2007). Strengths of character, orientations to happiness, and life satisfaction. *Journal of Positive Psychology*, 2(3), 149–156. doi: 10.1080/17439760701228938.

Watkins, P. C., Woodward, K., Stone, T., & Kolts, R. L. (2003). Gratitude and happiness: Development of a measure of gratitude, and relationships with subjective well-being. *Social Behavior and Personality*, 31(5), 431–451. doi: 10.2224/sbp.2003.31.5.431.

Immigrant Parent-Child Perceptions on Education through the Generations

Presenter: Alexandra

Lamas, Irvine Valley

Mentor: Professor

Benjamin Mis

Previous studies support the notion that many first generation immigrants and second generation put more effort into academics than third generation immigrants or those with longer national connection (Greenman, 2014; Kao & Tienda, 1995). Kao and Tienda (1995) reported in their study that first generation, and sometimes second generation, immigrant students tend to have a more positive or optimistic attitude and have higher educational aspirations than later generations. Kao (2004) suggested that educational attitudes were more likely to stem from the parents' immigrant status. Ogbu (1998) explained that voluntary immigrants tend to have a positive dual frame of reference, they believe that they have more opportunities in the U.S than in their previous country so they work harder. He also suggests children of immigrants tend to internalize their parents' beliefs; therefore it is a possibility that it could also extend to 2nd generation immigrants. However, Greenman's study (2014) suggests that these attitudes tend to decline through the generations. This study tries to find if immigrant parents' perceptions of education changes through the

generations and if their children would internalize them too, and what factors influence those changes. This study also measures individualism/collectivism, parental influence, college majors, and perceived parental value of education. Results do show that parental influence is higher on the second generation than on the first or third generation ($p < .05$). However, results from the data show no significant differences on perceptions of education from both immigrant parents and students from first generation to third generation.

References

- Greenman, E. (2013). Educational attitudes, school peer context, and the "immigrant paradox" in education. *Social science research*, 42(3), 698–714. doi:10.1016/j.ssresearch.2012.12.014.
- Kao, G., & Tienda, M. (1995). Optimism and achievement: The educational performance of immigrant youth. *Social science quarterly*, 1-19.
- Kao, G. (2004). Parental influences on the educational outcomes of immigrant youth. *International Migration Review* 38(2), 427-449.
- Ogbu, J. U., & Simons, H. D. (1998). Voluntary and involuntary minorities: a cultural-ecological theory of school performance with some implications

for education. *Anthropology & Education Quarterly*, 29(2), 155-188.

Perceived Parenting Style and Emotion Regulation in College Students

Presenters: Lin, Tina

Huynh; Cypress College

Mentors: Professors

Brandy Young, Randy

Martinez

Emotion regulation plays a significant role in an individual's welfare, as it affects people's life socially and psychologically. Previous research shows that a positive parenting style is an indicator of emotion regulation in children and adolescence. However, very few studies have examined the relationship between parenting style and emotion regulation in college students. This research aimed to examine the relationship between received parenting style, emotion regulation strategies, and emotion dysregulation in college students. A total of ninety-five participants completed a questionnaire including the Parental Bonding Instrument (PBI), the Emotion Regulation Questionnaire (ERQ), and the Difficulties in Emotion Regulation Scale (DERS). Different subscales and divisions in the three scales were investigated. It was hypothesized that high paternal and maternal care would be positively correlated with the emotion regulation strategy, cognitive reappraisal, and negatively correlated with the emotion

regulation strategy, expressive suppression, and divisions in emotion dysregulation. On the contrary, it was hypothesized that maternal and paternal overprotection would be negatively related to cognitive reappraisal and positively to expressive suppression and divisions in emotion dysregulation. Using hierarchical multiple regression analyses, results exhibited that maternal and paternal care would be positively linked to cognitive reappraisal, while only maternal care was negatively related to cognitive reappraisal and emotion dysregulation. The findings show that parenting style is influential to emotion regulation in early adulthood. Given the importance of parenting styles and emotion regulation, future research should strengthen the current findings and investigate other possible variables that might be an influence on emotion regulation.

References

- Gross, J. J. (1998). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology, 74*(1), 224–237.
- Gross, J. J. (2008). Emotion regulation. *Handbook of emotions*, Lewis, M., Haviland-Jones, J. M., & Barrett L. F. (Eds.), ,

New York, NY: The Guilford Press.

- Milevsky, A., Schlechter, M., Netter, S. & Keehn, D. (2007). Maternal and paternal parenting styles in adolescents: Associations with self-esteem, depression and life-satisfaction. *Journal of Child and Family Studies, 16*, 39-47.
- Stroud, C. B., Hershenberg, R., Cardenas, S., Greiter, E., & Richmond, M. (2016). U.S. college students' sexual activity: The unique and interactive effects of emotion regulation difficulties and attachment style. *International Journal of Sexual Health, 28*(1), 37–49.
- Tani, F., Pascuzzi, D., & Raffagnino, R. (2018). The relationship between perceived parenting style and emotion regulation abilities in adulthood. *Journal of Adult Development, 25*, 1-12. doi:10.1007/s10804-017-9269-6.

Quantifying Reading: Why Reading Programs in Schools Discourage Rather than Encourage Reading Presenter: Lorelei Olivas, Pasadena City College Mentor: Professor Shane Underwood

Reading programs that require students to read books, then take quizzes in order to earn points have become increasingly popular in schools. The companies behind these programs offer

them as a way to get students to read and keep reading throughout life; however, in many ways these kinds of reading programs are detrimental to a student's education and discourage reading in the long run. Reading becomes seen as a chore by many students, and the lack of discussion provided by these programs does not allow students' to hear and share differing opinions. Furthermore, the distorted grade levels that these reading programs give books do not allow students the freedom to read books that interest them; rather, students must read books marked as their own grade level regardless if they want to read it or not. Not only does this make students feel trapped, but it also disadvantages those students who struggle to read at their grade level. By removing these reading programs and implementing such things as reading circles and independent reading time, where students are allowed to read any books they would like, reading can become something enjoyable for many more students. Allowing students to discuss amongst their peers and friends about what they have read encourages them to read to understand a book, whereas reading programs encourage students to read only to finish a book and earn points. Giving students freedom and choice in reading makes it into something enjoyable which

gives them skills that can be useful in their futures.

Works Cited

- Gadamer, Hans-Georg. Truth and Method. Bloomsbury, 2013.
- Hall, Katrina W., et al. "Every Day We're Shufflin': Empowering Students During In-School Independent Reading." *Childhood Education*, vol. 90, no. 2, 2014, p.91+. Gale AcademicOnefile.
- Krashen, Stephen D. *The Power of Reading: Insights from the Research*. Libraries Unlimited, 2004.
- Masterson-Smith, Julie. "Electronic Reading Programs." *International Journal of Information and Communication Technology Education*, vol. 1, no. 2, 1 Apr. 2005, Gale AcademicOnefile.
- Pavonetti, Linda M, et al. "Accelerated Reader: What Are the Lasting Effects on the Reading Habits of Middle School Students Exposed to Accelerated Reader in Elementary Grades? Middle School Students Who Used a Popular Reading Program in Elementary School Were Surveyed to Determine Their Reading Habits." *Journal of Adolescent and Adult Literacy*, vol. 46, no. 4, 1 Dec. 2002.

Amerige Heights: Examining Shopping Centers as an Intersection of Capital Driven, Culture Clashing

Presenter: Mark Ortega, Long Beach City College
Mentor: Professor Jeff Wheeler

The American shopping center is an emergent phenomenon; it's composed of dynamic systems and processes like organized consumerism, customers' social-interaction models, and the location's mean socioeconomic status. Fullerton, California, provides the quintessential example of dense data contingent to shopping centers. The fluxing cultures, class, and values of the city etch a presently-ambiguous record of their existence onto Amerige Heights Town Center. What was once a typical complex, home to brands such as Target, Islands, and Jamba Juice, now tenets a new pattern of businesses, Korean enterprises. In early 2015, the franchised Hallmark acquiesced its space to a one-of-a-kind, Korean endeavor: California Tofu Grill. The restaurant hosts walls lined with engraved glass art, a chic wooden facade, and yet seldom a non-Korean customer. The latter character being a then-unprecedented state of events in the shopping center. Since then, more Korean businesses have opened in Amerige Heights and the pattern continues: they act as spaces of apparently willed

segregation. Observations of these occurrences are located on the conclusory end of the causal chain of events, seeing the result, not the process. Zooming in, this research will connect the dots between a currently-ambiguous intersection of capital-driven, social, and cultural components to answer the question of what are the forces at play responsible for the events like Hallmark's replacement with California Tofu Grill.

Works Cited

- Aldrich, Howard, and Albert J. Reiss. "Continuities in the Study of Ecological Succession: Changes in the Race Composition of Neighborhoods and Their Businesses." *American Journal of Sociology*, vol. 81, no. 4, 1976, pp. 846–866. *JSTOR*, www.jstor.org/stable/2777599.
- "Amerige Heights Town Center, Fullerton, CA 92835—Retail Space." *Regency Centers*, <https://www.regencycenters.com/property/detail/174/Amerige-Heights-Town-Center>.
- Gleason, Philip. "The Melting Pot: Symbol of Fusion or Confusion?" *American Quarterly*, vol. 16, no. 1, 1964, pp. 20–46. *JSTOR*.
- Shankar, Shalini, and Jillian R. Cavanaugh. "Language and Materiality in Global Capitalism." *Annual Review of Anthropology*, vol. 41, 2012, pp. 355–69.,

www.jstor.org/stable/23270716.

West, Douglas S. "An Empirical Analysis of Retail Chains and Shopping Center Similarity." *The Journal of Industrial Economics*, vol. 40, no. 2, 1992, pp. 201-21. *JSTOR*.

Fitting In: The Importance of Cultural Congruity in Higher Education

Presenter: Melissa Perez, Irvine Valley College
Mentor: Kari Tucker-McCorkhill

People tend to thrive in environments that share commonalities to their previous or concurrent communities and lifestyles, as these types of environments may instill feelings of familiarity, belonging, or comfort (Lu, 2006). One way to examine interactions between person and environment is through "cultural fit," which focuses on analyzing how the individuals' cultural context interacts with the cultural context created by the environment. In a university context, this "cultural congruence" is a highly influential factor in students' academic persistence, retention, and achievement (Aguinaga & Gloria, 2015). Thus, an academic culture should appropriately reflect and students' varying cultural lifestyles and beliefs to ensure an environment of cultural congruity. The purpose of the present study was to examine ethnic differences on perceptions of

the campus environment, academic engagement, and goal commitment.

One hundred and twenty eight students who were enrolled in psychology courses volunteered to participate in an online survey, which included modified versions of the Cultural Congruity Scale and University Environment Scale (Gloria & Kurpius, 1996). Results showed positive correlation between cultural congruity and perceptions of the campus environment, as well as indicators of academic success. Results also showed differences among ethnic groups on their perceptions of the campus environment and in their goal commitment. These results suggest that academic institutions should tend to programs and services that increase cultural congruence for all students, but specifically aim to increase congruence in ethnic minority students so that they might compete equally in a college environment and maximize their potential for future academic success.

References

- Aguinaga, A., & Gloria, A. M. (2015). The effects of generational status and university environment on Latina/o undergraduates' persistence decisions. *Journal of Diversity in Higher Education*, 8(1), 15-29. <https://doi-org.ezproxy.ivic.edu/10.1037/a0038465>.
- Gloria, A. M., & Kurpius, S. E. R. (1996). The

validation of the cultural congruity scale and the university environment scale with Chicano/a students. *Hispanic Journal of Behavioral Sciences*, 18(4), 533-549. <https://doi.org/10.1177/07399863960184007>.

Kun, A. I., & Ujhelyi, M. (2018). Cultural fit and academic performance of higher education students.

Vezetéstudomány-Budapest Management Review, 49(11), 12-23. <https://doi.org/10.14267/VEZTUD.2018.11.02>.

Lu, L. (2006). "Cultural fit": Individual and societal discrepancies in values, beliefs, and subjective well-being. *The Journal of Social Psychology*, 146(2), 203-221. <https://doi.org/10.3200/SOCP.146.2.203-221>.

Choosing My Major: Individual Traits that Matter Most in Finding Future Career Paths

Presenter: Jay Trang, Irvine Valley College
Mentor: Professor Jerry Ruddmann

Today's college students face an overwhelming amount of information to answer challenging questions. *Jeopardy* contestant Ken Jennings claims that overall human knowledge doubles roughly every eighteen months; human knowledge is growing, making it more difficult to answer important questions. In particular, students are most troubled

about finding a major. The decision has become harder to answer today since students must reflect on past experience, interests, as well as pressure to enter a prestigious occupational field, such as computer science, biotechnology, or business.

Selecting a major within freshman year is crucial to successfully transfer from community college to a university. According to Irvine Valley College's (IVC) 2017 Scorecard, 43% of students take over six years to transfer, primary due to switching majors or completing unnecessary courses. However, the *Educational Longitudinal Study of 2002* found that students who have identified a major in community college had a 53% higher chance of transferring.

To address this issue, IVC's "Effective Altruism Club" (EAC) aims to help incoming freshmen identify their major. The club has established a peer-mentorship program where second years who have enrolled in a major provide first-hand to undecided freshman. To study how well the mentors have performed, mentors are asked to fill out a report where they collect data on the mentees such as mentee satisfaction and past academic performance. The data is then analyzed through a model containing statistical techniques such as principal component analysis to find out what are the consistent

factors that helped the mentees.

References

- California Community Colleges. (2017). *IVC College Profile*. Retrieved from <https://scorecard.cccco.edu/scorecardrates.aspx?CollegeID=892>.
- How people choose "career paths." (1991, 28 May). *Stanford University News Release*, , <https://news.stanford.edu/pr/91/910528Arc1355.html>.
- Jennings, Ken. "Watson, Jeopardy and me, the obsolete know-it-all." *TEDxSeattleU*, Feb. 2015, https://www.ted.com/talks/ken_jennings_watson_jeopardy_and_me_the_obsolete_know_it_all/up-next.
- Turk, J. (2017, 1 May). "Reducing Barriers to Transfer for Community College Students." *Higher Education Today*, American Council on Education, 1 May 2017, <https://www.higheredtoday.org/2017/05/01/reducing-barriers-transfer-community-college-students/>.

Importance of Self-Advocacy Skills and Confidence Levels for Students with Disabilities **Presenters: Alexander Zepeda, Christina Lee, Eun Seo Lee, Jae Weon Ahn, Karen Huang, Zhongming Su; Pasadena City College Mentor: Professor Gayane Jerome**

The objective of this observation is to identify a possible correlation between self-advocacy and academic confidence in college students with disabilities. The inspiration to test for self-advocacy skills utilized by the students was derived from Tara J. Yosso's capitals, specifically, resistant capital. This capital is defined as the accumulation of knowledge that helps fight against a form of opposition (Yosso): disabilities. Conducted through a survey given to Pasadena City College students entering the DSP&S center or utilizing the AbilityFirst service, a total of 35 students responded to the survey. With a total of 9 questions, PCC students of all years answered four questions aimed to measure self-advocacy, four aimed to measure academic confidence level, and one tested for the confounding variable, which is their year in college.

Based on the sample data, the results show that the use of self-advocacy skills is independent of their year in college, therefore not a factor that impacts our independent data heavily. In addition, through a hypothesis test, we found that there is a positive

linear correlation between students' use of self-advocacy skills and their academic confidence. 31 out of 35 students responded that they are using PCC's Disabled Students Programs and Services, which is one of our major programs dedicated to students with disabilities to aid them in their accommodations and needs. Similarly, in *Applying Salutogenesis to the Experiences of Students with Disabilities in the Netherlands*, researchers collected data of students with disabilities who used the resources provided by the school and had similar data to our research; students with disabilities who practice self-advocacy display higher academic confidence.

References

- Brinckerhoff, L. C. (1994). Developing effective self-advocacy skills in college-bound students with learning disabilities. *Intervention in school & clinic, 29*(4), 229. <https://doi.org/10.1177/105345129402900407>.
- Dell'Olio, Myriam, et al. (2017, November 30) Applying Salutogenesis to the experiences of students with disabilities in the Netherlands. Retrieved from <https://eric.ed.gov/?id=EJ1182347>.
- Lock, R. H., & Layton, C. A. (2000, November 30). Succeeding in Postsecondary Ed through Self-Advocacy. Retrieved November 15, 2019, from

<https://login.ezp.pasadena.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=5545739&scope=site>.

- Yosso, Tara J. (2005) *Whose culture has capital? A critical race theory discussion of community cultural wealth*, Race Ethnicity and Education, 8:1, 69-91, DOI:10.1080/1361332052000341006.
- Tirpak, D. M., & Schlosser, L. Z. (2015). Relationship between Self-Efficacy and Counseling Attitudes among First-Year College Students. *Journal of College Counseling, 18*(3), 209–221. Retrieved from <http://dx.doi.org.ezp.pasadena.edu/10.1002/jocc.12015>.

Entomology

The Effect of Flower Color on Ladybug (*Hippodamia convergens*) Behavioral Response

Presenters: Negin Hadjiabdohamid and Zareen Ismail, Saddleback College
Mentor: Professor Marcelo Pires

Hippodamia convergens is the most common ladybug in North America. This ladybug is significant to farmers because aphids, a common agricultural pest, is the main part of its diet. Therefore, ladybugs can be used as a natural pesticide (Flint and Dreistadt, 2005). Since

ladybugs prevent damages caused by aphids and other destructive pests, it is important to further examine possible factors that might attract ladybugs. Here, we test whether different flower colors attract ladybugs differently. We hypothesized that ladybugs are attracted to lighter colors, since insects are able to see ultraviolet radiation and light surfaces emit large amounts of UV radiation (Shimoda and Honda, 2013). Three different colors of garden mums (*Chrysanthemum morifolium*) - white, yellow, and dark purple - were obtained and kept at a temperature between 78 °F to 83 °F. For each of five trials, 30 ladybugs were placed into three boxes. Each box contained two different types of flowers (yellow and white, white and purple, purple and yellow). In previous studies, disagreements arose as past research found that *H.convergens* avoid the color yellow (Wise and Bechinski, 1999), while another study suggested that yellow was the most favorable color to *H.convergens* (Atakan *et al.*, 2016). We found no significant difference between mean yellow and mean white flower visitations (p=0.145, one-tailed t-test). However, mean yellow flower visitations was significantly greater than mean purple flower visitations (p<0.010, one-tailed t-test), and mean white flower visitations was significantly greater than the mean purple flower

visitations ($p < 0.001$, one-tailed t-test).

References

- Atakan, E., Pehlivan, S. & Satar, S. (2016). Response of some beneficial insect species to colored sticky traps in citrus. *Turkish Journal of Entomology*, 40(4), 394.
- Flint, M. & Dreistadt, S. (2005). Interactions among convergent lady beetle (*Hippodamia convergens*) releases, aphid populations, and rose cultivar. *Biological Control*, 34(1), 38-46.
- Shimoda, M. & Honda, K. (2013). Insect reactions to light and its applications to pest management. *Applied Entomology and Zoology*, 48(4), 413-421.
- Wise, K. & Bechinski E.J. (1999). Behavioral Responses of Female *Hippodamia convergens* (Convergent Lady Beetle) to different colors. *Biological & Cultural Controls*, (4), 35-39.

Film

A Psychological Analysis of Joker Movie

Presenter: Victoria

Karalun (Exemplary Achievement Award),

Crafton Hills College

Mentor: Professor T.L.

Brink

The 2019 movie *Joker* is an in-depth psychological study of the well-known “baddie” from movies and comic books. The viewer is encouraged to look at the

motivations of a character who has previously been unlikable and in this understanding he becomes likeable and empathized with. This qualitative study used the DSM-V in conjunction with the viewing of the movie to theorize which illness(es) the well-known serial killer character may be suffering from. Several mental illnesses were considered, including schizophrenia, bipolar disorder, post-traumatic stress disorder, general personality disorder, and the popularly-theorized antisocial personality disorder. It was decided that the character of Joker is unlikely to be suffering from antisocial personality disorder. Schizophrenia and post-traumatic stress disorder are likely. Bipolar disorder and general personality disorder are possible or somewhat likely.

If Ohana Means “Family,” What Does It Mean to Be “Asian?”: The Search for Asian and Pacific Islander Identity in Disney and Hollywood

Presenter: Amanda Leong (Exemplary Achievement), Pasadena City College
Mentor: Professor Derek Milne

Asian and Pacific Islander history in America is woven by immigration following loss and displacement; it is perhaps because of this beginning that many feel out of place and lost. Immigrant parents, many of whom never

watched television or went to the movie theatres growing up, plop their kids in front of the screen, often lacking the language comprehension or awareness to truly process what’s being shown—or simply, believing inaccurate and often malevolent portrayals inevitable in a country that never seemed too happy about their presence. Children then find themselves at the mercy of Disney and Hollywood to define who they are.

Griffin and her colleagues define organizational readiness as “a construct that describes the anticipatory expectations about organizational life that children develop as they absorb the cultural influences to which they are exposed” (5). While their article focuses on Disney’s portrayal of work, Disney and Hollywood served to reinforce the racial divide in America by crafting a pernicious narrative of “the other” and ensuring that wartime sentiment continued long into peacetime.

Racist caricatures continue to injure today, but accurate representation can be positive and inspiring. *Mulan*, *Lilo & Stitch*, and *Crazy Rich Asians* demonstrate the drive of strong Asian and Pacific Islander females of various ages and backgrounds. The range of personalities and obstacles shaped by their upbringings and environments humanize the heroes, reminding viewers that there is no “other”—only

another human being. Continued discussion can morph popular entertainment from a model of prejudice to one of prevailing perseverance.

Works Cited

- “The Acquisition of Japanese Communicative Style.” *Language Acquisition and Socialization across Cultures*, edited by Bambi B. Schieffelin and Elinor Ochs, Cambridge UP, 1986, pp. 213-50.
- “Chapter 2: Fierce Fish Who Pee: Indexicality and Identity Among African-American Drag Queens.” *From Drag Queens to Leathermen: Language, Gender, and Gay Male Subcultures*, by Rusty Barrett, Oxford UP, 2017, pp. 33–54.
- Griffin, Martyn, et al. “Organizational Readiness: Culturally Mediated Learning through Disney Animation.” *Academy of Management Learning & Education*, vol. 17, no. 1, Mar. 2018, pp. 4–23, *EBSCOhost*, doi:10.5465/amle.2016.0073.
- Lippi-Green, Rosina. *English with an Accent*. 2nd ed., Routledge, 2012.
- Tamaira, A.Mārata Ketekiri, and Dionne Fonoti. “Beyond Paradise? Retelling Pacific Stories in Disney’s Moana.” *Contemporary Pacific*, vol. 30, no. 2, Sept. 2018, pp. 297–327. *EBSCOhost*, doi:10.1353/cp.2018.0029.

That’s What She Said **Presenter: Christy Lin, Mt. San Antonio College** **Mentor: Professor Edgar Muniz**

After viewing three women-centered films, *Black Swan*, *The Silence of the Lambs*, and *Tesis*, I detected a similar trend in the characteristics of each film’s female protagonists that are applicable to the psychological barriers that women in society face. Through the lens of Simone de Beauvoir, Carl Jung, and Karen Horney, the purpose of my literary analysis is to dissect three female characters, Nina, Angela, and Clarice, who have each developed unconscious dark sides (sexual fantasies, sadistic attraction, or shameful motives) and how their inability to recognize hidden desires connects with real female experiences. Nina, a ballerina pressured into the standards of perfection, faces internal sexual wrestling that de Beauvoir explains is a result of forced environmental expectations. Another character, Angela, criticizes society’s twisted attraction towards violent images and due to fear of judgment, is unable to recognize her sadomasochistic instincts, which Jung refers to as her “shadow”. Unlike the others, Clarice, who is comparable to women growing up in unstable conditions, is haunted by a past traumatic experience such that she utilizes the defense mechanism Horney terms as

“inhibition” to hide her fear of being completely helpless. There is a certain depth in the concepts conveyed in these three films that should be more present and brought to attention in modern cinema’s portrayal of women. These characters are all individuals with their own unique complexity and are more than their surface-level appearances. It is time for women in society to recognize their unconscious motives and also be viewed as human.

Works Cited

- de Beauvoir, Simone. *The Second Sex*. Vintage, 2011.
- Freud, Sigmund, and Peter Gay. *The Freud Reader*. W.W. Norton, 1989.
- Horney, Karen. *The Neurotic Personality of Our Time*. Norton, 1937.
- Jung, Carl G. Aion: *Researches into the Phenomenology of the Self*. Princeton UP, 1979.
- Nietzsche, Friedrich. *The Gay Science*. Translated by Walter Kaufmann, Vintage, 1910.

Finance

Bridging the Gap: The Key to Saving for Your Future Self

Presenter Kyla Beatriz Alberto, Orange Coast College

Mentors: Professors Lee Gordon and Fred Judd

The consequences of failing to adequately save for retirement are often grim: Seniors may struggle to make ends meet, and their dreams of a comfortable retirement

can be crushed by part-time jobs and meager lifestyles. Without the mental continuity that is necessary to identify with one's future self, "neglect of the future self can arise from a failure of the imagination" (Ersner-Hershfield et al.). This project aims to motivate young adults to begin saving early for retirement with a series of nudges to bridge the empathy gap between the subjects' current and future selves. In randomized groups of undergraduate students (N = 104), the control group was exposed to no images, treatment 1 was exposed to current images of baby boomers (MIN = 55, MAX = 73), and treatment group 2 was exposed to both current images and images of baby boomers in their youth (Mage = 20.56, MIN = 18, MAX = 28). This study avoids privacy issues that arise from technology, such as FaceApp, by using third party images rather than aging the image of the subject. A One-Way ANOVA revealed that the exposure to images of baby boomers, and lack thereof, had no significant relationships between the control group, treatment 1, and treatment 2 on strengthening the bond felt by the participants between their current and future selves. However, in engaging the subjects both visually and mentally, this study was able to spark a conversation about the dream of a comfortable retirement toward becoming a reality.

Works Cited

- Bowman, Emma. "Democrats Issue Warnings Against Viral Russia-Based Face-Morphing App." *NPR*, 18 July 2019, www.npr.org/2019/07/17/742910309/democrats-issue-warnings-against-viral-russia-based-face-morphing-app.
- Fertig, Andrew, et al. "Using Behavioral Science to Increase Retirement Savings in Mexico." *ideas42*, 2018.
- Hershfield, Hal E., et al. "Increasing Saving Behavior Through Age-Progressed Renderings of the Future Self." *American Marketing Association*, 2011.
- Hershfield, Hal E. "Op-Ed: A Lesson from FaceApp: Learning to Relate to the Older Person We Will Become." *Los Angeles Times*, *Los Angeles Times*, 29 July 2019, www.latimes.com/opinion/story/2019-07-26/hershfield-faceapp-relating-to-our-future-selves.
- Sullivan, Bob. "Forget Self-Denial: Imagination Is Key to Saving." *CNBC*, *CNBC*, 31 May 2013, www.cnbc.com/id/100780840.

Fine Arts

Communicating through the Arts

Presenter: Rachel Soltesz, Saddleback College
Mentor: Professor Jennifer Hedgecock

Visual artists, classical musicians, and classically

trained dancers use their art forms to convey their message without the use of verbal language to the audience. These non-verbal performing arts can serve as a necessary method of communication that allows artists to connect with others and to translate different internalized emotions and stories. Three experts, each from a different art form, were interviewed and asked about their own personal experiences within the arts and how it has made a positive impact on their lives. They were also questioned to elaborate on why they consider the performing arts a form of communication and how it has gifted them with the opportunities to express their messages to the world. This research introduced a Stanford University study that provides evidence that dance movement serves as therapy for Alzheimer's patients as well as those with dementia (Powers). It was also explained how music helps autistic children more effectively communicate their emotions and thoughts (Sharda). Furthermore, the visual arts have been statistically proven by Harvard College to be cathartic and could be used to reduce stress and depression as well as benefit those with dementia and even cancer patients (Harvard Health Publishing). Not only does the performing arts allow many to communicate in depths of which words cannot express, but it also has major therapeutic benefits. With

testimonials and statistical proof, it was clear that the performing arts are in fact a form of communication.

Works Cited

- Powers, Richard. "Use It or Lose It: Dancing Makes You Smarter, Longer." *Dancing Makes You Smarter*, 30 June 2010, socialdance.stanford.edu/syllabi/smarter.htm.
- Sharda, Megha, et al. "Music Improves Social Communication and Auditory-Motor Connectivity in Children with Autism." *Translational Psychiatry*, Nature Publishing Group UK, 23 Oct. 2018, www.ncbi.nlm.nih.gov/pmc/articles/PMC6199253/. Harvard Health Publishing. "The Healing Power of Art." *Harvard Health*, July 2017, www.health.harvard.edu/mental-health/the-healing-power-of-art.

History and Culture Nativism in the United States: Its Roots and Resurgence

Presenter: Ayah Hamdallah, Chaffey College

Mentor: Professor Julie Song

The history of the United States reveals numerous instances of anti-immigrant attitudes among many Americans, which would translate into blatant xenophobia and the use of stereotypes against those coming into the United States. These attitudes reflect

the ideology of *nativism*, where individuals who identify as native-born members of a nation-state possess opposition and hatred towards non-natives immigrating to the country. The United States' history with nativism is complex and has origins dating back to as early as the 1700s. These nativist attitudes possessed by many during the 1700-1900s, and today, would demonstrate a desire among a faction of American-born citizens, to rid the U.S. of immigrants, and alienate them for coming to the U.S. for better lives and opportunities, because they were perceived to be a threat to the American way of life, and a threat to their economic success.

This ideology, known as nativism, would rise and fall in influence throughout the century, however, the rhetoric the movement employs has been utilized and practiced more recently. Although the United States has made some progress with regards to civil rights for minority and immigrant groups over the past centuries, nativism and its implications are evident in American society today, contributing to the oppression of minority groups, as well as impacting public policy. Throughout my research paper, I seek to analyze how nativism affects immigrants and people of color in America, and how social beliefs and political policies are able to fuel or hinder the

growth of nativism in the United States.

Works Cited

- Friedman, Uri. "What Is a Nativist?" *The Atlantic*, Atlantic Media Company, 12 Apr. 2017, .theatlantic.com/international/archive/2017/04/what-is-nativist-trump/521355/.
- Gratton, B. "Race or Politics? Henry Cabot Lodge and the Origins of the Immigration Restriction Movement in the United States." *Journal of Policy History*, vol. 30, no. 1, p. 128-57, 2018. <http://search.ebscohost.com.chaffey.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=126861782&site=ehost-live>. 11 set. 2019.
- Knoll, B. R. "Disentangling the Attitude from the Behavior: Toward a Multi-Stage Model of Nativism and Immigration Policy Preferences." *Conference Papers—American Political Science Association*, [s. l.], p. 1–39, 2009. <http://search.ebscohost.com.chaffey.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=94886962&site=ehost-live>.
- Meyer, G. *Immigrant Rights: Repression and Resistance. Socialism & Democracy*, vol. 31, no. 3, p. 28–31, 2017. <http://search.ebscohost.com.chaffey.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=126206874&site=ehost-live>.
- Ngai, and Mae M. "Nationalism, Immigration Control, and the Ethnoracial Remapping of

America in the 1920s.”
OUP Academic, Oxford
UP, 1 July 2007,
[academic.oup.com/maghis/
article/21/3/11/966191](http://academic.oup.com/maghis/article/21/3/11/966191).

Ticking Time Bomb: The Effects of Terrorism on Cultural Heritage Cites
Presenter: Sofia Ingegno, Long Beach City College
Mentors: Professors Wendy Koenig and Jeff Wheeler

The deterioration and preservation of global artifacts is a prevalent topic of concern and discussion, and now terrorism along with climate change have become concerning threats. Located in the Bamiyan Valley of central Afghanistan once stood the Bamiyan Buddha. It had remained a religious and cultural icon for more than 1,000 years, representing the spread of Buddhism along the Silk Road and the cultural heritage of Central Afghanistan. The Taliban was on a mission to destroy the “false idols” in the surrounding communities, and the Bamiyan Buddha is just one example of their destruction.

In 2001, this once 175 foot-tall statue was destroyed under orders of the Taliban forces. The Bamiyan Buddhas were once considered to be the largest statues in the world, but after recent destruction all that is left is the niche that once held this icons place. Over a 25 day period in March of 2001 the Taliban, shot rockets and bullets at the Buddha. Their first attempts at destruction failed; eventually the Taliban

sent air-force rockets, and the imprisoned the native Hazar people, forcing them to place dynamite at the feet of the Buddha, leaving behind only the remnants of what once was there.

While climate change is predictable and research has been conducted in order to preserve global artifacts, acts of terrorism are unpredictable and have consequences that are far worse. Is there an equal emphasis being placed on the effects of terrorism on cultural cites as there is with climate change?

Works Cited

- Behzad, Nasir, and Daud Qarizadah. “The Man Who Helped Blow up the Bamiyan Buddhas.” *BBC News*, 12 Mar. 2015, <https://www.bbc.com/news/world-asia-31813681>.
- “The Future of the Bamiyan Buddhas: NATO in Afghanistan.” *YouTube*, 2 Mar. 2011, <https://www.youtube.com/watch?v=aEIJmNYkmG8>.
- Itasaka, Kiko. “Should Afghanistan's Bamiyan Buddhas Be Rebuilt?” *NBCNews.com*, NBCUniversal News Group, 29 Nov. 2017, <https://www.nbcnews.com/news/world/should-afghanistan-s-bamiyan-buddhas-be-rebuilt-n822781>.
- Rod-ari, Melody. “Bamiyan Buddhas.” *Smarthistory*, 21 Nov. 2015, <https://smarthistory.org/bamiyan-buddhas/>.

Native American Women’s Fight for Justice

Presenter: Veronica Juarez, San Bernardino Valley College

Mentor: Professor Edward Gomez

American Indians faced forced assimilation and mistreatment of rights throughout our nation's history. In the 1980’s the American Indian Movement(AIM) turned the attention of Indian people back to their traditional cultural understanding. Unlike other civil rights groups AIM focused on the empowerment of the tribe rather than an individual. Key to all traditional Native sociology was the role of women.

Women in AIM brought attention to the issues Native American women were facing at the time. They spoke out about sexism in the movement, how the male leaders of large tribes resisted women in leadership. The sterilization abuse and Native family issues.

Native women addressed these issues in multiple ways. In response to the sexism they faced by male leaders they founded the Women of All Red Nations(WARN) in 1974. They confronted the men and tried to change their attitudes by saying sexism was a result of assimilation and ignoring Indian traditions. They also reminded them that men and women were all equal in the movement and sought out leadership positions in their tribes. They addressed the

issue of sterilization abuse in 1978 by making it one of the themes of the Longest Walk Across America. Finally, the issue of family was addressed through complaints made to the Department of Indian Affairs.

Works Cited

American Indian Women's Activism in the 1960s and 1970s,
<https://www.manataka.org/page2449.html>.
A Brief History of AIM,
<https://www.aimovement.org/ggc/history.html>.
"American Indian Women's Activism in the 1960s and 1970s." *Indybay*,
<https://www.indybay.org/newitems/2006/03/21/18095451.php>.

The Black Is Beautiful Movement: Celebrating Blackness in 20th Century United States
Presenter: Amanda Tang, Saddleback College
Mentor: Professor Margot Lovett

Racist attitudes toward Black women have existed since the period of slavery. They were viewed as servile Mammies, hypersexual Jezebels, or aggressive Sapphires. These stereotypes caused White society to view Black women as inferior and primitive. By the 1960s, these stereotypes were further perpetuated by the media, and Black women were seen as ugly. This created a vicious cycle of non-Black people viewing Black women in this negative light and then Black women internalizing these attitudes (Craig 24).

The pressure to conform to White beauty standards caused Black people to have a preference for lighter skin and straight hair (Camp 6). Thus, to fit into the White beauty mold, they used skin lightening creams and an assortment of products to de-kink their hair (Lake 81). With the momentum built from the Civil Rights Movement and Black Power Era, African-Americans felt more pride in their pan-African identities and began embracing their "African-ness." Wearing natural hairstyles became one way to do that. They wanted to 'decolonize' their minds and African-American women recognized that they did not have to abide by White beauty standards to be beautiful. The Black is Beautiful movement is important because it created unity amongst Black communities. Wearing a natural hairstyle was a public act of self-love and acceptance. Although the movement "brought no change in their economic situation," (Craig 13) it was successful in transforming how society viewed African American women, but more importantly, how African American women viewed themselves.

Works Cited

Anderson, Claud, and Rue L. Cromwell. "'Black Is Beautiful' and the Color Preferences of Afro-American Youth." *The Journal of Negro Education*, vol. 46, no. 1, 1977, pp. 76-88, *JSTOR*.

Camp, Stephanie M. H. "Black is Beautiful: An American History." *The Journal of Southern History*, vol. 81, no. 3, 2015, pp. 675-90, *ProQuest*.

Craig, Maxine Leeds. *Ain't I a Beauty Queen?: Black Women, Beauty, and the Politics of Race*. Oxford UP, 2006.

Lake, Obiagele. *Blue Veins and Kinky Hair: Naming and Color Consciousness in African America*. Praeger, 2003.

Taylor, Paul C. *Black Is Beautiful: A Philosophy of Black Aesthetics*. Wiley, 2016.

Language and Reading

How Duolingo's Visual Design Encourages Second Language Acquisition
Presenter: Selene Chang, Irvine Valley College
Mentor: Professor Chris Loeffler

In a more globalized twenty-first century, language learning is something people participate in every day through mobile application use. Duolingo is a mobile application that allows users to learn languages or perform Second Language Acquisition (SLA). Through informational research and an interview with RMIT's Stephen Banham, professor of Typography, Duolingo's visual design system proves its ability to encourage the acquisition and retention of another language.

This research analyzes Duolingo’s approach to SLA as to how it addresses issues of traditional learning materials and environments. The application addresses multi-sensory learning experiences through visual and auditory exercises (Rusman, Terrier, Specht, 2018); furthermore, it encourages engagement through motivating design (Yazdanmehr, Shoghi, 2014). Although aesthetic choices are made to motivate users, Professor Banham points out that typefaces have specific jobs and cultural associations, and Duolingo is no different.

The application itself promotes “gamification”—applying game-playing elements – with inviting incentives and features. Instances include its immersive leaderboards and lingot currency, users are able to compete in a gamified language learning community (Huynh, Zuo, Iida, 2016).

This research was able to examine Duolingo’s design and strategic decisions and as to how it improves user learning retention, engagement, and motivation; these being problems unaddressed in a traditional classroom setting (Chai, Wong, King 2016). Language learning design has progressed with technology with the use of virtual and augmented reality to aid those with anxiety or attention deficiencies (Craddock, 2018). As a result, this research found that language learning applications are capable of

improving SLA experiences, particularly Duolingo.

References

- Chai, C. S., Wong, L. H., & King, R. B. (2016). Surveying and modeling students’ motivation and learning strategies for mobile-assisted seamless chinese language learning. *Educational Technology & Society*, 19 (3), 170–180.
- Craddock, I. M. (2018). Immersive Virtual Reality, Google Expeditions, and English Language Learning. In *Library Technology Reports*, 54(4), 7–9. Retrieved from <https://journals.ala.org/index.php/ltr/article/view/6669>.
- Huynh, D., Zuo, L., Iida, H. (2016). Analyzing Gamification of “Duolingo” With Focus on its Course Structure. Lecture notes in Computer Science. 10,056, 268-277. Retrieved from https://www.researchgate.net/publication/310623230_Analyzing_Gamification_of_Duolingo_with_Focus_on_Its_Course_Structure.
- Rusman, E., Ternier, S., & Specht, M. (2018, January 1). Early Second Language Learning and Adult Involvement in a Real-World Context: Design and Evaluation of the “ELENA Goes Shopping” mobile game. *Educational Technology & Society*, 21(3), 90–103.
- Yazdanmehr, E., & Shoghi, S. (2014). Design and Application of a 'Textbook Visual Effects' Evaluation Checklist. *Theory and*

Practice in Language Studies, 4(3), 473-480.

The Brain, Memory, and Using Neuroimaging to Uncover Language Acquisition and Potential Applications of this Research

Presenter: Reyna Ediss, Santa Ana College
Mentor: Professor Dana Bassett

Noted psycholinguist Manuel Carreiras conducted groundbreaking research utilizing a blend of computer science, neuroscience, linguistics, and experimental psychology in 2010 that unveiled neuroimaging as the key to discovering the operations of language processing. Carreiras’ study of the functional and structural neuroanatomy of language circuits uncovers how electric impulses translate sound and representations. The ultimate pattern that links our language activation with our mental state is due to representations of words or sentences; brain connectivity changes with learning, as occurs when a person learns a new language. Research in the field further raises the question of how language is represented in the brain. Augusto Buchweitz (2016) revealed that there are delays in oral language development. There are brain circuits developed for spoken language that are hardwired in our brain, and neuroimaging can be used to predict some language disorders. To answer issues

of reading language, researchers from the Institute of Psycholinguistics (2019) isolated the reading area of the brain, the cerebrum, using neuroimaging to compare brain activation when the subjects were shown pseudo-words or non-readable items versus words. This tactic determines how cognitive information recognizes, stores, and retrieves words and their meaning from the brain's memory. The goal of this presentation is to reveal the developments of neuroimaging in the field of psycholinguistics as it relates to language development and how it could assist individuals who have experienced strokes, memory loss, and other brain injuries.

Works Cited

- Beth Israel Deaconess Medical Center. (2018, December 15). Wiring diagram of the brain provides a clearer picture of brain scan data. *Science Daily*. <https://www.sciencedaily.com/releases/2018/12/181215141348.htm>.
- Buchweitz, A. (2016 March 16). Language and reading development in the brain today: Neuromarkers and the case for prediction. *Science Direct*. <https://www.sciencedirect.com/science/article/pii/S0021755716000486>.
- Carreiras, M. (2010, May 7). Language Across the Mind and Brain (Abstract). *Frontiers in Psychology*. Abstract

retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3095382/>.

- Planck, M. (2019, October 1). Neuroimaging reveals hidden communication between brain layers during reading. *Science Daily*. <https://www.sciencedaily.com/releases/2019/10/191001102222.htm>
- Planck, M. (2019, October 3). Scientist uncover hidden communication between brain layers during reading. *The Week*. <https://www.theweek.in/news/sci-tech/2019/10/03/Scientists-uncover-hidden-communication-between-brain-layers-during-reading.html>.

The Spatial Distribution of Frequent Words in Relation to Zipf's Law Presenter: Moses Lee, Irvine Valley College Mentor: Professor Kay Ryals

Zipf's law is an empirical observation that describes a relationship between the frequency of words and their rankings in terms of occurrences. This relationship is inversely proportional and produces a hyperbolic distribution. Despite several studies on the Zipf phenomenon, a speculation on words' spatial distributions remains mostly unexplored. We found that the growth rate of the average distances of similar words ordered by frequency initially grows linearly but becomes

chaotic as words become less recurring. The most persistent words were comprised of stop words, or non-informative words such as "the." This behavior is expected as speakers tend to avoid ambiguity by utilizing more common words. These findings support the Principle of Least Effort: a hypothesis that explains the exploitation of information to optimize lexicon. The spatial correlation found in this research can have implications in several other patterns that exhibit Zipf's law such as city planning.

References

- Adamic, L. A. (2000). Zipf, power-laws, and pareto-A ranking tutorial. Retrieved from <https://www.hpl.hp.com/research/idl/papers/ranking/ranking.html>.
- Cancho, R.F.I., & Sole, R.V. (2003). Least effort and the origins of scaling in human language. *Proceedings of the National Academy of Sciences*, 100(3), 788–791. doi: 10.1073/pnas.0335980100.
- Kanwal, J.; Smith, K.; Culbertson, J. & Kirby, S. (2017). Zipf's Law of Abbreviation and the Principle of Least Effort: Language users optimise a miniature lexicon for efficient communication. *Cognition*. 165. 45-52. doi: 10.1016/j.cognition.2017.05.001.
- Montemurro, M. A. (2001). Beyond the Zipf–Mandelbrot law in quantitative linguistics. *Physica A: Statistical Mechanics and Its*

Applications, 300(3-4), 567-578. doi: 10.1016/s0378-4371(01)00355-7.

Tullo, C., & Hurford, J. (2003). Modelling Zipfian distributions in language. In S. Kirby (Ed.), *Proceedings of language evolution and computation workshop/course at ESSLLI*, pp. 62-75, Vienna.

Paper Versus Screen

Presenter: Yingying Luo,

Rio Hondo College

Mentors: Michelle Siao Lin

Fabros, Melissa Rifino-

Juarez

Many people have different preferences for reading, on paper or on digital screens. Here it raises a question: Are there any differences in comprehension when reading on paper than reading on a screen? There are various studies published in terms of the learning outcomes with different types of media platforms. Some studies have stated there is a difference, but others contend there are no differences at all.

The goal of this research was to find out and demonstrate if there are differences in performance between people who read on paper and on-screen. The hypothesis was that reading on paper would be different from reading on screen in terms of reading comprehension and reading time. I conducted a study with college students (n=42). Each participant was only able to read under one condition (i.e. either on paper

or on-screen). The participants read the article either on paper or on-screen was the independent variable. The dependent variable was how long it took the reader to finish reading the article (time) and reading comprehension (quiz scores). I conducted an independent t-test to analyze the data.

The research found no significant differences in both reading time and quiz scores. The results may mean people learn equally well both on screen or paper, because nowadays more people are knowledgeable and accustomed to the use of technology. On the other hand, the limitations of the results might be due to the small number of participants as well as an unrepresentative sample; college students are not always representative of the larger population.

References

Ackerman, R., & Goldsmith, M. (2011). Metacognitive regulation of text learning: On screen versus on paper. *Journal of Experimental Psychology*, 17(1), 18-32. <https://doi.org/10.1037/a0022086>.

Delgado, P., Vargas, C., Ackerman, R., & Salmerón, L. (2018). Don't throw away your printed books: A meta-analysis on the effects of reading media on reading comprehension. *Educational Research Review*, 25, 23-38. <https://doi.org/10.1016/j.edurev.2018.09.003>.

Kelly, E. M. (2014). Relationship between Prior Knowledge and Reading

Comprehension. *Advances in Language and Literary Studies*, 5(6), 125-131. <https://doi.org/10.7575/aial.v5n6p.125>.

Myrberg, C., & Wiberg, N. (2015). Screen vs. paper: what is the difference for reading and learning? *Insights*, 28(2), 49-54. <https://doi.org/10.1629/uksg.236>.

Narvaez, D., Van Den Broek, P., & Ruiz, A. B. (1999). The influence of reading purpose on inference generation and comprehension in reading. *Journal of Educational Psychology*, 91(3), 488-496.

<https://doi.org/10.1037/0022-0663.91.3.488>.

Difference in Emotional Perception of Grammatically Correct Text Messages Between Generations

Presenter: Elisabeth Tracy,

Irvine Valley College

Mentor: Professor

Benjamin Mis

The cell-phone has rapidly become an integral component of communication. A generational divide in technological fluency has supposedly materialized, calling for investigation into how individuals of different generations emotionally perceive grammatically implied meaning in text messages. Previously, only two studies have examined the role of the period in text messaging (Gunraj, Drumm-Hewitt, Dashow, Upadhyay,

Klin, 2016, pp. 1069 & Houghton, 2017, pp.115-16).

The goal of this study is to include lengthier responses ending with or without a period, rather than single-word responses, and examine the relationship between age and emotional perception of such punctuation, thus expanding on previous research to examine the proposed generational difference. I hypothesize that individuals aged between eighteen to twenty-seven will perceive exchanges ending with periods as very insincere, with individuals aged twenty-eight or older perceiving the exchanges as most sincere.

A survey is administered to fifty participants, twenty-eight of which were twenty-seven or younger, with the other twenty-two being twenty-eight or older. Participants are asked to read text message exchanges and rate the level of sincerity based on their emotional perception of the conversation.

Data reveals that individuals aged above twenty-eight years old perceive text messages ending with and without a period as more sincere than those aged twenty-seven and below, particularly shown by total sincerity ($p=0.001$). I conclude that older individuals do not perceive the negative connotation that has become prominently associated with the period. Cooperatively, the youth defining mobile communication standards and

development of a novel implementation of grammar in texting ultimately fosters the “digital divide” that leaves users feeling ironically detached from communication.

References

- Bostina, B. S., & Palea, L. (2015). New writing practices—Text messaging. *Revista Academiei Fortelor Terestre, 20(1)*, pp 42-46. Retrieved from <http://ezproxy.ivc.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=109147844&site=ehost-live&scope=site>.
- Gunraj, D., Drumm-Hewitt, A., Dashow, E., Upadhyay, S. S., Klin, C. (2015). Texting insincerely: The role of the period in text messaging. *Computers in Human Behavior, 55*, pp 1067-1075. doi: <http://dx.doi.org/10.1016/j.chb.2015.11.003>.
- Houghton, K., Upadhyay, S. S., Klin, C. (2017). Punctuation in text messages may convey abruptness. *Computers in Human Behavior, 80*, pp 112-12. doi: <http://doi.org/10.1016/j.chb.2017.10.044>.
- Ling, R. S. (2004). *The mobile connection: The cell phone's impact on society*. San Francisco, CA: Elsevier Inc. Retrieved from [http://ezproxy.ivc.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=114180&site=ehost-](http://ezproxy.ivc.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=114180&site=ehost-live&scope=site&v=EB&ppid=pp_vi)

live&scope=site&v=EB&ppid=pp_vi.

Cajun English Vernacular in Entertainment Media **Presenter: Venus Vu,** **Pasadena City College** **Mentor: Professor Derek Milne**

The Cajun English Vernacular, or CajEV, is a variety of Southern American English dialects with its distinct regional differences in vocabulary, grammar, and pronunciation heavily influenced by the French language. Previously it stood as the English dialect of bilingual Cajuns (Acadian descendants) but as French has been lost over the generations, today most speakers of Cajun English (CE) are monolingual. The assimilation of English into French-speaking communities led to a change of Cajun identity and French was criticized and associated with impropriety and unintelligence.

The stigma surrounding Louisiana French and Cajuns made them the butt of jokes and Cajuns were humiliated for their speech patterns and phonology. The media entertainment industry has emphasized these humiliating traits by playing into this stereotype and creating characters with parodied Cajun accents for humorous effect. Additionally, Cajun English is not subjected to a singular race but remains racialized by Standard American English speakers, consequently racialized minorities must maintain a

higher level of orderliness than White Cajuns. Here we will examine four characters present in different films and a TV show and identify linguistic patterns and the characteristics associated with them. With an analysis of the two within medias, there presents a correlation between the stigmatization of the Cajun English Vernacular and racialization structured within creating a linguistic hierarchy.

Works Cited

- Cockerham, Sean. "Louisiana French: L'Heritage at Risk." *The Seattle Times*, 2012, www.seattletimes.com/life/lifestyle/louisiana-french-heritage-at-risk/.
- Cox, Juanita. "A Study of the Linguistic Features of Cajun English." ERIC, EDRS, 30 Nov. 1991, eric.ed.gov/?id=ED352840.
- Dubois, Sylvie, and Barbara M. Horvath. "Let's about Dat: Interdental Fricatives in Cajun English." Stanford, Cambridge UP, 1999.
- Hill, Jane H. "Language, Race, and White Public Space." *American Anthropologist*, vol. 100, no. 3, 1998, pp. 680–689. JSTOR, www.jstor.org/stable/682046.
- Lippi-Green, Rosina. "Teaching Children How to Discriminate." *English with an Accent: Language, Ideology, and Discrimination in the United States*, 2014, pp. 101-29.

Literature

Power in the Penis Colony: Kafka's Language of Othering

Presenter: Nicholas Atmore, Victor Valley College

Mentor: Professor Tim Adell

Language is used as a tool to achieve power over others in Kafka's "In the Penal Colony." Language relegates the Prisoner to the status of Other, for he is referred to as subhuman. By using euphemism and linguistic moral disengagement, the Officer removes any stigma of committing torturous acts upon the Prisoner. Once he achieves power over the Prisoner, the Officer tortures him for homosexual pleasure. The Officer uses linguistic sadism against the Prisoner. Linguistic sadism is a form of sexual sadism in which the dominant party receives "a verbal ecstasy or linguistic excess" from their words (Lurie 25). Language not only empowers the Officer to subjugate the Prisoner, but it is also through language that he commits sexual violence against others.

While language is used as a tool for sexual domination over the Prisoner, the Explorer also uses language to end the torture of the victim and achieve equality on his behalf, putting an end to his Otherness. This places language in a paradoxical role. It facilitates both the subjugation and sexual objectification of the

Prisoner, while also enabling his salvation and inclusion. Positive language allows the prisoner to cross between the binary of Other/Belonging. He began this story as a subjugated Other and once the Explorer saves him the prisoner transitions into the concept of Belonging, in which he is held in equal regard to others. This exclaims that people can use language to mistreat and exclude others or they can use it to include and empower others.

Selected Works Cited

- Angeles, Maya. "Gregor Samsa: A Repressed Homosexual." *Academia*, www.academia.edu/32639610/GREGOR_SAMSA_A_REPRESSED_HOMOSEXUAL.
- Bandura, Albert. "Mechanisms of Moral Disengagement in the Exercise of Moral Agency" www.uky.edu/~eushe2/Bandura/Bandura1996JPSPy.pdf.
- Lurie, Peter. "Querying the Modernist Canon: Historical Consciousness and the Sexuality of Suffering in Faulkner and Hart Crane" scholarship.richmond.edu/cgi/viewcontent.cgi?article=1046&context=english-faculty-publications.
- Powell, John A. and Stephen Menendian. "The Problem of Othering." *Othering & Belonging: Expanding the Circle of Human Concern*, no. 1, Summer 2016, pp. 14-40, www.otheringandbelonging.org/wp-

content/uploads/2016/07/OtheringAndBelonging_Issue1.pdf.

The Destructive Nature of Bourgeoisie on Armenian Family Values in Alexander Shirvanzade's *Chaos*
Presenter: Juliet Beglaryan,
College: Los Angeles City College
Mentor: Professor Danielle Muller

According to Antoine Barnave, one of the most prominent leaders of the French Revolution, class distinctions illustrate how people in the upper-class share fiscal benefits, and lower-class people struggle (qtd. in Heller 186). After the Revolution, the bourgeoisie strengthened its power. However, this economic power generated social outrage and further increased the economic gap between classes and a new war was born (Heller 204).

In Marxist theory, the goal of the bourgeoisie is to control the means of production through industrialization, where people from this class value capital and attempt to advance their economic influence in the social hierarchy. This research paper is a Marxist critique of Alexander Shirvanzade's 1898 novel *Chaos*. The novel explores themes of dehumanizing exploitation as well as its subsequent chaotic nature. At the beginning of the nineteenth century, Baku was famous for its immense oil resources, which made the city the industrial center of

Transcaucasia (Russian Empire). Shirvanzade depicts an industrial city to examine the adverse effects that oil growth had on the bourgeoisie. *Chaos* thematically illustrates the exploitation of working-class people by oil magnates. For the Alimyan family, Shirvanzade unveils their reality: a corrupt society with unchecked financial power in the hands of an employer devastates the family. The emerging oil industry made Caucasia a state oil monopoly. *Chaos* is a very accurate representation of the personal impact of bourgeoisie consciousness on Armenian families.

Works Cited

- Castree, Noel. "Marxism and the Production of Nature." *Capital & Class*, vol. 24, no. 72, Sept. 2000, pp. 5–36, *EBSCOhost*, doi:10.1177/030981680007200102.
- Heller, Henry. "Marx, the French Revolution, and the Spectre of the Bourgeoisie." *Science & Society*, vol. 74, no. 2, 2010, pp. 184–214. *JSTOR*, www.jstor.org/stable/25681227.
- Hill, Judah. "On the Political Role of the Petty Bourgeoisie in Advanced Capitalism: A Polemic Against Professor Szymanski." *Synthesis*, vol. 1, no. 2, 1976, pp. 28–37. *JSTOR*, www.jstor.org/stable/43783319.
- Mnatsakanyan, L. "Shirvanzade's Struggle for Realism." *Banber Yerevan*

State University, The Faculty of Armenian Philology, vol. 3, no 51, 1983, pp. 39-48.
http://www.ysu.am/files/04L_Mnacakanyan.pdf.

Lepilin, S.V. and Zeveleva, E. A. "Baku Oil Region at the Turn of the XIX-XX Centuries. National Capital and Foreign Expansion." *History and Pedagogy of Natural Science*. 2019, no. 3, pp.47-50.
DOI:10.24411/2226-2296-2019-10309.

Deceptive Depictions: The Paradox of Christina Rossetti's "Goblin Market"
Presenter: Kaitlin Covington,
Long Beach City College
Mentor: Professors Laura Scavuzzo Wheeler and Wendy Koenig

Since the first publication of Christina Rossetti's poem "Goblin Market" in 1862, illustrators have depicted the whimsical and fantastical aspects of Laura and Lizzie's journey. Although the illustrations have rendered this poem a work of children's literature, the poem's dark undertones—the temptations of the flesh, the fall of a woman, sexual assault, and incest—implicitly comment on the difficulties of women in the Victorian Era. According to Carina Chocano, women of this time were expected to be "angels of the house," which she defines as "pious, submissive, domestic, and pure" (Chocano xviii). Through the juxtaposition of Laura's and Lizzie's

temptation and mortal peril as well as the gendering of characters, Christina Rossetti's "Goblin Market" reveals that temptation comes from both external societal forces and the inner turmoil of wanting to resist the forced standards of the "angel of the house."

Despite these dark themes, the poem has become a work of children's literature. By prioritizing this genre, the powerful commentary on Victorian society is replaced with a didactic moral: "For there is no friend like a sister / In calm or stormy weather" (Rossetti 562-563). This project addresses the paradox of "Goblin Market," the influence of illustrations including the recent edition by Omar Rayyan, and the tensions that arise when analyzing this poem through the lens of children's literature.

Works Cited

- Bettelheim, Bruno. *The Uses of Enchantment: The Meaning and Importance of Fairy Tales*. 1976, Vintage, 2010.
- Chocano, Carina. *You Play the Girl: On Playboy Bunnies, Stepford Wives, Train Wrecks, and Other Mixed Messages*. Houghton Mifflin, 2017.
- De Beauvoir, Simone. *The Second Sex*. 1949, Vintage, 2011.
- Gilbert, Sandra M. and Susan Gubar. *The Madwoman in the Attic: The Woman Writer and the Nineteenth-Century Literary*

Imagination. Yale UP, 2000.

Rayyan, Omar. *Goblin Market*. By Christina Rossetti. Donald M. Grant, 2016.

Catastrophic Colonialism: An Examination of Masculinity in Alejo Carpentier's *The Kingdom of This World*

Presenter: Fiona Evans, Orange Coast College
Mentor: Professor Laura Wagner

The French colonization of Haiti is an open wound that continues to leave its mark on Haiti and those who've lived under its influence. This tragedy serves as the basis for Cuban author Alejo Carpentier's *The Kingdom of This World* (1949), a novel that explores the impacts of colonialism and the events surrounding/following the Haitian Revolution of 1804 through the varying gendered perspectives of both Haitian slaves and French and Haitian aristocrats. Through his narrative focal points, Carpentier establishes a link between the idea of masculinity and an individual's sensory experiences. In particular, this project focuses on the novel's use of gendered auditory signals as a method of exploring the differing relationships/perspectives that colonizers and colonized individuals have towards masculinity. Placing the primary text into conversation with the post-colonial psycho-analytical

theoretical framework established in Frantz Fanon's *Black Skin, White Masks*, this project departs from Fanon's theory of the actional man to propose that colonialism influences the development of a complex rooted in reactive behaviors against the oppressor's masculinity.

Works Cited

- Carpenier, Alejo. *The Kingdom of This World*. Translated by Pablo Medina, Farrar, Straus and Giroux, 2017.
- Fannon, Frantz. *Black Skin, White Masks*. Translated by Richard Philcox, Grove, 2008.
- . *The Wretched of The Earth*. Translated by Richard Philcox, Grove, 2004.

Hero to Zero

Presenter: Christian Garcia, Mt. San Antonio College
Mentor: Professor Edgar Muniz

Jeannette Walls' *The Glass Castle* is her memoir about her childhood growing up in poverty with passionate but tormenting parents, who were essentially doing their best at raising and providing for their children. Rex is at the heart of the story, and he is the father who teeters between providing for his family and trying to fulfill his own American Dream. From the perspective of Alfred Adler, the Psychoanalyst who theorized about power struggles and inferiority complexes, it is interesting to consider whether Rex is to blame for the chaotic

upbringing of Jeannette Walls and her siblings. Rex Walls is a heroic figure for Jeannette when she was a little girl, who uses illusions to hide the reality of their impoverished living situation as they go from California to New York. Jeannette begins to lose faith in Rex as he continues failing to meet the standards of an independently responsible father, thus portraying him like a false hero. Days without being home and false promises are the beginning of Jeannette's faith in her father being lost. As the story continues and the children become older, they begin to acknowledge how irresponsible and destructive their father is increasingly becoming. Although Rex seems most culpable due to his own recklessness, Jeannette humanizes him enough to view him, maybe not as the hero he once seemed to be, but as the man he always was. The connection to the psychoanalytic perspective and implications for real life scenarios will be discussed in greater detail.

Works Cited

Adler, Alfred. "The Feeling of Inferiority and the Striving for Recognition." *Understanding Human Nature*, Greenberg, 1927, pp. 65-80.

Angioli, Alex, and Pieter Kruger. "A Genealogy of Ideas in Alfred Adler's Psychology." *Journal of Individual Psychology*, vol. 71, no. 3, fall 2015, pp. 236-52, EBSCOhost, search.ebscohost.com/login

.aspx?direct=true&db=a9h&AN=112457198&site=ehost-live&scope=site.

Deepthi, C. P. "Family Dynamics in Jeannette Wall's Memoir *The Glass Castle*." *Quest Journals: Journal of Research in Humanities and Social Science*, vol. 6, no. 5, 2018, pp. 23-31.

Dolliver, Robert H. "Classifying the Personality Theories and Personalities of Adler, Freud, and Jung With.. Individual Psychology: The Journal of Adlerian Theory, Research & Practice, vol. 50, no. 2, June 1994, p. 192. EBSCOhost, search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=9409063646&site=ehost-live&scope=site.

Walls, Jeannette. *The Glass Castle: A Memoir*. Scribner, 2017.

The Absurdist's Answer in the Face of the of Death: Embrace the Inevitable
Presenter: Yasna Kalanaki, Irvine Valley College
Mentor: Professor Stephen Felder

The often-denied truth is that we are ontologically dependent on the centrality of death in life, and only by facing death directly can we come to terms with the reality of our existence. This doctrine is espoused in the absurdist philosophy of Albert Camus, who encourages us to face life's absurdity and confront the choices placed before us as a result of this confrontation. We can either choose to

remain in the "act of eluding," or accept and endure. Camus likens this endurance to that of the mythological figure Sisyphus, whom the gods ordained to roll a boulder up a mountain only to watch it fall back, in perpetuity. Yet, Camus remains adamant that life is worth living, concluding that "one must imagine Sisyphus happy" (Camus 123). Life, despite its futility, "requires revolt," taking form in the freedom to give meaning, to "forge an...anti-nihilistic philosophy from a starkly nihilistic position" (Cox 159).

The journey of the narrator in Rilke's elegies is exactly that of Sisyphus and of every human. We see him go through despair, hope, defeat, and ultimate acceptance in the face of this existential dilemma, reaching the same conclusion: "Whoever does not sometimes give full consent...to the dreadfulness of life, can never possess the unutterable richness of existence..." (Kline 58).

Despite the universality of the existential dilemma, it is a topic in academia that often goes ignored. Both Rilke and Camus address this fundamental question, advocating an embracing of both life and death, which stands as a model of human belief and purpose.

Selected Works Cited
 Barrett, William. *Irrational Man: A Study in Existential Philosophy*. Anchor, 1990.

Camus, Albert. *Myth of Sisyphus*. Vintage, 2018.

Kline, A. S. "The Fountain of Joy." *The Fountain of Joy: A Commentary on Rilke's Duino Elegies*, Poetry In Translation, 2001, www.poetryintranslation.com/PITBR/German/TheFountainOfJoy.php.

Rilke, Rainer Maria. *Duino Elegies*. Bilingual Edition, translated by Edward A. Snow, North Point, 2001.

Fanfiction in Shaping Writer and Reader: Inside a Community
Presenter: Gabriella Martinez, Los Angeles Harbor College
Mentor: Professor Joachin Arias

The realm of fanfiction is a niche in the literary world, at times widely recognized and at others unacknowledged. At its core, fanfiction revolves around the idea of taking the characters, world, and story another author has built and reimagining them. The act has drawn its fair share of contention from readers and authors of popular series alike, who accuse it of being a blatant act of plagiarism and question its legitimacy in being of use on a larger scale.

This work explores the notion of interdependence between writer and reader in fanfiction and how these developments foster community, encourage self-expression, and eventually aid in constructing one's self-concept. In reading texts discussing the effect of fanfiction on participating

individuals and conducting interviews with members of the community, I've found that fanfiction has a positive effect overall. Fanfiction has persisted as a transformative artform that embraces creativity and community and serves interpersonal purpose beyond sharing stories: providing "informal mentoring processes" (Evans et al. 12) and improving communication competence through media relations. Similarly, it facilitates self-acceptance, allowing minorities the ability to "[write] their mirrors into popular cultural narratives" (Duggan 1) where they are otherwise sidelined or white-washed.

Fanfiction is an influential and relevant medium that has the power to create life wherever its community decides to take it. Not only does it improve interpersonal communication, it also has prevalence in larger social circles and, in time, may be integrated into the classroom to improve proficiency and encourage enthusiasm to learn (Schattenherz 57).

Works Cited

Black, Rebecca W. "Language, Culture, and Identity in Online Fanfiction." *E-Learning and Digital Media*, vol. 3, no. 2, 2006, pp. 170-84.

Campbell, Julie et al. "Thousands of Positive Reviews: Distributed Mentoring in Online Fan Communities." *Proceedings of the 19th ACM Conference on*

Computer-Supported Cooperative Work & Social Computing, 2016, pp. 691-704.

Duggan, Jennifer. "Fanfiction: Remixing Race, Sexuality and Gender." *Making culture: Children's and young people's leisure cultures*, pp. 47-50.

Evans, Sarah et al. "More Than Peer Production: Fanfiction Communities as Sites of Distributed Mentoring." *CSCW '17 Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*, 2017, pp. 259-272. <https://arxiv.org/ftp/arxiv/papers/1611/1611.01549.pdf>. Accessed 11 Dec. 2019.

Schattenherz, Lena. *Can fanfiction be used in the norwegian ESL-classroom to promote creative writing?*. 2016. Østfold University, Masters dissertation. *SemanticScholar*.

Redefining "Electra" and "Medea": Euripides, Aristotle, and the Revolution of Hellenic Drama

Presenter: Rebecca Wittman, Sacramento City College
Mentors: Professors Marcia Selva and Paul Frank

The most credited attempt to designate the genres of Hellenic drama and the elements that separated them, Aristotle's *Poetics*, defined tragedy as the changing fortunes of a

virtuous man (Aristotle 21). Since comedy is only indistinctly outlined in what remains of *Poetics*, we can use Aristotle's previous theory to assume comedy follows the changing fortunes of someone "unheroic", and subsequently redefine Euripides' *Electra* and *Medea*, as comedies. Euripides is generally regarded as one of the most distinctive writers of his time. His focus on complex female characters is especially significant in separating him from playwrights like Sophocles and Aeschylus (Arrowsmith 15). As such, the classification of his works requires more nuanced thought. For example, *Medea* and *Electra* involve some elements of tragedy, but don't fit the genre entirely. Both protagonists experience a change in fortune, but their plots supersede Aristotle's idea of tragedy because being female stipulates they can never be "good" (Aristotle 26). Lacking the lamentable quality of tragic murders, deaths in each play are not only justified but worthy of celebration. And distinctly anti-tragedy is that no events in *Electra* or *Medea* result from a mistake or miscalculation (Aristotle 22). Their actions are deliberate even when brutal. Thus, *Electra* and *Medea* are better classified as comedies. Understanding Hellenic ideas of literature is paramount to understanding the discipline as a whole. Continued analysis of their foundational dramatic principles is key to

unlocking previously overlooked conclusions—like the idea that the works of Greece's "most tragic" playwright are actually full of comedic potential. What else might have been missed?

Works Cited

- Aristotle. "Aristotle's *Poetics*: A Translation and Commentary for Students of Literature." Translated by Leon Golden, Prentice Hall, 1968, pp. 3-50.
- Arrowsmith, William. "Euripides' Theater of Ideas." *Euripides: A Collection of Critical Essays*, edited by Erich Segal, Prentice Hall, 1968, pp. 13-34.
- Euripides. *Electra: A Dual Language Edition*. Translated by Ian Johnston, Faenum, 2015.
- . *Medea*. Translated by Ian Johnston, Malaspina University-College, 2010.

Russian Roulette: The Prospect of Nuclear Wars from Sci-fi to Probable Statistics **Presenter: Yuxin Ye, Mt. San Jacinto College** **Mentor: Professor Jensea Storie**

In the short story "The Terminal Beach," English author J.G. Ballard unearths the remaining effects of the atomic bomb tests of 1947-1952 on the island of Eniwetok during the thermonuclear age. Starting with the protagonist Traven's unstable mental state, the detrimental post-war effects gradually touch the historical and futurity connections in reality.

The illustration of the combination of external environment and Traven's internal mental world after the catastrophe of war in literature endows the concern of future nuclear wars with realistic significance. However, the scholars have been vigorously debating the lack of crisis awareness and future generation responsibility in public associated with asymmetries, non-identity problem and humanitarian philosophies of human rights. This paper argues from the position of obligation to future generation and on the basis of statistical models that human beings should cautiously scrutinize the high risk of future nuclear wars. It explores the considerable probability demonstrated in the statistical analysis of severity and years of wars, highlighting the importance of continued efforts to ensure the long peace.

Although the small-size data sets of nuclear wars regarding different social variables are not technically stationary enough, the impossibility of eliminating nuclear weapons supplements the effectiveness of data analysis as a reference system for human decisions on wars, alerting people to prevent the potential risk of a new nuclear war in the future and safeguard the present peace.

Works Cited

- Ballard, J.G.. "The Terminal Beach." *The Best Short Stories of J.G. Ballard*, Picador, 2001, pp. 244-64.

Clauset, Aaron. "Trends and Fluctuations in the Severity and Interstate Wars." *Science Advances*, 21 Feb. 2018.

Gerrard, Michael. "A Pacific Isle, Radioactive and Forgotten." *The New York Times*, 3 Dec. 2014.

Krieger, David. "Probability of Nuclear War." *Nuclear Age Peace Foundation*, 12 Jun. 2017.

Sarkess, Meredith Reid, and Wayman Frank Whelon. *Resort to War: 1816-2007*. CQ Press, 2010.

The Monstrous Effects of Social Solitude: Analysing the Role of Isolation in Breeding Monstrous Minds in Mary Shelley's *Frankenstein* and its Parallels Within Modern Society

**Presenters: Ryan Yu, Nikta Arianpour, Audrey Silva; Irvine Valley College
Mentor: Professor Jeffrey Johnson**

Analyzing Mary Shelley's Gothic novel, *Frankenstein*, through a psychoanalytic lens offers a new interpretation of the centuries-old novel: the major role of isolation in developing monstrous qualities, portrayed through Victor Frankenstein and his creation. In defining monstrosity, Terry Kirk characterizes monsters as deviations from social norms. This is clearly in Victor's diversion from normal cognitive behavior during his time away from loved ones, as well as the creature's rage-induced rampage after being

abandoned multiple times, ostracized by society.

After reading *Paradise Lost*, an epic poem by John Milton, the creature likens itself to Adam, as beings inherently different from their surroundings. However, unlike Adam, the creature does not have the ability to socialize, exacerbating the development of its monstrous mind, amplified due to its solitude. The monstrous effects of isolation are also evident in Victor's overall mental condition; Frankenstein experiences recurring moments of abnormal thought and deteriorating mental state, resulting from his isolation, clearly deviating from his regular state of mind and veering closer to monstrous.

Drawing from scientific psychological research on health risks associated with social isolation—particularly the effects of social disconnectedness to deteriorating mental health—demonstrates an analogy to developing monstrosity in *Frankenstein*. We conclude that the concept of social monstrosity as a result of isolation is one existent beyond the fictional realm. The preservation of social interaction is thus of utmost importance in today's isolated, technology-centered world. Taking measures to effectively address mental health is hence crucial to avoid the mental monster.

Works Cited

Cornwell, Erin York, and Linda J Waite. "Social Disconnectedness,

Perceived Isolation, and Health among Older Adults." *Journal of Health and Social Behavior* vol. 50, no.1, 2009, pp. 31-48. doi:10.1177/002214650905000103.

Kirk, Terry. "Monumental Monstrosity, Monstrous Monumentally." *Perspecta*, vol. 40, 2008, pp. 6-15. MIT/Perspecta, 2008.

Milton, John. *Paradise Lost*. Penguin, 2000.

Media

Gendered Motivations, Self-Confidence, and Successful Outcomes for Online Social Dating

Presenter: Gini A.

Martinez, Mt. San Antonio College

Mentor: Professor Misty Kolchakian

As online social dating (OSD) is becoming more widely used among college students, this study sought to examine gendered motivations for using OSD as well as the relationship between self-confidence and OSD outcomes. The researchers hypothesized there would be a positive relationship between self-confidence and OSD outcomes, and that men would be more likely to seek OSD for a hookup, whereas women would seek OSD for a boost in confidence. Prior research on college students and emerging adults support these hypotheses (e.g., Griffin, Canevello, & McAnulty, 2018). The sample consisted of 33 participants (22 women, 11

men) enrolled in at least one psychology class at Mount San Antonio College. Participants completed a Self-Confidence survey, a Dating App/Website Outcomes survey, and an Online Dating Reasons survey. The authors were unable to find significance in gender differences regarding motivations or in the relationship between self-confidence and OSD outcomes. In addition, no significant ethnicity differences were found in this study. Gender conformity of teens in California (Wilson, et. al. 2017), the underrepresentation of men, social desirability bias, and the fact that all participants were enrolled in a psychology course may have contributed to the lack of significance. Further research considering the complexities of male psychosocial motivations and additional personality characteristics, such as thoughtfulness and extraversion, should be examined to benefit those using these platforms. Finally, the role of race in motivation to engage in OSD should be explored with a larger sample size of varying ethnic backgrounds.

References

Fullwood, C., & Attrill-Smith, A. (2018). Up-dating: ratings of perceived dating success are better online than offline. *Cyberpsychology, behavior, and social networking*, 21(1),

- 11-15.
doi:10.1089/cyber.2016.0631.
- Griffin, M. M., Canevello, A., & McAnulty, R. (2018). Motives and Concerns Associated with Geosocial Networking App Usage: An Exploratory Study Among Heterosexual College Students in the U.S.. *Cyberpsychology, Behavior, and Social Networking*, 21(4)
doi:10.1089/cyber.2017.0309.
- Ray, R., & Rosow, J. A. (2009). Getting Off and Getting Intimate. *Men and Masculinities*, 12(5), 523-546.
doi:10.1177/1097184x09331750.
- Sumter, S. R., Vandenbosch, L., & Ligtenberg, L. (2016). Love me Tinder: Untangling Emerging Adults' Motivations for Using the Dating Application Tinder. *Telematics and Informatics*, 34(1), 67-78.
doi:10.1016/j.tele.2016.04.009.
- Wilson, B.D.M., Choi, S.K., Herman, J.L., Becker, T., Conron, K.J. (2017). Characteristics and Mental Health of Gender Nonconforming Adolescents in California: Findings from the 2015-2016 California Health Interview Survey.

The Jury's Still Out: Exploring the Relationship Between Mass Media and Criminal Cases

Presenters: Ella Martoccia, Taylor Skeie; El Camino College

Mentor: Professor Kassia Wosick

Mass media affects countless aspects of our lives due to recent strides in technology. Yet few consider how media affects the criminal justice system. Scholars suggest criminal investigations, arrests, and adjudication processes are impacted by mass media (Buckler 2018). Some question, however, the merits of utilizing social media technologies during investigations (Sacco 1982). Media is valuable because it can help bring awareness to cases, warn the public to look out for possible suspects, and help connect criminals to crimes. However, mass media can also slander innocent people, inaccurately portray stories, and may negatively affect juries and courtrooms (Hewitt et al. 2007, Snoddy 2007).

We draw on peer-reviewed publications to discuss the potential beneficial and detrimental effects of mass media on criminal investigations. We then conduct in-depth interviews with individuals from various crime-related professions that qualitatively capture the media's impact on each criminal investigation phase. The interview sample includes two police officers, two detectives, and two

lawyers. We find detectives rely heavily on social media technologies, while police officers may experience representation issues within mass and social media contexts. Lawyers draw less on social media yet invoke performance cues from media representations of the legal system.

While mass media may yield both beneficial and detrimental effects on criminal justice processes, we find professionals in the field employ social media technologies in creative, useful ways. We argue the criminal justice system must adapt to mitigate possible detrimental aspects in order to embrace the advantages that mass media can provide in criminal investigations.

Works Cited

Buckler, Kevin G.

“Misconceptions of Forensic Science Fostered by Media.” *Salem Press Encyclopedia of Science*, 2018.

Hewitt, Bill, et al. 2007

“From Victims to Suspects.” *People*, vol. 68, no. 13, , p. 80+.

Jewkes, Yvonne. *Media and Crime*. SAGE, 2015.

Sacco, Vincent F.1982, “The Effects of Mass Media on Perceptions of Crime: A Reanalysis of the Issues.” *The Pacific Sociological Review*, vol. 25, no. 4,pp. 475–493.

Snoddy, Raymond. 2007.

“Was TV Coverage Right for Madeleine?” *Marketing*, p. 20.

The Influence of Social Media and Culture on Personality Traits and Beauty Standards

Presenters: Saina Saifzadeh, Marwa Nouristani; Irvine Valley College

Mentor: Professor Benjamin Mis

For decades, social media have had an immense influence on socio-cultural attitudes. In a study, Sonmez and Turanci revealed that there is a positive correlation between social media usage and low self-esteem (Sonmez & Turanci 2017). Another study disclosed that “dissatisfaction with physical appearance” is a major reason why people use social media frequently (Koroncza, Kökönyei, Urbán., Kun, Pápay, & Nagygyörgy 2013). Social media often advertise unrealistic beauty standards that negatively impact social attitudes. In one study, Park concluded that risky health behaviors are more common amongst people who use social media more habitually because the lifestyle that social media advertises calls for many unhealthy behaviors (Mina Park Sun & Mclaughlin 2017). Not only social media, but culture and age also immensely impact an individual’s demeanor. Daniel Clay found an upward trend between age and awareness of socio cultural attitudes surrounding body image (Daniel Clay et al. 2005). This study examines the relationship between culture, social media, beauty standards, and an individual’s

desire for status symbols.

This study investigates what certain expressed personality characteristics reveal about an individual's self esteem when new beauty standards are introduced. The results of this study will be based on the frequency that individuals with different cultural backgrounds use status symbols, make-up, and cosmetic surgery to increase their self-esteem. Data will be collected from females with different backgrounds and compared to those specifically with a Middle Eastern heritage. It is expected that Middle Easterners struggle with a lower self-esteem due to their high exposure to social media, makeup and status symbols.

References

- Clay, D., Vignoles, V. L., & Dittmar, H. (2005). Body image and self-esteem among Adolescent girls: Testing the influence of sociocultural factors. *Journal of Research on Adolescence*, 15(4), 451–477. doi: 10.1111/j.1532-7795.2005.00107.x
- Koronczai, B., Kökönyei, G., Urbán, R., Kun, B., Pápay, O., Nagygyörgy, K.,...
- Demetrovics, Z. (2013). The mediating effect of self-esteem, depression and anxiety between satisfaction with body appearance and problematic internet use. *American Journal of Drug & Alcohol Abuse*,

39(4), 259–265.
<https://doi-org.ezproxy.ivc.edu/10.3109/00952990.2013.803111>

- Park, M., Sun, Y., & McLaughlin, M. L. (2017). Social media propagation of content promoting risky health behavior. *Cyberpsychology, Behavior, and Social Networking*, 20(5), 278–285. doi: 10.1089/cyber.2016.0698.
- Sonmez, E. E., & Turanci, E. (2017). Examining body-related decisions of the university students: The impact of media and self-esteem. *The International Journal of Health, Wellness, and Society*, 7(3), 1–10. doi: 10.18848/2156-8960/cgp/v07i03/1-10.

Medicine and Health A God-Given Diet? The Physiological Impacts of Nutritional Practices Prescribed by Abrahamic Monotheism

**Presenter: Deena Ayesh,
Los Angeles Harbor
Mentor: Professor Barbara
Christie**

Two of the most contentious issues to date stem from religious beliefs and nutritional practices, questioning what is best on a universal scale. Physical and spiritual health have long existed as fundamental aspects of human life, with anthropological data backing research from the start of man to the great civilizations

of antiquity (Dein). Research in psychology has found a predisposition of cognition in humans, which provides a functional perception of every entity available for analysis, thus inspiring philosophical pursuit (Nicholson). Religion, historically, has and continues to serve as an answer for this endeavor, with 84% of the world's population affiliating themselves with religion, and 60% of that classified monotheist (Pew).

The world's major religions contain their distinctions, but there exists a multitude of values that overlap—especially in what a healthy diet entails. Majority of the beliefs preach fasting, abstaining from the consumption of specific animals, and avoiding harmful intoxicants (D'Haene). Thus, the question arises for the likelihood of this matter to truly be coincidental, or if it is a message from a greater omnipotent entity.

Considering past and present findings, this investigation takes a macroscopic approach in reflecting trends of health between religious and nonreligious individuals, and then a more direct analysis pertaining to specific religious sects. Such an inquiry will entail examining the anatomy and practices of historical figures, decoding religious doctrine, and obtaining raw data by surveying nearby communities. These findings

will aim to intertwine the controversies of religion and nutrition together, for a more unifying conclusion.

Works Cited

- Davidson, Jo Ann. "World Religions and the Vegetarian Diet." *Journal of the Adventist Theological Society*, 2003.
- Dein, Simon L. "Religion and mental health: the contribution of anthropology." *World psychiatry: official journal of the World Psychiatric Association (WPA)* vol. 12,1 (2013): 34-5. doi:10.1002/wps.20007.
- D'Haene, Eline et al. "Religion, Food Choices, and Demand Seasonality: Evidence from the Ethiopian Milk Market." *Foods (Basel, Switzerland)* vol. 8,5 167. 16 May. 2019, doi:10.3390/foods8050167.
- Jasmuheen, et al. *Zhong Shen De Shi Wu. The Food of Gods: Divine Nutrition.* Xiang Shi Wen Hua, 2016.
- Nicholson, Nigel. "How Hardwired Is Human Behavior?" *Harvard Business Review*, 1 Aug. 2014, hbr.org/1998/07/how-hardwired-is-human-behavior.
- "Pew-Templeton: Global Religious Futures Project." *Pew-Templeton Global Religious Futures Project*, www.globalreligiousfutures.org/.

Allergy and Asthma: It Is Not Causing Inconvenience; It Is Causing Permanent Damage.

Presenter: Lucy Bui, Cerro Coso College

Mentor: Professor Guck Ooi

After a 25-year developmental period, there is a short ten-year window before our lungs begin deteriorating due to aging. Even in ideal conditions, we still lose approximately one fifth (approximately 1 liter) of our lung function and capacity by the time we are sixty-five. If we are one of the unlucky people in the world who suffers from asthma, allergic diseases, or both, things look even bleaker. Currently, approximately 35% of the world's population suffers from allergic disease and that number is increasing. In addition, more than 300 million people across the globe suffers from asthma, one of the most serious pulmonary system diseases. We are led to believe that allergic asthma is a minor and temporary annoyance or inconvenience but what we do not know is that constant exposure to everyday particles and aeroallergens such as pet dander, pollen, mold, and dust mites, is wreaking havoc inside our lungs and likely causing irreparable damage, which adds on to that 1-liter lung loss that we are already facing. Inhaling these particles as well as other things such as pollutants or

exogenous oxidants causes cellular damage in lung tissue and if the damage is too extreme, cells will sustain senescence to prevent oncogenic changes, which then triggers a series of events that results in further inflammation, alveolar destruction, and endothelial dysfunction. Furthermore, chronically inflamed tissues usually trigger immune cells from the bloodstream to amplify the inflammatory response which can destroy healthy tissues in a misdirected attempt at initiating the healing process.

References

- Aghasafari, P., Uduak, George. & Ramana, Pidaparti (2018) A review of inflammatory mechanism in airway diseases. *Inflammation Research*, 68(1), 59-74.
- Chan, Tze Khee, Tan, W.S. Daniel, Peh Hong Yong, & Wong W.S. Fred (2017). Aeroallergens Induce Reactive Oxygen Species Production and DNA Damage and Dampen Antioxidant Responses in Bronchial Epithelial Cells. *Journal of Immunology*, 199(1), 39-47.
- Sharma, G., & Goodwin, J. (2006). Effect of aging on respiratory system physiology and immunology. *Clinical interventions in aging*, 1(3), 253-60.

Factors that Increase the Prevalence of Ankylosing Spondylitis in Males: A Review

Presenters: Sherwin Ghandi, Negin Hadjiabdolhamid, and Zareen Ismail; Saddleback College

Mentor: Professor Marcelo Pires

Ankylosing spondylitis is an inflammatory disease that fuses vertebrae, reducing flexibility and forming a distinguishable hunched posture. Although both genders can suffer from ankylosing spondylitis, it is statistically more common in men. The purpose of this literature review is to determine the factors that cause ankylosing spondylitis to afflict males more than females, and to understand why there is a notable increase in severity of the disease in males. Males who test positive for the HLA-B27 antigen were

found to have an early disease onset (Xiong et al., 1969). Another important difference between sexes is that the *ANKH* gene, which is related to ankylosing spondylitis, is located at different loci depending on the sex (Inman et al., 2005). Also, active sex glands in males affect bone metabolism and excrete high amounts of the 17-ketosteroids, which can be associated with ankylosing spondylitis (West, 1948). In addition to these biological factors, environmental factors such as obesity and physical labor all strongly correlated with the

disease outcome (Ramiro et al, 2014), with statistical significance in men only. Further research is necessary to obtain a clearer understanding of the differences in the prevalence of HLA-B27 according to sex and its genetic underpinnings. Inman, R. D., Paterson, A. D., Reveille, J. D., Tsui, W. F., Tsui, W. H. (2005). ANKH variants associated

with ankylosing spondylitis: gender differences. *7*(3), R513-R525.
Ramiro, S., Landewé, R., van Tubergen, A., Boonen, A., Stolwijk, C., Dougados, M., van den Bosch, F. and van der Heijde, D. (2015). Lifestyle factors may modify the effect of disease activity on radiographic progression in patients with

ankylosing spondylitis: a longitudinal analysis. *RMD Open*, *1*, 1-8.

West, H.F. (1948). The aetiology of Ankylosing Spondylitis. *Bmj*. *1*(4546), 351-35.

Xiong, J., Chen, J., Tu, J., Ye, W., Zhang, Z., B27 status and gender with sacroiliitis in *Journal of medical sciences*. *30*(1), 22-27.

Effects of Caffeine on Cognitive Performance, Mood, and Psychological Disorders

**Presenter: Ologia Ibrahim, Mt. San Antonio College
Mentor: Professor Misty Kolchakian**

Caffeine, consumed by more than ninety percent of adults in America, is one of the most widely used and socially accepted drugs. While some people are more concerned with the immediate benefits, others have a more negative association to caffeine, claiming that it can be harmful. This literature review will examine both sides of the caffeine controversy to see if the benefits outweigh the detriments. More specifically, this literature review examines the effects of caffeine consumption on cognitive performance, mood, and symptomatology and risks for various psychological disorders. Studies have shown that caffeine greatly improves cognitive performance and mood. One study has shown

that caffeine consumption can decrease the risk of depression when consumed moderately (Wang et al, 2016) while other studies have shown that caffeine can induce and increase anxiety disorders. Yet another study on psychological disorders demonstrated that caffeine can provide protection against the neuron degeneration of Parkinson's disease, thereby restoring motor symptoms (Prediger, 2010). Despite these benefits, however, caffeine can harm one's physical health if consumed excessively. A person can develop a tolerance for the stimulant, consequently becoming both physiologically and psychologically dependent. In conclusion, research suggests that when consumed in moderation, caffeine possesses more benefits than detriments. Due to the popularity of this stimulant and the negative stigma associated with it, there needs to be greater awareness of its beneficial long term impacts when consumed in moderation.

References

- Doty, T. J., So, C. J., Bergman, E. M., Trach, S. K., Ratcliffe, R. H., Yarnell, A. M., Quartana, P. J. (2017). Limited efficacy of caffeine and recovery costs during and following 5 days of chronic sleep restriction. *Sleep*, *40*(12). doi: 10.1093/sleep/zsx171.
- Gohary, M.I.E., Salama, A.A., Saeid, A.A.E., Sayed, T.M. E., & Kotb, H.S. (2013). Influence of magnetic field on brain activity during administration of caffeine. *Cell Biochemistry and Biophysics*, *67*(3), 929–933. doi: 10.1007/s12013-013-9584-x.
- Hameleers, P.A. H.M., Boxel, M.P. J.V., Hogervorst, E., Riedel, W.J., Houx, P.J., Buntinx, F., & Jolles, J. (2000) Habitual caffeine consumption and its relation to memory, attention, planning capacity and psychomotor

performance across multiple age groups. *Human Psychopharmacology: Clinical and Experimental*, 15(8), 573–581. doi: 10.1002/hup.218

- Nabbi-Schroeter, D., Elmenhorst, D., Oskamp, A., Laskowski, S., Bauer, A., & Kroll, T. (2017). Effects of long-term caffeine consumption on the adenosine A1 receptor in the rat brain: An in vivo PET study with [18F]CPFPX. *Molecular Imaging and Biology*, 20(2), 284–291. doi: 10.1007/s11307-017-1116-64.
- Smit, H., & Rogers, P. (2000). Effects of low doses of caffeine on cognitive performance, mood and thirst in low and higher caffeine consumers. *Psychopharmacology*, 152(2), 167–173. doi: 10.1007/s002130000506.

Music

Metal vs. Make-up: The Musical Composition Formulas in the 2019 Albums of Tool and Taylor Swift
Presenter: Jonathan Cline, MiraCosta College
Mentor: Professor Daniel Siegel

The compositions from two long-term *Billboard*-charting musical artists, Tool and Taylor Swift, show strong contrasts in complexity, song form, texture, harmony, melodic

shape, and lyrical theme. Their respective and highly-anticipated 2019 albums, *Fear Inoculum* and *Lover*, charted number one on *Billboard* rankings, indicating broad audience and industry support.

These artists both strongly define and innovate within their respective genres: Tool is a leading band of the progressive heavy metal genre, and Taylor Swift is a leading artist of the popular vocal-rock genre; however, a fully descriptive presentation of the art form via formal music analysis is lacking. Compositionally, Tool employs musical elements with psychedelic and introspective themes; Taylor Swift includes elements with heartbreak and party-lifestyle themes. Their art mirrors their respective genres: for progressive metal, a composition typically contains recapitulated motifs within a long-duration, non-radio-friendly track and may include compound-meter rhythms; for popular rock, a composition typically fits into a singable radio-friendly formula of verse-chorus-verse in 4/4 rhythm, with an overall duration under four minutes. The analysis presented applies vector diagrams from graph theory, a novel song form visualization named *samayomes* (“the proper time or moment”), and poetic function analysis for song lyrics. The diagrammatic methods illustrate the musical artistry, functioning both as music theory analysis and as

a general aid for listening audiences. The findings are quantified and presented on complexity scales using statistical methods, to allow listeners to weigh their appreciation of these and similar works.

Works Cited

- Albini, Giovanni, and Marco Paolo Bernardi. “Graph Theory and Music: A Mathematical Tool for Musicians.” *ICGG 2018 - Proceedings of the 18th International Conference on Geometry and Graphics: 40th Anniversary—Milan, Italy, August 3-7, 2018*, edited by Luigi Cocchiarella, Springer, 2018, pp. 1813-24. doi: 10.1007/978-3-319-95588-9.
- Bigo, Louis, and Moreno Andreatta. “Topological Structures in Computer-Aided Music Analysis.” *Computational Music Analysis*, edited by David Meredith and Cham, Springer, 2015, pp. 57-80. doi: 10.1007/978-3-319-25931-4_3.
- Hannan, Calder. “Difficulty as heaviness: Links between rhythmic difficulty and perceived heaviness in the music of Meshuggah and The Dillinger Escape Plan.” *Metal Music Studies*, vol. 4, no. 3, Sept. 2018, pp. 433-458. doi: 10.1386/mms.4.3.433_1.
- Mazzola, Guerino, et al. *The Topos of Music III: Gestures: Musical Multiverse Ontologies*. Edited by Cham, Springer, 2018. doi: 10.1007/978-3-319-64481-3.

Tough, David. "An Analysis of Common Songwriting and Production Practices in 2014-2015 Billboard Hot 100 Songs." *Journal of the Music and Entertainment Industry Educators Association*, vol. 17, no. 1, 2017, pp. 79-120.

Oceanography

The Physical Cause of Ocean Acidification and the Possible Methods of Securing Successful Mitigation

Presenters: Tae Jin Suh, El Camino College

Mentor: Professor Joe Holliday

To maximize the restoration of ocean health, a reduction of CO₂ emissions, as well as the supplementation of AOA must be achieved. Ocean Acidification is undeniably a unique aspect of climate change, where it serves as quantifiable, "consequence of increasing atmospheric CO₂ concentrations "in the ocean (Matear, Lenton 2). The lowering of pH as a result of Ocean Acidification is linked with the destruction of important oceanic landforms such as the coral reefs. However, Ocean Acidification is not directly caused by CO₂ alone, CO₂'s effect on other climate features such as the potential of an "ice-free summertime Arctic Ocean", leads to a growth in the surface area of acidified water (Qi et al. 197).

Amid worrying repetition of negative feedback loops, Artificial Ocean Alkalization

appears to be a viable solution as it depends very little on biotic and seasonal factors and can consistently compensate "for the projected increase in atmospheric CO₂", up to the year 2100(Lenton et al. 342). AOA is a CO₂ removal method that accelerates natural chemical sequestration processes through the "release of processed alkaline minerals" and "their dissociation products" in "the ocean-atmosphere interface"(Gonzalez, Ilyina 6493). Worryingly, AOA cannot solely contain the destruction of oceanic landmarks, even in its most receptive areas: the equatorial waters; AOA is unable to help prevent the current rate of destruction of coral reefs. Therefore AOA can be an effective tool to accelerate the deacidification of oceans, but not to prevent Ocean Acidification itself.

Works Cited

González, Miriam Ferrer, and Tatiana Ilyina. "Impacts of Artificial Ocean Alkalization on the Carbon Cycle and Climate in Earth System Simulations." *Geophysical Research Letters*, vol. 43, no. 12, 2016, pp. 6493-502, doi:10.1002/2016gl068576.

Humphreys, Matthew P. "Climate Sensitivity and the Rate of Ocean Acidification: Future Impacts, and Implications for Experimental Design." *ICES Journal of Marine Science*, vol. 74, no. 4, 10 Dec. 2016, pp. 934-40,

doi:10.1093/icesjms/fsw189.

Lenton, Andrew, et al. "Assessing Carbon Dioxide Removal through Global and Regional Ocean Alkalinization under High and Low Emission Pathways." *Earth System Dynamics*, vol. 9, no. 2, 2018, pp. 339-57, doi:10.5194/esd-9-339-2018.

Matear, Richard J., and Andrew Lenton. "Sensitivity of Future Ocean Acidification to Carbon Climate Feedbacks." *Biogeosciences Discussions*, 2017, pp. 1-18, doi:10.5194/bg-2017-225.

Qi, Di, et al. "Increase in Acidifying Water in the Western Arctic Ocean." *Nature Climate Change*, vol. 7, no. 3, 2017, pp. 195-199., doi:10.1038/nclimate3228.

Political Science

Citizens United: Regulating the Deregulated Political Action Committees

Presenter: Mustafa Ahmedani, Irvine Valley College

Mentor: Professor Lewis Long

Campaign finance in the United States is dominated by Super PACs that unfairly influence elections by flooding elections with large sums of money and shifting Congress's interests towards corporate interests that fuel the powerful organizations. The donations made by

individuals to and from Super PACs go unreported, thereby circumventing contribution limits, and giving those with deep pockets the ability to single-handedly fund political campaigns. Through Super PACs, corporate influences have permeated Congress, with Representatives now redirecting their primary focus to representing the corporate interests that guarantee their reelection; meanwhile, the interests of the people are left unrepresented (Milyo, 2014).

Although financing of political campaigns developed with the inception of political campaigns themselves, unequal distribution of electoral power was embedded in the Constitution and did not become a significant issue until the Civil Rights era. However, wealth discrimination in elections was not addressed until much later, with the Federal Election Campaign Act of 1971, resulting from the growing political influence of television advertising, and initially addressing candidates' self-donating. The *Citizens United* decision, however, overturned portions of the FECA, giving corporations First Amendment protection, and permitted for the creation of Super PACs (*Citizens United v. FEC*, 2010; Gulati, 2012).

To remedy the inequality created by Super PACs, sponsoring a social movement to push society to shun Super PACs out of existence will be most

effective (Overman, 2002). Should such a movement be unsuccessful, it would at least push candidates to sign contractual agreements limiting accepting corporate funds without First Amendment violations through a voter mandate (Sitaraman, 2014).

References

- Citizens United v. Federal Election Commission. 588 U.S. 310. Supreme Court of the United States. 2010.
- Gulati, G. J. (2012). Super PACs and financing the 2012 presidential election. *Society*, 49(5), 409-417. <http://dx.doi.org/10.1007/s12115-012-9575-3>
- Milyo, J. (2014). Corporate influence and political corruption: Lessons from stock market reactions to political events. *The Independent Review*, 19(1), 19-36. Retrieved from http://www.independent.org/pdf/tir/tir_19_01_02_milyo.pdf
- Overman, T.R. (2002). Shame on you: Campaign finance reform through social norms. *Vanderbilt Law Review*, 55(4), 1243-1295. Retrieved from <https://ezproxy.ivc.edu/login?url=https://search.proquest.com/docview/198888357?accountid=39837>
- Sitaraman, G. (2014). Contracting around Citizens United. *Columbia Law Review*, 114(3), 755-806. Retrieved from <https://ezproxy.ivc.edu/login?url=https://search-proquest-com.ezproxy.ivc.edu/docvi>

ew/1792216815?accountid=39837

The Patriarchy of Politics **Presenter: Ellie Baeza, Mt. San Jacinto College** **Mentor: Professor Stacey Searl-Chapin**

In the American political system that was designed for the success of men, women face the obstacles of elitism and traditional gender roles in their fight to become successful political participants, and as a result, are not equally represented in legislatures. Those who benefit from this elitist electoral system are primarily wealthy, white men, as evidenced by the Bush family dynasty, in which patriarchy and generational wealth have made them powerful politicians. Women have traditionally been restricted to duties within the home and taking care of children, and early steps towards equality were discounted. This created strict gender roles that are still in place today, preventing women from feeling empowered to create a place in politics for themselves.

In modern democracies to correct historic inequality, quota systems have been implemented to strengthen women's representation. While these systems are not perfect, they have given this power directly to the establishment of political parties. In order to implement such a practice, the United States would have to redesign the electoral process, as currently, the system will not

be sufficient to gain equal representation due to cultural differences among states and districts. Despite this, women have been increasingly successful in getting elected to legislatures. However when women are elected, they differ ideologically as much as men and cannot be seen as representing their gender as a whole, rather they add perspectives to debate that were historically ignored. An increase in women's representation would make legislatures function more like a microcosm of the country they serve.

Works Cited

- Baker, Paula. "The Domestication of Politics: Women and American Political Society, 1780-1920." *The American Historical Review*, vol. 89, no. 3, 1984, pp. 620-47, JSTOR, www.jstor.org/stable/1856119.
- Dittmar, Kelly, et al. *Representation Matters: Women in the U.S. Congress*, Center for American Women and Politics, Eagleton Institute of Politics, Rutgers University, 2017, www.cawp.rutgers.edu/sites/default/files/resources/representationmatters.pdf.
- "Gender Differences in Voter Turnout." *Center for American Women and Politics*, Eagleton Institute of Politics, Rutgers University, 9 Sept. 2019, www.cawp.rutgers.edu/site

- [s/default/files/resources/genderdiff.pdf](http://www.jstor.org/stable/24582959).
- Gilardi, Fabrizio. "The Temporary Importance of Role Models for Women's Political Representation." *American Journal of Political Science*, vol. 59, no. 4, 2015, pp. 957-70. JSTOR, www.jstor.org/stable/24582959.
- Hughes, Melanie M. "Intersectionality, Quotas, and Minority Women's Political Representation Worldwide." *The American Political Science Review*, vol. 105, no. 3, 2011, pp. 604-20. JSTOR, www.jstor.org/stable/41480860.

The Extent of Political Polarization in Community College Students Presenter: Shawal Bhalli, Mt. San Antonio College Mentor: Professor Charis Louie

Political polarization has increased dramatically in the U.S over the last two decades (Pew Research Center, 2014). A national survey of college freshmen found students to represent the most politically polarized cohort than ever before (Eagan, Stolzenberg, Aragon, Whang Sayson, & Rios-Aguilar 2017). Research suggests that people prefer to arrange themselves to be closer in proximity to those who are like-minded (Pew Research Center, 2014). The partisan divide instigates bias in employee evaluation (Gift & Gift, 2015), scholarship recommendations (Iyenger & Westwood, 2015), and even

choice of romantic partner (Huber & Malhotra, 2017). The current study examined whether community college students' willingness to choose a roommate is affected by the potential roommate's political affiliation. The hypothesis predicted that not only would political prejudice exist, but that students would also prefer a Democrat over a Republican roommate. Forty college students (19 males and 21 females) read a scenario in which "Sean" was either a Democrat or Republican applying to be a roommate. Participants then indicated relative agreement with statements about Sean making a good roommate, their willingness to be friends with Sean, and whether Sean was trustworthy. Results suggest that the potential roommate's political affiliation had no significant effect on the students' evaluation or choice of the roommate. The participants' gender, political indifference, and social desirability may have influenced the findings. Interestingly, results imply a lower level of polarization than expected, which suggests a greater societal acceptance of others regardless of political affiliation.

References

- Eagan, M. K., Stolzenberg, E. B., Zimmerman, H. B., Aragon, M. C., Whang Sayson, H., & Rios-Aguilar, C. (2017). "The American Freshman: National Norms Fall 2016." Los Angeles: Higher

- Education Research Institute, UCLA.
- Gift, K., & Gift, T. (2015). "Does Politics Influence Hiring? Evidence from a Randomized Experiment." *Political Behavior* 37(3): 653–675.
- Huber, G.A., & Malhotra, N. (2017). "Political Homophily in Social Relationships: Evidence from Online Dating Behavior." *The Journal of Politics* 79 (1): 269–283.
- Iyengar, S., & Westwood, S.J. (2015). "Fear and Loathing Across Party Lines: New Evidence on Group Polarization." *American Journal of Political Science* 59 (3): 690–707

Psychology

Effects of Expressive Outlets on Mood and Emotion

Presenters: Leena Bowman, Laura Locken; Irvine Valley College
Mentor: Kari Tucker-McCorkhill

Previous research shows conflicting findings regarding the relationship between expressing negative emotions and well-being (see Bushman, 2002; Lyubomirsky et al., 2006), with some showing improvements in mood after expressing negative emotions and others showing a decline. The purpose of the present study was to examine differences among ways of expressing a personal frustrating experience on changes in reported mood

(i.e. frustration, negative affect, and positive affect). Because journaling has been identified as a helpful expression method (see Phillips & Rolfe, 2016; Alford et al., 2005), it was expected that writing and talking about their frustration would result in greater improvements in mood compared to those who did not have an expressive outlet. Fifty-four students from psychology courses at a community college volunteered to participate for course credit. Participants were randomly assigned to one of the three expression groups (writing, talking, control). Participants completed a frustration packet (i.e., a collection of guidelines to prompt participants to focus and think about a frustrating event for a five-minute period). All participants completed measures of frustration, negative affect, and positive affect at the start of the study, after the manipulation, and at the end of the study. A manipulation check showed that the frustration packet successfully induced frustration in all participants. Results showed that although there were no differences among the expression groups, all participants improved as a result of their assigned method. These results suggest that writing or talking about, or even taking a two-minute break can be effective for mood improvement.

References

- Alford, W. K., Malouff, J. M., & Osland, K. S. (2005). Written emotional expression as a coping method in child protective services officers. *International Journal of Stress Management*, 12(2), 177-187.
- Bushman, B. J. (2002). Does venting anger feed or extinguish the flame? Catharsis, rumination, distraction, anger and aggressive responding. *Personality and Social Psychology Bulletin*, 28(6), 724-731.
- Lyubomirsky, S., Sousa, L., & Dickerhoof, R. (2006). The costs and benefits of writing, talking, and thinking about life's triumphs and defeats. *Journal of Personality and Social Psychology*, 90(4), 692-708.
- Phillips, L., & Rolfe, A. (2016). Words that work? Exploring client writing in therapy. *Counseling and Psychotherapy Research*, 16, 193-200.

Person Perception: A Psychological Analysis on Racism

Presenter Camille Marquez, Pasadena City College
Mentor: Professor Dustin Hanvey

Racism has been a deeply ingrained and prevalent feature of many human societies throughout all of history. Its complex and subjective nature makes it an extremely difficult concept to define, understand, and solve.

However, observing and studying racism through a psychological lens could provide a personal and in-depth explanation for its origins. The social psychological topic of person perception accounts for the processing of social information and thus, influences an individual's interpretation and behavior towards others. Person perception accounts for the social cognitive process that results in stubborn racist ideas and behaviors that, when left unchallenged, are strengthened and reinforced over time. Additionally, it is important to examine another central concept in social psychology called social categorization, which is the classification of people into certain groups.

Application of Sigmund Freud's theories about realistic anxiety in "Anxiety and Instinctual Life," in *New Introductory Lectures on Psych-Analysis* provide additional understanding to further elaborate the notion of 'racial anxiety.' This psychological framework is applied to Langston Hughes' *The Big Sea* that demonstrate acts of prejudice or discrimination he faces. Freudian psychology provides a compelling explanation for the acts of racism Hughes experienced throughout his life. Studying the three psychological concepts of person perception, social categorization, and racial anxiety gives insight into the development of racism and

how it is exemplified specifically through Hughes' *The Big Sea*. It is concluded that the negative aspects of having such rapid and subconscious social processing is that they are typically biased and inaccurate, and result in misinformed and prejudiced perspectives.

Works Cited

- Amodio, David M., and Holly K. Hamilton. "Intergroup Anxiety Effects on Implicit Racial Evaluation and Stereotyping." *Emotion*, vol. 12, no. 6, Dec. 2012, pp. 1273–1280. *EBSCOhost*, doi:10.1037/a0029016.
- Freud, Sigmund. *New Introductory Lectures On Psycho-Analysis*. Martino Publishing, 2013.
- Hughes, Langston. *The Big Sea: An Autobiography*. Hill and Wang, 1981.
- Mania, Eric W., et al. "Social Psychology of Racism." *Encyclopedia of Race and Racism*, edited by Patrick L. Mason, 2nd ed., vol. 4, Macmillan Reference USA, 2013, pp. 72-77. *Gale Ebooks*.
- Mays, Vickie M., et al. "Using the Science of Psychology to Target Perpetrators of Racism and Race-Based Discrimination For Intervention Efforts: Preventing Another Trayvon Martin Tragedy." *Journal for Social Action in Counseling & Psychology*, vol. 5, no. 1, Spring 2013, pp. 11–36. *EBSCOhost*.

Gendered Motivations, Self-Confidence, and Successful Outcomes for Online Social Dating

Presenter: Gini A. Martinez, Mt. San Antonio College

Mentor: Professor Misty Kolchakian

Online social dating (OSD) is becoming more widely used among college students, this study sought to examine gendered motivations for using OSD as well as the relationship between self-confidence and OSD outcomes. The researchers hypothesized there would be a positive relationship between self-confidence and OSD outcomes, and that men would be more likely to seek OSD for a hookup, whereas women would seek OSD for a boost in confidence. Prior research on college students and emerging adults support these hypotheses (e.g., Griffin, Canevello, & McNulty, 2018). The sample consisted of 33 participants (22 women, 11 men) enrolled in at least one psychology class at Mount San Antonio College. Participants completed a Self-Confidence survey, a Dating App/Website Outcomes survey, and an Online Dating Reasons survey. The authors were unable to find significance in gender differences regarding motivations or in the relationship between self-confidence and OSD outcomes. In addition, no significant ethnicity differences were found in this

study. Gender conformity of teens in California (Wilson, et. al. 2017), the underrepresentation of men, social desirability bias, and the fact that all participants were enrolled in a psychology course may have contributed to the lack of significance. Further research considering the complexities of male psychosocial motivations and additional personality characteristics, such as thoughtfulness and extraversion, should be examined to benefit those using these platforms. Finally, the role of race in motivation to engage in OSD should be explored with a larger sample size of varying ethnic backgrounds.

References

Fullwood, C., & Attrill-Smith, A. (2018). Up-dating: ratings of perceived dating success are better online than offline. *Cyberpsychology, behavior, and social networking*, 21(1), 11-15. doi:10.1089/cyber.2016.0631.

Griffin, M. M., Canevello, A., & McAnulty, R. (2018). Motives and Concerns Associated with Geosocial Networking App Usage: An Exploratory Study Among Heterosexual College Students in the U.S.. *Cyberpsychology, Behavior, and Social Networking*. 21(4) doi:10.1089/cyber.2017.0309.

Ray, R., & Rosow, J. A. (2009). Getting Off and Getting Intimate. *Men and Masculinities*, 12(5), 523-

546. doi:10.1177/1097184x09331750.

Sumter, S. R., Vandenbosch, L., & Ligtenberg, L. (2016). Love me Tinder: Untangling Emerging Adults' Motivations for Using the Dating Application Tinder. *Telematics and Informatics*, 34(1), 67-78. doi:10.1016/j.tele.2016.04.009.

Wilson, B.D.M., Choi, S.K., Herman, J.L., Becker, T., Conron, K.J. (2017). Characteristics and Mental Health of Gender Nonconforming Adolescents in California: Findings from the 2015-2016 California Health Interview Survey.

Psychopathology of Postpartum Psychosis: Complexities of a Challenging Psychiatric Disorder **Presenter: Ryan Mendoza, Citrus College** **Mentor: Professor Kenneth Guttman**

Postpartum psychosis (PP) is the most severe psychiatric disorder associated with childbirth, affecting 1-2 per 1,000 women shortly after childbirth (Fusté, 2018). Women are more likely to experience psychiatric illness postpartum and are 25 times more likely to become psychotic than at any other time in their life. A 4% chance of infanticide and 5% chance of suicide is present in cases of untreated postpartum psychosis. The

neurobiological basis of postpartum psychosis still remains poorly understood. The lack of etiology beyond childbirth, combined with misdiagnosis, stigmatization, and lack of treatment options could prove to be ill-fated for not only the child, but also the mother.

A recent emerging study used fMRI for the first time in patients with PP, which has given insight to brain structures that may aid in determining the pathophysiology of PP. Monozygotic twin case studies have given rise to consideration of non-genetic factors that may cause PP. While another study used similar methods to test if immune system-mediated myelination processes increase PP risk. Researchers worldwide are beginning more studies focused around defining certain criterion that delineates PP, in addition to, establishing phenotypical characteristics amongst women with postpartum psychotic episodes. Similarly, various global comparisons of self-reported PP patient symptomatology found there to be significant cultural and socio-economic influence on willingness to admit infanticidal thoughts.

Conjointly, these findings suggest that the basis of postpartum psychosis has several possible biological/environmental etiologies. In addition, an immense challenge presents when comparing data from different cultures in

determining an accurate infant/mother risk.

References

- Dazzan, P., Fusté, M., & Davies, W. (2018). Do Defective Immune System-Mediated Myelination Processes Increase Postpartum Psychosis Risk? *Trends in Molecular Medicine*, 24(11), 942–949. doi: 10.1016/j.molmed.2018.09.002.
- Fahim, C., Stip, E., Mancini-Marie, A., Potvin, S., & Malaspina, D. (2007). Orbitofrontal dysfunction in a monozygotic twin discordant for postpartum affective psychosis: a functional magnetic resonance imaging study. *Bipolar Disorders*, 9(5), 541–545. doi: 10.1111/j.1399-5618.2007.00404.x.
- Fusté, M., & Pauls, A. (2017). SU88. Brain Structure in Women at Risk of Postpartum Psychosis: An MRI Study. *Schizophrenia Bulletin*, 43(suppl_1). doi: 10.1093/schbul/sbx024.084.
- Kamperman, A. M., Veldman-Hoek, M. J., Wesseloo, R., Blackmore, E. R., & Bergink, V. (2017). Phenotypical characteristics of postpartum psychosis: A clinical cohort study. *Bipolar Disorders*, 19(6), 450–457. doi: 10.1111/bdi.12523.
- Resnick, P. (2016). Filicide in the United States. *Indian Journal of Psychiatry*, 58(6), 203. doi:

10.4103/0019-5545.196845.

The Impact of Using the Term “Depression” Too Loosely.

Presenter, Priscilla Pranajasa, Mt. San Antonio College
Mentor: Professor Karla Hernandez-Magallon

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), major depressive episodes consist of at least two weeks of a depressed mood or loss of attentiveness in almost all activities. Many symptoms of depression consist of issues with sleep, changes in appetite or weight, fatigue, difficulty concentrating and making decisions, psychomotor agitation or retardation, and recurrent thoughts of death or suicide (Morin, 2019). Depression can affect people of all ages and backgrounds contributing to its prominence worldwide. Unfortunately, this mental disorder possesses a stigma and is misrepresented by many categories of socialization. The issue of misusing the term depression negatively affects those who genuinely suffer from this disorder. Through research analysis and literature review of peer reviewed journals, we will be observing whether or not the term depression is used too loosely. This research explores Bowers’ (2016) analysis on the effects of misusing the word depression. She expresses how people often generalize

the meaning of the word depression to describe a terrible day whereas the vast population who are struggling from the effects of clinical depression experience the complexities of the aforementioned symptoms. Ewens (2016) encourages people to reflect on the potential impact of using mental health language in such a casual way. Due to the misrepresentation of depression, there is a wide population of people who continue to utilize their assumptions about the illness to self diagnose or exaggerate their negative emotions on a daily basis.

References

- Bowers, F. (2016, October 26). Why our generation needs to stop using these terms too loosely. Retrieved November 3, 2019, from The Odyssey website: <https://www.theodysseyonline.com/why-generation-need-stop-using-terms-loosely>.
- Ewens, H. (2016, February 15). Why we need to stop casually throwing around words like 'Bipolar' or 'OCD'. Retrieved November 3, 2019, from Vice website: https://www.vice.com/en_ca/article/9bgjvz/language-of-catastrophe-why-we-need-to-stop-saying-were-mental.
- Holloway, S. J. (2016, August 30). Loosely used words that can hurt those with mental illness. Retrieved November 3, 2019, from Anchorage

Daily News website:
<https://www.adn.com/opinions/2016/08/30/loosely-used-words-can-hurt-those-with-mental-illness/>.

Howell, M. (2018, February 15). Are we trivialising our mental health by misusing the terminology? Retrieved November 18, 2019, from The Telegraph website: <https://www.telegraph.co.uk/health-fitness/mind/trivialising-mental-health-misusing-terminology/>.

[Statistics about major depression]. (2019, February). Retrieved November 3, 2019, from: <https://www.nimh.nih.gov/health/statistics/major-depression.shtml>.

Invisible Scars: A Glimpse into Mental Health Issues Faced by Refugees
Presenter: Hedieh Sorouri,
Irvine Valley College
Mentor: Professor Natasha Synycia

In 2019, the United Nations reported that over 25 million refugees worldwide were forced to flee their country of origin. The past and current experiences of refugees leave them psychologically vulnerable, fueling the critical need for mental health programs in refugee camps. Language barriers, family separation, hostility from the host population, social isolation, and traumatic experiences contribute to the development of mental health problems among refugees throughout their translocation (Gulland). A systematic review of the

more than 167,000 refugees who currently live in America, revealed approximately 40% have anxiety, 44% have depression, and 36% have symptoms of post-traumatic stress disorder, and only 3% were referred to mental health services following a screening (Krogstad). These drastic numbers shed light on the urgency of the refugee mental health crisis, demanding action to remedy and raise awareness of the issues that refugees face.

Furthermore, powerful poetry by refugees provides first-hand evidence of detrimental dislocation effects. Poetry is a medium where people release troubling thoughts and festering emotions. Countless refugees find momentary, therapeutic relief in their musings and connect with their locked-up emotions. When taken together, psychological studies and personal testimonies of refugee poets make an eloquent case for the urgent need for refugee mental health services, reform of existing services, and a lasting solution to the worldwide refugee crisis. Refugees are inextricably woven into the fabric of their host country's communities. The promotion, protection, and restoration of their well-being and mental health should be viewed as a vital concern for all human beings across the world.

Works Cited

- Gulland, Anne. "The Refugee Crisis: What Care Is Needed and How Can Doctors Help?" *BMJ: British Medical Journal*, vol. 351, 2015. *JSTOR*.
- Krogstad, Jens Manuel. "Key Facts about Refugees to the U.S." *Pew Research Center*, Pew Research Center, 7 Oct. 2019.
- Mahmoud, Emtithal. *Sisters' Entrance*. Andrews McMeel Publishing, 2018.
- "Mental Health: Strengthening Our Response." *World Health Organization*, World Health Organization, 30 Mar. 2018.
- Sajja, Shilpa. "Psychiatry researcher studies mental health in refugee camps". *The Stanford Daily: Stanford University*, 5 Oct. 2016.

Reactive Attachment Disorder

Presenter: Jemina Tostado,
Riverside City College
Mentor: Professor Ronald Ruiz

The effects of pathogenic care in maltreated infancy and early childhood leads to what is known as RAD (Reactive Attachment Disorder). As stated by Zeanah et al. (2004), attachment disorders involve a persistent disturbance in the child's social relatedness that begins before age 5 years and that extends across social situations. Symptoms of RAD include a pattern of disturbed and developmentally inappropriate social relationships prior to age 5

(Hardy, 2007). A history of pathogenic care is associated with symptoms of RAD. Moreover, RAD creates psychological problems in early childhood, and maltreatment during one's early years can lead to a lack of development through which they are unable to cope with strong emotions and thus, become aggressive.

Furthermore, RAD presents developmental delays such as comprehensive and cognitive setbacks in infants as early as nine months, which can lead to speech, social, and verbal deficiencies. Some studies have focused on developmental delays in children with RAD. Richters and Volkmer (1994) have reported that a young girl of six years, suffered from intellectual disability traced to her time spent in multiple foster homes. Treatment for RAD involves promoting the ability to regulate affective response to external stimulus (Hardy, 2007). The genesis of RAD is always trauma; specifically, the severe emotional neglect commonly found in institutional settings (Ellis, 2019). RAD is one of the most poorly understood and least researched of all mental disorders, which is why it is important to investigate RAD to assist those who were maltreated during infancy and early childhood.

References

Association, A. P. (2013). Diagnostic and statistical manual of mental disorders. *DSM-5*, 5, xIII-947.

- Retrieved from <https://4.files.edl.io/8c29/04/23/18/201958-1268de6f-75bc-4112-afbf-f83781979af4.pdf>.
- Ellis, E. E. (2019). Reactive Attachment Disorder. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK537155/>
- Hardy, L. T. (2007). Attachment theory and reactive attachment Disorder: Theoretical Perspectives and Treatment Implications. *JCAPN*, 20(1), 27–39. doi: http://courses.justice.eku.edu/cor320_school/docs/6_AttachmentTheoryandRAD.pdf.
- Richers, M. M., & Volkmar, F. R. (1994). Reactive Attachment Disorder of Infancy and Early Childhood. *Child Adolescent Psychiatry*, 33(3), 328–332. Retrieved from http://cogprints.org/3800/1/Richters_&_Volkmar.pdf.
- Zeanah, C. H., Scheeringa, M., Boris, N. W., Heller, S. S., Smyke, A. T., & Trapani, J. (2004). Reactive attachment disorder in maltreated toddlers. *Child Abuse & Neglect*, 28(8), 877–888. doi: 10.1016/j.chiabu.2004.01.010.

Smiling by Way of Zygomatic Electrical Stimulation: Investigating the Facial Feedback hypothesis

Presenter: Laura M. Warren, Irvine Valley College
Mentor: Professor Benjamin Mis

Smiling is a distinctly and socially relevant expression: universally associated with happiness (Hofmann, Platt, & Ruch, 2017). The purpose of the present study was to evaluate the validity of the facial feedback hypothesis; specifically whether smiling itself begets a positive mood or not. While it is widely accepted affective states may precede facial expressions, the facial feedback hypothesis (FFH) proposes the inverse; facial muscle activity (e.g., smiling, frowning) directly influences emotion. Strack, Martin, & Stepper (1988) conducted a distinguished study with findings supporting the FFH, inspiring an ensuing wave of methodologically similar studies investigating the topic (e.g., Ekman, 1993). However, failure to reliably reproduce the results of Strack et al. (1988) spurred debate over its methodology and validity of the FFH (e.g., Wagenmakers et al., 2016). One such methodological error in previous studies was inadequate control over the variability of subjects' zygomaticus major (i.e., muscle region producing smiles) activations. This study addresses this error by

introducing a novel procedure: electrical stimulation (0.5 milliamps) was intermittently administered to participants' zygomaticus while viewing a sequence of positive and neutral images. Facial electromyography was used to verify across participants consistent zygomatic activity when stimulated. Overall, participants rated images as more positive when coinciding with zygomatic stimulation than without. Furthermore, positive images were rated more positively when stimulated, though neutral images were not. These findings suggest zygomatic activity enhances positive affect when experiencing positive stimuli, thereby supporting the FFH and providing an innovative methodology for future research.

References

- Ekman, P., & Davidson, R. J. (1993). Voluntary Smiling Changes Regional Brain Activity. *Psychological Science*, 4(5), 342-345. doi:10.1111/j.1467-9280.1993.tb00576.x.
- Hofmann, J., Platt, T., & Ruch, W. (2017). Laughter and Smiling in 16 Positive Emotions. *IEEE Transactions on Affective Computing*, 8(4), 495-507. doi: 10.1109/taffc.2017.2737000.
- Kurdi, B., Lozano, S., & Banaji, M. R. (2016). Introducing the Open Affective Standardized Image Set (OASIS). *Behavior Research*

- Methods*, 49(2), 457-470. doi: 10.3758/s13428-016-0715-3.
- Schmidt, K. L., Ambadar, Z., Cohn, J. F., & Reed, L. I. (2006). Movement Differences between Deliberate and Spontaneous Facial Expressions: Zygomatic Major Action in Smiling. *Journal of Nonverbal Behavior*, 30(1), 37-52. doi: 10.1007/s10919-005-0003-x.
- Wagenmakers, E., Beek, T., Dijkhoff, L., Gronau, Q. F., Acosta, A., Adams, R. B., . . . Zwaan, R. A. (2016). *Registered Replication Report. Perspectives on Psychological Science*, 11(6), 917-928. doi:10.1177/1745691616674458.

Identity during a Midlife Crisis

Presenter: Noah Zarayan-Samadi, Glendale Community College
Mentor: Professor Michael C. Harnett

In the midst of most people's lives, people generally come face-to-face with their mortality and the decline of their physical capabilities. As a result, people often enter a period of emotional turbulence called the midlife crisis, during which their identity crumbles and they lose a sense of reality. This research was aimed to determine the effectiveness of changing one's environment to uphold a good quality of life by recovering a sense of identity and a new mindset. People

can choose to set goals, seek their truest passions while shaping their identity around their own ambitions in such a way that they do not disconnect from their selves (Freund and Ritter 587). It is particularly effective when people's objectives are intrinsic, in which cases they are capable of reaching the highest levels of happiness (Aristotle I.5).

Engaging in mindful activities like meditating has positive effects on people's moods (Edwards, Loprinzi 174). In November 2019, an ethnographic study featuring before-and-after interviews was conducted in order to analyze the effects of a shift of environment in the stress levels of college students. The accounts of the participants suggested that small bouts in natural settings played a more significant role in decreasing the mental strain experienced by the students than staying put in one same location. The results of the experiment suggest that a change of context can prompt a self-reflective attitude that leads to more enjoyable and meaningful experiences.

Works Cited

- Aristotle. *Nicomachean Ethics*. 350 BC. Translated by W. D. Ross. *Constitution Society*. 4 April 2020.
- Edwards, Meghan K., and Paul D. Loprinzi. "Experimental Effects of Brief, Single Bouts of Walking and Meditation on Mood Profile in Young

Adults.” *Health Promotion Perspectives*, vol. 8, no. 3, 171-78. 7 Jul. 2018, doi:10.15171/hpp.2018.23.

Freund, Alexandra M., & Johannes Ritter. “Midlife Crisis: A Debate.” *Gerontology*, vol. 55, 2009, pp. 582-91, doi: 10.1159/000227322.

Religion

Slavery, Hermeneutics, Sin, and a Series of Letters: A Southern Baptist’s Justification of Slavery
Presenter: Sarayna Gandhi, Saddleback College
Mentor: Professor Margot Lovett

About half a century after the legalization of slavery in 1641, anti-slavery sentiment in the United States became increasingly prevalent, particularly in the North (“Slavery in America”). With an economy built on slave labor and significant wealth amassed from it, the Southern states had stronger incentive to fight for slavery (Ayers; Jeansonne 512).

Baptists in the North and South used religion to present abolitionist and pro-slavery arguments, respectively, from the Bible; in 1845, a correspondence of letters, exchanged between reverends Francis Wayland and Richard Fuller, and concerning the religious debate over slavery, was published. Southern Baptists, such as Fuller, used literal interpretations of the Bible to argue that God condoned slavery (Carpenter 63, 65). This argument was particularly effective, as

Wayland himself could not argue that the Bible denounced slavery, because it simply did not (Carpenter 54). Fuller presented slavery as beneficial to Africans by demonizing abolition, painting slavery as necessary for Africans, and that they preferred enslavement to liberty (Fuller 131, 136, 133). Fuller’s portrayal of slavery as beneficial to Africans was stronger than Wayland’s argument that slavery was a violation of human rights, because it was more convenient for slaveholders to believe slavery was positive as a justification for practicing it. At the same time that he portrays slaveholders as saviors of enslaved Africans, Fuller victimizes slaveholders by blaming England for forcing Americans to practice slavery (Fuller 131). Finally, he argues that slavery is not always a sin, and thus is not a sin (Fuller 130).

Works Cited

Ayers, Edward L. “The American Civil War, Emancipation, and Reconstruction on the WorldStage.” *Magazine of History*, vol. 20, no. 1, 2006, pp. 54-61. *ProQuest*, <https://ezproxy.saddleback.edu/login?url=https://search-proquest-com.ezproxy.saddleback.edu/docview/213724230?accountid=39855>.

Carpenter, A. L. *Southern Baptists and Southern Slavery: The Forgotten Crime Against Humanity*. Smashwords, 2013.

Fuller, Richard, and Francis Wayland. *Domestic Slavery Considered as a Scriptural Institution: in a Correspondence between the Rev. Richard Fuller of Beaufort, S.C., and the Rev. Francis Wayland, of Providence, R.I.* BiblioBazaar, 2010.

Jeansonne, Glen. “Southern Baptist Attitudes Toward Slavery, 1845-61.” *The Georgia Historical Quarterly*, vol. 55, no. 4, 1971, pp. 510-22, *JSTOR*, www.jstor.org/stable/40579712.

“Slavery in America.” *Jim Crow Museum of Racist Memorabilia*, Ferris State University, www.ferris.edu/HTMLS/news/jimcrow/timeline/slavery.htm.

Outgrowing the Bed Trick: From the Bible’s Tamar to MeToo.

Presenter: Allison Mack, Long Beach City College
Mentor: Professor Jeff Wheeler

Considering the patriarchal origins of the Old Testament, it is hardly surprising to find that most women in the Bible are written without a voice. Even in stories famed for their dominant female characters, the women’s potency has been presented by male authors, so this study asks whether any biblical women can demonstrate a truly feminine strength.

In response to their impotence, the women of the Old Testament resort to manipulation through sensual appeal. The story of Tamar in

Genesis provides an example of this strategy. Tamar is a childless widow who has been cast aside. In order to resuscitate her lost existence, she plays a classic bed trick on her father-in-law, disguising herself as a prostitute so that he impregnates her, thereby making herself relevant to society once again. Tamar's lack of options forces her into a position of exploitive ingenuity. She gains power over her male relative, but she does it by prostituting herself.

Some scholars claim that widespread biblical indoctrination, which Phyllis Tribble calls “scripture with sexism,” has inspired strategies like Tamar's to be repeated throughout the history of western culture; from the courtesans of Venice to the women of the MeToo Movement, western women have exploited their sex in order to assert themselves in a male dominated world. Building on the theories of feminist biblical scholars and theologians, this study investigates connections between one of the Bible's most powerful women and gender prejudice.

Works Cited

Claassens, Juliana M. “Resisting Dehumanization: Ruth, Tamar, and the Quest for Human Dignity.” *Catholic Biblical Quarterly*, vol. 74, no. 4, 2012, pp. 657-74, *JSTOR*, <https://www.jstor.org/stable/43728043>.

Maddox, Randy L. “Damned If You Do and Damned If You Don't; Tamar, A Feminist Foremother.” *Daughters of Sarah*, 1987. *The Five Books of Moses: A Translation with Commentary*. Translated by Robert Alter. Norton, 2014.

Simonds, Peggy Muñoz.

“Overlooked Sources of the Bed Trick.” *Shakespeare Quarterly*, vol. 34, no. 4, 1983, pp. 433–434. *JSTOR*, www.jstor.org/stable/2869860.

Tribble, Phyllis. “Feminist Hermeneutics and Biblical Studies.” *Feminist Theology: A Reader*, edited by Ann Loades, Westminster John Knox, 1990, pp. 23-29.

Sexuality and Gender Early Efforts for Legal and Social LGBTQ+ Equality: An Analysis of the Mattachine Society's Activism

Presenter: Taylor Cantarini, Saddleback College

Mentor: Professor Margot Lovett

Despite FBI investigations of the Mattachine Society's leaders' communist affiliations and its charging members with violations of obscenity laws, the Mattachine Society (MS) strategically worked towards expanding legal and social rights for the LGBTQ+ community from its founding in 1950 to its dissolution into regional groups in 1961. The MS brought members of the gay community together to

give them a sense of belonging and “realize the potential ability to offer a worthwhile contribution” to society (Hay 83). To accomplish this, the Society dispersed leaflets stating that gay people had the same right to human dignity as any other citizen. MS also provided services such as psychological counseling and legal assistance for members charged with violating obscenity laws.

After the MS's dissolution into chapters, the MS of Washington DC (MSW) organized to campaign for gay rights in 1961. “Aware that the congressmen who governed Washington did not view [the] new organization favorably, and that the city's police department was keeping a close eye on its activities, [MSW] kept a low profile...” (Bonds 20). Although the organization initially avoided confrontation, the MSW quickly organized public demonstrations in front of the White House and Pentagon. While MS activities did not immediately lead to greater rights for the gay community, it gave activists greater confidence in their mission for equal rights. A leaflet from the MS of New York affirms the Society's position: “Homosexuals are different, but we believe they have the right to be.”

Works Cited

Bonds, Peter. *Stonewall on the Potomac: Gay Political Activism in Washington, DC, 1961-1973*, 2016, James Madison University

Master of Arts in History
Thesis, 455,
<https://commons.lib.jmu.edu/master201019/455>.

Charles, Douglas M. "From Subversion to Obscenity: The FBI's Investigations of the Early Homophile Movement in the United States, 1953-58." *Journal of the History of Sexuality*, vol. 19, no. 2, 2010, pp. 262-87. *JSTOR*, www.jstor.org/stable/40663409.

Hay, Harry. "Mattachine Society Missions and Purposes." *Radically Gay: Gay Liberation in the Words of Its Founder*, Beacon, 1996, pp. 130-32.

Mattachine Society Inc. of New York Ad, c. 1960. "Homosexuals Are Different ... but ... We Believe They Have the Right to Be." *Reddit*, https://www.reddit.com/r/lgbt/comments/7tvdk1/homosexuals_are_different_but_1960_prolgbt_poster/.

Roscoe, Will. "Gay Liberation: The Birth of an Idea." In *Radically Gay: Gay Liberation in the Words of Its Founder*, by Harry Hay and Will Roscoe, Beacon, 1996, pp. 3-14.

**It's Not Just a Game:
Assessing the Prevalence of
Gender Discrimination in
Sports**
**Presenter: Sadie Granger,
El Camino College**
**Mentor: Professor Kassia
Wosick**

Although several waves of feminism have propelled women's sports into mainstream society, discrimination against women in sports remains a prevalent issue. This research addresses the unequal treatment of women in sports by focusing on three main contexts: the gender pay gap in professional sports, unequal televization of sporting events, and reinforcing gender stereotypes. Most researchers tend to focus on each context separately in assessing push and pull factors regarding gender discrimination in sports (Duncan and Messner 1993, Messner 2002, Anderson 2002). The purpose of my research is to assess how each context intersects together in perpetuating gender inequality in sports. I draw on scholarly journals to provide an empirical overview and intersection of these three main contexts.

Unequal pay for women in professional sports is one of the main contributing factors to the unfair treatment (Cooky and Messner 2018). Not only are women getting paid less, women's professional sports are not on television as frequently as men's professional sports (Pelak 2002). Further, the institution of sports reinforces cultural stereotypes regarding gender, especially in terms of types of sports, game regulations, score expectations, and general deposition during games and events (Duncan and Messner 1993). Focusing

on these three specific aspects of gender inequality in sports will inform the public on this issue, which will make athletes, broadcasters, and viewers more aware of this topic. I argue that eradicating gender discrimination in sports is a key step towards equalizing women and men within society as a whole.

References

- Anderson, E. (2008). "Used to think women were weak: Orthodox masculinity, gender segregation, and sport." *Sociological Forum*, 23(2): 257-280.
- Cooky, C., Hartmann, D., & Messner, M. (2018). No slam dunk: Gender, sport and the unevenness of social change. *Critical issues in sports and society*. Rutgers University Press. <https://doi.org/10.2307/j.ctt1t6p7fx>.
- Duncan, M., Jensen, K., & Michael Messner, M. 1993. Separating the men from the girls: The gendered language of televised sports. *Gender and Society*, 7(1):121-137.
- Messner, M. (2002). Taking the field: Women, men, and sports. *Sports and Culture*, 4(1): 264-293.
- Pelak, C. (2002). "Women's collective identity Formation in Sports: A Case Study from Women's Ice Hockey." *Gender and Society*, 16(1): 93-114.

**Resisting Your Norms:
Queer Power in Social
Space**

Presenter: Jade

**MacEoghain, MiraCosta
College**

**Mentor: Professor Richard
Hannon**

This project explores the recent history of the safe space, first emerging in the 1970s city as a response to oppressive political policies of the twentieth century. These spaces later emerged on college campuses, resulting from student activism generally, and inspired by the successes of the city safe space. A historic outline of the safe space reveals what political forces these spaces emerged in response to initially, and how their emergence actually contradicts common anti-safe space rhetoric present in popular American culture and rising anti-safe space rhetoric from university administration. The critics contend that these spaces encourage segregation and thus limit free thought.

Yet, a modern critical theory approach, via Michel Foucault and Judith Butler, elucidates how such spaces provide temporary reprieve from the normalizing “gaze” that often restricts and therefore limits the free expression of bodies: a safe space is necessary to perform and reaffirm identity. Moreover, within the university itself, a new challenge has emerged in opposition to the physical, dynamic safe space, which is safe space “sticker culture,”

as posited by Catherine Fox. She shows how stickers produce spaces of artificial safety, while reducing the number of sites for self-performance and creating power dynamics tilted against those who are resisting intolerance. Looking at examples of safe space in practice at a local community college, I will show how no matter how socially, culturally, and politically tolerant we become, spaces of resistance to heteronormative behaviours, and especially, spaces of performativity and reaffirming of identity, will always be necessary.

Works Cited

- Chadderton, Charlotte. “Conclusion: A Butlerian Approach to Social Transformation in Education.” *Judith Butler, Race and Education*. Palgrave Macmillan, 2018, pp. 190-95.
- Deineh, Steven. “LGBTQIA+ @ MiraCosta College, Action Plan.” *ccclgbt.org*, 2018, <https://www.ccclgbt.org/deineh.html>. Accessed 9 May 2019.
- Foucault, Michel. “Of Other Spaces: Utopias and Heterotopias.” *Architecture /Mouvement/ Continuité*, October 1984, pp. 1-4.
- Kenney, Moira. “Locating the Politics of Difference.” *Mapping Gay LA: the Intersection of Place and Politics*. Temple UP, 2001, pp. 8-24.
- Fox, Catherine. “From Transaction to Transformation:

(En)Countering White Heteronormativity in ‘Safe Spaces.’” *College English*, vol. 69, no. 5, 2007, pp. 496-508.

**Community: American
Secondary Education
Should Do More to Raise
Awareness of the LGBT
Community to Students to
Lower the Amount of
Mental Health Disorders
and Substance Abuse in
LGBT Students**

**Presenter: Nazanin Nayeri,
Los Angeles Pierce College**

**Mentor: Professor Julio
Tsuha**

Attraction toward the same gender leads to a rabbit hole of rebuttal, suppression, and acceptance. In society, we illustrate the LGBT community as the Lesbian, Gay, Bisexual and Transgender community. Lack of disclosure for students to identities, acceptance, counseling, portrayal and comprehensive emotional support of the LGBT community will lead to mental health disorders such as anxiety or depression and substance abuse in the youth LGBT community.

American secondary education should do more to raise awareness of the LGBT community to students to lower the amount of mental health disorders and substance abuse in LGBT students. Studies acknowledge that “LGBT youth report elevated rates of emotional distress, symptoms related to mood and anxiety disorders, self-harm, suicidal ideation, and suicidal

behavior when compared to heterosexual youth” (Russell, Stephen T., 465). Omission and rejection from family and friends can contribute to elevated levels of mental health problems faced in the LGBT community.

When one is scrutinizing one’s own self identify, one is sensitive to face “social rejection and isolation, diminished social support, discrimination, and verbal and physical abuse” (Almeida, Joanna, et al., 1003). Current study revealed that self-harm “increasingly recognized as a strong risk factor for suicide and suicide attempts, and is also indicative of depression” (Almeida, Joanna, et al., 1004).

Moreover, Emelina Minero in “Schools Struggle to Support LGBTQ Students” plates the urgency of the LGBT curriculum. Explains the lack of education and training for teachers “on how to address LGBTQ issues and bullying has left teachers ill-equipped to establish LGBTQ-inclusive cultures or to identify anti-LGBTQ behaviors and harassment.”

Works Cited

Almeida, Joanna, et al.
“Emotional Distress Among LGBT Youth: The Influence of Perceived Discrimination Based on Sexual Orientation.” *Journal of Youth and Adolescence*, vol. 38, no. 7, 24 July 2009, pp. 1001–1014., doi:10.1007/s10964-009-9397-9.
Graybill, Emily C., and Sherrie L. Proctor.

“Lesbian, Gay, Bisexual, and Transgender Youth: Limited Representation in School Support Personnel Journals.” *Journal of School Psychology*, vol. 54, 21 Nov. 2015, pp. 9–16., doi:10.1016/j.jsp.2015.11.001.

Hoffman, Jan. “Gay and Lesbian High School Students Report ‘Heartbreaking’ Levels of Violence.” *The New York Times*, 11 Aug. 2016, <https://www.nytimes.com/2016/08/12/health/gay-lesbian-teenagers-violence.html>

Huebner, David M., et al. “School Victimization and Substance Use Among Lesbian, Gay, Bisexual, and Transgender Adolescents.” *Prevention Science*, vol. 16, no. 5, 23 July 2014, pp. 734–43., doi:10.1007/s11121-014-0507-x.

Johns, Michelle M., et al. “Strengthening Our Schools to Promote Resilience and Health Among LGBTQ Youth: Emerging Evidence and Research Priorities from The State of LGBTQ Youth Health and Wellbeing Symposium.” *LGBT Health*, vol. 6, no. 4, 29 May 2019, pp. 146–155., doi:10.1089/lgbt.2018.0109.

The Literary History of LGBT+

Presenter: Mursal Sidiqi, Chaffey College
Mentor: Professor Leona Fisher

Literature during the Middle Ages is rich in LGBT+ ideas and history,

although it often overlooked in literary curricula. This research paper begins with classic Greek philosophy and explores the cultural concept of LGBT+ in ancient Greece through analysis of Plato’s “Symposium.” This text reveals the idea that homosexuality and gender fluidity are part of man’s nature and were bestowed upon them by Zeus himself. This accepting perspective of LGBT+ shifts when the Anglo-Saxons rise. The epic “Beowulf” reveals a period of history in which gender roles and misogyny were strictly set concepts which helped cultivate and establish heteronormativity and male aggression for all those to succeed their culture.

The French experimented with challenging the controversy of LGBT+. In Marie de France’s “Lanval,” the main character, Lanval, is challenged to go against the expectations that are assigned to him by his gender. He must maneuver through Queen Guinevere’s accusations and slurs regarding Lanval’s sexuality, as well as the misogynistic society in which he is trapped in and is expected to act immorally in order to be socially accepted. Concepts such as gender identification being a result of nurture are explored in Heldris of Cornwall’s “Silence.” The main character, Silence, is given a gender-neutral name by their parents and battles with personified Nature and Nurture as they explore how one can identify oneself

through their internal and external experiences. Throughout history, the LGBT+ community has been prevalent in literature and has enforced the idea that it is a natural concept.

Works Cited

- Armstrong Percy, William. "Reconsiderations About Greek Homosexualities." *Journal of Homosexuality*, vol. 49, no. 3/4, Aug. 2005, pp. 13–61.
- Boyd, David Lorenzo. "On Lesbian and Gay/Queer Medieval Studies." *Medieval Feminist Forum: A Journal of Gender and Sexuality*, vol. 15, no. 1, Society for Medieval Feminist Scholarship, 1993.
- Falk, Oren. "A Dark Age Peter Principle: Beowulf's Incompetence Threshold." *Early Medieval Europe*, vol. 18, no. 1, Feb. 2010, pp. 2–25, EBSCOhost, doi:10.1111/j.1468-0254.2009.00288.x.
- Kinoshita, Sharon. "Heldris de Cornuälle's Roman de Silence and the Feudal Politics of Lineage." *Publications of the Modern Language Association of America* (1995): 397-409.
- Mills, Robert. "Queer Is Here? Lesbian, Gay, Bisexual and Transgender Histories and Public Culture." *History Workshop Journal*, no. 62, 2006, pp. 253–263.

Sociology

Saving the Isolated: The Pathway to Eliminate Solitary Practices **Presenter: Calvin Tran,** **Irvine Valley College** **Mentor: Professor Emily Liu**

In a 2015 *Solitary Watch* article, "Voices from Solitary: 'Where Cold, Quiet and Emptiness Come Together'," Cesar Francisco Villa has been confined to his cell at Pelican Bay State Prison Security Housing Unit (SHU) and has documented his soul-crushing experience in prolonged isolation: "[T]he first week I told myself: it isn't that bad, I could do this. The second week, I stood outside in my underwear shivering as I was pelted with hail and rain. By the third week, I found myself squatting in a corner of the yard, filing fingernails down over coarse concrete walls." Week after week, Villa slowly lost willpower. As he lay on the concrete floor with his bloody clothing clinging to his body, his faith in goodness evaporated. Solitary confinement has shifted his mentality to the sudden darkness. Villa is one of the 80,000 inmates nationwide who are subjected to restrictive housing in correctional facilities. As the problem of solitary confinement continues to exacerbate, its psychological effects — intense anxiety and sensory deprivation— impacts an overwhelming community of inmates. Solitary confinement is actively harming the prisoners mentally and

physically without truly providing necessary rehabilitative lessons to reinstate these prisoners back into society.

While the fact that restrictive housing is counterproductive to the purpose of correctional facilities is a huge problem to the society, it does not compare to the financial toll it has on the entire country. Assistant Majority Leader Dick Durbin has researched that the solitary practice "costs more than \$60,000 yearly to house a prisoner in restrictive housing compared to an average of \$22,000 for inmates in other prisons." Therefore, solitary confinement nationwide is contributing to overarching immense debt which is ultimately counterproductive to correctional facilities' main objective. Over the course of history, solitary practices have evolved into a destructive force paving the pathway to a generation of mentally disabled inmates. Activists have tried to abolish prolonged isolation several times. However, their attempts fall short due to a faulty legislative system. Therefore, prisoners resort to drastic measures such as a hunger strike for their cause to be heard nationwide. This is unacceptable. Various social reforms advocate politicians and wardens to alter prison regulations in hopes to protect prisoners. While solitary confinement may exacerbate existing stress and generate psychological trauma in

inmates, an alternative rehabilitation program, therapeutic group counseling, can mitigate stress and educate prisoners about their wrongdoings.

Works Cited

Appelbaum, Paul, et al. "A Longitudinal Study of Administrative Segregation." *Journal of the American Academy of Psychiatry and the Law*, Journal of the American Academy of Psychiatry and the Law Online, 1 Mar. 2013, jaapl.org/content/41/1/49.abstract.

Association of State Correctional Administrators. "Aiming to Reduce Time-In-Cell: Reports from Correctional Systems on the Numbers of Prisoners in Restricted Housing and on the Potential of Policy Changes to Bring About Reforms." *Law.yale.edu*, Nov. 2016, law.yale.edu/system/files/area/center/liman/document/aimingtoreducetic.pdf.

"Durbin Chairs First-Ever Congressional Hearing on Solitary Confinement | U.S. Senator Dick Durbin of Illinois." *About Dick Durbin | About | U.S. Senator Dick Durbin of Illinois*, 19 June 2012, www.durbin.senate.gov/newsroom/press-releases/durbin-chairs-first-ever-congressional-hearing-on-solitary-confinement.

Johnson, Carrie, and Bill Chappell. "Solitary Confinement Costs \$78K Per Inmate And Should Be

Curbed, Critics Say." NPR, NPR, 26 Feb. 2014, www.npr.org/sections/theway/2014/02/25/282672593/solitary-confinement-costs-78k-per-inmate-and-should-be-curbed-critics-say.

"Voices from Solitary: 'Where Cold, Quiet and Emptiness Come Together.'" *Solitary Watch*, 21 Oct. 2015.

Theater

Hamilton's Effect: How a Single Musical Changed the Trajectory of Broadway
Presenter: Jade Bolton, Irvine Valley College
Mentor: Professor Andrew Sclafani

When *Hamilton* debuted, few could have anticipated how this musical about the American revolution would revolutionize Broadway's landscape. Powerhouse show-tunes and a majority white cast were swapped out for R&B/hip-hop songs and an all minority cast shifting traditions of the Broadway scene (Kasinitz 69). The US population predominantly favors R&B/hip-hop music. *Hamilton's* successful implementation of these genres allows it to reach beyond the typical Broadway audience. *LA Times* entertainment writer Steven Zeitchik notes that "Barely once each Broadway generation a juggernaut so powerful comes along that it causes competitors a brief moment of despair," putting

into context *Hamilton's* wide-spread appeal.

Creator and lead actor Lin-Manuel Miranda believes in "history being up for grabs, and the teller being just as important as the subject" (Nereson 1046). By using non-white actors to portray the story of the founding fathers, the story becomes more accessible to audiences today (Whitfield 217). The benefits go beyond the audience; Broadway's landscape is diversified through *Hamilton's* decision to utilize color-blind casting. The product of this is a greater desire from audience members to explore Alexander Hamilton's history since it's "a musical that has transcended Broadway and passed into the broader public consciousness" (Owen 509).

Through a literary research investigation, scholarly perspectives confirm it is evident that *Hamilton's* impact has been integral in changing Broadway's landscape for future productions. If more productions follow *Hamilton's* lead, Broadway will continue becoming a more inclusive art form willing to diversify.

Works Cited

Kasinitz, Philip. "Hamilton's Immigrant America: Understanding People in their Social Worlds Understanding People in their Social Worlds." *Contexts*, vol. 15, no. 3, 2016, pp. 69-71. *ProQuest*, <https://ezproxy.ivc.edu/login?url=https://search.proque>

st.com/docview/1876740370?accountid=39837.

Nererson, Ariel. "Hamilton's America: An Unfinished Symphony with a Stutter (Beat)." *American Quarterly*, vol. 68, no. 4, 2016, pp. 1045-59, 1112. *ProQuest*,

<https://ezproxy.ivc.edu/login?url=https://search.proquest.com/docview/1858057279?accountid=39837>.

Owen, Kenneth. "Can Great Art also be Great History?" *The Independent Review*, vol. 21, no. 4, 2017, pp. 509-517. *ProQuest*, <https://ezproxy.ivc.edu/login?url=https://search.proquest.com/docview/1938826621?accountid=39837>.

Whitfield, Sarah. *Reframing the Musical: Race, Culture and Identity*. Red Globe, 2019.

Zeitchik, Steven. "Undisputed Leader; the Dominating Success of the Musical 'Hamilton' is Causing a Huge Ripple Effect on Broadway during Tony Awards Season." *Los Angeles Times*, Apr 30, 2016. *ProQuest*, <https://ezproxy.ivc.edu/login?url=https://search.proquest.com/docview/1785448438?accountid=39837>.

Video Games

Gambling in Disguise: How Minors Are Exposed to Gamble through Virtual Loot Boxes Within Popular Video Games

Presenter: Daniel

Tsentsiper, Irvine College

Mentor: Professor Emily

Liu

Loot boxes in online video games share several parallels with traditional gambling mechanics and are preying on a young, vulnerable demographic. According to Aaron Drummond and James D. Sauer of Massey University, the "mechanisms underlying player engagement with loot boxes are similar, if not identical, to gambling . . . [by] shar[ing] important structural and psychological similarities" (Drummond & Suer). In loot boxes, the addictive elements of traditional gambling are compounded by digital sensory feedback in order to seduce a susceptible audience, while generating staggering levels of profit. Such games encourage and normalize the process of gambling through intrusive solicitations, easy payment access, and pay-to-win mechanics. The scientific data not only reveals an increase in adolescent gambling addictions, but it stands as a projection for the virtual epidemic that will soon sweep developed nations; kids are becoming addicted to gambling from loot boxes.

Criticism over loot boxes has spawned legislative opposition around the world. European countries such as Belgium and the Netherlands have adopted legislation backed up with strict monetary and criminal consequences to outlaw loot boxes entirely. In the United States, House Representative Chris Lee's House Bill 2727

took a progressive step in deterring excessive consumption of gambling mechanics by the adolescent consumer by requiring more transparency from gaming studios in publishing the probability rates for their loot boxes.

This project exposes the detrimental cognitive effects of loot boxes on the adolescent mind—including the development of harmful addictions, depression, substance abuse, suicidal tendencies, and higher rates of anxiety in present or later stages of life—and proposes solutions to the problem.

Works Cited

- Belgium Federal Public Service (FPS) Justice Gaming Commission. "Research Report on Loot Boxes." 25 Apr. 2018.
- Daniel, King L. "Online Gaming and Gambling in Children and Adolescents—Normalising Gambling in Cyber Places." Rep. no. Victorian Responsible Gambling Foundation. Australia: U of Adelaide, 2018.
- Drummond, Aaron and James D. Sauer. "Video game loot boxes are psychologically akin to gambling." *Nature Human Behaviour* 2 (2018): 530-532.
- King, Daniel L., and Paul H. Delfabbro. "Predatory Monetization Schemes in Video Games (e.g. 'loot Boxes') and Internet Gaming Disorder." *The Canadian Journal of Chemical*
- Zendle, David & Meyer, Rachel & Over, Harriet.

(2019). "Adolescents and loot boxes: Links with problem gambling and motivations for purchase" https://www.researchgate.net/publication/330269000_Adolescents_and_loot_boxes_Links_with_problem_gambling_and_motivations_for_purchase.

Zoology

Gender and Dominance Structures: A Study on Captive Hamadryas Baboons and Ring-tailed Lemurs

Presenter: Jonathan Broberg, MiraCosta College

Mentor: Professor Lynne Miller

This study examined the consequences of gender bias in hierarchical systems of two primate species: hamadryas baboons, which are strongly male-dominant; and ring-tailed lemurs, which are the most female-dominant of all primates. Dominance hierarchies are usually a product of resource competition, and according to sexual selection theory, sex differences in behavior are often caused by males and females needing different resources in order to successfully reproduce. This study included five hours of

observation of both species, housed at the San Diego Zoo. Acts of intersexual conflict were counted, as well as the sexes of the initiator and the target of the encounter. The baboon males initiated and "won" 100% of their nine dominance interactions with females, while lemur females initiated and "won" 100% of their 19 dominance interactions with males. These results show that, even in captive settings, the dominance hierarchies of these two species are severely sex-dependent. Additionally, the hamadryas males used their rank to assert direct control over the females' location and behavior, while the ring-tail females used their rank to access food, warmth, or to refuse mating. In the wild, there are surprising adaptive benefits to submission for the subordinate sex of both species. Female hamadryas who appease their unit male gain his protection and food resources, both for herself and her young; male ring-tailed lemurs who defer to females gain mating priority, and thus produce more offspring. These dynamics exemplify how extreme gender hierarchies operate, and may provide clues as to

how these systems evolve.

Works Cited

- Kummer, Hans. *Primate Societies*. AHM, 1971.
- Polo, Pablo, and Fernando Colmenares. "Behavioural Processes in Social Context: Female Abductions, Male Herding and Female Grooming in Hamadryas Baboons." *Behavioral Processes*, vol. 90, 2012, pp. 238-45.
- Sauther, Michelle L. "Resource Competition in Wild Populations of Ringtailed Lemurs (Lemur Catta): Implications for Female Dominance." *Lemur Social Systems and Their Ecological Basis*, edited by J. Ganzhorn and P.M. Kappeler, Springer, 1993, pp. 135-52. http://dx.doi.org/10.1007/978-1-4899-2412-4_10.
- Trivers, Robert L. *Parental Investment and Sexual Selection*. Aldine, 1972.
- White, Frances J, et al. "Female Dominance and Feeding Priority in a Prosimian Primate: Experimental Manipulation of Feeding Competition." *American Journal of Primatology*, vol. 69, 2007, pp. 295-304.

Building Bridges 2021

Art

Avant-Garde Art Movements Among Late 19th Century France: Realism, Impressionism, and Post-Impressionism
Presenter: Parisa Ghopeh, MiraCosta College
Mentor: Professor Leah Cluff

What shaped Realism, Impressionism, and Post-Impressionism to rise to prominence as avant-garde art movements in late 19th century France were major socio-economic events reflecting the Enlightenment idea of progress - showcased through the works of distinguished oil painters. Specifically, these events consisted of the growing embrace of empiricist beliefs stemming from the Enlightenment, and the progress which followed such as the Second Industrial Revolution and its great advancements produced, the urbanization of France, and the growing popularity for leading modern lifestyles among the common folk. By first examining a painting by Realism artist Gustave Courbet, one can see how this art movement values an accurate portrayal of everyday life thus upholding empiricist ideals. Proceeding to analyze works of Impressionism, paintings by Claude Monet, Camille Pissaro, and Pierre-Auguste Renoir showcase how the events reflecting progress such as the Second Industrial Revolution's advancements to technology, the urbanization of France's

cities, and the novel embrace of leading modern and leisurely lifestyles among the French people all shaped this art movement's special style and subject matter. Lastly, Post-Impressionism is represented through the work of Vincent van Gogh, which further exposes the embrace of modernism at the time, as well as how this art movement valued groundbreaking and modern ways of painting which were never attempted before. In conclusion, through this analysis of paintings by famous artists of Realism, Impressionism, and Post-Impressionism, the socio-economic events described which highlight the objective of progress clearly shaped each art movement to be as unique and avant-garde as they were.

References

"A portrait of the artist as Parisian prowler." New York-Paris: Whitman, Baudelaire, and the Hybrid City, by Laure Katsaros, University of Michigan Press, ANN ARBOR, 2012, pp. 55–79. *JSTOR*, www.jstor.org/stable/10.3998/mpub.4349990.6. Accessed 13 Nov. 2020.

Gardner, H., & Kleiner, F. S. (2016). *Gardner's Art Through the Ages: Book E: Modern Europe and America*. Boston, MA: Cengage Learning

Herbert, R. L. (1988). *Impressionism: Art, Leisure, and Parisian*

Society. New Haven, CT: Yale University.

Roger Magraw. France, 1800-1914 : A Social History. Routledge, 2014. EBSCOhost, search.ebscohost.com/login.aspx?direct=true&db=e000xna&AN=816890&site=ehost-live.

Rubin, J. H. "Realism." Grove Art Online. 2003. Oxford University Press. Date of access 13 Nov. 2020, <[https://www-oxfordartonline-com.prox.miracosta.edu/groveart/view/10.10](https://www.oxfordartonline-com.prox.miracosta.edu/groveart/view/10.10)

[93/gao/9781884446054.001/0ao-9781884446054-e-7000070996](https://www.gao.gov/products/93/gao/9781884446054.001/0ao-9781884446054-e-7000070996).

Economics

A Drive to Nowhere: An Analysis of the Effects of Independent Contractor Classification on Rideshare Drivers

Presenter: Zain Raja (Exemplary Achievement Award), Irvine Valley College

Mentor: Professor Mark Collinson

A new dynamic has emerged in the workforce in the past decade that threatens the fragile contract between employer and employee: the gig economy. The gig economy is defined as the shift from the service-

based economy of the late twentieth century to a contractual based type of employment that emphasizes flexibility. This research project will assess the impact of gig employment on worker welfare and the labor market. The number of citizens that are working full-time for ridesharing firms and taxi services has increased from 100,000 in 1997 to 700,000 in 2016 (US Census Bureau), and when adjusting for part-time workers, that number rises further. The methodology of the research consists of qualitative and quantitative evaluation of the independent contractor portion of the labor force's access to benefits such as reciprocal tax contributions, employer-provided health insurance, and minimum wage guarantees. In particular, the loss of reciprocal tax contributions has been overlooked as a negative aspect of independent contractor classification, and matching employer funds keep the social safety net solvent. Though ridesharing firms have asserted otherwise, "once you take into account drivers' expenses and unpaid time between rides, their true gross wage would be \$5.64 per hour.

California's state minimum wage is \$12.00 an hour—far more than what rideshare companies were paying after expenses"(Jacobs and Reich). Because ridesharing firms refuse to classify their workers as employees, they have utilized the leverage associated with independent contractor status to deny them basic employment benefits, offer low wages, and squash union formation.

Works Cited

- Jacobs, Ken, and Michael Reich. "Comparing Wages and Lost Income for Rideshare Drivers." *UC Berkeley Labor Center*, UC Berkeley, 31 Oct. 2019, <http://laborcenter.berkeley.edu/the-uber-lyft-ballot-initiative-guarantees-only-5-64-an-hour/>. Accessed 5 Oct. 2020.
- "Number of Nonemployers, Industry 4853 'Taxi and Limousine Services'". *United States Census Bureau*, 29 Aug. 2018, <https://www.census.gov/library/stories/2018/08/gig-economy.html>. Accessed 11 Dec. 2020.

Education

Asian Americans and the Model Minority Myth in Education

Presenter: Alisa Huang, Irvine Valley College
Mentors: Professors Emily Liu and Megan Ozima

An SAT score of 1550 out of 1600 for an Asian American student is equivalent to a 1410 for a White student, and a 1100 for a Black/African American student (Lee and Zhou). Affirmative action is supposed to benefit minority students, but statistics show otherwise. While some Asian people fit the model minority myth and stereotype, the harm outweighs the benefits of being overgeneralized as "Asian". The purpose of this literature review is to examine these negative effects of the model minority myth and the miscategorizations in education.

The common perception of Asians being smart is not necessarily a misconception (Avi-Yonah and McCafferty) but them being rich is an over exaggeration. Asians have the highest income disparity where the top 10% of the income distribution are 10.7 times more than those in the bottom 10% (Pew Research Center). Some argue that affirmative action benefits Asians and that they just "have a slightly more difficult road", but are not necessarily discriminated against.

However, those arguments ignore the core issue: the underrepresentation and misrepresentations of Asians. Some schools, such as Irvine Valley College, have student groups that focus on subgroups that tend to be underrepresented. The ultimate solution to hyper selectivity in college

admissions amongst Asian Americans is to find a balance between admitting students with high statistics, and maintaining diversity and equity. Once we recognize the diverse subgroups and their unique needs for different problems, it becomes a step to find solutions that are specifically catered to them.

Works Cited

- Avi-Yonah, Shera S., and Molly C. McCafferty. "Asian-American Harvard Admits Earned Highest Average SAT Score of Any Racial Group From 1995 to 2013." 22 Oct. 2018.
- Avi-Yonah, Shera S., and Molly C. McCafferty. "Asian-American Harvard Applicants Saw Lowest Admit Rate of Any Racial Group From 1995 to 2013." 19 Oct. 2018.
- Kochhar, Rakesh, and Anthony Cilluffo. "Income Inequality in the U.S. Is Rising Most Rapidly Among Asians." *Pew Research Center's Social & Demographic Trends Project*, 1 Mar. 2019, www.pewsocialtrends.org/2018/07/12/income-inequality-in-the-u-s-is-rising-most-rapidly-among-asians/.
- Lee, Jennifer, and Min Zhou. *The Asian American Achievement Paradox*. Russell Sage Foundation, 2015.
- US Census Bureau. "Asian/Pacific American Heritage Month: May

2015." *Asian/Pacific American Heritage Month: May 2015*, 3 Aug. 2018, www.census.gov/newsroom/facts-for-features/2015/cb15-ff07.html.

Gender and Sexuality Salvadoran Immigration: A Bloody Past Leaves Wounds for Women and the LGBTQ+ Community **Presenter: Grey Garcia** **Mentor: Professor Michelle Gonzales**

Documented normalization of transphobia, violence against women, including femicide, are invisible factors that push people out of El Salvador, and I experienced them all. Such normalization of violence can and should be linked to the Salvadoran civil war, 1980 - 1992, which included disappearances, beheadings, assassinations, and sexual violence.

The brutality of the war, normalized violence, and resulting economic factors have made the country particularly unsafe for LGBTQ citizens, especially transwomen, as femicide rates have increased 197% since 2006 (McKinnon 31).

Experiencing gender-based bullying as a teenager, domestic violence, and seeing my mother shot and killed in front of me in El Salvador, I learned why El Salvador is a place that people must leave. Afraid of coming out as a transgender male, but unable to hide the fact that I was not cisgender, I presented

publicly as a lesbian to minimize becoming a target of sexual violence and/or a hate crime. Since "Violence murder, ostracism and economic deprivation are all too common for those who choose to be public about their sexuality and gender identity" (DeBernardo), I had no choice but to flee my homeland.

Through primary and secondary research, grounded in my personal story, and that of Salvadoran transgender activist Alexa Rodriguez, who told me "I was more afraid of the police than I was of gangs," my work details why so many leave El Salvador, and why the United States must lift the restrictions to the asylum process, and create a fair path toward citizenship for all.

Works Cited

- Bibler, Susan. *Nations of Emigrants: Shifting Boundaries of Citizenship in El Salvador and the United States*. Cornell UP, 2007. *EBSCOhost eBook Academic Collection*, search.ebscohost.com/login.aspx?direct=true&db=e000xna&AN=1863923&site=ehost-live, https://caccl-positas.primo.exlibrisgroup.com/permalink/01CACCL_POSITAS/16pepg1/alma991005623326605295.
- DeBernardo, Francis. "LGBT Advocates Find Solidarity at El Salvador gathering. (Viewpoint Essay)." *National Catholic Reporter*, vol.

49, no. 14, National Catholic Reporter, Apr. 2013, p. 27–.

McKinnon, Sara. “Gendered Asylum: Race and Violence in U.S. Law and Politics.” *Gendered Asylum*, vol. 12, U of Illinois P, 2016, doi:10.5406/j.ctt1hfr0k0. https://cacc-positas.primo.exlibrisgroup.com/permalink/01CA/CCL_POSITAS/1543b08/cdi_askewsholts_vlebooks_978025209888

Rodríguez, Alexa. Interview. 18 Nov. 2020.

Genetics

Oh to Have Super-healing: A Look into the Mexican Salamander, Axolotl, Dubbed Masters of Regeneration and How their Genome Structure Could Save Human Lives
Presenter: Talha Khan, Irvine Valley College
Mentor: Professor Jennifer McKinney, Irvine Valley College

Humans are one of the most complex species to exist, however, in recent studies, there may be a runner-up that will out-do our lack of ability to completely heal scars and regenerate limbs; It comes in the form of a salamander. The Axolotls are considered to be masters of regeneration and found to be much more resistant to cancer than humans (Fior, 715). DNA makes up all organisms; a collection of genetic material bonded by proteins and acids referred to as base pairs. Within humans,

there are about 3 billion base pairs that make up a single DNA whereas, in comparison to the Axolotls, they have approximately 32 billion base pairs (Nowoshilow et al, 50). Their fascinating ability to regenerate limbs perfectly is due to their complex genome structure and has been a major focus for scientists (Roy et al.,12). Modern science has accomplished the creation of CRISPR which is a gene-editing tool that can alter genome sequences; using it to harness axolotl’s gift could change medicine forever (Rodríguez-Rodríguez et al., 1559). In this literature review, I will discuss which genes specifically play a role in Axolotl’s regeneration, their transferability to humans, as well as repercussions in doing so. Additionally, the purpose of this review is to determine the ramifications of implementing an altered genome structure into patients and its effects on human medicine. A deeper understanding of this will serve the purpose of determining how far scientists are in making regenerative medicine common practice.

Sources

Fior, Jonathan. “Salamander regeneration as a model for developing novel regenerative and anticancer therapies.” *Journal of Cancer* vol. 5,8 715-9. 20 Sep. 2014, doi:10.7150/jca.9971

Nowoshilow, Sergej, et al. “The Axolotl Genome and the Evolution of Key

Tissue Formation Regulators.” *Nature News*, Nature Publishing Group, 24 Jan. 2018, www.nature.com/articles/nature25458.

Roy, Stéphane, and Mathieu Lévesque. “Limb regeneration in axolotl: is it superhealing?.” *TheScientificWorldJournal* vol. 6 Suppl 1 12-25. 5 May. 2006, doi:10.1100/tsw.2006.324

Rodríguez-Rodríguez, Diana Raquel et al. “Genome editing: A perspective on the application of CRISPR/Cas9 to study human diseases (Review).” *International journal of molecular medicine* vol. 43,4 (2019): 1559-1574. doi:10.3892/ijmm.2019.4112.

The Essential Puzzle Piece of Accurate Genetic Editing: Reduction of Off-Target Effects
Presenter: Sarath Suresh, Cerro Coso College
Mentors: Professors Claudia Sellers and Guck Ooi

Gene-editing technology such as CRISPR/Cas 9 has revolutionized the fields of biology and biomedicine with applications ranging from crop modifications to the detection and treatment of hereditary diseases. However, the high frequency of off-target effects - unwanted mutations and changes outside the targeted specific gene sequence being edited—is a paramount concern. They

can lead to the activation of cancer-causing oncogenes, genome instability, and deadly/unwanted phenotypes such as tumors (Manghwar et al. 4). A number of strategies can be used to combat this in CRISPR editing, including targeting unique sites and using paired Cas 9 nickases.

In RNA-guided endonuclease editing of homologous sites in the genome, of which CRISPR is based, the guide RNA could not differentiate between on-target and off-target sites differing by a single nucleotide. However, by only targeting sites that do not have homologous pairs in the genome, non-specific off-target changes are reduced from 1.6 – 43% to 0 – 1.8% (Cho et al. 134).

Another effective method is to use paired Cas 9 nickases. Conventional editing methods using a single Cas 9 nickase showed high off-target mutation frequencies ranging from 0.5 – 10%, whereas when paired nickases are used, off-target mutations were sufficiently low (0.1%) to be undetectable even by multiple high-throughput sequencing analysis (Cho et al. 136).

The success of the above strategies in eliminating off-target effects in gene editing represents the missing pieces that are required to ensure high accuracy and precision in genome editing technology before their full potential as gene therapeutics can be realized.

References

- Cho, S. W., Kim, S., Kim, Y., Kweon, J., Kim, H. S., Bae, S., & Kim, J. (2013). Analysis of off-target effects of CRISPR/Cas-derived RNA-guided endonucleases and nickases. *Genome Research, 24*(1), 132-141. doi:10.1101/gr.162339.113.
- Kimberland, M. L., Hou, W., Alfonso-Pecchio, A., Wilson, S., Rao, Y., Zhang, S., & Lu, Q. (2018). Strategies for controlling CRISPR/Cas9 off-target effects and biological variations in mammalian genome editing experiments. *Journal of Biotechnology, 284*, 91-101. doi:10.1016/j.jbiotec.2018.08.007.
- Lee, C. M., Cradick, T. J., Fine, E. J., & Bao, G. (2016). Nuclease Target Site Selection for Maximizing On-target Activity and Minimizing Off-target Effects in Genome Editing. *Molecular Therapy, 24*(3), 475-487. doi:10.1038/mt.2016.1.
- Manghwar, H., Li, B., Ding, X., Hussain, A., Lindsey, K., Zhang, X., & Jin, S. (2020). CRISPR/Cas Systems in Genome Editing: Methodologies and Tools for sgRNA Design, Off-Target Evaluation, and Strategies to Mitigate Off-Target Effects. *Advanced Science, 7*(6), 1902312. doi:10.1002/advs.201902312.

Healthcare

America's Secret Epidemic: A Deeper Look into Why Preventable Medical Errors is the Third-Leading Cause of Death

Presenter: Brooke Raghad Alsayed, Irvine Valley College

Mentor: Professor Emily Liu

Known as America's secret epidemic, preventable medical errors is approximated to surpass the mortality rates of the United States' top two causes of death of cancer and heart disease. Consequently, earning itself the title of the third-leading cause of death in the U.S. with an estimated annual death toll of 250,000 lives, according to a 2016 John Hopkins study.

The issue of preventable medical errors has continued to grow unbeknownst to the public because of the CDC's faulty billing codes that do not allow for preventable medical errors to be documented on death certificates. This causes preventable medical errors to be omitted from the national death statistics rankings. Another contributing factor in rendering the problem of preventable medical errors a secret is the underreporting of adverse event death tolls in medical facilities. According to a 2017 study conducted by James Anderson, Professor at Harvard University, "less

than 10 percent of medical errors are reported”.

By not properly reporting and publicizing the alarming death tolls caused by medical errors, government interventions will occur at a slower rate, and more lives will continue to be in harm’s way. The two leading causes of death of heart disease and cancer cannot yet be prevented, but new processes can be put in place to avoid any more lives being taken too soon by preventable medical errors. The proposals of “An Approach to Medical Errors and Patient Safety” and “Improving diagnosis in Medicine Act” are both promising solutions to better data tracking and reporting methods.

Works Cited

Anderson JG; Abrahamson K. “Your Health Care May Kill You: Medical Errors.” *Studies in Health Technology and Informatics*, vol. 234, 2017, pubmed.ncbi.nlm.nih.gov/28186008/. Accessed 13 Apr. 2021.

“H.R.5014 - 116th Congress (2019-2020): Improving Diagnosis in Medicine Act of 2019.” *Congress.Gov*, 2019, [www.congress.gov/bill/116th-congress/house-bill/5014/text?r=49&s=1](https://www.congress.gov/bills/116/congress/house-bills/5014/text?r=49&s=1). Accessed 7 Dec. 2020.

John Hopkins. “Study Suggests Medical Errors Now Third Leading Cause of Death in the U.S. - 05/03/2016.” *Hopkinsmedicine.org*, 2016,

www.hopkinsmedicine.org/news/media/releases/study_suggests_medical_errors_now_third_leading_cause_of_death_in_the_us. Accessed 20 Apr. 2021.

Silverstein, Marc MD “An Approach to Medical Errors and Patient Safety in Laboratory Services” *Citeseerx.Ist.Psu.Edu*, citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.597.741&rep=rep1&type=pdf.

United States, Senate, Committee on Health, Labor, and Pensions. “More than 1,000 Preventable Deaths a Day Is too Many: The Need to Improve Patient Safety.” *Govinfo.Gov*, 2014, www.govinfo.gov/content/pkg/CHRG-113shrg88894/html/CHRG-113shrg88894.htm. Accessed 15 Apr. 2021.

A Vulnerable Population: Late Adolescence and How COVID-19 Stress is Affecting Their Cognitive and Socio-Emotional Development

Presenter: Ruanne Catapang, Los Angeles Pierce College
Mentor: Professor Stacey Lee Longmore

Late adolescence (ages 18-24) is characterized as a time of change, particularly cognitively and socio-emotionally. Because an adolescent’s brain is not fully developed until about the age of 25, their brain is more vulnerable to particular

stressors (Fetterman et al., 2020). According to the National Center for Biotechnology Information (NCBI), “Stressors experienced during this crucial developmental stage may affect the trajectory of this neural maturation and contribute to the increase in psychological morbidities, such as anxiety and depression” (Eiland & Romeo, 2013).

Because many late adolescents are experiencing stressful changes in their environment, daily routines, resources, and responsibilities during COVID-19, the trajectory of their brain maturation is at risk. However, because the maturing late adolescent brain has a type of “developmental plasticity,” adolescents who receive interventions may be able to realign their cognitive and socio-emotional progress (Eiland & Romeo, 2013). Accordingly, this research will focus on analyzing how COVID-19 related stress can affect late adolescents’ cognitive and socio-emotional development. It will also discuss interventions at the individual, family, and community levels, which when implemented, can increase the prevention of negative effects.

For further analysis, this research poster will include the “How is Quarantine Affecting You?” (HQAY) survey distributed to late adolescents. I conducted the HQAY survey in order to closely examine late adolescents’ common and diverse sets of changes and experiences encountered during COVID-19. Peer-reviewed sources utilized throughout this research are used to further link survey respondents’ experiences and stressors to certain cognitive and socio-emotional stages in late adolescence.

Works Cited

- Centers for Disease and Control Prevention. Mental Health and Coping During COVID-19. (2020, April 30). Retrieved May 20, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/managing-stress-anxiety.html>
- Eiland, L., & Romeo, R. D. (2013, September 26). *Stress and the Developing Adolescent Brain*. Retrieved May 20, 2020, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3601560/>.
- Fetterman, A., Campellone, J., & Turley, R. K. (2020). *Understanding the Teen Brain*. Retrieved May 20, 2020, from <https://www.urmc.rochester.edu/encyclopedia/content.aspx?ContentTypeID=1&ContentID=3051>.

Sheth, C., McGlade, E., & Yurgelun-Todd, D. (2017, June 18). *Chronic Stress in Adolescents and Its Neurobiological and Psychopathological Consequences: An RDoC Perspective*. Retrieved May 20, 2020, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5841253/>.

Teipel, Kristen (2013, June). *Late Adolescence/Young Adulthood*. Retrieved May 20, 2020, from <http://www.amchp.org/programsandtopics/AdolescentHealth/projects/Documents/SAHRC%20AYA%20Development%20LateAdolescentYoungAdulthood.pdf>.

Benefit of Ketogenic Diet on Alzheimer’s patients Presenters: Farheen Dustagheer, Shawal Bhali; Mt. San Antonio College Mentor: Professor Priyanka Uday

As of 2020, studies show Alzheimer’s, an irreversible and progressive neurodegenerative disease, is the sixth leading cause of increased mortality rates in America (National Institute on Aging, 2019). Currently, there is no cure for the neurodegenerative disease; therefore, it is critical to concentrate on methods of prevention, including dietary choices. The purpose of this literature review is to evaluate the impacts of the ketogenic diet (low

carbohydrate, high fat) on the development of Alzheimer’s disease. In a PET scan of Alzheimer patients, researchers found that part of the brain shows a 40 percent decrease in glucose metabolism but no decrease in the brain’s use of ketones (Cunnane, 2020). A groundbreaking research study shows that reduction of Amyloid- β , which is associated with amyloid plaques formed in the brains of Alzheimer’s patients, decreases one’s risk of developing Alzheimer’s, and the ketogenic diet results in low levels of Amyloid- β (Van Der Auwera et al., 2005). A ketogenic diet would switch the body to a state of ketosis whereby the glucose and insulin level decreases to use ketone and fat accessible to the person. This change in diet reduces the risk of diabetes which, in turn, can increase one’s ability to think and memorize and decrease the chances of experiencing mild connective impairment. Interestingly, the effects of a ketogenic diet are not restricted to the prevention of Alzheimer’s disease, as they also apply to other neurodegenerative diseases such as Parkinson’s Disease. Further implications of the ketogenic diet to prevent neurodegenerative diseases is discussed.

References

- Van der Auwera I, Wera S, Van Leuven F, Henderson ST. A ketogenic diet reduces amyloid beta 40 and 42 in a mouse model of

Alzheimer's disease. *Nutr Metab (Lond)*. 2005 Oct 17;2:28. doi: 10.1186/1743-7075-2-28. PMID: 16229744; PMCID: PMC1282589.

Eagan, M. K., Stolzenberg, E. B., Zimmerman, H. B., Aragon, M. C., Whang Sayson, H., & Rios-Aguilar, C. (2017). "The American Freshman: National Norms Fall 2016." Los Angeles: Higher Education Research Institute, UCLA.

National Institute on Aging (2019). "Alzheimer's Disease Fact Sheet." <https://www.nia.nih.gov/health/alzheimers-disease-fact-sheet#:~:text=Alzheimer>

The ketogenic diet for Alzheimer's prevention and treatment: Can it help? [Interview by 1064998520 811217957 S. Cunnane Dr.]. (2020, June 30). Retrieved November 18, 2020, from <https://www.dietdoctor.com/low-carb/benefits/alzheimers>.

The link between diabetes and Alzheimer's. (2019, May 22). Retrieved November 18, 2020, from <https://www.mayoclinic.org/diseases-conditions/type-2-diabetes/in-depth/diabetes-and-alzheimers/art-20046987>.

Innovative and Minimal Magnetic Assistive Thumb Brace for Joint Instability
Presenter: Maria Rosa Cervantes, San Bernardino Valley College
Mentor: Professor Anthony Blacksher

Patients with thumb instability often have lax tendons at the metacarpophalangeal (MCP) joint, causing hyperextension. Hyperextension can lead to joint damage and injuries, decreasing the strength needed for grip and pinching. This MCP joint constructs majority of hand dexterity through a combination of stability and flexibility (Benson 2020). The joint is too flexible to allow for correct positioning of the thumb (Cotungo et al., 2017). Current treatments include bulky and expensive braces that hinder the six movements: abduction, adduction, extension, flexion, opposition, and reposition. Other treatments include invasive surgery for soft tissue repositioning or fusing the MCP joint, which restricts three movements.

Common splints include custom silver ring and prefabricated splints while limiting the six movements of the thumb. Through using an innovative assistive brace, the thumb metacarpophalangeal joint can maintain the six movements with added strength and stability. This method involves surgery where a small magnet, similar to the magnet for a cochlear implant, would be

placed on the posterior and farthest lateral position of the MCP joint. Similar to the coil in the headpiece of the cochlear implant, a coil would be used as a hinge in the thumb brace. The brace composed of flexible yet sturdy plastic, like low density polyethylene (ldpe), Y-shaped around the MCP joint. Through using ldpe plastic, this allows for a cost-effective and accessible brace. For this reason, using this magnetic assistive brace will provide strength and stability without impedance of the MCP movements while providing an alternative method to braces and surgeries.

References

Benson DC, Graefe S, Varacallo M. Anatomy, Shoulder and Upper Limb, Metacarpophalangeal Joints. [Updated 2020 Aug 21]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK538428/>
Nanayakkara VK, Cotugno G, Vitzilaios N, Venetsanos D, Nanayakkara T and Sahinkaya MN (2017) The Role of Morphology of the Thumb in Anthropomorphic Grasping: A Review. *Front. Mech. Eng.* 3:5. 9 June 2017, doi: 10.3389/fmech.2017.00005

Sprouse RA, McLaughlin AM, Harris GD. Braces and Splints for Common Musculoskeletal Conditions. *Am Fam Physician*. 2018 Nov 15;98(10):570-576. PMID: 30365284.

“Cochlear Implant (CI) Magnet.” *Nationwide Children's Hospital*, www.nationwidechildrens.org/family-resources-education/health-wellness-and-safety-resources/helping-hands/cochlear-implant-ci-magnet.

A Comparative Approach to the Treatment Options for Median Arcuate Ligament Syndrome
Presenter: Morgan Reyes, Orange Coast College
Mentor: Professor Michael Sutliff

Affecting approximately 0.4% of the world's population (Kaszczewski et al., 2020), median arcuate ligament syndrome is a largely debated topic within the medical research community. While most doctors recognize this rare condition as a compression of the celiac artery, there is uncertainty regarding the origin of patient pain. Researchers and physicians approach the problem with two theories: symptoms are the result of decreased blood flow to the abdomen, or symptoms can be attributed to damaged nerves near the celiac artery (Gander et al., 2010). This split consensus leads to varying surgical

approaches, and places symptomatic patients in a vexing position to decide between two surgical methods. A laparoscopic procedure cuts fibers that constrict the celiac artery thereby increasing oxygen-rich blood to the abdomen. A second option is an open surgery where inflamed celiac plexus nerve tissue is removed in combination with the release of the celiac artery (The Vascular Experts, 2020). The purpose of this project is not only to compare the two treatment options but also to demonstrate the need for further research and education. This project's research methods included case study analysis, patient surveys, and patient interviews. Results determined that but both surgeries provide favorable outcomes, but a lack of data makes comparison impossible at this time. Patients are suffering because the medical profession lacks understanding of this condition; education and training are therefore of greatest importance in improving the quality of life for these individuals.

References

Gander, Sarah, et al. “Recurrent Abdominal Pain and Weight Loss in an Adolescent: Celiac Artery Compression Syndrome.” *Canadian Journal of Gastroenterology*, vol. 24, no. 2, 2010, pp. 91–93. Crossref, doi:10.1155/2010/534654.

Jimenez, Juan Carlos, et al. “Open and Laparoscopic Treatment of Median Arcuate Ligament Syndrome.” *Journal of Vascular Surgery*, vol. 56, no. 3, 2012, pp. 869–73. Crossref, doi:10.1016/j.jvs.2012.04.057.

Kaszczewski, Piotr, et al. “Combined Treatment of Multiple Splanchnic Artery Aneurysms Secondary to Median Arcuate Ligament Syndrome: A Case Study and Review of the Literature.” *American Journal of Case Reports*, vol. 21, 2020. Crossref, doi:10.12659/ajcr.926074.

The Vascular Experts. “Median Arcuate Ligament Syndrome.” *The Vascular Experts*, 26 Nov. 2019, www.thevascularexperts.com/median-arcuate-ligament-syndrome.

Tulloch, Allan W., et al. “Laparoscopic versus Open Celiac Ganglionectomy in Patients with Median Arcuate Ligament Syndrome.” *Journal of Vascular Surgery*, vol. 52, no. 5, 2010, pp. 1283–89. Crossref, doi:10.1016/j.jvs.2010.05.083.

Trends in Worldwide COVID-19 Cases and Deaths: Exploring Roles for Fundamental Mathematical Models

**Presenter: Janet Teng,
Pasadena City College**

Mentor: Professor Edward Ham

As the novel coronavirus disease 2019 (COVID-19) spreads globally, the creation of mathematical models allows policymakers and scientists to make predictions and consider possible interventions to combat the pandemic. However, constructing a model that best resembles existing data while accurately estimating potential future cases is challenging. Nonetheless, one can identify the overall trends of worldwide COVID-19 cases and deaths by deriving basic exponential, logistic, and linear models.

While disease outbreaks are inherently random, they share identical characteristics (Thompson, 00:26:41 - 00:26:42). This study of worldwide COVID-19 cases and deaths explores whether this unique trait still holds true. Towards the initial stages of an epidemic, an exponential function best depicts the behavior of the increasing number of infections, where “the number of infections is...substantial, but recoveries and deaths are...negligible” (Bertozzi et al.). Over time, the infection rate begins to slow down as it approaches the carrying

capacity, where the maximum number of infections is reached, which would resemble a logistic growth. However, the exponential behavior of the number of deaths will evolve to appear linear as an increasing number of people recover and gain immunity over time.

In this study, several methods are applied to attain the best fitting models while predicting growing COVID-19 cases and deaths worldwide. Through fundamental models such as linear, exponential, and logistic functions, the public can better understand the given statistics to make accurate predictions of the disease while policies can be formed to decrease the rate of infections and deaths by understanding said models’ behaviors.

References

Bertozzi, Andrea L, et al.

“The challenges of modeling and forecasting the spread of COVID-19.” *Proceedings of the National Academy of Sciences of the United States of America*, 2020, <https://doi.org/10.1073/pnas.2006520117>.

Accessed 30 November 2020.

Romano, Alessandro, et al.

“The Scale of COVID-19 Graphs Affect Understanding, Attitudes, and Policy Preferences.” *Social Science Research Network*, Apr. 2020, <dx.doi.org/10.2139/ssrn.3588511>.

Thompson, Robin N. “How do mathematicians model infectious disease outbreaks?” *YouTube*, uploaded by Oxford Mathematics, 8 April 2020, https://youtu.be/m6Hr69JH_wA.

Thompson, Robin N. “Novel Coronavirus Outbreak in Wuhan, China, 2020: Intense Surveillance Is Vital for Preventing Sustained Transmission in New Locations.” *Journal of clinical medicine* vol. 9,2 498. 11 Feb. 2020, doi:10.3390/jcm9020498. Accessed 30 November 2020.

Zeb, Anwar, et al.

“Mathematical Model for Coronavirus Disease 2019 (COVID-19) Containing Isolation Class.” *BioMed Research International*, June 2020, pp. 1–7. *EBSCOhost*, doi:10.1155/2020/3452402.

E-Heart Attack Watch-App Presenter: Berenice Tovar, Los Angeles Harbor College

**Mentors: Professors
Jochin Arias and Glenna
Sowa**

The most dangerous leading cause of death for men, women, and people of most racial and ethnic groups in the United States is heart disease. The most common

type of heart disease is coronary artery disease, which leads to a heart attack. According to investigations developed by the Centers for Disease Control and Prevention (CDC), the probability of suffering a heart attack has been increasing for the past 80 years, is a significant risk that targets everyone. Heart disease has caused many health-expenses with an estimated cost of 151.6 billion dollars in direct and indirect costs from the year 2007 to our actual days. There is a solution to assist this worrying health problem and is based effectively on promoting traditional e-resources (Canuel 138). The mHealth apps are diverse and described as falling into one of four different types: informational, diagnostic, control, and adapter apps (Wagner 103). The solution for this health issue and reduction of estimated costs of direct and indirect health expenses is a mHealth app. This app will be a diagnostic and control app with specific software that receives commands from a smartwatch, that helps monitor heartbeats and blood pressure. Its purpose is to detect abnormalities in the user's heartbeats or blood pressure. Developing this project will help individuals with heart problems and those who are at risk. Health organizations will also benefit from this innovative project because it will help them reduce the estimated costs of direct and indirect

health expenses related to this specific disease.

Works Cited

- Canuel, Robin, et al. "Apps for Academic Success: Developing Digital Literacy and Awareness to Increase Usage." *Education for Information*, vol. 33, no. 3, July 2017, pp. 135–152. *EBSCOhost*, doi:10.3233/EFI-160085.
- Chalmers, John, and Neil Chapman. "Challenges for the Prevention of Primary and Secondary Stroke. The Importance of Lowering Blood Pressure and Total Cardiovascular Risk." *Blood Pressure*, vol. 10, no. 5/6, Oct. 2001, pp. 344–351. *EBSCOhost*, doi:10.1080/080370501753400647.
- Hadaegh, Farzad, et al. "Systolic and Diastolic Blood Pressure, Mean Arterial Pressure and Pulse Pressure for Prediction of Cardiovascular Events and Mortality in a Middle Eastern Population." *Blood Pressure*, vol. 21, no. 1, Feb. 2012, pp. 12–18. *EBSCOhost*, doi:10.3109/08037051.2011.585808.
- Jing Fang, et al. "Prevalence of Coronary Heart Disease-United States, 2006-2010." *JAMA: Journal of the American Medical Association*, vol. 306, no. 19, Nov. 2011, pp. 2084-86,2086. *EBSCOhost*, search.ebscohost.com/login.aspx?direct=true&db=

a9h&AN=67366722&site=ehost-live.

- Wagner, Jennifer K., et al. "The Federal Trade Commission and Consumer Protections for Mobile Health Apps." *Journal of Law, Medicine & Ethics*, vol. 48, Mar. 2020, pp. 103-14. *EBSCOhost*, doi:10.1177/1073110520917035.

Literature

A Psychoanalytic Interpretation of Dreams in British Epic Poetry
Presenter: Sarah Lainez,
Rio Hondo College
Mentor: Professor Marie Eckstrom

Although dream theory remains an elusive subfield in psychology, the works of Freud and Jung have established dreams as imaginative manifestations of the unconscious mind which mirror one's desires, beliefs, and even fears. Dreams often exhibit symbolic significance in literature. In Book I of *The Faerie Queene* by Edmund Spenser, the sorcerer Archimago conjures spirits to corrupt the holy Redcrosse Knight by sending sexually tempting dreams. The Knight's internal conflict during the temptation is reflective of the disturbance caused in the psyche when confronted with repressed desires that contradict one's core beliefs. In Book V of John Milton's *Paradise Lost*, Satan sends a dream to Eve in order to corrupt humanity. Similarly, Eve's prelapsarian

dream in which she eats from the Tree of Knowledge functions primarily as a Freudian revelation of subconscious desires. Adam's dream of meeting God in Book VIII is a Jungian example of Adam's individuation process because his dialogue with God reinforces who he is as a human. The experiences of Eve and the Redcrosse Knight exhibit dreams as uncomfortable confrontations with desire, whereas Adam's experience is primarily a spiritual awakening. In observing these dreams and how characters react to them, one can assert that understanding the mind of a character is fundamental when interpreting an entire text. Furthermore, the dreams in both epic narratives psychologically impact each character. These psychological inner-conflicts and revelations are reflective of the sociocultural norms, political context, and religious values in Spenser's Elizabethan England and Milton's Restoration-era England.

Works Cited

Cavanagh, Sheila T.
 "Nightmares of Desire: Evil Women in 'The Faerie Queene.'" *Studies in Philology*, vol. 91, no. 3, 1994, pp. 313–38. *JSTOR*, www.jstor.org/stable/4174492.

Freud, Sigmund. *The Interpretation of Dreams: The Complete and Definitive Text*. Translated by James

Strachey, 1st edition, Basic, 2010.

Jung, C.G. *Dreams: (From Volumes 4, 8, 12, and 16 of the Collected Works of C. G. Jung)*. Edited by Sonu Shamdasani, Princeton University Press, 2010.

Montrose, Louis. "Spenser and the Elizabethan Political Imaginary." *ELH*, vol. 69, no. 4, 2002, pp. 907–46. *JSTOR*, www.jstor.org/stable/30032050.

Wiznura, Robert. "Eve's Dream, Interpretation, and Shifting Paradigms: Books Four and Five of 'Paradise Lost.'" *Milton Studies*, vol. 49, 2009, pp. 108–23. *JSTOR*, www.jstor.org/stable/26395900.

Political Science

An Analysis of Low Voter Turnout

Presenter: Isabelle Antaran (Exemplary Achievement Award), College of San Mateo
Presenter: Professor Jeremy Ball

American democracy is promised in the United States Constitution with the right to vote, yet the country has one of the worst voter turnouts among established democracies. As voter turnout indicates citizens' political participation, it also reflects upon the State's democracy. This research aimed to analyze the nature of the country's low voter turnout from the non-voters' perspective.

My research observed discrepancies in the claim that people who strongly identify themselves with a social group increase turnout due to their development of group consciousness. Based on the claim, minority groups are expected to have the highest turnout. However, statistics debunk this claim, as white middle-aged men significantly contribute to a higher turnout than minority groups.

This project critically challenges the assumption that non-voters are uneducated or apathetic to politics. As non-voters were primarily from minority groups, their responses reflected common themes such as lack of faith in the democratic system, underrepresentation amongst the candidates, skepticism about the potential for change, and a sense of powerlessness over their current circumstances.

The minority groups faced unjust experiences through different administrations, which consequently led to their learned helplessness to the voting system. They are aware that they cannot attain systematic change by complying with the voting system. The elections have become a form of false consciousness wherein political and cultural agendas became a norm that does not demonstrate democracy but sustains oppression. Thus, I argue that the minority groups' choice of opt-out voting represents their voice

and fight against the system for change.

References

- DeSilver, D. (2015, May 6). In past elections, U.S. trailed most developed countries in voter turnout. Retrieved November 7, 2020, from <https://www.pewresearch.org/fact-tank/2020/11/03/in-past-elections-u-s-trailed-most-developed-countries-in-voter-turnout/>
- Haar, B. T. (2018). Government of the people, by the people, for the people. Retrieved November 6, 2020, from <https://www.clingendael.org/publication/government-people-people-people>
- Harder, J. & Krosnick, J. (2008). Why Do People Vote? A Psychological Analysis of the Causes of Voter Turnout. *Journal of Social Issues*, 64(3), 525-549.
- Hill, L. (2006). *Low Voter Turnout in the United States*. *Journal of Theoretical Politics*, 18(2), 207–232. doi:10.1177/0951629806061868
- US Census Bureau. (2017, May 10). Voting in America: A Look at the 2016 Presidential Election. Retrieved November 6, 2020, from https://www.census.gov/newsroom/blogs/random-samplings/2017/05/voting_in_america.html.

Ideological Analysis of Trump's Muslim Ban

Presenter: Meena Manely, Irvine Valley College
Mentor: Professor Stephen Felder

On January 2017, President Trump issued an Executive Order titled, halting all refugee admissions and temporarily barring people from seven Muslim-majority countries. For some the Executive Order is a means to protect the U.S. from radical Islamic terrorist attacks. Others consider it unconstitutional, especially towards religious freedom. In order to fully understand the enigma surrounding the Order, an ideological analysis based on historical overview is paramount. A perceptive definition of ideology comes from Žižek, who argues that ideology serves to sustain the domination of power that is concealed within justifiable means. The advantage offered by this definition in terms of developing an ideological critique for the Executive Order is that it thoroughly discerns and provides a deductive approach that would analyze the societal structures, beliefs and roles played by Muslims, and how their marginalization serve to highlight the hidden ideological motives of the Order. By analyzing through historical context, the contradictory notion of the Order protecting American liberty and constitutionality on the bases of defending America from radicalized terrorism, is actually a hidden

or delusionary context of marginalizing Muslim's in the United States by highlighting two main ideological discourse. Firstly, the hidden incentives of marginalizing Muslims in the U.S, through political policies, is to sustain the religious domination of this notion of a “Christian nation” in the West by resorting to antiterrorist narrative, and secondly, the Order maintains the political interest of the U.S. in the Middle East for economic incentives, such as oil, through continuing its War on Terror.

Works Cited

- Aronoff, Yael S. "In Like a Lamb, out Like a Lion: The Political Conversion of Jimmy Carter." *Political Science Quarterly* (Academy of Political Science), vol. 121, no. 3, Fall 2006, pp. 425-449.
- Downey, L., Bonds, E., Clark, K., “Natural Resource Extraction, Armed Violence, and Environmental Degradation” *Organization & Environment*, 23(4) 417–445, (2010) SAGE Publications. Ebsco Host DOI: 10.1177/1086026610385903, Retrieved from Web, 4/19/17 <http://oae.sagepub.com>
- Haddad, Y. Y. (2001). “Muslims in U.S. Politics: Recognized and Integrated, or Seduced and ---. “Abandoned”? *SAIS Review* Vol. 21(2), 91-

102. The Johns Hopkins University Press.

Retrieved on March 9, 2017, from Project MUSE database.

Roberts, John, et al. "Book Reviews." *Development Policy Review*, vol. 22, no. 4, July 2004, pp. 463-480. EBSCOhost, doi:10.1111/j.1467-7679.2004.00260.x.

Schulz, W. F., (2013) "Blaming Islam", *Human Rights Quarterly*, Volume 35, Number 1, pp. 239-241 (Review) The Johns Hopkins University Press. Retrieved on March 9, 2017, from Project MUSE database. <https://doi.org/10.1353/hrq.2013.0014>.

The Role of Government Trust in Individual Happiness and Perceived Stress

Presenters: Christina Seneviratne, Dolan Canales, Annabelle Cheng; Mt. San Antonio College
Mentor: Professor Misty Kolchakian

The current political climate in the United States is polarizing and seems to create significant distress in many Americans. Previous studies on trust in government and happiness are minimal, and there is a dearth of data from the United States on this possible relationship. Studies in other countries, however, have found that there is a significant relationship between trust in government and happiness. The purpose

of the current study was to determine the relationship between trust in government and perceived stress and happiness in American college students. Trust in government was defined as a global feeling of faith in the government and was not specific to the current administration. In this empirical study, researchers recruited 87 participants (62 females, 24 males, 1 non-binary) from a local community college. Participants completed surveys on opinions of the government, happiness, and perceived stress. Researchers hypothesized a negative correlation between trust in government and perceived stress and a positive correlation between trust in government and happiness. Additionally, the researchers posed a research question to determine which political group (Republicans vs. Democrats) had greater trust in the government. The results of this study did not support the main hypotheses; however, the researchers found a significant difference between the two political parties' trust in the government such that Republicans had higher trust than Democrats. Researchers surmised that this significant difference may be due to the current presidential office being held by a Republican. Suggestions for future research on this topic are discussed in further detail.

References

Cooper, C. A., Knotts, H. G., & Brennan, K. M.

(2008). The importance of trust in government for public administration: The case of zoning. *Public Administration Review*, 68(3), 459-468. Retrieved from <https://libris.mtsac.edu/login?url=https://www-proquest-com.libris.mtsac.edu/docview/197181122?accountid=12611>.

Debnath, R. M., & Shankar, R. (2014). Does good governance enhance happiness: A cross nation study. *Social Indicators Research*, 116(1), 235-253. doi:<http://dx.doi.org.libris.mtsac.edu/10.1007/s11205-013-0275-1>

Fu, X. (2018). The contextual effects of political trust on happiness: Evidence from china. *Social Indicators Research*, 139(2), 491-516. doi:<http://dx.doi.org.libris.mtsac.edu/10.1007/s11205-017-1721-2>.

Matsubayashi, T., & Ueda, M. (2012). Government partisanship and human well-being. *Social Indicators Research*, 107(1), 127-148. doi:<http://dx.doi.org.libris.mtsac.edu/10.1007/s11205-011-9831-8>.

Schiffirin, H. H., & Nelson, S. K. (2010). Stressed and happy? investigating the relationship between happiness and perceived stress. *Journal of Happiness Studies*, 11(1), 33-39. doi:<http://dx.doi.org.libris>

Psychology

The Personalities of Political Identity: Analyzing the Relationship Between Myers-Briggs Type Indicator Traits and Identification with Political Liberalism and Conservatism
Presenter: Kelly Li, Pasadena City College
Mentor: Professor David Uranga

Previous studies recognize that political liberals tend to be more flexible and open to novelty, whereas political conservatives prefer clear answers and incline towards rigidity (Salvi et al., 2016). These preferences parallel personality characteristics found in the four Myers-Briggs Type Indicator trait dichotomies: Extroversion or Introversion, Sensing or Intuitive, Thinking or Feeling, and Judging or Perceiving. Through original research, we expand on previous studies to investigate this parallelism in search for correlations between preferences of the four personality trait dichotomies and dispositions towards either political liberalism or conservatism.

Utilizing voluntary response sampling, Pasadena City College students within the Social Science Division were surveyed to identify their Myers-Briggs personality type and political liberalism or conservatism on

a sliding scale of 1 to 10. 101 responses were analyzed to reveal that introverts were more liberal on average than extroverts with a significance level at $\alpha = .1$ and that perceivers were more liberal on average than judges with a significance level at $\alpha = .05$, while the traits of Sensing, Intuitive, Thinking and Feeling did not exhibit statistically significant results.

Although this study's statistical significance is limited to Pasadena City College students, the results remain applicable to other student populations possessing similar demographics. Through our research, we show a plausible correlation between certain Myers-Briggs personality traits and identification with political liberalism or conservatism. This revelation sparks a curiosity to utilize the Myers-Briggs personality assessments as a universal indicator for political identity; however, further studies are required to determine a conclusive relationship.

The Root of Antisocial Personality Disorder: Nature versus Nurture
Presenter: ZeXi (Alex) Ling, Mt. San Antonio College
Mentor: Professor Misty Kolchakian

The nature versus nurture debate is widely discussed when considering the topic of psychological disorders. This literature review examines several

empirical studies on the topic to help determine whether nature or nurture plays a larger role in the etiology of antisocial personality disorder, also known as APD. Genetic impacts include heredity from parents, change of neurotransmitters in brain functioning, and the change of hormones while environmental impacts would include family environment, parenting, and the social environment. Studies have shown that children or adolescents typically do not demonstrate the symptoms of this disorder until the age of 15, although some children were born with an aggressive personality. Van Beijsterveldt et al (2018), studied thousands of twin pairs in various stages of life (e.g., childhood, adolescence, and adulthood). The study suggested that the environmental impact was non-significant during adolescence and adulthood stages for an individual's chance of developing a personality disorder. On the contrary, the study found that genetics had a considerable impact during the childhood stage. In a different study, researchers found that an adverse environment or a traumatic childhood experience could increase the likelihood of a child developing maladaptive behaviors and possibly even a personality disorder (Lee, Brook, Finch, & Brook, 2016). When taken together, these results indicate both genetics and environment contribute to the cause of

Antisocial Personality Disorder. Implications for future research will be discussed.

References

- Barlow, F. K. (2019). Nature vs. nurture is nonsense: On the necessity of an integrated genetic, social, developmental, and personality psychology. *Australian Journal of Psychology, 71*(1), 68–79. <https://doi.org.libris.mtsac.edu/10.1111/ajpy.12240>
- Sahithya, B. R., Manohari, S. M., & Vijaya, R. (2019). Parenting styles and its impact on children – a cross cultural review with a focus on India. *Mental Health, Religion & Culture, 22*(4), 357–383. <https://doi.org.libris.mtsac.edu/10.1080/13674676.2019.1594178>
- Van Beijsterveldt, C. E. M., Wesseldijk, L. W., Ligthart, L., Bartels, M., Boomsma, D. I., Middeldorp, C. M., & Vink, J. M. (2018). Genetic and environmental influences on conduct and antisocial personality problems in childhood, adolescence, and adulthood. *European Child & Adolescent Psychiatry, 27*(9), 1123–1132. <https://doi.org.libris.mtsac.edu/10.1007/s00787-017-1014-y>
- Lee, J., Brook, J., Finch, S., & Brook, D. (2016). An Adverse Family Environment During

- Adolescence Predicts Marijuana Use and Antisocial Personality Disorder in Adulthood. *Journal of Child & Family Studies, 25*(2), 661–668. <https://doi.org.libris.mtsac.edu/10.1007/s10826-015-0246-z>
- Ashiq, A., Riaz, M. N., & Riaz, M. A. (2018). Direct and Indirect Effect of Childhood Traumatic Experiences on Cluster-B Personality Disorders in Adults. *Pakistan Journal of Medical Research, 57*(4), 160–164.

Religion

Gender Equity in Modern Judaism: The Progression Towards Egalitarian Ideals Presenter: Alexandra Aloni, MiraCosta College Mentor: Professor Jeff Murico

The inclusion of women in official religious positions in synagogues and Jewish communities has led to a positive and progressive transformation of Rabbinic Judaism itself. The modern Judaism we know today dates back to the sixth century after Rabbis emerged and began to teach religious law to the Jewish people. Currently, there are multiple denominations within the one religion, with 41% of Jewish people considering themselves to be reform, 29% as conservative, and 12% as orthodox, making current reform Jews the largest denomination. They are much more open to interpretation of

the Jewish religious texts, and found that in order to benefit from society, they should change or reform their language, food, and clothing in reflection of the times in order to assimilate. As these influences grow to be more in line with Talmudic teachings, it has theologically and morally challenged the history of patriarchy in Judaism that has long silenced the concerns of women. This has opened space for topics more relevant in an increasingly progressive world, with “The Women of the Wall” serving as a metaphor for the evolution seen in religious identity and function. I offer that in order for this tradition to sustain itself, it must follow these changing times. Thus, while there are some traditionalists who disagree with an ongoing egalitarian movement in Judaism, it should be deemed necessary for the survival of an ancient religion in a world that gradually embraces equity.

References

- Auman, K. (2016). Feminism, egalitarianism, Judaism: Where are we headed? *Tradition: A Journal of Orthodox Jewish Thought, 49*(1), 43-48, <http://www.jstor.org/stable/44736765>.
- Lahav, P. (2015). The Women of the Wall: A Metaphor for National and Religious Identity. *Israel Studies Review, 30*(2).

oi:10.3167/isr.2015.3002
04

Laznow. (2014). "Many Women Have Done Nobly, but You Surpass Them All": Life Stories of Women Rabbis Living and Working in Israel. *Nashim: A Journal of Jewish Women's Studies & Gender Issues*, (26), 97.

doi:10.2979/nashim.26.9
7.

Yadgar, Y. (2006). Gender, Religion, and Feminism: The Case of Jewish Israeli Traditionalists. *Journal for the Scientific Study of Religion*, 45(3), 353-370.

doi:10.1111/j.1468-
5906.2006.00311.x

Religion in America: U.S. Religious Data, Demographics and Statistics. (2020, September 09). from <https://www.pewforum.org/religious-landscape-study/religious-tradition/jewish/>.

Sociology

Perceptions of the Police: An Examination of Socioeconomic, Racial, and Communal Factors
Presenter: David Barrios, Mt. San Antonio College
Mentor: Professor Misty Kolchakian

There is a growing area of research that seeks to expand the understanding of how race, ethnicity, and other factors influence public perceptions of the police in America. This literature review sought to explore

these factors in greater detail and analyze the causes of the differences in the perceptions of police by various racial groups. Within the analyzed empirical studies, three main themes that can be attributed to different perspectives of the police emerged: 1) individual race and ethnicity, 2) community demographics, and 3) socioeconomic background. These three themes will be discussed in greater detail throughout this analysis. Due to the complexity of individual factors among White Americans and minorities, no formula or linear relationship can be made to precisely describe the relationship between race/ethnicity and perception of the police. However, as demonstrated by prior research, several interesting findings revealed that racial tension among a community, education and employment, and involuntary contacts with police tended to increase the belief of criminal injustice and the belief that police engage in hassling, racial profiling, and subsequently experience mistrust from the public. In addition, by highlighting the root of dissatisfaction from citizens' view of the police, practical implications can be taken by policymakers and law enforcement to review and restructure policies which are considered discriminatory. In summary, determining how perceptions of the police are generated has valuable practical implications to better the

relationship between citizens and government.

References

Carter, J. S., & Corra, M.

(2018). Seeing discrimination: Does acknowledging structural determinants of inequality impact support for the use of force by police among whites? *Western Journal of Black Studies*, 42(1), 18-28. Retrieved from <https://libris.mtsac.edu/login?url=https://www-proquest-com.libris.mtsac.edu/docview/2256513565?accountid=12611>

Mcneeley, S., & Grothoff, G. (2016). A multilevel examination of the relationship between racial tension and attitudes toward the police. *American Journal of Criminal Justice* : *AJCJ*, 41(3), 383-401. doi:<http://dx.doi.org.libris.mtsac.edu/10.1007/s12103-015-9318-2>

Roles, R., Moak, S. C., & Ten Bensel, T. (2016). Perceptions of police among hispanic immigrants of mexican origin in the southeast united states. *American Journal of Criminal Justice* : *AJCJ*, 41(2), 202-219. doi:<http://dx.doi.org.libris.mtsac.edu/10.1007/s12103-015-9299-1>

Wang, X., Ready, J., & Davies, G. (2019). Race, ethnicity, and perceived minority police presence: Examining perceptions of criminal injustice among

los angeles residents.
Law & Society Review,
53(3), 706-739.
Retrieved from
<https://libris.mtsac.edu/login?url=https://www-proquest-com.libris.mtsac.edu/docview/2283948222?accountid=12611>

Wu, Y. (2014).
Race/ethnicity and
perceptions of the police:
A comparison of white,
black, asian and hispanic
americans. *Policing &
Society*, 24(2), 135.
Retrieved from
<https://libris.mtsac.edu/login?url=https://www-proquest-com.libris.mtsac.edu/docview/1497959827?accountid=12611>.

**The Relationship Between
the Value Placed on
Nonverbal Communication
and Academic Success,
Social Life Satisfaction and
Emotional Intelligence**
**Presenters: Ivy Cabrera
and Jaime Minaya, Mt. San
Antonio College**
**Mentor: Professor Misty
Kolchakian**

According to current
research, nonverbal
communication is the
encoding and decoding of
emotional messages through
the use of nonverbal cues
such as posture, facial
expressions, hand gestures,
and eye contact. The purpose
of the current study was to
measure and identify the
relationship between
nonverbal communication
and social life satisfaction,
emotional intelligence, and

academic success. Results of
previous research showed
there was a positive
correlation between
nonverbal awareness and
relationship satisfaction
(Carambio, 2014). In another
study, Carton, Kessler, and
Pape (2009) found that
nonverbal deficits directly
impacted the well-being of
personal relationships, after
controlling for depression.
Furthermore, based on the
findings of Parker,
Summerfeldt, Hogan and
Majeski (2004), a
relationship between
emotional intelligence and
academic success also exists.
Supported by the findings of
previous research, the
researchers of the current
study hypothesized that there
would be a positive
correlation between
nonverbal communication
and social life satisfaction,
emotional intelligence, and
academic success. In total, 87
participants (24 male, 63
female, 1 non-binary)
enrolled in at least one
psychology course offered by
Mt. SAC completed a series
of surveys on the
aforementioned variables.
Whereas the measure for
nonverbal communication
was generated by the
researchers, the
questionnaires for social life
satisfaction, academic
success, and emotional
intelligence were adapted
from previously published
surveys. Results showed a
positive correlation between
value placed on nonverbal
communication and
emotional intelligence, but

the other hypotheses were not
supported. Implications of the
findings will be discussed.

References

- Boyatzis, C. J., & Satya
prasad, C. (1994).
*Children's facial and
gestural decoding and
encoding: Relations
between skills and with
popularity. Journal of
Nonverbal Behavior*,
18(1), 37–55.
<https://doi.org/10.1007/bf02169078>
- Carambio, P. (2014).
Nonverbal awareness and
relationship satisfaction
in couples (Order
No.3644224). Available
from *ProQuest Central*.
(1624877359). Retrieved
from
<https://libris.mtsac.edu/login?url=https://www-proquest-com.libris.mtsac.edu/docview/1624877359?accountid=12611>
- Carton, J. S., Kessler, E. A.,
& Pape, C. L.
(1999). Nonverbal
Decoding Skills and
Relationship Well-Being
in Adults. *Journal of
Nonverbal Behavior*,
23(1), 91–100.
<https://doi.org/10.1023/a:1021339410262>
- Klinzing, H. G. (2009). The
importance of nonverbal
aspects of
communication in
teaching and the pre- and
in-service teacher
education curriculum.
Retrieved from ERIC
Retrieved from
[https://libris.mtsac.edu/login?url=https://www-proquest-](https://libris.mtsac.edu/login?url=https://www-proquest-com)

com.libris.mtsac.edu/doc
view/61881702?accounti
d=12611

Parker, J. D., Summerfeldt,
L. J., Hogan, M. J.,
& Majeski, S. A.
(2004). Emotional
intelligence and
academic success:
Examining the transition
from high school to
university. *Personality
and Individual
Differences*, 36(1), 163-
172. doi:10.1016/s0191-
8869(03)00076-x.

The Impact of Socioeconomic Status on Depression

Presenter: Aaron

**Patterson, Mount San
Antonio College**

**Mentor: Professor Misty
Kolchakian**

This literature review
examines the impact of
socioeconomic status (SES)
on depression. Factors such
as homelessness, access to
care, physical health issues,
and brain functioning are
evaluated. This paper not
only examines the empirical
research on the link between
SES and depression, but also
explores the role of age in the
relationship between these
two variables. Sareen (2011)
found that participants with a
household income of less
than 20,000 dollars per year
were at increased risk of
mood disorders during the 3-
year follow-up period in
comparison with those with
income of 70 000 dollars per
year. Similar results were
found in a six-year

longitudinal study of 9,589
Canadian adults exploring
risk factors for depression
(Pollack 2016), thereby
demonstrating that depression
in lower income communities
spans beyond the United
States. Another important
factor that helps explain the
link between socioeconomic
status and depression is the
lack of mental health care for
those in a lower SES bracket.
Individuals in lower SES
communities have a much
higher likelihood of being
affected by a mental disorder
than those with a higher
yearly income. On a family
level, poverty can cause
many stressors such as
inability to provide food or
shelter for the family. This
stressor, in some cases, may
lead to child abuse and
neglect which ultimately
impacts the mental health of
all members of the household
(Appio, 2013). This paper
also discusses possible
solutions to improving
mental health for those in
lower SES groups.

References

Alvaredo, Facundo, et al.

“The Top 1 Percent in
International and
Historical Perspective.”
*Journal of Economic
Perspectives*, vol. 27, no.
3, 2013, pp. 3–20.,
doi:10.3386/w19075.

Appio, L. M. (2013). *Poor
and Working-Class
Clients’ Social Class-
Related Experiences in
Therapy* Lauren M.
Appio(Doctoral
dissertation, Columbia

University, 2013) (pp. 1-
261). Ann Arbor, MI:
ProQuest.

Hodgkinson, Stacy, et al.

“Improving Mental
Health Access for Low-
Income Children and
Families in the Primary
Care Setting.” *Pediatrics*,
vol. 139, no. 1, 2016.

Pollack, A. (2016). *Mental
Health in Upper Class
Communities: The
Relationship Between
Subjective Social Class,
Help-Seeking Behaviors,
And Treatment
Barriers*(Doctoral
dissertation, Adler
School of Professional
Psychology, 2013) (pp.
1-167). Ann Arbor, MI:
ProQuest.

Sareen, Jitender.

“Relationship Between
Household Income and
Mental Disorders.” *Arch
Gen Psychiatry*, vol. 68,
no. 4, Apr. 2011, pp.
419–427.

Building Bridges 2022

Biology

Effects of *Candida albicans* Biofilms on *Cutibacterium acnes* and *Staphylococcus epidermidis* Susceptibility to Antibiotics

Presenters: Darya Einollahi, Emilia Leverick, and Cassie Spencer; Saddleback

The objective of this study was to investigate if biofilms formed by *Candida albicans* with either *Cutibacterium acnes* or *Staphylococcus epidermidis* cause decreased susceptibility of the bacteria to antibiotics. It is vital to understand the potential for decreased susceptibility to antibiotics as it may aid physicians in treating bacterial infections more efficiently. Methodology for plating and visualizing bacterial and fungal cultures was explored in this study. The visualization technique that was used to observe whether there was bacteria present around any of the antibiotic chads for both the *S. epidermidis* and *C. acnes* trials included taking samples from the surrounding area of each chad and viewing them under a light microscope. This approach afforded the ability to see if any bacteria was present; however, no definitive conclusions as to whether the biofilms provide any protection for the bacteria against antibiotics were able to be made. This study does

provide evidence suggesting that using Brewer's agar under anaerobic conditions in a 37°C incubator for at least two weeks is the most optimal growth condition for *C. acnes* in a laboratory setting. Since obtaining results for the protective effect of biofilms was not achieved, this research serves as a preliminary study for further investigation into the ability of these polymicrobial biofilms to protect bacteria from antibiotics.

Climate Change

Non-fungible Tokens: How the Immortalization of Digital Media Exacerbates the Effects of Climate Change

**Presenter: Carm Hermosilla, Long Beach City College
Mentor: Professor Jacqueline Romo**

Along with the surge of popularity of non-fungible tokens (NFTs), so do carbon emission rates. Versus a fungible token such as Bitcoin where 1 BTC equals 1 BTC, a non-fungible token associates a digital art piece with its own unique prefabricated crypto token that grants the buyer of the novel NFT rights to ownership (Chohan). However, copyright is reserved for the artist, allowing them to duplicate a base model, slightly alter the art, and sell it as a new NFT. High-end computers are miners, solving puzzles with

the fastest miners obtaining the crypto tokens (Sedlmier). Each transaction counts as a block, metadata including data of previous transactions from a peer-to-peer network, its own hash solution delineated as a string of bits, and the previous transaction's hash. Once high-end computers check the transaction, scrutinizing the smart contract between the seller and buyer, the block is chained to a sequential linear blockchain (Chohan). Monetary assets for NFTs are sanctioned by mainly Ethereum, a blockchain cryptocurrency ledger. The whole process of obtaining a singular block is a quadrillion hash computations, which is averaging about 1000 J (Sedlmier), or 719,087 kilowatts per year. As the price inflates, so does the difficulty of puzzles and the desire for speedier hardware, and deteriorated hardware is subsequently trashed while the installed hardware consumes more energy (Reiff). Artists are compensated 5% of each transaction, which is the epitome of its appeal. However, artists are seeking NFTs with renewable energy and crypto methods are being updated every day.

References

Chohan, U. W. (2021, April 21). *Non-fungible tokens: Blockchains, scarcity, and value*. SSRN. Retrieved December 11, 2021, from

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3822743.

- Gallersdörfer, U., Klaaßen, L., & Stoll, C. (2020, August 4). *Energy consumption of cryptocurrencies beyond bitcoin*. Joule. Retrieved December 11, 2021, from <https://www.sciencedirect.com/science/article/pii/S2542435120303317>.
- Reiff, N. (2021, December 9). *What's the environmental impact of cryptocurrency?* Investopedia. Retrieved December 11, 2021, from <https://www.investopedia.com/tech/whats-environmental-impact-cryptocurrency/>.
- Sedlmeir, J., Buhl, H. U., Fridgen, G., & Keller, R. (2020, June 19). *The energy consumption of blockchain technology: Beyond Myth - Business & Information Systems Engineering*. SpringerLink. Retrieved December 11, 2021, from <https://link.springer.com/article/10.1007/s12599-020-00656-x>.

Education

Undocumented Shouldn't Mean Uneducated: Breaking Barriers by Improving Resource Centers

Presenter: Evelyn Gabriela Martinez Guerra, East Los Angeles College
Mentor: Professor Nadine Bermudez

As undocumented students graduate from K-12, the barriers they face due to

their immigration status continue into their higher education. Inequalities in the educational system prevent them from truly fulfilling the American Dream. Often, the immigrant status of undocumented students constrains their educational experiences and participation in contrast to students that hold citizenship.

Due to the current demographic, social, and political trends in the United States, “higher education institutions have been challenged to review their policies and practices regarding educational opportunities and services for this population. (Barnhardt, C. L. et al. (2017) Some leaders at these higher education institutions have adapted to create a more welcoming and supportive climate for undocumented students by creating physical structures known as Resource Centers. These resource centers focus on access to opportunities for undocumented students, promote civically and community engagement, as well as serve as a source of social and emotional support for undocumented students. Since this is a new development, some resource centers are in the beginning stages of developing effective and an extensive collection of services for this population of students.

The purpose of this study was to identify the best practices of resource centers available to students in the Los Angeles Community

Colleges District. It sought to identify the support services available to undocumented students and how they help to promote educational growth, as well as effectively advocating, supporting, and assisting undocumented students with their academic needs.

Works Cited

- Barnhardt, Cassie L., et al. “The Administration of Diversity and Equity on Campuses and Its Relationships to Serving Undocumented Immigrant Students.” *Journal of Diversity in Higher Education*, vol. 10, no. 1, Educational Publishing Foundation, 2017, pp. 1–10, <https://doi.org/10.1037/a0040025>.
- Cisneros, Jesus, and Alonso R. Reyna Rivarola. “Undocumented Student Resource Centers.” *Journal of College Student Development*, vol. 61, no. 5, Johns Hopkins UP, 2020, pp. 658–62, <https://doi.org/10.1353/cs.d.2020.0064>.
- Cisneros, Jesus, and Diana Valdivia. “‘We Are Legit Now’: Establishing Undocumented Student Resource Centers on Campus.” *Journal of College Student Development*, vol. 61, no. 1, Johns Hopkins UP, 2020, pp. 51–66, <https://doi.org/10.1353/cs.d.2020.0003> (Links to an external site.).
- Flores-González Nilda. *Citizens but Not*

Americans Race and Belonging among Latino Millennials. New York UP, 2018.

Foster Children: An Overlooked Minority in Public Schools and a Proposal to Provide Individual Educational Support

Presenter: Mariah Stensby, Saddleback College
Mentor: Professor Carrie Goulding

Foster children are one of the most disadvantaged, overlooked minorities in the public school system. They consistently rank below national academic standards and peers, and typically continue dropping in percentile rankings each year (Clemens). The root of many of their academic struggles often lies in “early childhood trauma” (Szilagy), a result of their frequently turbulent upbringings, and often surfaces in “attachment problems,” and “toxic stress” that negatively affects their brain development (Szilagy). Despite these learning barriers, there are few programs dedicated solely to the comprehensive educational advancement of foster children. Therefore, it is to be proposed that a new system modeled after an IEP, working in tandem with the foster care system of the child and the board of education of that county, be provided as an individual auxiliary support system for foster children. My research denoted significant Orange County public support for

such a program, with a 95% confidence interval for the true average effectiveness rating of said system to be between 7.6901 to 8.826 for Orange County residents. Thus, there is strong indication that this program would be endorsed, feasible, and easily implementable in Orange County specifically. Although it must actually be implemented and studied in order to ascertain the complete results and overall improvements, there is already a basis for this system as it has been shown that the presence of “one supportive adult” allows foster children to be “more open” and feel motivated to “work” harder in school (Finkelstein 6, 28).

Works Cited

Clemens, Elysia, et al. “The effects of placement and school stability on academic growth trajectories of students in foster care” *Elsevier*, 10 Nov. 2018, <https://www.unco.edu/cebs/foster-care-research/pdf/Academic-Growth-Trajectories.pdf>. Accessed 5 Oct. 2021.

Film

A Look at the Current Nature of Political Elitism and the American People: How *Being There* by Jerzy Kosiński Predicted Our Present
Presenter: Jun (Edward) Zhang, Mount San Antonio College
Mentors: John Norvell, Edgar Muniz

In today’s society, politicians are continuously trying to win our vote by promising lower taxes and improving our economy. We never truly understand, however, the underlying motives behind all these policies. The novel *Being There* (Kosiński 1996) is a satirical work that aims to expose the naïve and greedy nature of the political world. The main character, Chance, is a man who knows nothing about politics or even human relationships, but through coincidences and “chance” finds himself rising in the ranks of the most powerful players in world politics. Through the lens of today’s political climate, in particular, January 6, 2021, attack on the US Capitol (Staples 2021), I argue that the simple-minded Chance’s interactions with the President of the United States, the Russian leader, and the general public ultimately reflect the greedy and ambitious motives of the elites, as well as the fearful and innocent natures of the American people who elect those elites. Much like our most recent businessmen-turned-leaders (Bart 2019), Chance serves as a “blank page,” as the Russian leader refers to him, onto which the opportunistic and selfish intentions of the influential upper class are projected. Chance also represents a beacon of light and channels hope to the general public, which is scared and anxious in the midst of an economic

depression; this allows him to gain supporters and influence (Meyrowitz 2009). Kosinski presciently predicts an absurd world in which a nation of supporters, unable to face the harsh realities of a system that renders them voiceless and unseen, proves capable of following a man who is, himself, being used as a puppet. This tragically exposes the dire consequences and hypocrisies of our world today.

This paper explores the nature of the political elites through the lens of Kosiński's work and the parallels with today's political climate. In my research, I connect the novel to real-world political events, such as the attack on the US Capitol on January 6, 2021, the Trump Administration, and Trump himself, who closely resembles Chance's rise to power. The attack on the US Capitol highlights the innocence of the American people (and their gullibility and naivete). Likewise, Kosiński theorizes that the American people only hear what they want to hear. Like Chance, Donald Trump essentially stumbles his way up to the highest positions in American politics, not through expertise, but through luck and chance alone.

Works Cited

Bart, Peter. "Peter Bart: The Trumpian Hero Of 'Being There' 40 Years Ago Built His Power Base on A Message He Never Understood." *Deadline*, Deadline, 6 Sept. 2019,

deadline.com/2019/08/being-there-movie-40th-anniversary-peter-sellers-donald-trump-1202706505/.

Dixon, Isabel. "Coincidence in the Life of Kosinski Chauncey Gardiner: Some Metaphorical Considerations." *The Music of Chance: Exploring the Principles of Cosmic Governance and Happenstance*, Black Swan, 2015, pp. 39–51.

Kosinski, Jerzy. *Being There*. Black Swan, 1996.

Meyrowitz, Joshua. "We Liked to Watch: Television as Progenitor of the Surveillance Society." *The ANNALS of the American Academy of Political and Social Science*, vol. 625, no. 1, 2009, pp. 32–48., doi:10.1177/0002716209339576.

Staples, Brent. "The Myth of American Innocence." *The New York Times*, The New York Times, 9 Jan. 2021, www.nytimes.com/2021/01/09/opinion/capitol-attack-racism-america.html.

Gender/Sexuality Queer Public Spaces in Los Angeles: A Study About the Functionality of Open to Public Spaces Used by the Queer Community Presenter: Pau Brunet-Fuertes, Los Angeles City College

Public space research focuses on the spaces outside the house and the different ways individuals experience

and access them. These open spaces include parks, streets, businesses, and community spaces. A significant number of studies have analyzed the characteristics by which public spaces are used through gender binary perspectives. However, the rise of acceptance of non-binary and non-gender-conforming identities has re-directed the spotlight to a community wherein Queer constructions and their spaces achieve a significant meaning. As the world functions around binary gender and sexual constructions, queer communities have an extreme urgency to create their own spaces wherein to express themselves. Queer members defy binary constructions of gender and sexuality and build their identity through a flexible understanding of themselves. For scholar Petrus Liu, the intersection of materialism and queer theory allows analyzing social structures through material elements related to economy, market, and urbanization. As society is genderized, queer individuals face "significant barriers and structural inequalities" like legal documents, healthcare, or a particular relation with public spaces (Liu, 2020, p31).

Los Angeles created a healthy and multicultural queer community with a strong relationship with Latinx, Latino, and Native American members, and includes a significant number of migrants from other countries. Queer spaces in

Los Angeles are built around functions that respond to emotional support and safety, and allow the community to perform their identities. These needs demand in both public space and queer theory research a critical investigation of how the LGBTQ community experiences and accesses public spaces to understand their functionality and uniqueness from a non-binary perspective.

References

- Liu, P (2020). Queer theory and the specter of materialism. *Social Text* 145, Vol.38. Ed. David L Eng, Jasbir K. Puar. Duke University Press.
- Marcus, S (2005). Queer theory for everyone: A review essay. *Signs*, Vol 31, No.1, pp 191-218.

Healthcare

Putting the Care Back in Healthcare: Methods to Reduce Opioid Over-Prescription

Presenter: Talar

Chadarevian, Glendale Community College

Mentor: Professor Michael Harnett

While opioids are frequently prescribed for their pain-relieving remedies, they also come with various harmful side effects, such as neurological disorders and addiction. Studies have shown that the over-diagnosis of medicinal opioids, post-surgically, has led to major epidemics, abuse, and addiction. A recent study

found that the prescription of opioids has quadrupled since 1999 and risen proportionally to the number of overdoses each year (Hah, *et al.* 1733). Though “Many measures have been taken to improve prescribing behavior,” there are still extensive changes that could be made to decrease the unnecessary prescribing of opioids (De Vries 577).

Many elements influence which medications get prescribed to patients; however, untoward prescribing still occurs often. According to research, one of the most prominent contributors to this problem is that “Medical students are not always trained adequately on pharmacology” (De Vries 577). My study proposes solutions to opioid over-prescription through methods of improving pharmacological education in medical school, and incorporating more thorough prescribing guidelines, such as improved patient profiling to determine the appropriateness of prescribing opioids.

In my research, I directed a case study by conducting an interview to get a deeper understanding of how physicians are trained to prescribe opioids and how they would feel if my proposed solutions were implemented. From the interview, I was able to conclude that implementing my proposed methods would help physicians better prescribe opioids, which would contribute to

decreasing opioid over-prescription, as well as promoting physicians’ prescribing only the best possible medication needed for their patients.

Works Consulted

- Aronson, J. K. “A Prescription for Better Prescribing.” *British Journal of Clinical Pharmacology*, Blackwell Science Inc, May 2006, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1885053/>.
- De Vries, T P. “Presenting Clinical Pharmacology and Therapeutics: General Introduction.” *British Journal of Clinical Pharmacology*, vol. 35, iss. 6, 1993, pp. 577-9. doi:10.1111/j.1365-2125.1993.tb04184.x
- Dfitzgerald. “California Physician Professional Licensing Guide.” *Upwardly Global*, 14 June 2021, <https://www.upwardlyglobal.org/california-physician-professional-licensing-guide/>.
- Hah, Jennifer M., *et al.* “Chronic Opioid Use After Surgery: Implications for Perioperative Management in the Face of the Opioid Epidemic,” *Anesthesia & Analgesia*, vol. 125, iss. 5, November 2017, pp. 1733-1740. doi: 10.1213/ANE.0000000000002458.
- Howley, Lisa, *et al.* “Addressing the Opioid

Epidemic: U.S. Medical School Curricular Approaches.” *AAMC*, <https://www.aamc.org/data-reports/analysis-brief/report/addressing-opioid-epidemic-us-medical-school-curricular-approaches>.

Literature

A Journey of Faith: The Dualistic Nature of Heaven and Hell in Dante’s *The Divine Comedy*

Presenter: Thomas

Ramirez, Los Angeles City College

Mentors: Professor Danielle Muller

The duality of good and evil that Heaven and Hell represent in Dante Alighieri’s *The Divine Comedy*, exist symmetrically and symbiotically. According to Dante theorist Joan M. Ferrante, the symmetry involved in Hell and Heaven result from Heaven representing light and God’s presence, while Hell exists in darkness in the absence of God (Ferrante 457). This concept is also illustrated in Dante’s use of the Ptolemaic system which depicts Hell at the furthest point from Heaven. The use of symmetry is seen in Dante’s allusion to the holy trinity existing in opposite forms throughout Hell. The symbiotic nature of Hell and Heaven determine that Lucifer exists to illustrate how darkness and anguish are born out of the divine.

As Dante’s spiritual journey through Hell depicts

God’s absence, the construct of Hell is seen as a realm for allegorical punishment (Priest 114) that Dante must navigate with the aid of Virgil who comes to represent human reason (Fergusson 50). Due to God’s absence from Hell, Dante’s journey becomes a representation of human faith being guided by reason.

Through researching Dante’s use of the Ptolemaic system, the holy trinity, and Dante’s relationship with the character of Virgil, I demonstrate how these contextual aspects of *The Divine Comedy* illustrate Hell as an inversion of Heaven while depicting Dante and Virgil’s relationship as a representation of human reason guiding human faith towards divine fate.

Works Cited

Fergusson, Francis. *Dante’s Drama of the Mind: A Modern Reading of the Purgatorio*, Princeton UP, 1953. EBSCOhost, <https://search.ebscohost.com/login.aspx?direct=true&db=e900xww&AN=1078532&sitehost-live>.

Ferrante, Joan M. “The Relation of Speech to Sin in the Inferno.” *Dante Studies with the Annual Report of the Dante Society*, vol. 87, no. 87, The Dante Society of America, State University of New York, 1969, pp. 33–46. <http://www.jstor.org/stable/40166110>.

Ferrante, Joan M. “Malebolge (Inf. Xviii–Xxx) as the Key to the

Structure of Dante’s ‘Inferno.’” *Romance Philology*, vol. 20, no. 4, University of California Press, 1967, pp. 456–66, <http://www.jstor.org/stable/44940285>.

Haxwell, Frances. “Dante’s Divine Comedy and Modern Depth Therapy.” *Psychodynamic Practice*, vol. 21, no.1, Feb. 2015, pp. 36–52 EBSCOhost, doi:10.1080/14753634.2014.989713.

Kirkham, Victoria.

“‘Contrapasso’: The Long Wait to Inferno 28.” *MLN*, vol. 127, no. 1, Johns Hopkins UP, 2012, pp. S1–S12, <https://doi.org/10.1353/mln.2012.0028>.

Priest, Paul. “Looking Back from the Vision: Trinitarian Structure and Poetry in the ‘Commedia.’” *Dante Studies, with the Annual Report of the Dante Society*, no. 91, Johns Hopkins UP 1973, pp. 113–30, <http://www.jstor.org/stable/40166158>.

Medicine

Sustainable Practices in Allopathic Medicine—The Effects of Secondary Pollutants on Neuropsychiatric Disorders **Presenters: Sebastian Pinte, Jonathan Monroe; Santiago Canyon College** **Mentor: Professor Tiffany Gause**

The objective of this study was to explore the intersectionality between air

pollution and mental health issues in residents of California. Although efforts have been made to reduce pollution in California, there has been an influx of pollutants such as ozone and particulate matter permeating their way into the atmosphere we breathe in. This has scientists pondering over whether or not primary and secondary pollutants have more sinister effects on humans aside from visual disparities like photochemical smog.

Past research from Denmark and the University of Chicago has indicated that areas of denser air pollution are conducive to yielding higher rates of depression, anxiety, and ADHD in children and adults (Khan, 2019). Exposure to environmental pollutants during the early stages of a person's life can also potentially cause neuroinflammation. The function of the human brain alters from prolonged exposure to the abundance of pollutants littered throughout the atmosphere—catalyzing prospective mental health issues. These prominent issues of internal anatomy begin in the womb; fetal development can be hindered by the mother's exposure to pollution (Ahmed, 2022).

The environment is an essential component of human prosperity, yet humans exploit it to gain artificial prosperity. This exploitation of resources could trigger neuropsychiatric disorders,

deriving from the waste that surrounds the earth's atmosphere. A vast portion of previous sustainable medicine studies doesn't address the essential relationship between secondary pollutants and mental health in particular states. Despite the efforts of passed legislation protecting the environment, sources of pollution remain at large—facilitating numerous mental health disorders in each emerging generation.

Data was compiled from both the Environmental Protection Agency and the World Health Organization to compare/contrast air quality statistics and neuropsychiatric disorders. After analyzing the graphs between rates of serious mental illness in children and adults with ozone and PM10 levels in California, there was a transparent correlation between the two variables. The results concluded that areas of high secondary pollutants such as LA, IE, and San Joaquin counties experienced higher rates of neuropsychiatric disorders compared to their less polluted counterparts such as the Bay Area and Central Coast. On this basis, it is recommended to take into consideration the limiting factors of the study such as location, nonresponse bias, correlational research, and lack of mental health resources. Further implications and future research should entail experimental designs, specific parameters, and

variability in demographics to enhance the validity of the relationship between secondary pollutants and neuropsychiatric disorders.

References

- Ahmed, S. M., Mishra, G. D., Moss, K. M., Yang, I. A., Lycett, K., & Knibbs, L. D. (2022). Maternal and Childhood Ambient Air Pollution Exposure and Mental Health Symptoms and Psychomotor Development in Children: An Australian Population-Based Longitudinal Study. *Environment International*, *158*, 107003. <https://doi.org/10.1016/j.envint.2021.107003>.
- Gurevich, R. (2020). Restorative Commons as an Expanded Ethical Framework for Public Health and Environmental Sustainability. *New Bioethics*, *26*(2), 125–140. <https://doi-org.sccollege.idm.oclc.org/10.1080/20502877.2020.1767917>.
- Hahad, O., Lelieveld, J., Birklein, F., Lieb, K., Daiber, A., & Münzel, T. (2020). Ambient Air Pollution Increases the Risk of Cerebrovascular and Neuropsychiatric Disorders through Induction of Inflammation and Oxidative Stress. *International Journal of Molecular Sciences*, *21*(12), 4306. <https://doi-org.sccollege.idm.oclc.org/10.3390/ijms21124306>

Khan, A., Plana-Ripoll, O., Antonsen, S., Brandt, J., Geels, C., Landecker, H., Sullivan, P. F., Pedersen, C. B., & Rzhetsky, A. (2019). Environmental pollution is associated with increased risk of psychiatric disorders in the US and Denmark. *PLoS Biology*, 17(8), 1–28. <https://doi.org/sccollege.idm.oclc.org/10.1371/journal.pbio.3000353>

Lux, H., Baur, X., Budnik, L. T., Heutelbeck, A., Teixeira, J. P., Neumann, E., Adliene, D., Puišo, J., Lucas, D., Löndahl, J., Damialis, A., Goksel, O., & Orru, H. (2020). Outdoor air pollution from industrial chemicals causing new onset of asthma or COPD: a systematic review protocol. *Journal of Occupational Medicine & Toxicology*, 15(1), 1–10. <https://doi.org/sccollege.idm.oclc.org/10.1186/s12995-020-00289-6>

Music

Moving Away from Machismo: Bad Bunny Skillfully Battles Toxic Masculinity in Society Through His Music
Presenter: Cynthia Solis, East Los Angeles College
Mentor: Professor Nadia Swerdlow

Many art theorists have proposed ideologies that focus on how art influences cultural change. For instance,

Kandinsky argues that artists have a duty to acknowledge their “inner need” to communicate their truth, regardless of how hard their lives may be, to effect social change. Reggaeton artist, Bad Bunny, is an example of the artist Kandinsky outlined. Bad Bunny is committed to battling toxic masculinity throughout his career, but it has not been easy for him. Although he has experienced prejudice surrounding the idea of “machismo” and what it means to be a man in Latin communities, he continues to advocate for men, women, and society through his music. Is it possible for the arts to inspire change for issues ingrained in the culture, such as masculinity, mistreatment of women, and gender identity issues that popular music continuously deems appropriate? My research explores the possibility of artists like Bad Bunny producing a genuine change in our world. I compare him to his counterparts who fuel the “machista” ideology, thus creating a lifelong cycle of inequality. Bad Bunny does adapt his musical and performance form and is in fact changing the norm through various elements including dressing and accessorizing in a gender non-conforming manner, advocating/supporting women in his music, and encouraging his fans to take steps to do the same. My research will demonstrate these opposing influences impact on listeners and that

the arts can effect meaningful and long lasting social change and equality.

Methodology

1) To conduct my research, I gathered primary sources that focused on Bad Bunny’s articulation of his reasoning behind his social intentions and his artistic and personal choices that foster social change.
 2) Primary sources include YouTube, interview sites and Bad Bunny’s music, lyrics and performance choices.
 3) The inclusion of scholarly sources support how an artist’s choices can impact social change.
 4) I utilized art theorists such as Kandinsky and Langer to place my argument within a long tradition of artists and theorists who believe the primary function of art is to depict a world that is dynamic and changing for the betterment of human life.

Works Cited

Chang, J. (2009, October 12). *It's a hip-hop world*. Foreign Policy. Retrieved November 30, 2021, from <https://foreignpolicy.com/2009/10/12/its-a-hip-hop-world/>.
 Kandinsky, Wassily. “Concerning the Spiritual in Art.” *Google Books*, Courier Corporation, 20 Apr. 2012, books.google.com/books/about/Concerning_the_Spiritual_in_Art.html?id=URvGFXf2vXgC.
 Langer, Susanne K. “The Cultural Importance of

the Arts.” The Journal of Aesthetic Education, vol. 1, no. 1, University of Illinois Press, 1966, pp. 5–12.

Samponaro, Philip. “‘Oye Mi Canto’ (‘Listen to My Song’): The History and Politics of Reggaeton.” *Popular Music & Society*, vol. 32, no. 4, Oct. 2009, pp. 489-506. *EBSCOhost*, doi:10.1080/03007760802218046.

Physics

Investigating Chaotic Motion in Two and Three-Dimensional Coupled Spring-Mass Systems
Presenter: Anna Yuan, Irvine Valley College
Mentor: Professor Lan Pham

Chaotic motions can be found across disciplines ranging from stock market trading to dynamic biological systems to fashion design (Biswas, 2018, p. 129-135). In physics and engineering, motion of one-dimensional systems of coupled springs and masses have been extensively studied. Equations describing the motion consist of a system of coupled differential equations whose solutions have closed forms that are periodic. Generally, different initial conditions in a one-dimensional spring-mass system affect the amplitude and period of the motion (Fay & Graham, 2003, p. 69). Systems with higher degrees of freedom may have motion that is chaotic, but not

random. Small perturbations or changes in initial conditions could greatly affect the path and periodicity of the motion (Thunberg, 2001, p. 5,10).

We investigate motion in two and three-dimensional spring-mass systems with conserved energy. As equations governing complex motions in two or three dimensions often do not possess analytic solutions, we use C++ to apply numerical analysis using Euler’s method to compute approximate solutions. Small time steps are used to reduce errors (Strogatz, 1994, p.32-34, Zill, 2001, p. 426,436).

Simulations of simple, two-dimensional systems yielded chaotic motions for finite time frames. This indicates that more complex systems also have chaotic motions, and that periodicity is unlikely to emerge. Yet, we see in this study that chaotic motion is predictable in closed systems. Further research on this subject will incorporate higher accuracy numerical methods (such as the fourth-order Runge-Kutta method) and explore special cases of emergent periodicity.

References

- Biswas, H.R. (2018) Chaos Theory and Its Applications in Our Real Life. *Barishal University Journal Part 1*, 5(1&2). 123-140.
- Fay, T. H., & Graham, S.D. (January 2003). Coupled Spring Equations. *International Journal of Mathematical Education*, 34(1). 65-

79. <https://doi.org/10.1080/0020739021000029258>

Strogatz, S.H. (1994). *Nonlinear Dynamics and Chaos*. Perseus Books Publishing.

Thunberg, H. (2001). Periodicity versus Chaos in One-Dimensional Dynamics. *SIAM Review*, 43(1), 3. <https://doi-org.ezproxy.ivc.edu/10.1137/S0036144500376649>

Zill, D.G. (2001). A First Course in Differential Equations: The Classic 5th Edition. Brooks/Cole, Cengage Learning.

Political Science

“Are We a Nation of States? What’s the State of Our Nation?”: Political Conflict, Partisanship, and Policy in the United States from 1781-1800 and 2000-2021

Presenter: Lily Amidon, Santiago Canyon College
Mentor: Professor Elizabeth Elchlepp

On January 6, 2021, centuries of political tension released itself in the form of a riot at one of the most politically significant locations in the country. Tensions between parties, especially in the last five years, have become exceptionally stringent and divisive. The increasingly strained political climate of the United States from 2000 to the present eerily reflects the political conflicts from 1781 to 1800.

In his farewell address, George Washington warned the public that “the alternate

domination of one faction over another ... kindles ... animosity” and that partisanship would lead to “ill-founded jealousies and false alarms” and, presciently, “riot and insurrection” (131-2). The consequences of partisanship that Washington described in 1796 continue to ravage modern American politics.

While the form of political conflict and the policy issues themselves have evolved, the nature of political conflict has not changed. As in the late eighteenth century, key political topics in the modern American republic include election practices, partisanship, polarization, racial tension, war, cults of personality, and the political media. The development of the two-party system in the 1790s contributed to widespread electioneering in New York and propaganda throughout the states. And unsurprisingly, the Quasi-War with France, like the recent wars in the Middle East, was heavily partisan and controversial.

The current political divisions are as powerful as those in Washington’s time, but more volatile. The continuation of polarizing partisanship has had dramatic implications, but through conscious effort, our society can change the existing political structure and mitigate disastrous consequences.

Works Cited

- Chernow, Ron. *Alexander Hamilton*. Penguin, 2004.
- Gimpel, James G., et al. "The Urban–Rural Gulf in American Political Behavior." *Political Behavior*, vol. 42, no. 4, Dec. 2020, pp. 1343-68. *Academic Search Complete*, DOI:10.1007/s11109-020-09601-w. Accessed 30 Mar. 2021.
- Harp, Gillis J. "Patrician Partisans: New York in the House of Representatives, 1789-1803." *Canadian Journal of History*, vol. 29, no. 3, Dec. 1994, pp. 479-500. *America: History and Life with Full Text*, doi:10.3138/cjh.29.3.479. Accessed 30 Mar. 2021.
- Scherr, Arthur. "John Taylor of Caroline: Pamphlets and the Press in the 1790s." *American Periodicals*, vol. 27, no. 1, 2017, pp. 53-72. *America: History and Life with Full Text*, Accessed 30 Mar. 2021.
- Taylor, Alan. "'The Art of Hook and Snivey': Political Culture in Upstate New York during the 1790s." *Journal of American History*, vol. 79, no. 4, Mar. 1993, pp. 1371-96. *America: History and Life with Full Text*, doi:10.2307/2080209. Accessed 30 Mar. 2021.
- Washington, George, et al. "George Washington's Farewell Address." *The Hamilton Papers*:

Historic Documents Referenced in the Broadway Musical, vol. 2, A.R. DiLiegro, 2017, pp. 125-37. 2 vols.

Psychology

Adult Neurogenesis vs. Cognitive Deterioration: The Potential of Gene and Stem Cell Therapy
Presenter: Kiana McClenney, Pasadena City College
Mentor: Professor Dustin Hanvey

Neurogenesis, as straightforward it is to understand, is cryptic in nature. It is defined as the formation of neurons—a basic phenomenon we have accepted for an evolving brain (Kumar et al. 1). Albeit, in specifics to adult neurogenesis, there is controversy within the neuroscience community on whether this phenomenon applies to aging adults. Before Joseph Altman discovered adult neurogenesis in rats, scientists thought neurogenesis solely pertained to a developing embryo. Momentarily, some claim neurogenesis to significantly drop with age, while others believe it to withstand until our brains can no longer sustain our bodies.

In the belief of its existence in adults, there is hope in utilizing neurogenesis in gene and stem cell therapy to manage neurodegenerative disease and age-related cognitive deterioration (Marr et al. 2).

This presentation brings awareness to this nonpareil possibility. Because of adult neurogenesis' novelty, there is a lack of willingness to dedicate it in therapy for cognitive decline. Once I instigate diminishing this setback, people such as myself and others in my ingenious generation will have the opportunity to research neurogenesis and its part in stem cell and gene therapy. Thus, we will finally combat neurodegenerative disease and age-related cognitive decline, similarly, as generations before have successfully used stem cell therapy to fight against diseases such as leukemia (Marr et al. 1). The discovery of adult neurogenesis is the commencement of a future with curable neurodevelopmental disorders.

Works Cited

Kumar, Ashutosh, et al.
 “Adult Neurogenesis in Humans: A Review of Basic Concepts, History, Current Research, and Clinical Implications.” *Innovations in Clinical Neuroscience, Matrix Medical Communications*, 1 May 2019,
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6659986/>.

Religion

An Ethnography about LDS and Gender Roles in the Modern Context

Presenter: Ben Collier, Mt. San Jacinto College

Mentor: Professor Erik Ozolins

As the Latter-Day Saints Church confronts the increase of different identity-based movements such as LGBT rights and gender equality movements, as well as cultural shifts due to the pandemic, the mindset of its followers changes too. This paper addresses a Latter-Day Saints' community's various perspectives on gender roles, both in and out of the home. Through the use of participant observation, attendance of a church service, four zoom interviews, and outside research conducted both through academic literature and LDS publications, a more comprehensive understanding of the interpretation of gender and age dynamics was developed. This research shows that for some LDS members, gender roles do not hold as strict a role as the importance of the family and the community, while others felt that its importance needed to be particularly highlighted due to God's creations being made perfect as they are. Those who are more involved with the church as clergy are more likely to lean towards the latter, whereas women are more likely to support the former. Interestingly, the emphasis on one's

relationship with their family and spouses and within the community supersedes the relative significance of gender in many fashions among both clergy and non-clergy members. However, the exploration of this topic could likely lead to a greater understanding of the intersection between gender roles and religion through an increasingly globalized society, both within the LDS Church and in Christianity more broadly.

References

- Cook, B. (2017). What Do We Know of God's Will for His LGBT Children?: An Examination of the LDS Church's Position on Homosexuality. *Dialogue: A Journal of Mormon Thought*, 50(2), 1–54.
<https://www.jstor.org/stable/10.5406/dialjmormthou.50.2.0001>
- Hallwas, J. E. (1990). Mormon Nauvoo from a Non-Mormon Perspective. *Journal of Mormon History*, 16, 53–69.
<http://www.jstor.org/stable/23285954>
- Hunter, H. W. (1994, October). *Being a Righteous Husband and Father*. The Church of Jesus Christ of Latter Day Saints.
<https://www.churchofjesuschrist.org/study/manual/eternal-marriage-student-manual/mens-divine-roles-and-responsibilities/being-a-righteous-husband-and-father?lang=eng>

Lee, V. J. (2010). The mosque and black Islam: Towards an ethnographic study of Islam in the inner city. *Ethnography*, 11(1), 145–163. <http://www.jstor.org/stable/24047902>.

The family: A proclamation to the world. (1995, November). *Ensign*, 25(10), p. 102.

Don't Stop Seeking: The Importance of Religion as an Innate Search for Truth
Presenter: Emily Wallace, Glendale College
Mentor: Professor Michael C. Harnett

It is only in the realization that every person is innately drawn to seek meaning beyond his or her mortal existence that the value of religion is more deeply considered. Religion as a social affiliation is imperfect and often contentious, but the desire to discover truth that comes from religious practice shows the incredibly unifying power of faith beyond oneself.

The research conducted aims to highlight universal truths that exist across different religions by examining specific comparisons. It also aims to reflect the differences found between world religions to show how truth transcends human error in religious practice or belief. The purpose of research is to demonstrate how the value of religion as a means to discover truth is found in one's continued search, and is thus not limited to one's

current knowledge or understanding.

Sources range to include analysis of religious practice (Martin), study of similarities and differences between religions (Smith), and more specific consideration of the purpose of religion from a Catholic perspective (Paul VI).

Studying secular and philosophical viewpoints is also important in evidencing the universality of the human search for truth (Csikszentmihalyi). The conclusion remains that one's religion or lack thereof at a given point is not a measure of his or her overall desire to live and discover truth in goodness. Rather, one's affiliation is only a starting point that highlights the deeply innate and incredibly opportune journey towards truth that is grounded in faith, experienced by all people.

Works Consulted

Csikszentmihalyi, Mihaly.

Flow: The Psychology of Optimal Experience.

Harper Perennial, 1991.

Doyle, Brian. "What Religion is for." *Commonweal*, vol. 133, no. 19, Nov 03, 2006, pp. 31. *ProQuest*, <http://libwin2k.glendale.edu/login?url=https://www.proquest.com/magazines/what-religion-is/docview/210403285/se-2?accountid=27372>.

Martin, Jessica. "Religion: What is it, how it Works, and Why it Matters." *Christian Scholar's Review*, vol. 48, no. 2, 2019, pp. 203-206. *ProQuest*,

<http://libwin2k.glendale.edu/login?url=https://www.proquest.com/scholarly-journals/religion-what-is-how-works-why-matters/docview/2167698567/se-2?accountid=27372>.

Paul VI. *Encyclical Letter Nostra Aetate. The Vatican*, The Holy See, 28 October, 1965. https://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_decl_19651028_nostra-aetate_en.html.

Smith, Huston. *The Illustrated World's Religions: A Guide to Our Wisdom Traditions*. HarperSanFrancisco, 1994.

Social Media

Social Media: The Crux and Crucible of Generation Z

Presenter: Sophia Huynh, Pasadena City College
Mentor: Professor Alex E. Montes

Generation Z's turbulently unique childhood, enveloped by technological advances and social media, has negatively and positively implicated Generation Z, but ultimately contributed to a collective empathy that shapes the ideals, attitudes, and aspirations of their cohort.

The advent of social media has facilitated the normalization of parasocial relationships between celebrities and youth, fundamentally changing the

way that Generation Z approaches the business and marketing industry, as they begin to move away from commercialism and reject traditional advertisements (Lorinc, 50-51). However, these parasocial relationships place a large burden on Generation Z's mental health, as corporations, celebrities, and social media prey on insecure youth and perpetuate unattainable beauty standards and expectations. Parasocial relationships are one of many factors that implicate Generation Z's mental health. Others include the political climate that they were born into and the isolating, yet addicting nature of social media that promotes cyberbullying and dopamine withdrawals (Kadaras, 67). Despite social media's drawbacks, it has also proven itself a useful avenue that promotes healthy relationships and connections between individuals. While early exposure to the political climate has contributed to Generation Z's poor mental health, it has also inspired them to incite change while using social media as a means to do so, by spreading awareness and information online en masse. These social changes have been monumental, and have contributed to the increased well-being of many marginalized communities and peoples. Social media has proven itself to be a multifaceted tool that has defined and allowed Generation Z to practice their ideals.

Works Cited

- Bethune, Sophie. "Gen Z More Likely to Report Mental Health Concerns." *Monitor on Psychology*, American Psychological Association, Jan. 2019, <https://www.apa.org/monitor/2019/01/gen-z>. Accessed 27 Nov. 2021.
- Kardaras, Nicholas. "Generation Z: Online And At Risk?" *Scientific American Mind*, vol. 27, no. 5, Scientific American, a division of Nature America, Inc., 2016, pp. 64–69, <https://www.jstor.org/stable/24945499>. Accessed 9 Nov. 2021.
- Kirvesmies, Tytti. *Parasocial Relationships Between Gen Z and Social Media Endorsers*. April 2018. University of Tampere, Master's Thesis. *ILibrary*, <https://library.net/document/yde9j81q-parasocial-relationships-gen-z-social-media-endorsers.html>. Accessed 25 Nov. 2021.
- Lorinc, John. "Your Kids, The Influencers." *Corporate Knights*, vol. 14, no. 2, Corporate Knights Inc., 2015, pp. 50–53, <http://www.jstor.org/stable/44149841>. Accessed 10 Nov. 2021.

The Silicon Footprint: The Environmental Impact of Semiconductor Manufacturing

Presenter: Jibiana Jakpor

The 2021 global semiconductor chip shortage has prompted efforts to build new semiconductor fabrication facilities in the United States (Raimondo). At the same time, the Intergovernmental Panel on Climate Change has warned that climate change has already irreversibly changed Earth in many ways and that drastic, immediate action is necessary to reduce further global warming (SPM-18, SPM-28). Although the public is often encouraged to reduce personal environmental impact by turning off idle computers, computer manufacturing itself has a significant environmental impact of which most consumers are unaware.

The manufacturing of semiconductor chips, the backbone of modern computing, consumes copious amounts of water and energy. One analysis of carbon emissions states that for personal computing companies, "More emissions come from designing and manufacturing integrated circuits (e.g., SoCs, DRAM, and storage) than from hardware use and mobile energy consumption" (Gupta et al. 4). Furthermore, extremely potent fluorinated greenhouse gases are used in semiconductor manufacturing. According to the United States

Environmental Protection Agency, up to 80 percent of the fluorinated gases used in semiconductor manufacturing may be released into the atmosphere untreated.

Efforts to reduce the environmental impact of computing must target manufacturing, not only consumers. Manufacturers should redouble their efforts to switch to greener manufacturing technology. Also, locations of new semiconductor fabrication facilities should be chosen strategically to avoid aggravating local environmental problems. Especially now, as the United States is trying to improve computer technology supply chains domestically, companies, policymakers, and the public must be aware of the potentially serious environmental consequences.

Works Cited

Gupta, Udit, et al. "Chasing Carbon: The Elusive Environmental Footprint of Computing." *arXiv.org*, 28 Oct. 2020. *ProQuest*, [www.proquest.com/working-papers/chasing-](http://www.proquest.com/working-papers/chasing-carbon-elusive-environmental-footprint/docview/2458221755/se-2)

[carbon-elusive-environmental-footprint/docview/2458221755/se-2](http://www.proquest.com/working-papers/chasing-carbon-elusive-environmental-footprint/docview/2458221755/se-2).

Intergovernmental Panel on Climate Change. *Climate Change 2021: The Physical Science Basis*. Cambridge UP, 7 Aug. 2021, www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report_smaller.pdf.

Raimondo, Gina M. and Todd Young. "Future of Science & Innovation: Global Chip Shortage with Commerce Secretary Gina M. Raimondo & Sen. Todd Young (R-Ind.)" *The Washington Post*, 20 Oct. 2021, www.washingtonpost.com/washington-post-live/2021/10/20/future-science-innovation-global-chip-shortage-with-commerce-secretary-gina-m-raimondo-sen-todd-young-r-ind/.

United States Environmental Protection Agency. "Semiconductor Industry." *US*

Environmental Protection Agency, 8 Jun. 2021, www.epa.gov/f-gas-partnership-programs/semiconductor-industry.

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