

MEETING OF MINDS XXV

Friday, May 12, 2017

Hosted by Oakland University





Meeting of Minds XXV



Oakland University was founded in 1957 when the late Alfred G. and Matilda R. Wilson donated their 1,444-acre estate and \$2 million to Michigan State University for a new college in Oakland County. In 1970, OU became an independent campus and is now a preeminent metropolitan university that is recognized as a student-centered, doctoral research institution with a global perspective. Anchored by a strong liberal arts program, the university is organized into the College of Arts and Sciences, School of Business Administration, School of Education and Human Services, School of Engineering and Computer Science, School of Health Sciences, School of Nursing, and Oakland University - William Beaumont School of Medicine. Its faculty members have a distinguished record of research and scholarship, much of which is performed jointly with undergraduate students. OU has enrollment of over 20,000 students and is located in suburban northeast Oakland County, OU is easily accessible to millions of Detroit metropolitan residents.



Since its founding in 1959 with a gift of 196 acres from Ford Motor Company, the University of Michigan-Dearborn has been distinguished by its commitment to providing excellent educational opportunities responsive to the needs of southeastern Michigan. Shaped by a history of interaction with business, government, and industry of the region, the University of Michigan-Dearborn has developed into a comprehensive university offering undergraduate and graduate degrees in arts and sciences, education, engineering and computer science, business and management. One third of the campus, more than 70 acres, is maintained as one of the largest natural areas in metropolitan Detroit, serving as a research and educational resource for the campus and the region. For the 9,300 enrolled students, the University of Michigan-Dearborn is a place where students learn and grow, explore new ideas, and acquire the knowledge and skills they need to achieve their personal and professional goals. As graduates of University of Michigan-Dearborn, students will have a broad knowledge of the many fields of human achievement, and will be prepared for their careers with imagination, reasoning, and creative problem-solving abilities.



The University of Michigan-Flint is one of three campuses of the prestigious University of Michigan. Located in the heart of downtown Flint, UM-Flint is a premier urban campus nationally recognized leader in civic engagement, student veteran support, and outstanding academic programs. Since 1956, action-oriented academics is at the heart of the UM-Flint experience. This approach to learning allows the best students engage issues head-on, explore varying points of view, seek input from others, and become as familiar with realities as they do theories. UM-Flint faculty from over 100 areas of study pour their expertise and creativity into the development of research and service-learning projects that match course curriculum with today's most-pressing issues. Such projects bring learning to life, address community needs, and fulfill students' desires to contribute to the common good.

On May 12, 2017, hundreds of undergraduate students, dozens of faculty, and countless community and family members gathered on the campus of Oakland University for the 25th annual Meeting of Minds Undergraduate Student Research Conference. The annual Meeting of Minds event is a joint effort of three campuses that pride themselves on the quality and quantity of undergraduate research: the University of Michigan-Dearborn, the University of Michigan-Flint, and Oakland University.

As a celebration of the research, scholarly and creative accomplishments that emerge when undergraduates have the opportunity to work closely with faculty mentors, Meeting of Minds has grown significantly since its inception in 1993. At the 2017 conference, there were 180 student presentations with topics ranging from art, French, chemistry, philosophy and physics, just to name a few. Sessions were programmed to be interdisciplinary so attendees could learn to value the ways diverse disciplines express their intellectual findings. Making a professional-level public presentation of one's own work is an extremely valuable experience for an undergraduate student. All of the knowledge and skills of their undergraduate years are brought together in the formulation of a unique question or quest and the completion of a significant research project or creative task. Rightfully, students and faculty alike take great pride in the final presentation.

Thirty-nine of the participants in Meeting of Minds XXV have chosen to take their commitment to their scholarship a step further. They have prepared and submitted the professional-level manuscripts that you will find in this volume of Meeting of Minds: Journal of Undergraduate Research. All submissions were first reviewed and approved for publication by Faculty mentors prior to assembling the electronic Journal. Your perusal of these pages will affirm the excellence and diversity of our students' work. We hope you enjoy the read.

Finally, I want to thank the faculty, staff and students from all three campuses who worked cooperatively to make the 25th Meeting of Minds gathering a great success. Support begins with the commitment of the Provosts from each campus; their continuous endorsement of the event and their financial contributions which are critical to the success of the day and the publication of the journal. We are grateful to our faculties for their willingness to mentor student projects, their assistance in presentation and journal preparations, and their supportive attendance. My colleagues, Dr. Jennifer Zhao and Susan Gedert at the University of Michigan-Dearborn, Andre Louis at the University of Michigan-Flint, in addition to Dr. Robby Stewart and Beth Dawson at Oakland University, assured a great turnout from their respective institutions. The faculty, staff, and students on the Oakland University Committee for Meeting of Minds XXV were terrific. I especially recognize the technical support provided by Carrie Miller and Aimee Symington throughout the Meeting of Minds event; their contributions are greatly appreciated.

Anne Hitt, Associate Dean

College of Arts and Sciences, Oakland University

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Which Source of Social Support is More Predictive of Growth Over Time?

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Posttraumatic growth (PTG), the perceived positive changes experienced as a result of the struggle with stressful experiences, coheres in five domains: Personal Strength, Appreciation of Life, New Possibilities, Relating to Others, and Spiritual Change. Social support has been found to play a predictive role in the development of PTG in youth. However, results varied based on the source of social support received, such as family, friends, and a special person. The purpose of this study is to test if the relationships between social support and PTG that were found in the previous cross-sectional study would be replicated in a longitudinal design. Results indicated that at Time 1 and Time 2 social support from a special person was found to be the only significant predictor of PTG. Support from a special person at both times was found to significantly predict growth in the PTG domain, Relating to Others. Social support from friends at Time 1 predicted growth in the domain Relating to Others, but did not at Time 2. Social support from family did not predict growth in the domain Relating to Others at both times. While the present findings support the impact of receiving support from a special person, further examination is needed to understand the nature of a special person adolescents identified.

Keywords: posttraumatic growth, social support, adolescents, longitudinal

The effects of exposure to trauma have received much attention in the general population. Historically, psychologists focused exclusively on the negative effects of traumatic and stressful life events. In recent years a growing amount of research has found that negative outcomes from trauma might be offset by the possibility of positive outcomes. This type of growth is defined as posttraumatic growth (PTG), the positive changes experienced as a result of the struggle with a stressful life event (Tedeschi & Calhoun, 1996). PTG literature has identified five domains through which positive changes may cohere: *Personal Strength*, *Appreciation of Life*, *New Possibilities*, *Relating to Others*, and *Spiritual Change*. The thriving concept of PTG has increasingly gained more recognition and predictors of growth have been identified.

Tedeschi and Calhoun (2004) have proposed a theoretical model that identifies variables closely associated with PTG. Among those variables, social support has been identified as a predictor for PTG. Individuals have demonstrated better adjustment to traumatic events when perceived levels of social support were greater (McIntosh, Silver, & Wortman, 1993). Although research has identified correlates of PTG which support the hypothesized PTG and social support model among adults (Calhoun & Tedeschi, 2004), few studies have examined PTG among younger samples. Preliminary evidence suggests that the growth process occurs, to some degree, among adolescents. Yu et al. (2014) suggests that there is a lack of knowledge regarding how adolescents experience social support and stresses the importance of exploring this construct further.

Social Support

The role of social support has emerged as a significant construct in stress literature, and has been found to be critical in the process of experiencing PTG. The PTG model proposes two paths by which individuals may experience growth. One path begins with the impact of a trauma that is severe enough to challenge the individual's worldview. This experience creates emotional distress and results in intrusive, automatic rumination. The other path begins with the impact of trauma that is not severe enough to shake core beliefs, leading to a resilient process.

A substantial amount of research examines the Calhoun and Tedeschi (2013) framework which suggests that social support is a critical component in facilitating PTG amongst the adult population. Existing literature has found social support to be a significant factor affecting PTG profiles among adult cancer survivors (Shakespeare-Finch & Enders, 2008). A positive relationship between PTG and social support have been identified in HIV diagnosed individuals (Kamen et al., 2015), while social support was found to be predictive of growth in infertile Chinese women (Yu et al., 2014).

Wilcox (2010) found that social support reduced PTSD symptomology in combat veterans. They also found that combat veterans differentiate between sources of social support from family, friends, significant other, and military peers, rather than an all-inclusive global construct of social support. Interestingly, they found that sources of social support from family, significant other, and military peers were all related to the level of PTSD symptomatology among combat veterans, and that social support from friends was not significantly related to the level of PTSD symptomatology. Yu and colleagues (2014) found that social support from a significant other enhanced the level of positive coping, which in turn facilitated PTG for women with infertility. Yet, other

mediating factors were noted that may influence the relationship between stigma and PTG, such as other forms of support, which were not analyzed in the existing literature (Kamen et al., 2015).

The Development of Social Support in Adolescents

As previously discussed, social support systems play a key role in the aftermath of trauma (Calhoun & Tedeschi, 2006). Controversial debates suggest that a specific cognitive level of maturity is needed to find meaning or identify changes and benefits in trauma and its aftermath (Cryder, Kilmer, Tedeschi & Calhoun, 2006). This debate leads to the lack of literature, making it unclear how PTG is observed in children and adolescents. The idea that social support may provide the child with an environment that encourages expression of feelings and discussion about problems, by offering non-judgmental validation of event-related thoughts and emotions, could be indicative of growth in adolescents. In a study of children who were victims to a hurricane, Cryder et al (2006) found that a supportive social environment led to increased competency beliefs, which in turn were related to PTG experiences. Prior research with adolescents found the positive correlation of age with social support, suggesting as children age their social network expands and they are able to accumulate support from more sources (Milam et al., 2004). Four of seven studies examining the role of social support in the development of PTG in youth found evidence of a positive association and the study results varied based on the most influential source of social support (Meyerson, 2011). Kimihi, Eshel, Zysberg, and Hantman (2009), for example, found that family support was positively associated with growth in adolescents, while Yu et al. (2010) found perceived sense of security obtained from teachers and mutual support from

peers to be positively associated with PTG. Despite an extensive amount of literature indicating the importance of social support, many questions remain unanswered about specific sources of social support facilitating growth in youth. Although studies have shown that social support (e.g. friends, family, and special person/significant other) is positively associated with PTG, the extent to which these associations change over time remains unclear. Given the background of PTG and social support, we examined if the relationships between social support and PTG found in our previous cross-sectional study (Seyburn et al., 2016) would be replicated in a longitudinal design.

Hypotheses

1. *Social support from a special person will be the only significant predictor of posttraumatic growth.*
2. *The different sources of Social Support (special person, family, and friends) will predict different growth patterns in the PTG domain, Relating to Others.*

Method

This study contained 394 adolescents from Midwest high schools (248 female, 146 male) with a mean age of 16.91 ($SD = .69$). Participants completed a paper and pencil questionnaire twice, at Time 1, and 2 weeks later at Time 2. Participants filled out the Multidimensional Perceived Social Support Scale (MSPSS; Zimet et al., 1988), a 12-item self-report measure on a 7-point Likert scale (1=*very strongly disagree* to 7=*very strongly agree*; $\alpha=.89$). The MSPSS inquiries about the three sources of social support: friends, family, and special person. Participants were asked to disclose a stressful life event from the last five years and complete the first 10 items of the PTG Inventory (PTGI; Tedeschi & Calhoun, 1996). The scale is measured on a 6-point Likert scale (0=

I did not experience this change to 5=I experienced this change to a great degree;
 $\alpha=.90$).

Results

Participants who did not complete the MSPSS and PTGI for Time 1 and Time 2 were excluded ($n=37$). The mean MSPSS total score was 65.35 ($SD=12.39$, range 0-84). The mean PTGI total score was 22.01 ($SD=12.28$, range 0-50). Correlation analyses were conducted to assess the relationships between the sources of social support (friends, family, and significant other) and the PTG domain, *Relating to Others* (all $ps <.01$; see *Table 1*). Results showed no significant change in the relationship between sources of social support, PTG, and the *Relating to Others* domain from Time 1 to Time 2. Consistent with findings at Time 1, receiving social support from a special person ($\beta=.13$, $p=.03$) was the only significant predictor for PTG. Family ($\beta=.04$, $p=.51$), and friends ($\beta=-.04$, $p=.46$) were not significant predictors of PTG in this youth sample at both Time 1 and Time 2.

In order to examine the role of the different sources of social support in the *Relating to Others* domain, multiple regression analyses were performed. Results were significant. Special person predicted growth in *Relating to Others* at Time 1 ($\beta=.20$, $p<.001$) and Time 2 ($\beta=.27$, $p=.001$). Support from friends predicted growth in *Relating to Others* ($\beta=.16$, $p=.002$) at Time 1, but not at Time 2 ($\beta=-.032$, $p=.57$). Support from family did not predict growth at both times.

Discussion

This study demonstrates the merit of investigating the relationship between social support and PTG among child and adolescent populations further and provides

preliminary support for the hypothesized model in this age group. As predicted, findings revealed that receiving social support significantly predicted adolescent's growth. Regression analyses demonstrate that social support from a special person is the only type of support significantly predicting PTG in adolescents at Time 1 and Time 2, satisfying our second prediction. Although family and friends may make themselves available for social support, a special person who adolescents confide in and trust may better facilitate cognitive processes essential for PTG.

Additionally, results of the regression show the difference in growth patterns dependent upon the sources of support. The results demonstrated that a special person in an adolescent's life promotes growth in the *Relating to Others* domain at both times. Receiving support from family did not predict growth, being consistent with Hafstad (2010), that a positive family environment did not seem to influence the relationship between trauma exposure and PTG in youth. Results showed friends significantly predicted growth in the *Relating to Others* domain at Time 1, however not at Time 2. Similarly Scrignaro, Bami, and Margin (2011) found receiving social support from family and friends to be significant in facilitating PTG at Time 1 but not at Time 2.

Although we found receiving social support from a special person stably predicts cross-sectional PTG in adolescents, the cognitive process involved in facilitating growth through social support may be more important (Kilmer et al., 2011). This may lead to why the literature is filled with inconsistencies of the differing sources of social support facilitating PTG in youth. Instead of investigating "who" is offering support, future research should investigate "how" social support systems are able to foster deliberate rumination, and thus constructively address the stressful or traumatic event. Scrignaro,

Bami, and Magrin (2011), found received emotional, instrumental, and related satisfactoral support was not related to PTG long-term. However, an autonomy-supportive style of a caregiver and problem-focused coping was found to be significant predictors of PTG long-term. This type of social support appears to help patients reinterpret the situation by bolstering the sense of mastery and stimulating cognitive processes through which the search for meaning can be accomplished (Roberts, Lepore, & Helgeson, 2006).

Although further work is needed to better understand reliable predictors of social support in adolescent's growth and assess their generalizability to other samples, the current findings highlight the important role of support, and the different growth patterns among the sources. The results may be subject to a wide range of limitations. The current study only examined high school students in the Midwest and was mostly comprised of seniors. Although similarities were found between Time 1 and Time 2, the 2 week duration between the 2 time periods was short. Future research should examine the process involved in facilitating deliberate rumination, as well as the autonomy-supportive style of support and problem focused coping. While the present findings support the impact of receiving support, further examination is needed to understand "how" social support facilitates growth differently in adolescents.

Acknowledgements

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Appendices

Table 1. Descriptive statistics and correlations among sources of social support and the PTG domain *Relating to Others* at T1

	Mean (SD)	1	2	3	4
1. Special Person	5.69 (1.32)	-			
2. Family	5.21 (1.44)	.46**	-		
3. Friend	5.40 (1.32)	.41**	.26**	-	
4. Relating to Others	4.76 (3.51)	.26**	.11*	.25**	-
5. T1 Total PTG	22.01 (12.28)	.16**	.02	.12*	.80**

Note. * $p < .05$, ** $p < .01$.

Table 2. Descriptive statistics and correlations among sources of social support and the PTG domain *Relating to Others* at T2

	Mean (SD)	6	7	8	9
6. Special Person	5.69 (1.32)	-			
7. Family	5.21 (1.44)	.46**	-		
8. Friend	5.40 (1.32)	.41**	.26**	-	
9. Relating to Others	5.21 (4.56)	.28**	.17**	.095	-
10. T2 Total PTG	17.69 (12.04)	.13*	.09	.02	.82**

Note. * $p < .05$, ** $p < .01$.

One Construct, Two Measures: Exploring the Relationship Between the CD-RISC and BRS

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Meeting of Minds XXV

Abstract

Despite growing interest in resilience, there are many discrepancies regarding the definition and measurement of this construct. The Connor-Davidson Resilience Scale (CD-RISC) assesses resilience from a multidimensional perspective, which examines personal qualities that contribute to one's ability to cope with stress (Connor & Davidson, 2003). The Brief Resilience Scale (BRS) was developed to assess resilience as a unitary construct through the root definition of resilience—the ability “to bounce back” from stress (Smith et al., 2008). The purpose of this study was to test the hypothesized relationships between the three-level indices of CD-RISC-10 (i.e., total, subscales, and the most indicative item No.5) and the BRS in a sample of adolescents. Using data from 358 high school students, Pearson's correlations demonstrated that the relationships between the BRS and CD-RISC-10 total scores, and each of the three sub-scale scores (personal competence; trust in one's instincts, tolerance, and strength; and positive acceptance of change) were all positive, ranging from $r=.47$ to $r=.55$, all $p < .01$. Additionally, Pearson's correlations revealed a significant relationship between the BRS and CD-RISC-10 total scores, $r=.60$, $p < .01$, as well as between the BRS total score and item No.5 of the CD-RISC-10, $r=.43$, $p < .01$. The results suggest a large overlap between the two resilience measures, which contributes to the content validity of each of the measures. The fact that the correlations were not large might be accounted for by the general terminology utilized by the BRS and personal qualities expressed by the CD-RISC-10.

Keywords: resilience, resiliency, validity, stress, adolescents

The Connor-Davidson Resilience Scale (CD-RISC) and the Brief Resilience Scale (BRS) have both been developed based on the definition of resilience as the ability to “bounce back” or recover from stress above the norm. Another view of resilience is a trait-oriented perspective. Early resilience research examined resilience from a trait-oriented perspective in order to determine which personal characteristics enabled an individual to experience this enhanced recovery from stress (Richardson, 2002). While this perspective of resilience is widely accepted, it is difficult to utilize for clinical purposes because traits are traditionally viewed as fixed or unchanging and therefore lead to the idea that resilience cannot be fostered or encouraged in individuals to help cope with stress (Riolfi, Savicki, & Cepani, 2002). On the other hand, the ability perspective of resilience that the CD-RISC and BRS assess, portrays a perspective of resilience as a developable capacity to recover from stress. By definition, ability is the possession of a skill that enables one to do something (Oxford English Dictionary, 2016). While traits are traditionally viewed as inherent, genetically determined characteristics, abilities or skills can be learned. Thus, an ability perspective of resilience is much more promising for the clinical purpose of helping individuals recover from stressful events. A literature search conducted by Sullivan and colleagues (2016) revealed discrepancies in the use of the BRS and CD-RISC. Specifically, while the BRS and CD-RISC have been developed based on an ability perspective of resilience, they have been utilized in an attempt to assess a trait perspective of resilience. Such discrepancies in the use of these measures highlights a lack of clarity in the resilience literature and suggests that work should be done to clarify and prevent such confusion from continuing.

The Connor-Davidson Resilience Scale:

Connor and Davison (2003) stated that resilience “embodies the personal qualities that enable one to thrive in the face of adversity.” While at first this might appear to assess a trait perspective of resilience, the underlying content of these personal qualities does not deal with personality characteristics, but rather developable capacities to recover such as “*I am able to handle unpleasant or painful feelings like sadness, fear, and anger.*” The shortened version of the CD-RISC, the CD-RISC 10, is a ten-item self-report measure ranging from 0 (*not true at all*) to 4 (*true nearly all of the time*). While the CD-RISC was developed to assess resilience from a multidimensional perspective with five original factors identified, the CD-RISC 10 reflects items from three of the original factors: personal competence; trust in one’s instincts, tolerance, and strengthening effects; and positive acceptance of change (Campbell-Sills, & Stein, 2007). However, recent studies have demonstrated discrepancies in the factor structure of both the original 25-item version of the CD-RISC and the CD-RISC 10. In light of these findings, it should be noted that this multidimensional perspective of resilience inherently suggests that resilience is comprised of many factors and can vary with age, gender, culture, time, context, and life circumstance (Connor & Davidson, 2003).

The Brief Resilience Scale:

Smith and colleagues (2008) developed the BRS in response to the many differing conceptualizations and measures of resilience. They posited that previous measures focused on protective factors (such as personal resources, traits, and coping styles) rather than the true meaning of resilience. The purpose was to provide a scale that would assess the original and most basic meaning of the word resilience based on

the root definition—the ability to bounce back or recover from stress (Smith et al., 2012). To accomplish this, they attempted to include as few items as possible to assess the unitary construct of resilience in a single factor. Thus, the BRS is a six item self-report measure ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Background:

In addition to assessing resilience from the same perspective as the ability to recover from stress, the BRS and CD-RISC have demonstrated significant positive relationships in previous studies. In an effort to demonstrate the validity and reliability of the Spanish version of the BRS, Rodríguez-Rey and colleagues (2016) demonstrated a significant, positive correlation between the BRS and CD-RISC in a sample of Spanish adults. Additionally, Smith and colleagues (2008) demonstrated a significant positive correlation between the BRS and CD-RISC in a sample of undergraduate students in the southwestern United States. Previous research has not yet assessed the relationship between the BRS and CD-RISC in adolescents. Additionally, item number five on the CD-RISC 10, “I tend to bounce back after illness or hardship,” most closely reflects the overall single factor of the BRS as the ability to bounce back. Similarly, Smith and colleagues (2012) identified a positive relationship between resilience and active coping, which closely resembles the positive acceptance of change component of the CD-RISC 10. The purpose of the following study is to assess the relationship between the BRS and CD-RISC 10 in a sample of American adolescents.

Hypotheses

1. *The BRS and CD-RISC 10 total scores will be significantly, moderately to largely, positively correlated in an American sample.*

2. *Item number five on the CD-RISC 10 will show a strong, positive correlation with the overall BRS score.*
3. *The BRS total score will demonstrate the strongest correlation with the positive acceptance of change component of the CD-RISC 10, compared to the other two components.*

Method

Participants were included in the study if they were born and raised in the United States and completed both the BRS and CD-RISC 10. The sample utilized consisted of 358 high school students from the Midwestern United States. The mean age was 16.92 ($SD = .66$). The majority of the sample was female (62.30%) and white (65.60%). This data was taken from a larger longitudinal study assessing psychological growth and resiliency in high school students. Participants filled out a pen and paper survey. The BRS was included in the time one survey, and the CD-RISC 10 was included in time two. For both scales, higher scores indicate a higher level of resilience.

Results

All Pearson correlations were significant and positive. The mean score for the BRS total was 19.35 ($SD = 5.35$) out of a possible total of 30. The mean score for the CD-RISC 10 total was 27.33 ($SD = 6.46$) out of a possible total of 40. Pearson's correlations (see Table 1) revealed a strong relationship between the BRS and the CD-RISC 10 total scores, $r = .60, p < .01$. A moderate to strong relationship was also found between the BRS total score and each of the three groupings of the CD-RISC 10: Personal competence, $r = .47, p < .01$; trust in one's instincts, tolerance, and strength, $r = .55, p < .01$; and positive acceptance of change $r = .55, p < .01$, respectively. Item number

five on the CD-RISC 10 was also significantly related to the BRS total score, $r = .43$, $p < .01$.

Discussion

All correlations were moderate to strong, and positive. Thus, Hypothesis 1 regarding the BRS and CD-RISC 10 total scores was supported. This is consistent with previous literature (see Rodríguez-Rey et al., 2016; Smith et al., 2008), suggesting a large overlap between the BRS and the CD-RISC 10. This relationship contributes to the content validity of each measure. However, while the results were significant, the area where the two measures diverge might be able to be accounted for based on the general terminology utilized by the BRS, which assesses one factor, and the more specific, personal qualities expressed by the CD-RISC 10. Specifically, Hypothesis 3 regarding the relationship between the BRS total score and the positive acceptance of change component of the CD-RISC 10 was partially supported. It was, in fact the highest, yet identical to the relationship between the BRS total score and the trust in one's instincts component of the CD-RISC 10. The lesser overlap between the BRS total score and the personal competence component of the CD-RISC 10 suggests that this might be an area where the two scales differ, as personal competence may relate more to a trait perspective of resilience. Hypothesis 2 regarding the relationship between the BRS total score and item number five of the CD-RISC 10 was unsupported in that the correlation was moderate.

One of the limitations of this study is that it did not assess the original 25-item version of the CD-RISC, but assessed item groupings true to the original factor structure of the 25-item version. While a single factor structure was originally identified for the

CD-RISC 10 (Campbell-Sills & Stein, 2007) , there have been many discrepancies in the literature in terms of the factor structure of both versions of the CD-RISC (Aloba, Olabisi, & Aloba, 2016; Green et al. 2014). However, this might be inherent to the multidimensional nature of resiliency in that it can vary across age, time, race, gender, and life circumstance (Connor & Davidson, 2003) . Thus, future research should assess the relationship between the BRS and the original 25-item version of the CD-RISC in adolescents, compare both measures across variables such as age, gender, and race, as well as conduct itemized correlations to better understand the characteristics of each scale. Furthermore, future research should also compare the CD-RISC and BRS to other resilience measures developed from an ability perspective of resilience, as well as differing perspectives (i.e. trait or process oriented).

As it stands, of the two measures assessed in the present study, we would ultimately recommend the CD-RISC 10 to assess resilience from an ability perspective because it is a more detailed, thorough measure of resilience and was initially developed to assess treatment response. The minor elements of personal characteristics assessed by the CD-RISC 10 also contribute to a more holistic perspective of resilience when compared to the BRS. Thus, the CD-RISC 10 may be a more useful measure for clinical purposes. The use of this measure may also contribute to clarity, cohesion, and accuracy while also working to eliminate discrepancies in the construct and measurement of resilience. In order to have an adequate discussion and pursue an accurate understanding of the construct of resilience, researchers must be in agreement in terms of the definitions and measures they utilize to discuss and measure this construct.

Dedication and Acknowledgments

This project is dedicated to the life and memory of Shelby Jane Seyburn. She was a mentor, colleague, and friend whose dedication, selflessness, and optimism will be cherished and remembered always. Like many, my life has been immensely blessed by hers and I am forever grateful for the impact she has had on me as a person. My work with her got me interested in the subject of resiliency, and I have her to thank for where I am today. Shelby encouraged me and lifted me up when I truly felt like giving up and thus, above all else, this project is for her.

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Appendix

Table 1. Correlation

	Mean (SD)	1	2	3	4	5
1. BRS Total	19.35 (5.35)	-				
2. CD-RISC 10 Total	27.33 (6.46)	.60	-			
3. CD-RISC Personal competence	2.85 (.76)	.47	.85	-		
4. CD-RISC Trust in instincts, tolerance, strengthening effects	2.53 (.74)	.55	.90	.63	-	
5. CD-RISC Positive acceptance of change	2.88 (.72)	.55	.86	.62	.67	-
6. CD-RISC Item 5	2.91 (.96)	.43	.71	.54	.55	.80

Note. All correlations significant at the 0.01 level (two-tailed)

Resiliency: The Competing Theories of Self-Regulation and Psychological Capital

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Meeting of Minds XXV

PsyCap is a measure that reflects an individual's positive psychological state, and comprises four facets: self-efficacy, optimism, hope, and resilience. Of particular interest to the current study is resilience, defined as the capacity to 'bounce back' from adversity (Luthans et al., 2007). However, this definition of resilience overlooks the dynamic nature of resiliency as a process of recovery. The Workplace Resiliency Inventory (WRI) includes the cognitive, affective, and behavioral self-regulatory process components of resiliency. The purpose of this study was to use a multiple regression analysis to examine the multivariate relationship between the PsyCap resiliency construct and the self-regulatory process components of the WRI to ultimately enhance the understanding of the content of the PsyCap resilience facet. Using data from 400 undergraduate students, results revealed that the self-regulatory components of the WRI accounted for 28.6% of the variance ($R^2 = .286$, $p < .001$) in the PsyCap resiliency facet. More specifically, affective and cognitive self-regulation demonstrated significant relations with PsyCap, $b = .126$, $p < .005$, and $b = .373$, $p < .001$, respectively. Behavioral self-regulation was not found to relate significantly with the PsyCap's resiliency facet, $b = -.045$, $p = .247$. On one hand, our results suggest moderate overlap between the WRI and PsyCap measures of resiliency, which was predominantly driven by associations involving affective and cognitive self-regulation. On the other hand, a non-significant relation between behavioral self-regulation and PsyCap suggests that PsyCap may not adequately assess critical behavioral components of the resiliency construct, thereby leading to questions regarding its content validity. Implications for future theory development and empirical research are also discussed.

Keywords: resiliency, resilience, self-regulation, psychological capital

Positive psychological capital (PsyCap) is a higher order construct stemming from the field of positive psychology that deals with an individual's positive psychological state of development (Luthans, Youssef, & Avolio, 2007). PsyCap is comprised of four facets including hope, self-efficacy, resilience, and optimism. Hope is described as a positive motivation comprised of goal-directed energy (agency) and adequate planning to achieve such goals (pathways; Luthans & Youssef-Morgan, 2017). Self-efficacy deals with an individual's confidence in their ability to succeed when taking on a challenging task (Luthans, Avolio, Avey, & Norman, 2007). Optimism deals with positive attribution of events and successes (Luthans & Youssef-Morgan, 2017). Finally, resilience is defined as the capacity to "bounce back" from adversity (Luthans, Youssef, & Avolio, 2007).

Luthans and colleagues (2007) have said that each of the four facets of PsyCap have a greater impact combined than they do individually. However, early work done to understand the progression of theory surrounding resiliency drew attention to an understanding of resiliency as more than simply rebounding or "bouncing back" from stress (Richardson, 2002). Masten (2001) suggested that resilience is comprised of normal developmental and adaptive processes such as self-regulation, which enable one to recover, or even to achieve positive outcomes after struggling with a challenge or trauma. McLarnon and Rothstein (2013) pointed to the fact that a "bouncing back" perspective examines resilience as an outcome and thus, overlooks the dynamic nature of resilience as a process of recovery from a challenging event. Indeed, many other researchers, before and since Luthans and colleagues, have addressed the multidimensional nature of resiliency, indicating that it is a dynamic series of processes

involving personal and external resources (Meredith et al. 2011). McLarnon and Rothstein (2013) went on to develop the Workplace Resiliency Inventory (WRI) to assess resilience as a process involving cognitive, affective, and behavioral self-regulatory processes in addition to personal characteristics, social support, and initial responses to trauma. Specifically, cognitive self-regulation deals with cognitive strategies implemented to understand and control thoughts such as cognitive flexibility and reducing intrusive thoughts. Affective self-regulation deals with strategies to understand, control and regulate emotions including analyzing emotions. Behavioral self-regulation deals with the understanding and control behaviors involving observation of one's behaviors, discipline, and impulse control.

Current Study:

Little work has been done to examine the relationship between the competing theories of resiliency as they are presented by PsyCap and the WRI. Upon reading into the content of the PsyCap resilience facet there appears to be an emphasis mechanisms of self-regulation. In particular, content similarities were noticed when compared to the cognitive self-regulatory component of the WRI. Furthermore, the resilience component of the PsyCap training program encourages participants to practice “learned cognitive processes” with regard to personal setbacks (Avey, Luthans, & Jensen, 2009). The purpose of the following study was to examine the multivariate relations between the PsyCap resiliency construct and the cognitive, affective, and behavioral self-regulatory process components of the WRI through the use of a multiple regression analysis in order to further the understanding of the content of the PsyCap resilience facet.

Hypotheses

1. *There will be a moderate overlap between the self-regulatory components of the WRI and the resilience facet of the PsyCap measure.*
2. *The cognitive self-regulatory component of the WRI will be most closely related to the resilience facet of the PsyCap measure.*

Method

A total of 400 undergraduate students from a Canadian university completed a pen and paper survey. The majority of the sample was female (69.30%) and the mean age was 18.22 ($SD=1.11$). The PsyCap (Luthans et al., 2007) measure is a 24-item self-report measure including six items per facet, and is rated on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). An example item of the PsyCap resilience facet is, *"I usually take stressful things at work in stride."* The WRI (McLarnon & Rothstein, 2013) is a 60-item self-report measure rated on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The affective self-regulation component consists of five items, one of which is *"since the adverse event I have paid closer attention to the causes of my emotions."* The behavioral self-regulation component consists of nine items, one of which is *"since the adverse event I have often jumped into things without thinking through them."* Finally, the cognitive self-regulation component also consists of nine items, one of which is *"since the adverse event it has been easy for me to look on the 'bright side.'"* Both the WRI (see McLarnon & Rothstein, 2013; Rothstein, McLarnon, & King, 2016) and PsyCap (see Luthans & Youssef-Morgan, 2017) have compelling evidence of reliability and validity.

For the purposes of the current study, we reserved analysis to the resilience facet of the PsyCap, and the self-regulatory processes assessed by the WRI. This facilitated a comparison between the “state-like” resilience facet of the PsyCap (Luthans et al., 2007) and the dynamic components of resiliency model assessed by the WRI.

Results

A multiple regression analysis (see *Figure 1*) revealed that the self-regulatory components of the WRI accounted for 28.6% of the variance ($R^2 = .286$, $p < .001$) in the PsyCap resiliency facet. This suggests a moderate overlap, thus supporting Hypothesis 1. More specifically, affective and cognitive self-regulation demonstrated significant relations with PsyCap, $b = .126$, $p < .005$, and $b = .373$, $p < .001$, respectively. Behavioral self-regulation was not found to relate significantly with the PsyCap’s resiliency facet, $b = -.045$, $p = .247$. This analysis demonstrates a larger relation between the PsyCap resilience facet and the cognitive self-regulatory component of the WRI, which supports Hypothesis 2.

Discussion

This study sought to examine the multivariate relations between the PsyCap measure of resilience and the self-regulatory process components of the WRI. As predicted, the results demonstrated a moderate overlap, thereby lending support to Hypothesis 1. The overlap between the WRI’s self-regulatory processes and the PsyCap’s resilience facet was predominantly accounted for by the cognitive and affective self-regulation components of the WRI. Specifically, Hypothesis 2 was also supported in that the cognitive self-regulatory component of the WRI was most closely related to the resilience facet of the PsyCap measure. However, the non-significant

relation between behavioral self-regulation and the PsyCap resilience facet suggests that PsyCap may not adequately assess critical behavioral components of resiliency, consequently leading to questions regarding its construct validity. Specifically, given that the PsyCap measure of resilience may not be assessing the multidimensional nature of resiliency in full, it is not sufficient to offer a complete assessment of resiliency.

One of the limitations of this study is that it did not examine protective factors such as personal characteristics or social support. Much of the resilience literature suggests that resilience involves dynamic process, and encompasses, or is influenced by protective factors (Meredith et al., 2011). Thus, future research should examine such factors. Previous research has also suggested that part of the multidimensional nature of resilience involves variation across gender, time, age, culture, and context (Connor & Davidson, 2003). Therefore, future directions should examine this multidimensional nature of resiliency by exploring the relation between the WRI and PsyCap across such variables. Findings from the current study suggest that the WRI provides a more holistic assessment of resiliency as a multidimensional construct, and its use is recommended in future research and practical applications. However, this is not at the exclusion of PsyCap, and future research and practice may benefit from utilizing both the WRI and PsyCap measures.

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countless questions, to which he has always generously responded by sharing extensive expertise and knowledge.

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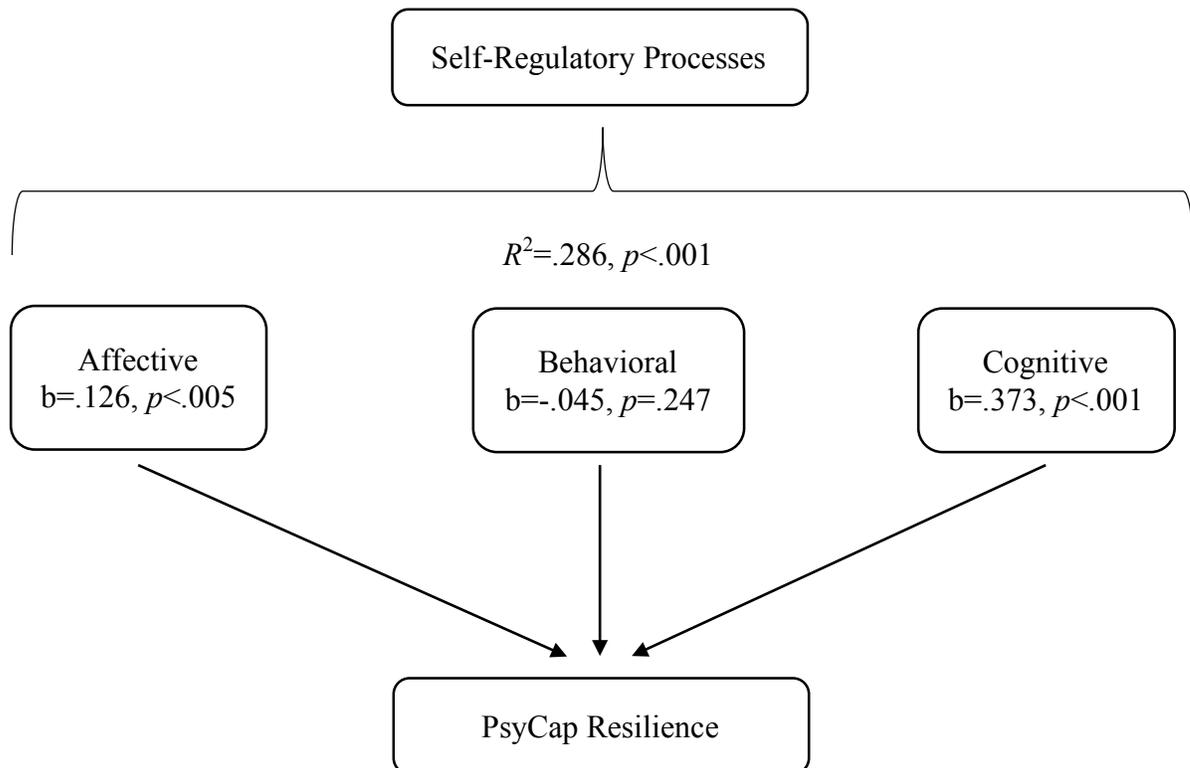
Appendices

Table 1. Correlation

	Mean (SD)	1	2	3	4
1. PsyCap Resilience Facet	3.64 (.53)	-			
2. WRI Affective Self-Regulation	3.38 (.67)	.24*	-		
3. WRI Behavioral Self-Regulation	3.08 (.66)	.16*	.42*	-	
4. WRI Cognitive Self-Regulation	3.08 (.71)	.52*	.20*	.31*	-

Note. * $p < .01$ (one-tailed)

Figure 1.



BRIDGE TO A HEALTHY COMMUNITY

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Abstract

The Bridge to a Healthy Community Survey aims to understand underlying health outcomes as they may relate to commercial and transportation land uses, particularly with the development of a new international bridge crossing, in Southwest Detroit. Projections suggest that parts of Southwest Detroit will experience an additional 10,000 heavy diesel trucks passing through daily once the new Gordie Howe Bridge crossing is built, and residents expect worsened quality of life as a result. With funding from the Erb Family Foundation, Kellogg Foundation, Ford Foundation (via the Detroit Hispanic Development Corporation), and the U of M-Dearborn Office of Metropolitan Impact the SW Detroit Community Benefits Coalition in partnership with U of M-Dearborn is conducting a household survey to assess baseline health and preferred mitigation measures. As community-based research, teams of residents and students administered 122 household surveys using Qualtrics survey software, which included questions pertaining to demographics, health concerns, perceptions of the neighborhood, and other qualitative data about resident's thoughts and ideas. The goals of this research are to advocate for better protections against negative health outcomes as well as advocating for the solutions that residents express are needed for their community. This presentation will cover a short literary review and preliminary results.

Introduction

Southwest Detroit is home to one of the most polluted zip codes in the country, 48217; and it also resides within the most polluted county in Michigan (Figure 1). Many major industries reside in the SW Detroit area including Marathon Petroleum Company, U.S. Steel Great Lakes Works, DTE Electric, EES Coke Battery, and many more. Due to the high amount of industry, there is high exposure to air pollutants from factories and commercial traffic (Figure 2). Studies have shown that exposure to pollutants such as PM_{2.5}, nitrogen oxides, and more can increase the risk of asthma, impaired lung function, cardiovascular morbidity and mortality, adverse birth outcomes, and cognitive declines (Batterman, 2013). Over the past 15 years, there has been development of a new bridge from Michigan to Canada named the Gordie Howe International Bridge Crossing (GHIB). With the addition of this new bridge, air pollution is expected to increase due to construction activity and increase in traffic-especially commercial traffic. Noise and light pollution are also expected to increase. Residents of Southwest Detroit will have greater exposure to these air pollutants. The University of Michigan-Dearborn along with the Southwest Detroit Community Benefits Coalition is currently conducting a study to assess the health of residents in the Delray community, and as a long term goal will continue to conduct the study through the duration of the bridge project to see if there is a correlation or association between increased air pollution and adverse health effects. The focus area of this study was in Delray. Delray is a neighborhood located in the Detroit area, close to the I-75 freeway (Figure 3). The formal village has endured despite being surrounded by a large portion of the industries in Detroit. It has become a hotspot for institutional research because of the crowding of industry and other point

sources of pollution. This has made the community prone to outsiders coming in, collecting data for the purposes of analyzing and publishing, and leaving. Because of this, our team faced a great battle in trying to establish a sense of trust and commitment to the community. However, while working with the CBC, the research team has learned a lot about the community, its struggles, and how to participate in community-based research. It is important that our results are shown to the community so that members become aware of what is happening within their own neighborhoods, and also shown to legislators to push for protections for the people of Delray. Below is a summary of the bridge project, the study, and the next steps for the research team.

The Bridge

The Gordie Howe International Bridge Crossing is a public-private project led by the Windsor-Detroit Bridge Authority. The suspension bridge will span 1.5 miles from Windsor, Ontario to Detroit, Michigan allowing more access for commercial vehicle, personal vehicle, pedestrian, and bicycle transportation. Dialogue about the bridge started in early 2000 and is projected to be completed by 2020. Figure 4 is a short chronology of the bridge project from 2002 to 2012. The full chronology can be found on the WDBA website (Chronology, 2017). Currently, proposals from private organizations are being accepted to complete the procurement process. Prep work on the United States side has already started to occur with MDOT buying parcels of land to create an almost 150 acre area for the U.S. Port of Entry (POE) (Figures 5 and 6). Interstate 75 will be reconstructed to accommodate the needs of the increased traffic (Project Overview, 2017). Construction of the bridge will heavily impact the Southwest Detroit community. Residents will either have to relocate their homes or live by a construction

zone and ultimately closer to the freeway. As stated above traffic, especially by commercial vehicles, can decrease air quality and cause adverse health effects.

Southwest Detroit Community Benefits Coalition

To administer the survey, we partnered with the Southwest Detroit Community Benefits Coalition. The CBC is a community-led organization that works to ensure that developments in the Southwest Detroit area are beneficial for residents as well as developers. This region is already home to many heavy industries and transportation projects which creates an environment that holds many negative stressors such as air and noise pollution, increased truck traffic, and illegal dumping. These are all key issues that the organization has mobilized around and led them to take on the GHIB as their main project and point of advocacy.

The organization is working to ensure that the community sees some of, and benefits from, the \$2.1 billion project. Currently, the GHIB has only promised that 1.2% of total project costs would be invested in the host community whereas many successful projects around the country have seen 5-15% (SW CBC, 2011). The CBC has been advocating for local hiring as well as job training programs to be provided by the bridge company. Other demands include equitable compensation for displacement, green replacement housing for those who want to stay in the neighborhood, new truck routes to maintain and improve the quality of life, and good maintenance of roads and sidewalks. The CBC has also been advocating for ongoing air and health monitoring, air filtration systems at local schools, idle-reduction and diesel-reduction support for fleet trucks, green development and alternative energy for the bridge and plaza, community

representation in bridge oversight, and the sharing of toll revenue to address concerns the community has as well as future sustainable development (SW CBC, 2011).

Household Survey

A health survey was disseminated to 122 households in the Delray neighborhood district of Detroit, in an area north of the I-75 freeway. Teams of Spanish and non-Spanish speaking students and community members went door to door administering the survey. Surveying began in June 2016 and continued until in the middle of November. An application called Loveland was used to keep track of what homes the teams had been to, which ones had completed the survey, which ones were not interested, and other important notes for the surveyors to know. Loveland helped to map out what homes had been successfully surveyed which gave surveyors a clear picture of the areas where not enough data had been collected and therefore pushed teams to ensure equal representation from all parts of the study area.

The survey was generally administered with an iPad (loaned from the University of Michigan-Dearborn Geospatial Analysis and Mapping Lab) that each team carried around along with paper copies of the survey. Binders full of other resources were available for surveyors to give to participants. Resources included a fact sheet about the GHIB and a map of the projected development sites so that people could become aware of what is exactly happening. A gap surveyors noticed that needs to be filled is keeping up to date on information about the progress of the bridge and what exactly the bridge company is accountable for. Teams have found that many residents do not know when the bridge is going to be built, where it will be located, or other pertinent pieces of information about the development. The residents are not at fault for this gap, but rather

it is the bridge company that is neglecting to inform people about the progress and plans. For this reason, teams try to distribute the information put together by the Southwest Detroit Community Benefits Coalition. Included is a Frequently Asked Questions sheet that contains information on the study such as its purpose, the fate of the results, the anonymity of the study, and how to learn about the results. It also includes a statement on the SWCBC:

The SW Detroit Community Benefits Coalition, or “CBC”, formed in 2008 when the federal environmental study was being finalized for the bridge, and there were not enough protections for the community. The CBC has a community-elected board with area residents and others represented. Over the years, CBC has been informing residents in the impact area, advocating and securing improvements for the community – including helping families being bought-out for the bridge; getting resources to demolish dangerous structures and improve the neighborhood; negotiating with Canada, Michigan, and the City; and gathering information to help the community.

Before the survey began, participants filled out a consent form to ensure that residents knew their rights, risks, and protections, and also completed a verification form for a \$5 reimbursement for their time. The consent form informed participants that their survey answers would be de-identified so that they could not be traced back to the recorded addresses. It detailed the purpose of the study and exactly what information would be collected, the benefits of participation, how the data will be stored, a statement on the voluntary nature of participation, and contact information of the researchers.

There was a lot of thought put into how the survey team would be built. Having a Spanish-speaking and a non-Spanish speaking surveyor allowed communication with everyone who came into contact. The Spanish-speaking individual was always from the Southwest Detroit community while the non-Spanish speaking partner was typically a student from the University of Michigan-Dearborn. This model allowed for the fusion of surveying methods, one of which is an outsider-coming-in approach and the other is a grassroots, community-led approach. This fusion created an experiential, service-learning process for the students while still maintaining a productive and empowering process for the community. For residents, having a native Southwest Detroiter helped to establish a sense of trust, although teams still faced some fear and anxiety that residents had.

Some residents were afraid that surveyors were from the bridge company while others thought the government. The increasing tension around the political climate made the latter a bigger concern than it would have been in months before this time. Along with this fear, there was also a sense of bitterness, or jadedness, with residents having been made false promises by researchers, institutions, foundations, and community groups before this point in time. Many people have come in for research purposes, extracted information, published articles, and left the community with no real improvements or tools for change. Others have come in with good intentions but without the political or social power to make a difference that was felt widely by the community.

Another issue faced was capacity. The CBC was completely swamped with meetings, events, and studies. The organization also lacked funding and resources to easily take care of all everything at once. Also, increased attention to the bridge and the

rapidly approaching construction date forced a lot of decision makers to engage with the issue. This realization was followed by many meetings that were set up with various stakeholders, including the research team and the CBC. This put the launch date on hold several times throughout the summer of 2016, although the survey team started soon after. The nature of community organizing can be very fast paced and unpredictable. This made it difficult to stick to the timeline and also made any envisioned timeline somewhat obsolete, but it is still important to make those types of plans and strategies. It is equally important that the team was able to roll with the punches and adapt to a changing environment and shifting circumstances.

The actual survey contains demographic questions, a variety of health questions, and questions about neighborhood satisfaction, feelings about relocating, and needs around housing repairs and employment. There is also one open-ended question that asks residents what they would ask decision makers to do regarding the bridge and air pollution if they had the opportunity. The health questions center around ailments that are primarily caused by air pollution, and these results are going to be compared to survey results that will be collected in the future. The purpose of this is to assess how much of an impact the bridge has on the health of the community. The questions about housing and job needs serve as a quantitative representation of what could be the start of a good community benefits package. These questions help to show the bridge company what they can provide in order to be mutually beneficial for the region they are being hosted in. The open ended question allows us to carry the voices of residents to each meeting we have with local political officials, the bridge company, or other key people involved in the process of development.

Results

Table 1 summarizes the preliminary results from the survey (n=122)

<p>Average age: 41</p> <p>80% respondents were female</p> <p>39% had less than a H.S. diploma</p> <p>56.6 % identified as Hispanic, Latino, or Mexican</p> <p>I feel at home in this neighborhood...83% strongly agree</p>	<p>43% have asthma or allergies that affect breathing</p> <p>28% have hypertension</p> <p>44% have 2 or more chronic illnesses</p> <p>27% have frequent headaches</p>	<p>With regards to the new bridge, if decision-makers do one thing...</p> <p>...address air pollution/filter air (20%)</p> <p>...truck/vehicle traffic (20%)</p> <p>... noise pollution (9%)</p> <p>...barriers and buffers (7%)</p> <p>...disseminate information to public (6%)</p> <p>...relocation (5%)</p> <p>...insurance/reimbursement (4%)</p>
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Table 2 summarizes preliminary results of the household members (n= 316).

<p>Percent ages of household members...</p> <p><12yo: 38%</p> <p>12-17yo: 14%</p> <p>18-24yo: 12%</p> <p>25-34yo: 11%</p> <p>35-44yo: 11%</p> <p>45-54yo: 9%</p>	<p>Asthma and allergies affecting breathing: 32%</p> <p>Hypertension: 11%</p> <p>Frequent headaches: 8%</p> <p>Hearing issues: 4%</p> <p>Heart disease or COPD: 2%</p>
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Next Steps

The research team is planning to continue surveying people of Delray starting in June of 2017 and continue throughout the summer. Surveys will be administered to areas where survey teams have not yet gone, both north and south of I-75. With more data, researchers will be able to expand the scope and have a better understanding of how this bridge is affecting the community. Also in the works is the creation of literature to educate community members and legislators of the results from the surveys and advocate for possible solutions. Geospatial analysis will also be conducted later on in the study to produce maps showing the spatial context of health outcomes.

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Appendix

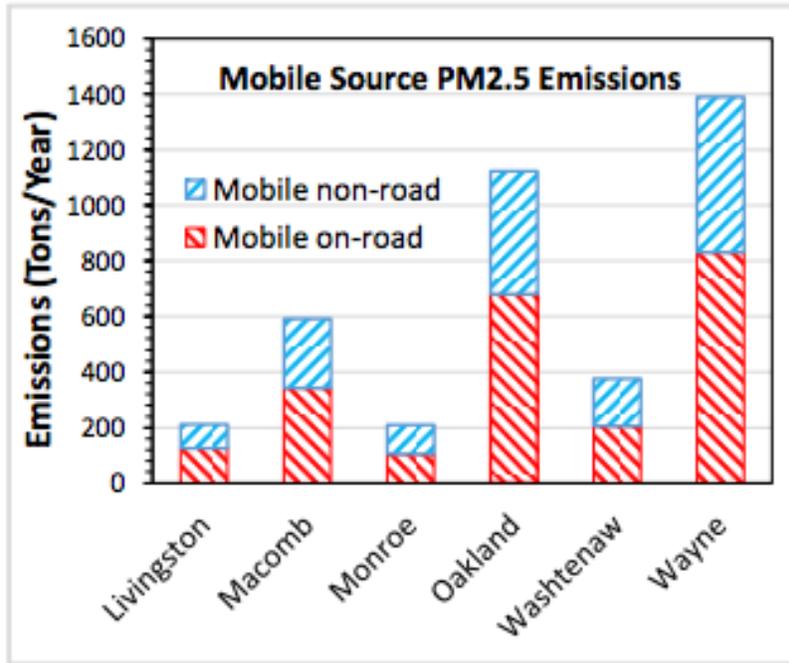


Figure 1. Mobile emissions of Southeastern Michigan Counties.

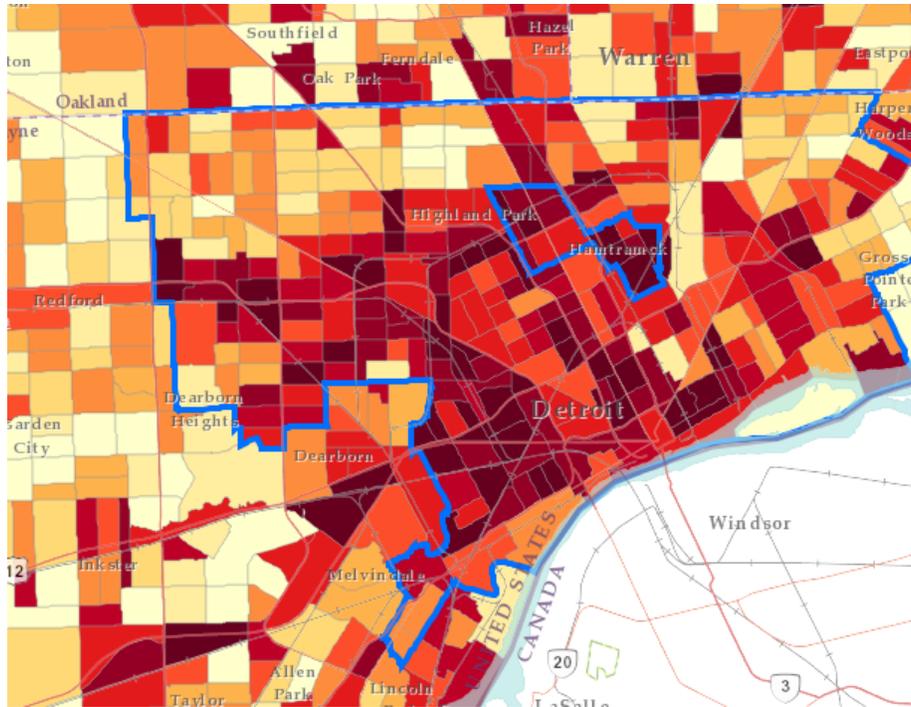


Figure 2. Cumulative exposure to air pollution. Map acquired from the CAPHE project led by Professor Batterman at University of Michigan.

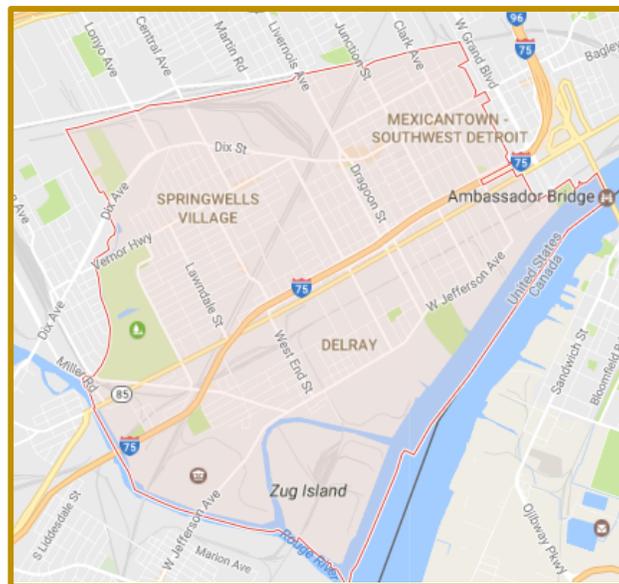


Figure 3. Map of Delray in Detroit, MI.

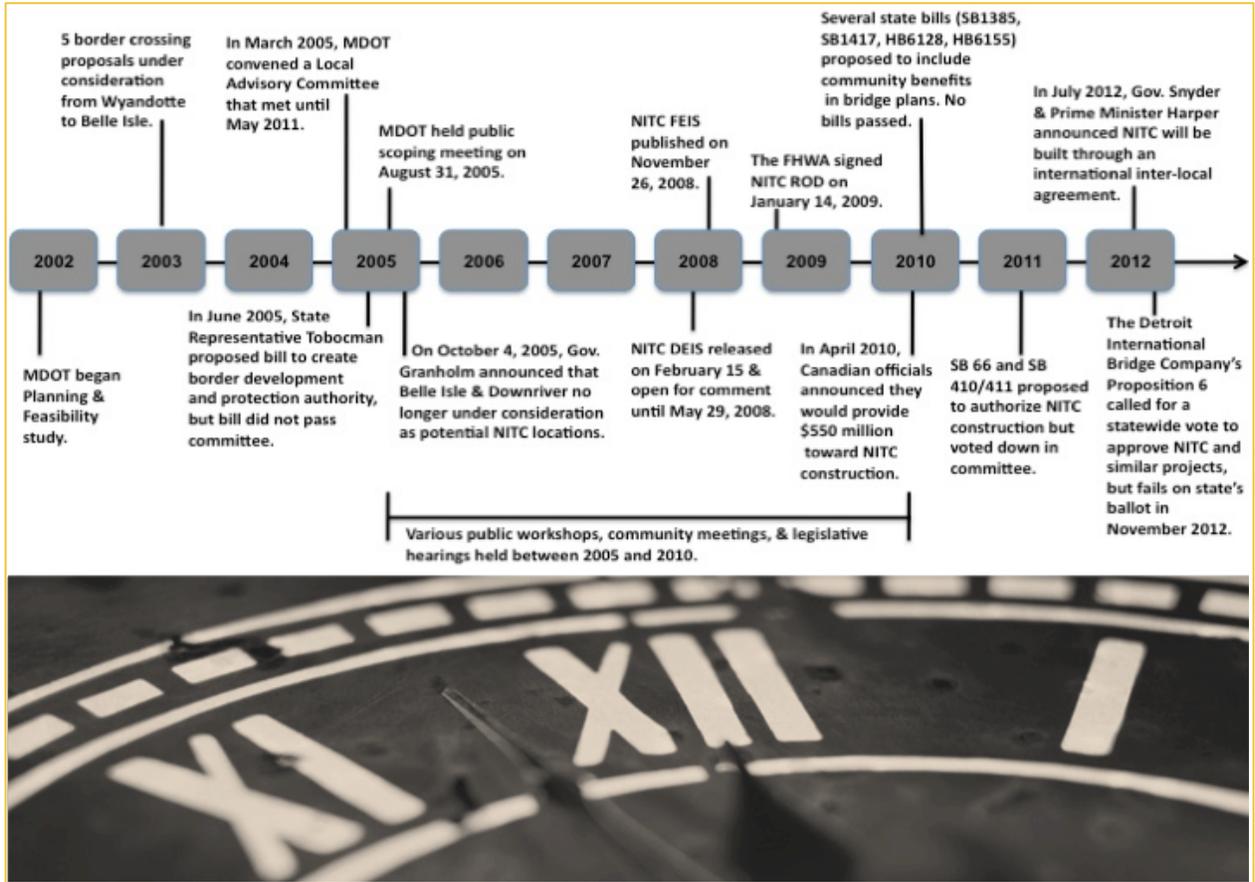


Figure 4. Chronology of bridge production.



Figure 5. Sketch of the U.S. Port of Entry and the proposed bridge.

Property by the Numbers
638 total land parcels required
211 residential relocations required
36 business relocations required
50 per cent of total property acquired/in control
57 structures demolished or in demolition process as of November 4, 2016

Figure 6. Summary of prep work needed for the collection of land.

More than Meets the Eye
Women and erotic art in the seventeenth-century China

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Meeting of Minds XXV
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Born out of curiosity about Chinese men and women's attitudes towards sexuality and its representation in art during the imperial era of China, this essay will attempt to understand the signification of erotic art, and its significance in the conception of gender roles, especially that of women. China's imperial era is both long, with over two thousand years of history, and complex, in terms of ethnic diversity and social development. Therefore, I will focus on erotic art from the seventeenth century by artists operated in the Jiangnan region, where an affluent urban culture thrived despite the turmoil associated with a dynastic change. At the end of this literary journey, there may be more questions for myself and my audience than answers, but the essay will serve as an instrument to invite new interest in and appreciation of this much neglected and even despised aesthetic tradition in China.

Introduction

Emerging in the seventeenth century, part-erotic albums flourished in the Jiangnan region of China. Interspersing explicitly sexual images with mildly erotic ones, these albums not only carried features of the cult of *qing* 情 (feeling, love, emotion), a hallmark of the Jiangnan urban culture, but also merged eroticism with didacticism. Navigating through the patriarchal value system to gain more voice, elite women in the seventeenth century participated in the consumption of cultural productions, possibly including erotic art. Part-erotic albums registered Jiangnan artists' efforts to recognize women's tastes and concerns, but at the same time became vehicles reinforcing established gender norms. This art testifies to the complexity of gender relations in that particular century and the continued dominance of elite men through the perpetuation of Confucian ideology. By exploring beyond the pictorial surfaces of part-erotic albums, this essay will serve as an invitation for new interest in one of the most neglected artistic traditions in China.

Though scanty, records show Chinese erotic paintings were produced in as early as the eighth century during the Tang dynasty, and subsequently in the Song (960-1279), Yuan (1279-1368) and Ming (1368-1644) dynasties¹. Because the genre as a whole had been historically scorned by writers and dismissed by collectors, none of these works survive, or alternatively, their presence is not known.

¹ James Cahill, *Chinese Erotic Painting*, accessed November 15, 2016, <http://jamescahill.info/illustrated-writings/chinese-erotic-painting/preface-and-introduction>. James Cahill's book on Chinese erotic paintings, never published under the original title, is now available online. This book grew out of his study, which spanned two decades, of Chinese vernacular paintings, or functional pictures, created by urban professional masters.

During the sixteenth century, ideological changes within the dominant Neo-Confucianism shifted focus from the study of ancient texts and external phenomena to examinations of the self². Traditional interpretations of human nature were being reexamined with increasing skepticism. As John Meskill notes, “The love of conspicuous comfort...marked a shift of attitudes in which the pursuit of pleasure rivalled conventional goals,” such as success in the civil-service examinations or the public practice of old Confucian virtues³. By the end of the sixteenth century an outspoken minority of writers, including radical philosopher Li Zhi 李贽 (1527-1602), argued that even the pursuit of sexual satisfaction for its own sake might be regarded as positive undertaking⁴. This spirit of libertinism is evidenced by the flourishing of the courtesan culture, the wide-spread popularity of erotic novels, and more openness in the treatment of erotic material in mainstream romantic fiction and poems in the seventeenth century.

The marked change in the attitude towards sex in late Ming may explain why an adequate number, though still meager compared to other genres, of erotic prints and paintings from this period survive. Of those extant and known, works in an album format are most numerous. Suitable for intimate viewing, albums are relatively small and contain individually mounted paintings assembled in a book-like structure. James Cahill, a world-renowned scholar in the field of Chinese art, has provided the most comprehensive survey of Chinese erotic paintings in his yet-unpublished book, “Scenes

² Charles Stone, *The Fountainhead of Chinese Erotica – The Lord of Perfect Satisfaction* (Honolulu: University of Hawai’i Press, 2003), 40.

³ John Meskill, *Gentlemanly Interests and Wealth on the Yangtze Delta* (Ann Arbor: Association for Asian Studies, Inc., 1994), 164.

⁴ Stone, 47.

from the Spring Palace: Erotic Painting and Printing in China”⁵. As Cahill has argued, two types of erotic painting albums existed in the late imperial period: an older type with page after page of explicit images of sexual acts (e.g. the example in Fig. 1), and a newer type or “part-erotic album” (Fig. 2 and Fig. 3), to use a term coined by him. The latter intersperses images of explicit sexual coupling with milder pictures that evoke rather than directly arouse amorous feelings⁶.



Fig. 1



Fig. 2



Fig. 3

⁵ Cahill, *Chinese Erotic Painting*.

⁶ *Ibid.*

I will investigate this newer type of erotic album through two albums by Gu Jianlong 顾见龙 (1606-1687 or after)⁷, a Jiangnan professional master who specialized in figural, historical and erotic paintings. Before laying out the relevant historical framework for these works, a general orientation of eroticism in Chinese art in the late imperial era will be given. Subsequently, I will address the difficult issue of women's viewership and consumption of erotic paintings before delving into the specificities of Gu's albums. It is difficult as there is little textual evidence of women's participation or agency in the consumption of part-erotic albums. Instead, I rely on other evidence, such as their agency in the consumption of other cultural matters, as well as visual evidence in the paintings to support my claim. An analysis of the didacticism imbedded in the paintings and its significance will conclude this essay.

Eroticism in Chinese Paintings

The Chinese translation of the phrase "spring palace" *chun gong* 春宫, as found with Cahill's book title, is a euphemism for "erotic". Adding the character *hua* 画 creates the word for erotic painting - *chun gong hua* 春宫画. However, the word *chun gong tu* 春宫图 (erotic picture) was frequently used to refer to erotic paintings in the occasional mentions of the genre in Chinese writing during the imperial era⁸. Though not always

⁷ Cahill, *Chinese Erotic Painting*. Erotic paintings or albums were rarely signed therefore are extremely difficult to date and reliably attribute. Some of the leaves in the two albums I examined in the essay bear Gu Jianlong's seal. Gu's mode of setting figures in interior spaces and creating intricate patterns of erotic interaction between them is seen in the albums, along with his favorite motifs such as the screen with rows of small paintings affixed to it. Based on these evidences, James Cahill attributes the two albums to Gu Jianlong.

⁸ Ibid. James Cahill mentions in Chapter 4 of his book "Chinese Erotic Painting" that the word *mixi tu* 秘戏图 (secret play picture) was used in two nineteenth-century notes on paintings by Gu

sustained in practice, art critics in seventeenth and eighteenth century used the words *hua* 画 (painting) and *tu* 图 (picture) to map the distinction between high and low art, with the latter representing the low⁹. Paintings of the vernacular type¹⁰ are “occasional, decorative, narrative, auspicious”, and were “acquired and hung and used in well-off households,” as defined by James Cahill. In other words, they are functional; therefore, they were frequently referred to as *tu*, and regarded as low art, or not as art at all, according to the literati artistic ideals advanced by the scholar official Dong Qichang 董其昌(1555-1636). By these definitions, erotic paintings fall under the category of *tu* 图.

The literati artistic ideals conditioned the lack of discourse around *tu*. In the late Ming period, Dong Qichang consolidated the aesthetic tradition of binary opposition between self-expressive style and mimetic representation, first intimated by Su Shi and his followers in the eleventh century, into a sophisticated theoretical system¹¹. Around this system, often referred to as the literati artistic theory, Dong developed discursive traditions that created a division in the understanding of representation in Chinese art, which held critical prominence from the seventeenth century to the twentieth. Artist

Jianlong. In the Introduction to the same book, he uses the word “picture” instead of “painting” in his translation of several condemnatory passages by Chinese writers about erotic painting. This to me implies that the Chinese character used was *tu*, not *hua*, for erotic painting in the original texts. Reading of the primary texts he translated will confirm or dispute my assumption here.

⁹ Craig Clunas, *Pictures and Visuality in Early Modern China* (Princeton, New Jersey: Princeton University Press, 1997), 185.

¹⁰ James Cahill, “Paintings done for women in Ming-Qing China?” *Nan nü : men, women, and gender in early and Imperial China* (2006): 1. James Cahill coined the term by analogy with the accepted term “vernacular literature” representing a category of literary work, mostly fictions, written in vernacular language.

¹¹ Craig Clunas, *Art in China* (Oxford: Oxford University Press, 2009), 161.

Gong Xian's (1619-89) passage reflects the policing of this division in the seventeenth century:

In ancient times there were pictures (tu) but no paintings (hua). Pictures depict objects, portray people, or transcribe events. As for paintings, the same isn't necessarily true for them... To insist on a specific subject or the representation of some event is very low class.¹²

Vernacular paintings, including erotic paintings, are "low class"; therefore, they were far beneath the notice of Chinese art critics, who were by definition literati. This is one reason why few texts, outside of descriptions in fiction, exist to support studies of agency in the production and consumption of *tu*. I will return to this point later in the essay.

Cahill's definition of vernacular painting as being functional mirrors the modern definition of "erotic art" by its intended purpose or function. Matthew Kieran defines 'erotic art' as art which "essentially aims at eliciting sexual thoughts, feelings and associations found to be arousing".¹³ A similar one is from "Stanford Encyclopedia of Philosophy": "Erotic art is art that is made with the intention to stimulate its target audience sexually, and that succeeds to some extent in doing so."¹⁴ 'Sexual stimulation' is qualified as "the inducing of sexual feelings, desires and imaginings, that

¹² James Cahill, 'Types of Artist-Patron Transactions in Chinese Painting,' *Artists and Patrons: Some Social and Economic Aspects of Chinese Painting*, ed. Chu-tsing Li (Lawrence, 1989): 8. In his note (p.19) Cahill draws attention to the unresolved question of the authorship of this text, contained in the anonymous manuscript Shibazhai shu hua (c. 1800), but stresses that it is the content not the authorship which is important to him.

¹³ Kieran, Matthew, "Pornographic Art", *Philosophy and Literature*, 25 (2001): 32.

¹⁴ Stanford Encyclopedia of Philosophy, "Erotic Art", accessed March 8, 2017 <https://plato.stanford.edu/entries/erotic-art/>.

would generally be regarded as pleasant in themselves.¹⁵ Both definitions allude to the two different modes of engaging viewers of erotic art. The first mode of engagement is through the sensory to directly provoke sexual feelings and desires. Paintings depicting explicit sexual acts, such as the older type of album painting seen in Fig. 1, work in this mode.

The second mode taps into viewers' cognitive ability to evoke "imaginings", "associations" or "thoughts". An anonymous Chinese painting from the eighteenth century (Fig. 4) serves to illustrate this mode. It depicts a scene from the romantic drama "The Story of the Western Wing" in which the heroine Cui Yingying, attended by her maid Hong Niang, is engaged in conversation with her lover Zhang Sheng. The artist used flowing lines, a soft color palette, and a meticulously rendered refined environment to project the feeling of romance. All three are properly clad with no explicit sexuality displayed. However, the close proximity of the lovers was scandalous "by the standards of official morality of the time"¹⁶. One of Zhang's legs is hooked over the chair arm with the foot directly pointing at Cui's exposed bound foot, a particular focus of eroticism for men at the time. The bowl of "Buddha's hand fruit", symbolizing the female sex organ¹⁷, adds another explicit erotic element to the painting. This imagery engages a viewer's cognitive and intellectual power to identify and comprehend the erotic signs as well as associate them with sexual acts. The merging of romanticism and eroticism represented in this eighteenth-century painting was prefigured in the part-erotic albums emerged in the preceding century.

¹⁵ Ibid.

¹⁶ Clunas, *Art in China*, 191.

¹⁷ Cahill, "Paintings done for women in Ming-Qing China?", 4.

The Emergence of Part-Erotic Albums

The seventeenth century is also frequently referred to as the “late Ming - early Qing” period, denoting the ending of the Ming Dynasty 明朝 (1368-1644) and the founding of the last imperial dynasty in China, the Qing 清 (1644-1912). Despite the turmoil associated with a dynastic change, an affluent urban culture flourished in the Jiangnan 江南 region. “Jiangnan” translates as “south of the [Yangzi] river” and roughly



Fig. 11

comprises the areas in the southern part of the Yangzi Delta. The rise of the urban culture in this region all “began with money”, to borrow Dorothy Ko’s phrase¹⁸. The large influx of silver into the region from the Americas and Japan in the sixteenth and seventeenth century transformed the Jiangnan economy from an agrarian type to a monetary one¹⁹. At a fundamental level, this economic change generated tremendous wealth and conditioned pervasive social

¹⁸ Dorothy Ko, *Teachers of the Inner Chamber: women and culture in seventeenth-century China* (Stanford: Stanford University Press, 1994), 31.

¹⁹ *Ibid.*

changes. One important aspect of the changes was the flourishing of commercial publishing.

Nothing short of the term “revolution” describes the change in the publishing and reading culture during the time²⁰. As books became more accessible both in terms of price and circulation, more people comprised of a more diverse social composition and with more eclectic taste characterized the new consumerism for printed books. In order to promote sales, book publishers mixed didacticism with entertainment by gracing the pages of novels, dramas and even precepts with pictures²¹. So prevalent was this fad for illustration that in 1625 one prominent publisher proclaimed “books of drama simply do not sell without pictures”²². Popular erotic novels such as *Jin Ping Mei* 金瓶梅 in the late sixteenth century, later joined by *Ruopu Tuan* 肉蒲团 and others of the same category, were published with equally erotic illustrations²³. The necessity of illustration for these types of novels solidified the album as the most popular format for erotic paintings or prints from the early Qing onward²⁴.

The album is also a more suitable format for part-erotic paintings, such as those by Gu Jianlong in Fig. 2 and Fig. 3. These images are taken from an album of twelve leaves and portray two very different moments, each with its distinct theme and mood. In Fig. 2, no overt sexual content is present, except the partially concealed groping of a young woman by a man seen on the right side of the painting. The domesticity, represented by the inclusion of a child in the picture and the tenderness displayed

²⁰ Ibid, 34.

²¹ Ibid, 40.

²² Ibid, 50.

²³ Cahill, *Chinese Erotic Painting*.

²⁴ Ibid.

between him and one of the seated women, offsets the eroticism suggested by the contact between the man and the younger woman. The gestures of the figures and the emotions they display render the construction of narrative almost inevitable. In stark contrast, Fig. 3 is explicitly erotic with three participants engaged in a sexual act. It is a spectacle of blatant sexuality accentuated by peripheral details.

Each of the two images can either be viewed and appreciated on its own as a self-contained narrative, a visual spectacle, or can be connected to form a larger narrative. The album format enables the alternate modes of separating and integrating spectacles and narratives by virtue of its accordion-like construction. The separation mode is achieved when the viewer opens the album one leaf at a time. The integration is realized when the album is completely unfolded from beginning to end. The flexibility of the format makes it more adaptable to individual preferences, which may have aided the genre in acquiring a more diverse viewership.

Cahill has suggested the development of the part-erotic album was enabled by the necessity of illustrating books and inspired by Western representational and spatial techniques available to the late Ming artists²⁵. By examining them in the philosophical and literary context of the period, I argue the emergence of part-erotic albums was also conditioned by the cult of *qing* 情.

During this period, *qing*, as “feeling”, “love”, or “sentiment”, was valorized and with it there was an intentional blurring of the boundary between it and *yu* 欲 “desire” or “sexual desire”. Confucian philosopher Xunzi 荀子 (ca. 313-230 B.C.) provided one of

²⁵ Cahill, *Chinese Erotic Painting*.

the earliest definitions of *qing*, connecting it to *xing* 性 (one's inborn nature): "The feelings of liking and disliking, of delight and anger, and of sorrow and joy that are inborn in our nature are called 'emotions' [性之好, 恶, 喜, 怒, 哀, 乐之情]²⁶." In the pre-Han dynastic periods (pre-206 BCE), the two concepts *qing* and *xing* overlapped in meanings, and were interconnected. Between the Western-Han dynasty (206 BCE - 9 CE) and the mid-Ming period, the meaning of *qing* evolved to become the antithesis of *xing*. It was considered morally suspect because *qing* can lead to *yu* (desire), and excessive desire results in damage. However, beginning around mid-Ming, some literati thinkers appropriated *qing* for their own agenda, revalorizing it to be something worthy of celebration.

Armed by the philosophical renewal of *qing*, the seventeenth-century followers of the cult of *qing* made it a central issue in fiction and dramas, promoting it to be a supreme human value. The more radical thinkers and writers even attempted to valorize *yu*, which proved to be more difficult due to the historical disparagement of the phenomenon of desire. As an alternative, *yu* was conceived as an element of *qing*.²⁷ Consequently, distinctions between *qing* and *yu* were blurred in philosophical discourse, as well as in fiction and dramas in terms of romantic feelings and sexual desires. As Martin Huang observed, "while physical desire was being sentimentalized, romantic

²⁶ Xunzi jijie 荀子集解, (Zhuzi jicheng 诸子集成 edition; rpt. Shanghai: Shanghai shudian, 1986), 22.274. English translation follows John Knoblock, *Xunzi: A Translation and Study of the Complete Works* (Stanford: Stanford University Press, 1988), vol. 3, 127.

²⁷ Martin W. Huang, "Sentiments of Desire: Thoughts on the Cult of Qing in Ming-Qing Literature," *Chinese Literature: Essays, Articles, Reviews (CLEAR)*, "Vol. 20 (Dec., 1998): 153-184. The evolution of the concept of *qing* and the formation of the cult of *qing* I present in this and the preceding paragraph is a brief summary of Martin Huang's discourse on the cult of *qing* in his essay.

sentiments were also being sensualized.” In other words, *yu* was emotionalized and *qing* was eroticized.

This interesting phenomenon is reflected in the handling of eroticism in *xiaoshuo* 小说 (vernacular fiction), which was moving into two directions in late Ming²⁸. In one direction were “high erotic novels” that contain many explicit accounts of sexual activities, of which *Jin Ping Mei* 金瓶梅 is a prime example. While *Jin Ping Mei* aims to expose the danger of sexual dissipation, other novels of the “high erotic” kind use explicit sexual details to portray harmonious love. For example, in *Shi Dian Tou* 石点头 the lovers' ecstasy is simply said to be so great that “they captured all the love in the world and outdid all the couples on earth”; and in *Erke* 二刻, that in making love “they rounded every limit of human happiness”²⁹. By sentimentalizing sexual activities, writers were able to leverage the philosophical view that *yu* is an element of *qing*, and thereby justify overt eroticism.

The second category of *xiaoshuo* with eroticism contains fewer or no explicit descriptions of sexual activities, but instead portray desire as an integral element of *qing*. *The Peony Pavilion* 牡丹亭, authored by Tang Xianzu 汤显祖 (1550-1616) who was a central figure in the cult of *qing*, belongs to this category. In this love story, the heroine Du Liniang dies of lovesickness and is resurrected by her lover Liu Mengmei's devotion: a resurrection understood as a manifestation of the transcendental power of *qing*. Yet, the divineness of *qing* does not preclude carnal pleasures, as evidenced by

²⁸ Keith McMahon, “Eroticism in Late Ming, Early Qing Fiction: The Beauteous Realm and the Sexual Battlefield,” *T'oung Pao, Second Series, Vol. 73, Livr. 4/5 (1987): 223.*

²⁹ *Ibid*, 227.

the inclusion of explicit references to sexual love in the book. Tang Xianzu's idea of *qing* not only includes pure and noble sentiments, but also the conception and consummation of physical desire.

Viewed within the context of the cult of *qing*, and through a philosophical discourse where the distinction between *qing* and *yu* was blurred, the emergence of part-erotic album mirrors the development of vernacular fiction with erotic content. Just as vernacular fiction sensualized *qing* and sentimentalized *yu*, part-erotic albums integrated sexual spectacles with narrative, thus absorbing eroticism (Fig. 8 & 3) into the larger domain of *qing*. *Qing* is manifested in the albums in various forms, such as attraction between men and women (Fig. 8), filial love between a mother and a child (Fig. 2), companionship and friendship among women (Fig. 6), and harmony within the "inner chamber" (Fig. 2 & 9) – the domestic sphere where women primarily operated. By providing a valorized and expanded *qing* as the context for eroticism, *yu* is justified. This connection of *yu* to the expanded range of *qing* including filial love and loyalty is echoed in the preface to the late-Ming erotic novel *Langshi* 浪史 [A History of Debauchery]:

The presence of *qing* brings about union while its absence results in separation. This is why Confucius did not censor those love poems when editing 'The Book of Poetry',... *Qing* is first nurtured in the inner chamber; then it will expand and develop in a person to enable him to become a loyal minister as well as a filial son.³⁰

³⁰ McMahan, 175.

In short, the cult of *qing* provided the philosophical and literary framework within which artists such as Gu Jianlong maneuvered to create a more versatile form of erotic art which merged romanticism with eroticism. In the next section, I will discuss elite women's agency in the consumption of literature and painting, drawing primarily on historian Dorothy Ko's groundbreaking work on women and culture in the seventeenth century,

Women's Agency in Cultural Consumption

Taking advantage of the socioeconomic changes that resulted in expanded educational opportunities, and more fluid class and status structures within the Jiangnan society, elite women broadened the sphere they operated within to create a unique women's culture. This culture is characterized by expanded social networking, increased travel opportunities, promotion of women's education, and new definitions of womanhood. In their efforts to gain more freedom, elite women pushed and stretched gender and class boundaries to new limits. One example is the frequent socialization between upper-class women and courtesans, two classes of women previously completely segregated.

In addition, for the first time in China's history, the idea of women as readers-writers-editors was commonplace enough to become a type, not isolated cases.³¹ As more women became literate and educated, they formed a hitherto nonexistent critical mass in the consumption of books. Their writings were valorized by some of the male

³¹ Ko, 1-67. What I presented in this paragraph and the preceding one is a brief summary of Jiangnan women's culture discussed at length by Dorothy Ko in the Introduction and chapter 1 of her book "Teachers of the Inner Chamber".

followers of *qing* influenced by the radical thinker and philosopher Li Zhi's 李贽 who championed concepts of *zhen* 真 (genuineness) and *tongxin* 童心 (innocence). These male writers equated women's literary voices with sincerity, naturalness, and truthfulness³². Recognizing the marketability of women's voice, the booming publishing industry commoditized women's writings. Through reading, writing and editing (anthologies), elite women in Jiangnan became consumers and producers of literature³³. As Dorothy Ko observed, educated women left "an indelible mark on the general culture of sixteenth- and seventeenth-century China."

Elite women also had economic purchasing power in cultural matters. Some amassed extensive collections of books including multiple editions of the aforementioned fiction *The Peony Pavilion*. Craig Clunas makes this claim in regards to women's purchasing power, "it seems certain that women did both own pictures and make consumption choices relating to their acquisition", though he duly cautions readers about the lack of textual material to support this claim.³⁴ In the monetarized Jiangnan society, economic power meant influence. It is highly likely, therefore, that women's tastes and concerns were recognized and considered during the creation and publication of commercial books, especially of the types most appealing to them, such as fiction, dramas and poems imbued with an abundance of *qing*.³⁵

³² Martin Huang points out Li Zhi's substantial impact on the cult of *qing* in his essay "Sentiments of Desire: Thoughts on the Cult of Qing in Ming-Qing Literature". Dorothy Ko also mentions the impact of Li Zhi's philosophy on the valorization and commodification of women's writing in her book "Teachers of the Inner Chamber", pp. 59, 60.

³³ Ko, 65.

³⁴ Clunas, *Pictures and Visuality in Early Modern China*, 160.

³⁵ Ko. This point is extracted from chapter 2 of Ko's book *Teachers of the Inner Chambers*.

Women's roles surrounding the renewal of *qing* were born out of the reading of popular vernacular fiction, such as *The Peony Pavilion* 牡丹亭, and appreciation of theatre dramas, which enjoyed enormous popularity at the time³⁶. Even though women's readings of *qing* can never be reduced to a singular "view", the spectrum of their interpretations nevertheless show a general consensus that *qing* was a supreme principle that governs all human relationships. Furthermore, *qing*, including romantic and sexual love, gives meaning to human life. Elite women's literary defense³⁷ of Tang Xianzu's explicit references to sexual intercourse in *The Peony Pavilion* reflects their positive view of the carnal aspect of love. In other words, women were not averse to, and perhaps even welcomed, fiction with explicit eroticism provided that the eroticism was presented in the context, or in the company, of *qing*. Although supported by limited literary evidence, James Cahill has argued paintings embodying *qing* held similar appeal to women. He even goes as far as to claim that some album paintings, such as the ones in Fig. 5, were specifically intended for female audience.³⁸

³⁶ Ibid, 72-89. In regards to women's interpretations of *qing*, reference Chapter 2 'The enchantment of love'.

³⁷ Ibid, 86-89. With words such as these, Jiangnan elite women defended Tang Xianzu's inclusion of explicit sexual descriptions: "She still behaves like a lady", "These words depict the pleasures of the two lovers and convey their inseparable love to the extreme. They foreshadow the pains of subsequent separation", "She is within the bounds of propriety, and her elegant legacy lingers."

³⁸ Cahill, "Paintings done for women in Ming-Qing China?", 6-18.



Fig. 5

Based on Ko, Clunas and Cahill's findings, elite women in Jiangnan were active participants in the consumption of books and paintings, and were attracted to those works with an abundance of *qing*. As authors and publishers were catering to their tastes, it is reasonable to infer their preferences with paintings were also being recognized and considered by professional artists. Both James Cahill and Dutch sinologist Robert H van Gulik, a pioneer in the study of Chinese erotic art and sexuality, have established that women were viewers of erotic paintings and prints. Did the appearance of part-erotic albums signal an attempt by artists and art dealers to appeal to women's tastes and preferences when it came to visual representations of eroticism? More pointedly, were part-erotic albums specifically created for women? With so little available textual support, I will rely on visual analysis of four paintings (Fig. 6 – Fig. 9) by Gu Jianlong 顾见龙, taken from an eight-leaf album (now only available in a later reproduction book), in the remainder of this section to attempt an answer.

In these four images, Gu not only provided *qing* as a context for *yu* thus justifying *yu*, as discussed above, he also visually emphasized *qing* and de-emphasized *yu*. A range of *qing* was portrayed in the images – romantic and sexual attraction, filial love between a mother and a child, companionship and friendship among women, harmony within the inner chamber.

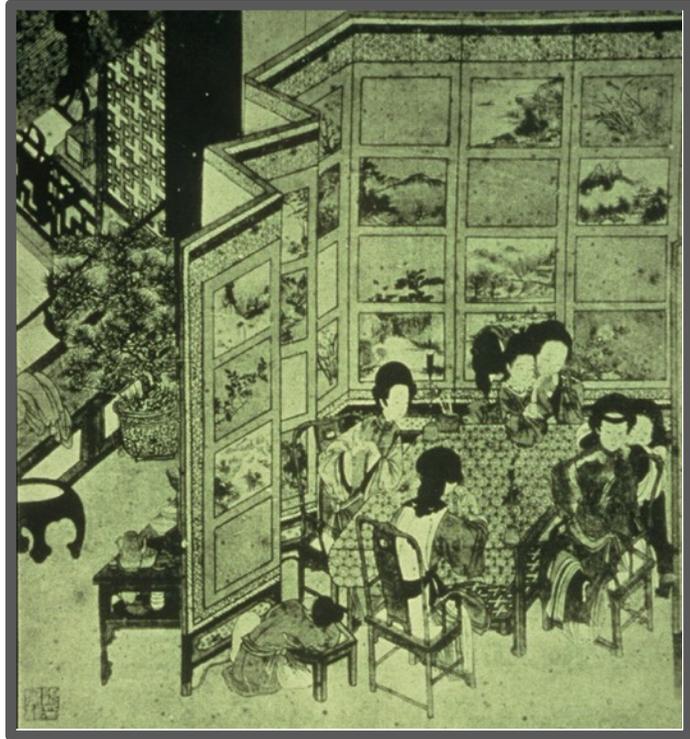


Fig. 6

The emphasis on *qing* is partially achieved through the detailed attention given to the settings and spatial arrangements. In all four paintings, Gu rendered the environment, whether furniture, decorative art, or natural setting, with meticulous precision, creating a believable representation of an affluent upper-class household. Hair style and clothing are also given proper attention as demonstrated by the variations found with each figure. In moving the focus away from *yu*, Gu placed the couple in the copulating scene in Fig. 7, at such a position and angle that the genitals are recessed into the farthest plane of the illusionistic space they occupy. His employment of intricate spatial arrangements and subtle details encourage viewers to construct erotic narratives. For example, the tall screen in Fig. 6 separates the group of women from the space in the left of the image, but also provides viewers voyeuristic access to the same space. The suggestion that something erotic may be

going on in the space shielded from the women but open to the viewers is provided through the subtle placement of a discarded robe by the potted plant and the shadowiness of the room beyond. In short, Gu took pains to conceal eroticism and accentuate non-erotic elements.

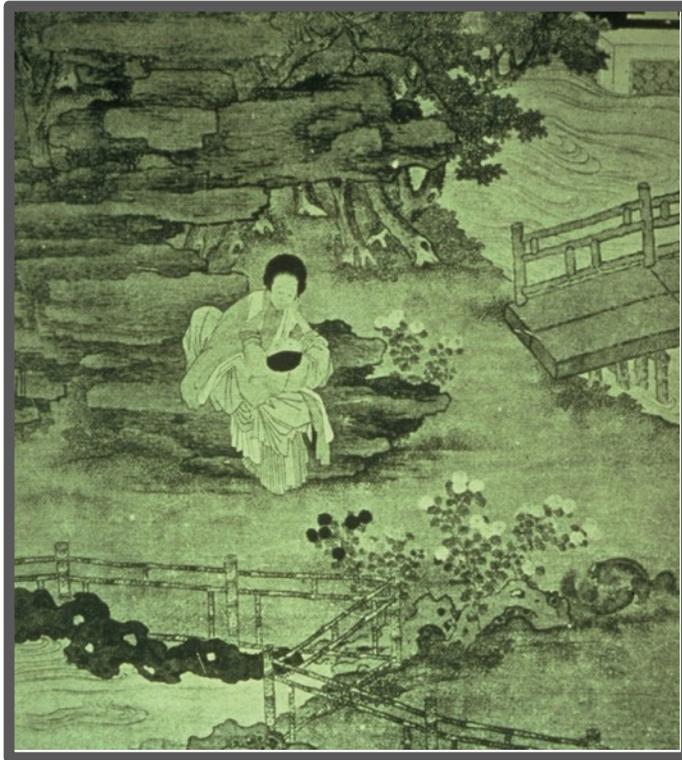


Fig. 7

Perhaps Gu's skill as a figure painter and erotic album master is manifested to the fullest in his handling of the emotions (*qing* 情) of the figures. In Fig. 6, four women sit around a table playing cards with a servant resting in the lower left. Two more women lean over the chairs of the women at right, looking at cards and possibly offering advice. The artist portrayed a range of emotions exhibited by the six women, including

curiosity, affection, and amusement. Each is rendered through slight variations in expression and gesture. The image projects a sense of lightheartedness and contentment.

The tall screen, which insulates the women from the possible erotic encounter occurring in the space beyond, helps to present to viewers a vignette of tranquil female bonding. Even though male viewers might have found the intimacy of the image titillating, the scene would have certainly been identifiable by elite-female viewers, who

had experienced large households built upon a polygamous family structure either as children or in married life. Furthermore, it projects the kind of agreeable state of coexistence between wives and concubines that was essential to domestic accord, without which elite women were unlikely to attain sustained happiness in a polygamous family. In effect, this painting presented an aspect of domestic life in a way that valorized women, thereby empowering female viewers as well as creating pleasure.

Another clue that this part-erotic album might have been intended for a clientele that included women is the scopophilic pleasure associated with the “female-gaze” projected in Fig. 8. This leaf presents a situation altogether different from the tranquil domesticity in Fig. 6. Three women, possibly concubines and/or maids, are eroticized by the exposed genitals of the man reclining on the bed (the present “covered” condition is the result of modification by the publisher of the reproduction to pass censorship). Their sinuous and limp bodies indicate their aroused state. Two of the women’s arms are crossed, signifying their conflicting psyche – to both look (and take pleasure) and to appear demure. This play of brashness and passivity heightens the eroticism. Further electrifies the sexual tension is the



Fig. 8

fan in the hand of the women in the center, which is obviously phallic in function and position. The three women and the sensuality they display can certainly be understood as a projection of a man's fantasy. Thus, they are objects of the "male gaze". However, within the painting, they are subjects directing a "female gaze" towards the sole male, their object. The circumscribing position of the women and their controlling gaze invite the voyeuristic viewer to participate in the "female gaze", through which the viewer is then in direct scopophilic contact with the male form displayed. Furthermore, a viewer who can identify with the three women, most likely a woman, gains control and possession of the man within the illusion of the natural space.

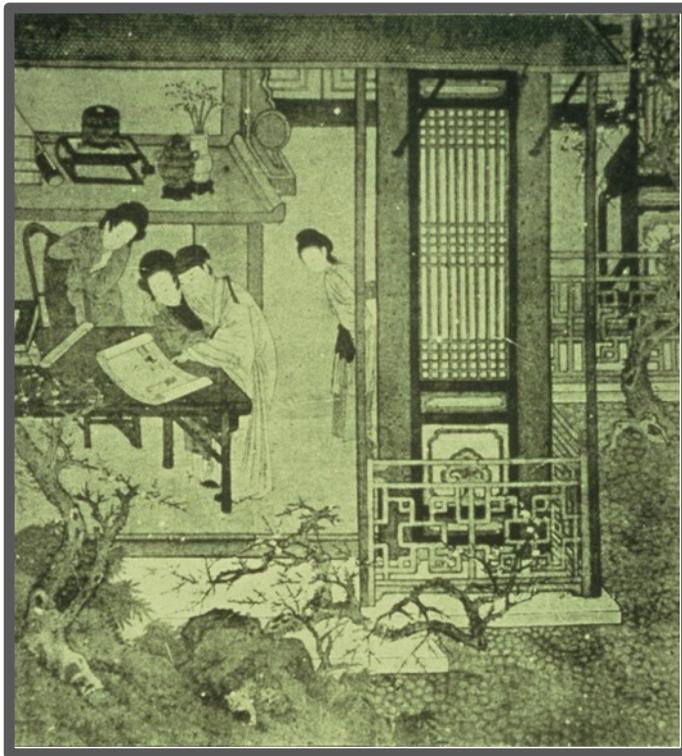


Fig. 9

In addition to the visual pleasure generated by the paintings, the circumstances surrounding Gu Jianlong and his clientele also suggest a female viewership. Gu Jianlong was a highly versatile professional painter active in the Jiangnan area. Around 1662, he received an appointment as a painting attendant at the Kangxi 康熙 emperor's court, and served at the court for about ten years, attesting to

his prominence.³⁹ He was reportedly commissioned by Kangxi to create a set of two-hundred illustrations for the aforementioned erotic novel *Jin Ping Mei*, which were later reproduced and are still extant.⁴⁰ James Cahill has argued that Gu's reputation for erotic work, along with other kinds of painting, may have in some part inspired the invitation to the court. In the seventeenth century, an erotic album from a prominent master was a luxury item. The protagonist in the erotic book *Roupu Tuan* 肉蒲团, mentions one such album costing 100 ounces of silver, which was an enormous amount of money for any work of art⁴¹. Therefore, Gu Jianlong's album was likely commissioned and purchased by a member of the elite class in Jiangnan.

Due to the narrative nature, the highly mimetic representational style, and the surfeit of detail with the four images under discussion (and the album), it is unlikely that Gu Jianlong created the album to appeal to an elite educated adult male audience – literati. Craig Clunas points out that in the seventeenth century literati increasingly shunned anything that even hinted at narrative in their art. Even though the erotic album is a distinctly different form of art than the one scholar-officials produced, an abundance of narrative was unlikely to be a desirable feature in any art they purchased or commissioned. Many literatus also adopted a preference for decorative motifs devoid of figurative representations⁴². Wu Hung draws attention to the importance of the 'pure screen' (screen without any pictorial decoration), which are portable screens

³⁹ James Cahill, *Pictures for Use and Pleasure* (Berkeley, Los Angeles, London: University of California Press, 2010), 36.

⁴⁰ Cahill, *Chinese Erotic Painting*.

⁴¹ Li Yu, *The Before Midnight Scholar*, trans. Richard Martin from the German by Franz Kuhn (London, 1974), 44-5.

⁴² Clunas, *Pictures and Visuality in Early Modern China*, 166-169.

depicted in Ming paintings, as a signifier of elite status.⁴³ We see something very different with the screen depicted In Fig.6. Here, Gu Jianlong not only rendered pictorial decoration on the screen, but also executed no less than eighteen small and meticulously-drawn paintings on it. Gu could not have been ignorant of literati's preference for the "pure" and "simple" and the vulgarity they associated with narrative and



Fig. 10

decorative details in art. He not only produced commissioned works for high-ranking officials, he also counted among his good friends Wang Shimin 王时敏 (1592-1680), one of the most respected literati painters of his time and a direct pupil of Dong Qichang⁴⁴. Therefore, if the erotic album he painted were intended for an elite-male clientele, then the end result surely missed the mark.

The screen depicting small paintings mounted in rows seen in Fig. 6 is a common feature in Gu Jianlong's paintings, seldom seen elsewhere⁴⁵. It may serve as another important point of evidence in establishing the viewership for Gu's erotic

⁴³ Wu Hung, *The Double Screen: Medium and Representation in Traditional Chinese Painting*, (Chicago: University of Chicago Press, 1996), 183.

⁴⁴ Cahill, *Paintings for Use and Pleasure*, 8.

⁴⁵ *Ibid*, 127.

albums. The same screen appears in Fig. 2, as well as in an illustration (Fig. 10) from the *Jin Ping Mei* series Gu painted for the Kangxi emperor. In Fig. 6 and Fig. 2, the small paintings on the screen are of various types, with some panel spaces reserved for paintings are conspicuously blank. This detail may reflect an actual practice by upper-class women of the period. As many elite women of the time learned to paint, with some being very accomplished, they may have filled their inner chamber screens gradually with their own work. In contrast to Fig. 6 and Fig. 2, no small painting is missing on the screen in Fig. 10, and the subject matter is uniformly landscapes in the upper row and “bird and flower” works in the bottom row. The fictional scene Fig. 10 illustrates took place in *Jin Ping Mei* in the banquet hall, part of the “outer” compartment in an affluent upper-class house. Based on this contrast, Gu Jianlong might have used this type of screen as a device to differentiate “outer” compartments from “inner” chambers in his paintings.

This “differentiating” screen appears in a relative large (80.1 cm x 44.4cm) ink-and-color-on-silk painting (Fig. 11), also attributed to Gu Jianlong⁴⁶. The scene is nearly identical to Fig. 6. However, it differs from Fig. 6 in two major aspects: the aforementioned screen, and there is no space depicted beyond the area where the women sit. Both differences are significant. The screen with no missing small paintings alludes to an “outer” compartment, which renders the setting more formal. As discussed earlier in the essay, the “beyond” space and the discarded robe in Fig. 6 suggest eroticism. With Fig. 11, the absence of these subtle erotic features, and the

⁴⁶ Cahill, *Paintings for Use and Pleasure*, 127. This painting was formerly in the Agata Collection in Osaka. James Cahill attributes it to Gu Jianlong.

formal nature of the setting, contrive to present it as a scene of domestic leisure, which significantly increases the respectability of this painting. It becomes the kind of art suitable for display in an upper-class household.



Fig. 11

James Cahill believes seventeenth-century paintings portraying women engaged in quotidian activities within domestic settings devoid of any overt eroticization were very likely done for a female clientele⁴⁷. Based on visual appearance, Fig. 11 belongs in this category, and therefore, was possibly intended for an elite woman. However, what might account for both the similarities and differences between the two paintings (Figs. 6 and 11)? It is difficult to imagine Gu re-purposed Fig. 11 to be included in an erotic album simply for convenience given he was a

⁴⁷ Cahill, "Paintings done for women in Ming-Qing China?", 6-8

methodical and diligent artist who produced study sketches in albums “piled as high as himself,” as described by his good friend Wang Shimin.⁴⁸ It is even more problematic to conjecture the reverse scenario, re-purposing an erotic album leaf for an expensive large hanging painting. More likely the similarities were at his client’s request. The possibility that the clients for the two paintings were acquainted with each other or were one and the same is not beyond reason.

It is not possible, without solid textual evidence, to claim that Gu Jianlong’s part-erotic albums were purchased or commissioned by women. Furthermore, I do not intend to suggest there is a neat division of gender-specific viewership (e.g. older type of all-sex albums for men, part-erotic for women). However, based on visual evidence found within the erotic paintings discussed, as well as the established scholarly opinion that women had direct agency in the consumption of other cultural matters such as books and vernacular paintings, it is reasonable to conclude that part-erotic albums were intended to appeal to women and to attract women as potential buyers. With this conclusion, the reason for imbedding didacticism in part-erotic albums, which I will expound on in the next section, becomes more apparent.

Didacticism in Part-Erotic Albums

The narratives represented in each leaf and interwoven throughout entire part-erotic albums had the potential of creating a more complex viewing experience than simple sexual stimulation. The didactic messages embedded in the albums provide yet another layer of complexity. Modern aesthetic philosophers such as Immanuel Kant

⁴⁸ Cahill, *Paintings for Use and Pleasure*, 9.

and Anthony Ashley Cooper, the third Earl of Shaftesbury, staunchly insisted that aesthetic pleasure and sexual pleasure are on the opposite ends of the spectrum of representation, leaving little room for the existence of eroticism in art⁴⁹. Their view that the aesthetic and the erotic are fundamentally incompatible proved to be deeply influential in the 20th century and even holds a continued influence in the present period. Denis Dutton, a prominent and recently deceased philosopher on art, has argued that eroticism is best to be avoided in art because sexual response is simply too crude and basic to count as aesthetic response. To him, a high degree of meaning-complexity is the hallmark of all great art⁵⁰. Based on his criteria, part-erotic albums from the seventeenth century China surely qualify as great art due to its multi-layered complexity.

As discussed above, conditioned by the philosophy behind the cult of *qing*, Gu Jianlong's part-erotic albums integrate *qing* and *yu* with *qing* being primacy. Just as the cult of *qing* was rooted in Confucianism, Gu's art was embedded with didacticism that naturalized women's assigned gender roles in the late Ming – early Qing period.

The image in Fig. 6, for example, strongly alludes to one of the two fundamental doctrines of Confucianism that define women's gender roles – the separate spheres of man and woman, with men belonging to the public ("outer") and women to the domestic ("inner"). The second is referred to as "Thrice-Following", which I will discuss later. Within the patrilineal family system in China, the power of the family as a unit lay in mutual dependence and mutual assistance⁵¹. In the late imperial China, an elite household was a multigenerational cluster with married and unmarried members of the

⁴⁹ Stanford Encyclopedia of Philosophy, "Erotic Art".

⁵⁰ Dennis Dutton, *The Art Instinct* (New York: Oxford University Press, 2009), 238.

⁵¹ R. H. van Gulik, *Sexual Life in Ancient China* (New York: Barnes & Noble Books, 1996), 105.

family living together under one roof. It was also a polygamous family system with the male members having concubines in addition to a chief wife. Such a family requires numerous servants, with female ones tending to the needs of the wives and concubines. The women of the household live in the deeply recessed “inner apartments” in a large walled compound, separated from the “outer apartments” where daily activities of the household took place.

Fig. 6 presents an idealized picture of the domestic reality of a polygamous family. The room is quite lavishly appointed with carved furniture and a tall screen with small paintings neatly mounted in rows, which, as discussed above, is a pictorial device Gu Jianlong used to indicate the setting as an inner apartment of an affluent upper class household. The screen demarcates the area the six women occupy and essentially creates a “tunnel” of space. As far as the women are concerned, they are confined within this deep “tunnel”. Yet, they exhibit no trace of anxiety or strife, only mutual affection and perhaps factional affinity, indicating the ease with which they occupy the “space” and their “station” in life. They also appear to be indifferent to the romantic or sexual activity that may be going on in the space beyond the room where they are situated.

In addition to the erotic narrative that can be constructed around the space behind the screen, this image may carry subtle allusion to female homoeroticism. The constant absence of the male members of an affluent household, who were often away on official or commercial business, left the women with each other’s company for long periods of time. Even when the men were not away, under the doctrine of separate spheres, women were left with much freedom to pursue affective bonds of their own

without men's interference⁵². As long as women fulfilled their familial duties, they were allowed to seek pleasure in each other's company⁵³. In more plain words, the flexibility built in within the Confucianist ideological system of the seventeenth century tolerated homoerotic or homosexual relationships among women. The intimacy exhibited by four of the women in two groups can be read to suggest the possibility of homoerotic potential of the moment or subsequent moments.

The possible readings of this image testify to the complexity of the part-erotic albums. By simply being placed within an album containing blatantly erotic paintings, an image, such as this, automatically assumes an erotic undertone. Yet, it portrays a tranquil and harmonious moment of domesticity with only subtle allusions to sexual potential. Therefore, it is a fusion of the assumed erotic, the non-erotic and the "cognitive" erotic, with the non-erotic being the most apparent and dominant element. As the viewer is engaged cognitively to discover the eroticism and construct the erotic potentials, those non-erotic elements are simply accepted as true, thereby are naturalized and registered in the viewer's mind. Though discord and rivalry often characterized the true state of domesticity in a polygamous elite-household, the artist idealized the "inner" sphere women occupied in this painting, conveying the prospect of contentment and the "freedom (to pursue pleasure)" within the assigned gender space for women.

The second fundamental Confucianist doctrine informing the gender system, and defining women's gender roles in seventeenth-century China is referred to as the

⁵² Ko, 272.

⁵³ Ibid, 271.

“Thrice Following” *san cong* 三从, sometimes also translated as the “Three Obediences”. I will use Fig. 2 and Fig. 3 from the earlier discussed Gun Jianlong part-erotic album to illustrate the naturalization of *san cong*.

In Fig. 2, a burning candle situates the scene as at night. Seated at a carved table with an inlaid top are two women, one of whom holds a small child against her lap. Partially obscured behind a screen in the right of the painting is another woman and a man in the midst of a moment of intimate contact. The three-paneled screen envelops the table and divides the room into two separate yet connected spaces. With missing panels and less uniformity than those used in more public spaces, the screen is the same type as seen in Fig. 6. Based on the refinement of the setting, there are two possibilities for the scene’s location – an upper-class home or a high-end brothel. It is highly unlikely that a child would have been permitted in a room when a male client was visiting a courtesan’s establishment. Therefore, the presence of the boy child and the “missing-panel” screen indicate the image represents the inner chamber of an affluent family. The relationships between the three women can be construed based on the visual hierarchy and iconography.

Chinese painting tradition regulates that the person with the highest social status is depicted in larger size and proportion than others of lesser status. Based on this tradition, the woman seated facing the viewer is the wife. There are several possibilities for the identity of the second seated woman – a visiting friend of the wife, wife to another male household member, the nanny, or a concubine. The first possibility is excluded due to the apparent nonchalance exhibited by the groping man. For a learned man to be engaged in open, amorous behavior in the presence of a guest would have

been taboo within an etiquette system informed by Confucianism. The tenderness displayed between the child and the woman indicates a warm bond between the two, making the third option possible. However, servants were not likely to be permitted to sit in the presence of the masters in the seventeenth century. Exceptions were made for older, long time servants. Even in such cases, they were given smaller stools thus seated at lower levels than the masters. The woman in the image is seated at the same level as the wife on a barrel-seat, indicating her non-subservient status. Therefore, the most likely identity for her is concubine or another wife. Since the *raison d'être* for concubines was to bear sons, the presence of a boy child strongly indicates that she is a concubine.

In the legal system of the seventeenth century, concubines were allowed as potential bearers of sons to perpetuate the patrilineal line. Ming statutes stipulated that a male commoner could take a concubine only if he were over 40 and had no son. This was, however, seldom enforced.⁵⁴ As a result, concubinage was prevalent in upper-class families. In the hierarchy of the polygamous family, a concubine with a son was accorded higher status than one with a daughter or one with no children. The intimacy between the boy and the woman indicates she is the mother of the boy. As a concubine with a son, her status was assured and she could sit at the same level as the wife with ease and confidence. However, the younger woman being groped by the man certainly had not attained such status. Her facial expression indicates she is not enjoying the encounter. Perhaps she issued an audible protest, which caught the attention of the two seated women, both of whom have their heads turned in her direction. Here, Gu

⁵⁴ Ko, 107.

Jianlong's descriptive ability is again exemplified by his handling of the emotional state of the characters. The wife's approval or tolerance, the girl's distress and the man's lascivious confidence are indicated by slight variations in their facial expression.

This same emotional nuance is employed in another leaf from the album (Fig. 3), in which two women and one man are engaged in an explicit sexual act – the deflowering of the younger women. Even though there is no text accompanying the leaves to indicate any connection between this image and Fig. 2, viewers are certainly encouraged to imagine a narrative link between the two leaves based on the facial resemblance of the characters, especially of the younger woman. Thus read, the message is quite clear with the images: a good wife tolerates and even helps her husband in his sexual fulfillment with other women, without the emotional displays or acts of jealousy.

Dorothy Ko has argued that sixteenth- and seventeenth-century socioeconomic changes in Jiangnan, and the upsurge of concubinage were to account for the conspicuous presence of jealousy in elite households in this area⁵⁵. This was perhaps a reflection of the unique women's culture and its influence discussed earlier in the essay. Men's reception of women's rising participation in social and cultural spheres was mixed. Some embraced and even valorized women's literary talent. On the other end of the spectrum, some men viewed literary activities as a threat to the age-old gender system informed by Confucianism.⁵⁶ They believed the rampant and conspicuous

⁵⁵ Ko, 108.

⁵⁶ Ibid, 68-112. Dorothy Ko discusses in detail in chapter 2 the tension existed between elite women and the patriarchal value system when women sought to increase their social and literary visibility in the seventeenth century.

jealousy displayed in the women's quarter was a manifestation of the erosion of the moral order due to women's increased assertiveness and visibility in Jiangnan society. It upset the patriarchal family system by violating one of the two cornerstones underlying women's gender roles: "Thrice-following". The meaning of "Thrice-following" is explained in the *Book of Rites*, one of Confucian classical texts. As translated by James Legge:

The woman follows (and obeys) the man: in her youth, she follows her father and elder brother; when married, she follows her husband; when her husband is dead, she follows her son.⁵⁷

This simple dictum specifies the fundamentally inferior gender position of a woman, that she is completely and absolutely subordinate to and dependent on the men present in the various stages of her life. In other words, a woman's social station was defined by the men in her life⁵⁸. A woman who reads and wrote extensively, or even published her own work, was one who could potentially become independent from the man in her life. A woman who displayed jealousy challenged the authority of the man in her life. Such practices and behaviors violated the "Thrice-Following", and therefore were a threat to the scholar-official supported patriarchal system.

Just as many writers in the late Ming felt compelled to attack the concept of *qing* due to its increased visibility⁵⁹, moralists in the seventeenth century felt equally

⁵⁷ Jame Legge, trans., *The Li Ki (The Book of Rites)*, BOOK IX. THE KIÁO THEH SANG section III, accessed March 8, 2017, <http://www.sacred-texts.com/cfu/like/like09.htm>.

⁵⁸ Ko, 252.

⁵⁹ Martin Huang, *Desire and Fictional Narrative in Late Imperial China* (Cambridge, Massachusetts and London: Harvard University Press, 2001), 45-56. Martin Huang discussed the containment of *qing* in chapter 2 of his book.

compelled to curb the rising influence of women. As discussed earlier in the essay, the concept of *qing* originated within the Confucian philosophy and evolved through the efforts of Neo-Confucianists. In the late Ming, these ideas were appropriated by certain disenfranchised literati for their own agendas, which initiated the rise of the cult of *qing*. The inherent ambiguity of the concept of *qing* enabled the “appropriation”, and allowed for multiple interpretations of it by literati writers. At times, *qing* was emphasized as an ideal that defies logic or principle. Other times, it was valorized as an enabler and enforcer of Confucian social order⁶⁰. Therefore, the cult of *qing* did not represent efforts to overthrow Confucianism. Rather, it registered the endeavors of various supporters to stretch the boundaries of orthodox Confucian tradition. Outside of the influence of the cult of *qing*, the ambiguity of the concept, especially its association with *yu*, provoked conservative thinkers to denounce theories valorizing *qing* and *yu*⁶¹. The multi-faceted implications of *qing* influenced the literary and artistic output in the seventeenth century. Reading Gu Jianlong’s albums under this light, it should not be a surprise then to find both *qing* and didacticism in the same images.

The implication of the conflation of eroticism and didacticism in part-erotic albums can further be understood in the context of Jiangnan print culture. Even though women became more educated in the seventeenth century, the number of literate women in this period remained small. In addition, old gender stereotypes that maligned women as temperamental beings, who were predisposed to be attracted to drawings and vernacular arts, persisted. Alongside highly-popular vernacular fiction, illustrated

⁶⁰ Ibid, 47.

⁶¹ Ibid, 45-56.

editions of didactic books such as *Biographies of Exemplary Women* flooded the market⁶². Though the reasons for the mass production of such didactic books were varied, one common thread seems to be the general belief, even among women, that moral cultivation stood as the top priority in a woman's education. This belief was rooted in the orthodox Confucian tradition and perpetuated by the publishers, writers (including elite women), and financiers of the printing industry. The paradoxical coexistence of the sensuous and the didactic in print culture is mirrored in the coexistence of eroticism and didacticism in erotic art. Both reflected the tension in the Jiangnan urban culture between the old norms and the new opportunities presented by the socioeconomic changes.

The didactic power of Gu Jianlong's part-erotic albums was amplified by its method of delivery. By leveraging the appeal of *qing* to women, the images conveyed moralizing messages in the company of positive sentiments, such as contentment, harmony, and joy, thereby producing sentimental pleasure as well as sexual stimulation in the viewers. Furthermore, by representing women in healthy sexual and domestic relationships with their partners and with other women, the albums "rewarded" female viewers by allowing them to see the fruits of their elevated moral conducts. In effect, instead of dictating oppressively, the albums provided women pleasures and incentives to behave according to established gender norms.

The paradoxical use of an art form traditionally denounced by scholar-officials to perpetuate the ideology they constructed reveals the resilience of the Confucian value

⁶² Ko, 51.

system. A quote by Dorothy Ko aptly describes the power of cultural devices like part-erotic albums in upholding the authority of old traditions:

But cultural literacy did not diminish the strong hold of Confucian morality on the educated women's lives. In fact, never before had the vehicles for propagating Confucian ideology been more powerful and pervasive. Tales of moral exemplars, now vividly illustrated and presented as vernacular stories, reached more homes and perhaps hearts and minds than did dry treatises.⁶³

Conclusion

In seventeenth-century China, the scholar-official class was the ruling material and intellectual force. They constructed the dominant patriarchal ideology based on Confucian traditions laid down in classical texts two thousand years earlier, but adapted it to align with the changing social situations⁶⁴. This flexibility in the patriarchal system allowed for the emergence of the cult of *qing* and enabled the invention of new methods to reinforce old orders. By naturalizing, romanticizing and eroticizing gender inequality, part-erotic albums perpetuated men's subjugation of women by "empowering" rather than "oppressing". On the other hand, the albums testify to Jiangnan women's effectiveness in their negotiation of power within the gender system. Elite women stretched the boundaries of old gender norms to new limits, and in the process became more visible and more influential in the social and literary spheres, including the

⁶³ Ko, 66,67.

⁶⁴ Ko, 17.

production and consumption of erotic art⁶⁵. Part-erotic albums reflect the complexity in the implications of the concepts of *qing* and *yu*, as well as the dynamics of gender relations in the Jiangnan region in seventeenth-century China.

According to Denis Dutton, while love is complex, sex is too simple. As a consequence, “love is the most pervasive theme for representative arts everywhere, (whereas) explicit eroticism does not tend to figure importantly in the greatest masterpieces.”⁶⁶ Gu Jianlong’s part-erotic albums may appear simple on the surface, but there is more to them than meets the eye.

⁶⁵ Michel Foucault, *An Introduction*, trans. Robert Hurley, Vol. 1 of *the History of Sexuality* (New York: Vintage Books, 1980), 94, 99. The struggle between seventeenth-century Jiangnan elite men and women’s in gender relations is an example of the Foucauldian notion of power, that power is not repressive but productive, and is negotiated from innumerable points.

⁶⁶ Dutton, 238.

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**Rivera's Caudillo:
Marx in Mexico Today and Tomorrow**

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Abstract

In 1929 Diego Rivera began his mural cycle entitled The History of Mexico, located in the grand stairwell of the north wing at the National Palace in Mexico City. The mural consists of three major themes that form a triptych composition across the north, west, and south walls of the stairwell: The Aztec World (1929-30), From Conquest to 1930 (1929-31), and Mexico Today and Tomorrow (1934-35). Rivera's mural is part of the state commissioned muralist movement of the 1920s and 30s, which emphasized the indigenous heritage of the Mexican people and served as propaganda for the Mexican government.

On August 13th, 1929, Rivera composed preparatory sketches for the monumental National Palace mural, which consisted of all three parts of the mural cycle. While the first two parts of the cycle did not stray much from the original sketches, the final phase of the cycle displays a different narratives than the original. Rivera's original sketch depicts workers operating machinery and working together as a united force while a serpent coils around a mountain, similar to the first phase of the mural cycle. By contrast, the finished product depicts Mexico in a state of revolt against fascists and bourgeois powers, while Marx appears as a 'god-like' figure leading the proletariat Mexican people to a socialist utopian future. The drastic change in composition and imagery leaves open many questions about the artist's idealistic vision of the political state of Mexico during this time. I argue that Diego Rivera's Mexico Today and Tomorrow (1934-35), conveys a message of continual revolutionary tension and that the artist asserts Marx as the caudillo, or "strongman" that Mexico lacks, in order to solidify Rivera's own ideological agenda.

Introduction

In 1929, Diego Rivera began his mural cycle entitled *The History of Mexico* (1929-35), located in the grand stairwell of the north wing at the National Palace in Mexico City. The mural consists of three major themes that form a triptych composition across the north, west, and south walls of the stairwell: *The Aztec World* (1929-30) (Fig.1), *From Conquest to 1930* (1929-31) (Fig.2), and *Mexico Today and Tomorrow* (1934-35) (Fig.3). Rivera's mural is part of the state commissioned muralist movement of the 1920s and 30s, which emphasized the indigenous heritage of the Mexican people and served as propaganda for the Mexican government.

On August 13th, 1929, Rivera composed preparatory sketches for the monumental National Palace mural, which consisted of all three parts of the mural cycle. While the first two parts of the cycle did not stray much from the original sketches, the final phase of the cycle displays different narratives than the original. Rivera's original sketch (Fig.4) depicts workers operating machinery and working together as a united force while a serpent coils around a mountain, similar to the first phase of the mural cycle. By contrast, the finished product depicts Mexico in a state of revolt against fascists and bourgeois powers, while Marx appears as a 'god-like' figure leading the proletariat Mexican people to a utopian socialist future. The drastic change in composition and imagery leaves open many questions about the artist's idealistic vision of the political state of Mexico during this time.

When Rivera started *The History of Mexico* in 1929 Plutarco Elias Callas lead the Mexican government; when he finished Lázaro Cárdenas was in his second year of presidency, in 1935. According to Leonard Folgarait, "Mexico has always been a place

where the Strong Man exerted the dominant political force, from pre-Conquest times to that of Callas [...] with both Obregón and Callas ruled without qualification [...] But with the death of Obregón (Mexico is), without a *caudillo*, or Strong Man.”¹ President-elect Álvaro Obregón was assassinated by a Catholic fanatic in 1928; due to clashes between the federal government and the clergy. He was viewed as the most popular and powerful leader in Mexico, with Obregón’s death Mexico lost a strong figure of a *caudillo*.² For the duration of Rivera’s work on the *History of Mexico* (1929-35) mural cycle, the absence was felt and fueled by the secretive continuation of power by Plutarco Elias Callas (President of Mexico from 1924-28). Callas worked “under” the presidents to follow, influencing and instructing their every decision, which became apparent into the 1930s when promises and spoils of the revolution were not being fulfilled to the people they were promised to—the workers, the soldiers, and the peasants—by the government. I argue that Diego Rivera’s *Mexico Today and Tomorrow* (1934-35), conveys a message of continual revolutionary tension and that the artist asserts Marx as the *caudillo*, or “strongman” that Mexico lacks, in order to solidify Rivera’s own ideological agenda.

To fully articulate the proposed statement I will examine three aspects regarding Rivera’s *Mexico Today and Tomorrow* mural, which include: why Rivera altered *Mexico Today and Tomorrow* from his original sketch, how Rivera uses a composition similar to that of Catholic Church fresco to establish Marx as the savior for Mexico (within the mural), and how Rivera’s mural is used by the government as propaganda to convey

¹Leonard Folgarait, *Revolution as Ritual: Diego Rivera’s National Palace Mural*, In Oxford Art Journal, Vol. 14. No. 1 (1991), pp. 18-33, Oxford University Press, 1991. (Accessed 10 October, 2015. Web), 18.

² Ibid, 18.

Mexico as an authentically revolutionary country. By applying Marxist principles to these three facets of Rivera's *Mexico Today and Tomorrow* a conclusion can be drawn that the artist's idealistic vision for Mexico remains a problematic one. The mural's depiction conveys a message of revolution against an oppressive government, but this notion is stifled by a government already perceived as "authentically-revolutionary."

Rivera's Political Change

In 1929-31, Rivera completed the first two stages of the *History of Mexico*, but three years would pass before he started the final phase, *Mexico Today and Tomorrow*. Orders had come down from high-ranking government official for the mural to be finished before the next president took office, three came and went, while a fourth was about to be inaugurated before this phase was completed.³

The first stage, *The Aztec World* (1929-30), displays a productive and harmonious ancient Aztec society, an ancient utopia. The second (and largest of all three stages), *From Conquest to 1930* (1929-31), layers Mexican historical figures across the upper register of the mural, while indigenous Aztecs or Mexicans engage in conflict with Spanish conquerors below. Former member of the Mexican Communist Party and Rivera's biographer, Bertram D. Wolfe describes the *Aztec World* as merely "tribal communism" and *From Conquest to 1930* as, "[...] whole epochs incarnated in the country's representative men, popular heroes, and villains [...]."⁴ The *Aztec World* does depict a scene that could be interpreted as a class-struggle, or more simply, a primitive culture clashing with another primitive culture. Wolfe's "tribal-communism"

³Bertram D. Wolfe, *The Fabulous Life of Diego Rivera* (New York: Stein and Day, 1963), 263.

⁴ *Ibid*, 262.

aggrandizes Rivera's ideological interpretation of his homeland's native culture. As well, in *Conquest to 1930*, the obvious villains are easily located wearing conquistadores armor and attire, but other "historical villains" are not as easily identified. The majority of the figures of Mexican heritage remain static atop the highest register of the mural, grouped together as equals. Obregón and Callas, the villains, amongst the likes of the folk heroes Pancho Villa and Emilio Zapata.⁵

Rivera leaves the viewer to discern which figures are in fact villains and which are heroes of the revolution, but this ambiguity of one phase and "tribal-communism" was viewed by Wolfe as Rivera's, "[...] complete ideology of Marxist communism[...]"⁶ and "[...] the most Marxist work in history[...]"⁷ This view was not shared by Wolfe's fellow members in the communist party. The party saw the artwork as profane and deem Rivera "the painter of palaces," which resulted in the party attacking the site and the mural as soon as Rivera left for New York in 1933.⁸ In 1930, after Rivera had completed the Palace of Cortés in Cuernavaca, similar attacks were carried out on the site of the National Palace by students who felt Rivera was an "opportunist" for capitalist interests.⁹

The years between the completion of *Mexico Today and Tomorrow* were a turbulent time for Rivera. Filled with blissful highs and fast sinking lows in his professional career; a slew of events that would deem him as a solidified communist

⁵ Villa and Zapata were, respectively, leaders of the peasant and agrarian movements during the Mexico Revolution. Both men were assassinated by military forces with orders from generals similar to Obregón and Callas.

⁶ Ibid, 265.

⁷ Ibid, 266.

⁸ Ibid, 267.

⁹Patrick Marnham, *Dreaming with His Eyes Open: A Life of Diego Rivera* (New York: Alfred L. Knopf, INC., 1998), 225-26.

painter and then a capitalist sympathizer. Rivera was a man whose political beliefs meant a great deal to his reputation, but as a professional artist gaining popularity, he had to follow where the demand for his artwork was present. Harsh scrutiny was to come from this demand, in Rivera's work in the United States was viewed by other communist party members to be detrimental to the party and selfish on his behalf.

From situations that arose in Rivera's professional career during this time, 1928-35, the presumption can be made that Rivera's work progressively works to convey a message of reaffirming his devotion to the communist party and Marxist principles. Due to swaying public opinion of his political beliefs, I argue Rivera altered *Mexico Today and Tomorrow* (from the original sketch to completed fresco mural) to strengthen the public's perception of his political views.

In November 1927, Rivera attempted to push his public perception as a communist painter to the limit by signing a contract to paint a fresco on the walls of the Red Army Officers' Club in Moscow.¹⁰ Rivera traveled to Moscow shortly after but discovered, due to the consequent expulsion of Leon Trotsky, the USSR government did not accept foreigners.¹¹ The USSR fulfilled Rivera's invitation into the country but revoked the contract for a fresco.¹²

On June 14th, 1928, Diego Rivera returned from Moscow: disappointed due to his expulsion from the USSR and without a mural of his own in Moscow.¹³ Immediately after his return, he had finished a series of frescoes at the ministry of education and had

¹⁰ Ibid, 201-2

¹¹ Ibid, 201.

¹² Ibid, 201-3

¹³ Ibid, 202-3

established himself as the dominant muralist in Mexico.¹⁴ By this time the other popular muralist (Siqueiros, Orozco, Guerrero, and Charlot) had either renounced mural painting or traveled abroad for new commissions, leaving Rivera as the sole purveyor of Mexico's "official art."¹⁵ Possessing the same privileges of a state or court painter in a totalitarian government, the cynical *Maximato* regime was pleased to let him paint what he had wanted: the *Maximato* would be a beneficial time for Rivera.¹⁶ In 1928, as part of the Court of Fiestas murals, Rivera depicted plutocratic capitalists as representing greed and idleness in a mural entitled, *Wall Street Banquet* (Fig.5). The figures represented were those of John D. Rockefeller, Henry Ford, and J.P. Morgan: two of which would later be his patrons.¹⁷

In October 1929, one month after being expelled from the Communist party, Rivera was commissioned by the U.S. Ambassador to Mexico, Dwight W. Morrow, to adorn the loggia in the Palace of Cortés in Cuernavaca.¹⁸ Rivera was paid a handsome sum of \$12,000 for the commission by the type of man, publically, he claimed to despise.¹⁹ Morrow, who was an executive partner at J. P. Morgan and later, in 1927, ambassador to Mexico, worked with the "socialist" president Callas' "Callas Group" (Callas' government funded corporation): helping to exploit Mexico's natural resources for capitalist gains to the north.²⁰ Being paid handsomely by capitalist that were working with the *Jefe Máximo* was bound to tarnish the reputation of a prominent artist quickly.²¹

¹⁴ Ibid, 204.

¹⁵ Ibid, 204.

¹⁶ Ibid, 204.

¹⁷ Ibid, 204-5

¹⁸ Ibid, 225.

¹⁹ Ibid, 225.

²⁰ Bertram D. Wolfe, *Portrait of Mexico* (New York: Covici, Friede, INC., 1937), 188-89.

²¹ *Maximato* is a reference to the period influence by Callas, 1928 to 1934. As well, *Jefe Máximo* is reference to Callas as the secret leader or unofficial decision maker; power behind the president.

Rivera's reputation as a respectable and famous artist had, thankfully, grown beyond the limits of Mexico and the communist party, bringing him commissions to the north: the U.S. was waiting for his talents. Between the years of 1931-34, Rivera traveled between the U.S. and Mexico, accepting commissions in New York, Detroit, and San Francisco. These commissions proved to be some of Rivera's most prized murals and, one of which, his most famous defeat. Rivera was commissioned to complete two frescoes in San Francisco during the winter of 1930-31; after which he was contracted to return home to Mexico to complete the third phase of the National Palace mural.²² Mexico would not see a working Diego Rivera again until 1934.

Rivera quickly started on a commission at the Pacific Stock Exchange (Fig.6), then at the San Francisco Institute of Art (Fig.7), completing both murals before November 1931. Rivera spends the next few years, November 1931 to March 1933, in Detroit and New York.²³ According to Patrick Marnham, "Rivera came determined to win acceptance in the United States for his politics as well as his art, and intended to use one to lead his admirers to the other".²⁴ While abroad, rhetoric from his former party, the Mexican Communist Party, was labeling Rivera as, "a henchman of the Yankee Millionaires."²⁵ Rivera's works in San Francisco and Detroit would showcase his admiration for the industrial and skilled trade workers. While conveying passive notions of his ideology in New York's RCA mural, Rivera was mingling and accepting commissions with the very capitalists he depicted in the *Wall Street Banquet* (Fig.6). Edsel Ford, replacing his father Henry Ford as President of the Ford Motor Company,

²² Ibid, 231.

²³ Ibid, 237-38.

²⁴ Ibid, 238.

²⁵ Ibid, 231.

and John D. Rockefeller Jr., son of John D. Rockefeller the co-founder of Standard Oil, would be Rivera's next patrons.²⁶

March 7th, 1932, the communist party organized a hunger march at the Ford Motor company's Rouge Plant: the march ended in violence, killing four strikers.²⁷ Rivera was not present in Detroit when the Rouge Plant incident occurred, but his arrival in Detroit coincided with the peak of the Great Depression.²⁸ Originally the commission for the Detroit Institute of Arts mural was to be funded by the museum and the city, but due to a lack of funding to the museum through the city, and even talk of a possible closure, the project was given new life by a new patron, Edsel Ford.²⁹ The Detroit Industry murals (Fig.8) would showcase the worker as the driving force of the automotive industry, the true proletariat, but Rivera was being paid handsomely for his work in a time of famine amongst the working class in Detroit. Fraternizing with the bourgeoisie of American industry did not help right his reputation as a neo-capitalist sympathizer. The events to follow in New York with John D. Rockefeller Jr. would culminate in an urgency for Rivera to prove his faith in communist ideology.

Rivera was still working in Detroit when negotiations began with the Rockefeller family for a mural to decorate the lobby of the new Radio Corporation Arts (RCA) Building in Rockefeller Center in Manhattan.³⁰ The Standard Oil Company was in the process of constructing nineteen new buildings in the center of Manhattan and Abby Aldrich Rockefeller capitalized on her opportunity to commission a mural painting: she

²⁶ Standard Oil was heavily involved with the Mexican Government, before and after the revolution, working to preserve oil investments within the country. Aiding top ranking officials, including presidents, and can be seen as one of the "villains" in Rivera's *Conquest to 1930*.

²⁷ Ibid, 240.

²⁸ Ibid, 240.

²⁹ Ibid, 241-42.

³⁰ Ibid, 248.

pursued her husband to agree.³¹ In March 1933, Rivera moved to New York and began painting; the exorbitant high fee of \$21,000 allowed him to hire a large number of assistants to speed up the work.³² Rivera worked diligently on the mural and by the first of May, the mural was close to completion.³³ When on May 4th, Rivera received a letter from the anxious Rockefeller family asking him to substitute the portrait of V. I. Lenin (Fig.9) for a less controversial figure, he refused and pleaded to let his work remain as it was.³⁴ He would never receive a response back and on May 9th, Rivera was paid in full for his unfinished mural, ordered to cease work, and escorted off the premise.³⁵ The RCA mural was destroyed shortly after and Rivera's next commission at the General Motors Building in Chicago was canceled: his career as a public mural painter in the U.S. was over.³⁶

In January 1934, Rivera returned to Mexico defeated and ill from his rejection of the RCA mural.³⁷ By November Rivera was recreating the RCA mural, now entitled *Man Controller of the Universe* (Fig.10), on a public wall provided by the Mexican government. The government seized an opportunity to provide the disheartened communist painter with public space to complete, or recreate his highly publicized mural. Indirectly providing the government with a media moniker as a "socialist" government supporting a communist painter. Soon after completion of *Man Controller of the Universe* Rivera would finally complete his third phase of the *History of Mexico* mural, *Mexico Today and Tomorrow*.

³¹ Ibid, 249.

³² Wolfe, 323.

³³ Ibid, 325.

³⁴ Ibid, 325-26.

³⁵ Marnham, 253-54.

³⁶ Ibid, 255-56.

³⁷ Ibid, 264.

I argue that because Rivera regained his confidence and feeling of urgency to reestablish his faith in communism, he decided that *Mexico Today and Tomorrow* would no longer be passive in his depiction of communist themes and revolutionary tension. Marx is prominently depicted as the savior of the Mexican people, pointing with his right hand to the prosperous future waiting for Mexico. Disturbing portrayals of the *Maximato* are conveyed in execution scenes of peasant and agrarian workers while officials of the clergy and government are shown lusting women and pouring over stock exchange ticker tapes. Fueled by the censoring of V. I. Lenin's head in New York, Rivera is demonstrating that he is still a provocative painter and a painter of communism in an oppressive totalitarian government. The government, now led by a new president, Lázaro Cárdenas, did not object to the finished mural and even praised the mural as representing the revolutionary spirit of Mexico in its National Palace.³⁸ The government would show its disapproval to Rivera in a more effective way: financially. The south wall was completed on November 20th, 1935; Rivera was not offered another public wall in Mexico until six years later.

Rivera's Appropriation of Christian Motifs

To prominently display Marx as a *caudillo*, or savior for Mexico, Rivera resorted to techniques and iconography of the Italian Renaissance masters. In 1934, when Rivera began painting *Mexico Today and Tomorrow*, the idea for the composition was already tightly entwined into his repertoire as a fresco muralist. Rivera had been heavily influenced by frescoes of the Italian Renaissance while working and studying abroad in

³⁸ Ibid, 267.

Europe during the Mexican Revolution. Rivera performed studies and sketches, but did not execute any frescoes while studying and traveling in Italy.³⁹ His acute attention to detail and exceptional consciousness of the old masters compositions, primarily frescoes commissioned by the Catholic Church during the Italian Renaissance, continually show up art over the years. Rivera created the *Mexico Today and Tomorrow* mural with a similar composition to that of the Italian Renaissance Catholic Church frescoes establishing Marx as the savior or leader of Mexico: the *Caudillo*.

From 1907 to 1921, Rivera lived, worked, and studied in Spain, France, and Italy; missing the entire Mexican Revolution. The work Rivera produced in Europe remains a stark contrast to his murals of the 1920s and 1930s, primarily working in a Cubist and Cézanne style.⁴⁰ In fact, the closest trace of war or conflict in Rivera's work during this time was a work entitled *Woman with Goose* (1917) that has a hardly visible observation balloon floating over a city.⁴¹ At this time, Rivera was viewed as a very raw talent whose potential was not fully met, but upon meeting Dr. Elie Faure the artistic vision of Diego Rivera forever changed. Faure was a prominent French art critic and historian, publishing many of the books and articles that were available to Rivera while in France.⁴² Through the teaching and friendship of Faure that Rivera advances his political ideology into his art and stress the importance of public art, an art aimed at the people.⁴³

³⁹ Marnham, 149.

⁴⁰ Ibid, 136-37.

⁴¹ Ibid, 136.

⁴² Ibid, 142.

⁴³ Ibid, 141.

Through readings of an influential Mexican painter by the name of Dr. Atl, and his new teacher Faure, Rivera was starting to understand the potential of a political public art form. Both, Faure and Dr. Atl, had in common was a dedication to fresco and a deep appreciation for the political potential in the twentieth century of public art inspired by the frescoes of the Italian Renaissance.⁴⁴ Faure viewed his relationship with Rivera as an opportunity to not only teach him the art and influence of the Renaissance but to direct the art of the future: subsequently the public art of Mexico's future.⁴⁵ Faure's ultimate message to Rivera would be to study the Italian Renaissance tradition of public art: art as propaganda.⁴⁶

According to Pope Gregory the Great, painting was to serve the illiterate as writing served those who could read; and, in the twelfth century, Bishop Sicardo had ruled that images should not be merely suitable as decorations for the church but should serve to remind the laity of events from the past and direct their minds toward the future.⁴⁷ In 1920, when Rivera finally arrived in Italy, the illiteracy rate in Mexico was over 90%.⁴⁸ Rivera, years later would appropriate many of the compositions of the old masters into contemporary Mexican propaganda. Heavily influenced by the compositions of Giotto, Messina, Uccello, Raphael, and Gozzoli; Rivera would style many of his compositions in the fashion of the old masters and even quoting them at times.⁴⁹

⁴⁴ Ibid, 143.

⁴⁵ Ibid, 145.

⁴⁶ Ibid, 144.

⁴⁷ Ibid, 144.

⁴⁸ Wolfe, 131.

⁴⁹ Marnham, 149.

An early example of composition quoting in Rivera's work can be seen in the *Liberation of the Peon* (Fig.11) in comparison to Giotto's *The Laying Out of Christ's Body* (Fig.12). Rivera and Giotto depict attendants gathered around the laid body, surrounded by a mountainous landscape. Rivera purposely positions the liberated peon's body similar to Giotto's Christ, comparing the everyday laborer to that of Christ.

Compositional aspects of *Mexico Today and Tomorrow* can be seen in Gozzoli's *Procession of the Magi* (Fig.13) (1459-61) including the unrealistic layering of the landscape in registers that flow from bottom to top, distant far off landscapes in the top two corners, and the method Gozzoli uses to display distinct faces amongst the massive procession in the lower part of the mural. *Mexico Today and Tomorrow* uses a combination of Gozzoli's compositional method and that of Giotto.

Giotto's *Last Judgement* (Fig. 14) and Rivera's *Mexico Today and Tomorrow* both show a bearded savior leading the faithful and condemning the sinners below. Marx directs Mexico's Trinity of people: the worker, the peasant, and the soldier, to the path to their salvation, while Giotto's Christ is guiding the faithful to heaven. Christ appears in a glowing sunburst mandorla while Marx is shown with a blazing sun to his back, defining who is "God" amongst the groups of figures. Both images depict their version of the damned that flows from the middle of the image downward to the right-hand corner.

Featured in Giotto's *The Kiss of Judas* (Fig.15), the figures are shown engaged in conflict with one another, with torches and spears jutting outward from the pile of grappling bodies. Rivera applies this same compositional method to that of the

proletariat striking workers engaged in conflict with the gas-masked fascist forces in *Mexico Today and Tomorrow* (Fig.16).

Rivera completely understood the didactic qualities established in these Italian Renaissance frescoes and used this to his advantage.⁵⁰ Marxist art historian Anthony Blunt praised Rivera for his adaptive techniques with religious imagery. According to Blunt, “[Rivera] does not merely attack the present system, but sets forth the principles of a positive solution for its evils. All of his paintings are conscious expositions of communism [...] the ultimate object of the painting is always propaganda [...] to expound the lesson of communism, just as that of the medieval artist was to expound the lesson of Christianity [...] if medieval art was the Bible of the illiterate, Rivera’s frescoes are the *Kapital* of the illiterate.”⁵¹ Blunt’s assessment of Rivera addresses a few critical points regarding the artist’s agenda; Rivera envisioned Marxism as the positive solution against Mexico’s political hardship, Rivera consciously exhibits communist themes as propaganda and ultimately illustrates his interpretation of a utopian communist state.

Rivera seized the opportunity to portray Marx as the creator or architect of his envisioned utopia. The basic Marxist principles would lay the foundation for Rivera’s mural: opposition to the inequality, alienation, and exploitation of the working class, exercise of the critical spirit or perceiving reality as it is, and continuation of a revolutionary process. For Rivera, these principles represent the doctrine of his proletariat “religion” and his envisioned “socialist-utopia,” the equivalent to the working class “heaven.” However, much of religion, application of these equitable principles

⁵⁰ Marnham, 150.

⁵¹ Ibid, 188.

remains vague, especially how Mexico will transform from a corrupt “dictator-esque” controlled country to a “socialist utopia.”

For Marx, “[the] criticism of religion is the premise of all criticism,” and for Rivera, his religion remains problematic.⁵² Marx, as influential as he remains in Western philosophy and critical thinking, is by no means a prophet. Marx’s work, in essence, criticizes capitalism and offers divergent thought on societal issues, but offers no solutions. According to Marx, “Man makes religion, religion does not make man [...] religion is the self-consciousness and self-feeling of a man who has either not yet found himself or has already lost himself again.”⁵³ Rivera grapples with finding his ideology throughout the years leading up to *Mexico Today and Tomorrow*, but ultimately, ends up losing himself at the very moment that he considers himself found. Marx declares, “Man, who looked for a superman in the fantastic reality of heaven and found nothing there but the *reflexion* of himself, will no longer be disposed to find [...] but the *semblance* of himself, the non-human where he seeks and must seek his true reality.”⁵⁴

Rivera’s depiction of Marx and the revolutionary uprising in *Mexico Today and Tomorrow* is the embodied reflection of Rivera’s idealistic vision for Mexico’s future, not a reality to come. Rivera recognizes Mexico’s historical tradition of a *caudillo* and manipulates a manifestation of Marx to suit his ideological vision. Portraying Marx as a “god” or savior for Mexico and Marxism as the doctrine, even though neither Marx nor Marxism provide solutions for Mexico’s political hardship. Mexico has seen a *caudillo* in every form of leadership since the revolution of 1910. Figures such as Pancho Villa,

⁵² Karl Marx, *K. Marx and F. Engels: On Religion* (Moscow: Foreign Languages Publishing House, 1955), 41.

⁵³ *Ibid*, 41.

⁵⁴ *Ibid*, 41.

Emiliano Zapata, Plutarco Elias Callas, Álvaro Obregón, and Porfirio Díaz adorn the list of past *caudillos* (Callas being the present *caudillo* during *Mexico Today and Tomorrow*) from various ranks of Mexican society. Rivera knows that a strongman must be present within his imagery to lead the viewer to his utopian future, a leader of the movement must be present. The problem with Marx as Mexico's *caudillo* is that he is not an actual leader, nor is he present. Rivera relies on Marx to lead the Mexican people to his envisioned "socialist utopia" through the doctrine of Marxism that merely offers critiques but no solutions to Mexico's immediate struggle.

According to Marx, "The abolition of religion as the *illusory* happiness of the people is required for their *real* happiness [...] demand to give up the illusions about its condition is the *demand to give up a condition which needs illusions*."⁵⁵ Rivera presents Marxism in *Mexico Today and Tomorrow* as a belief, and arguably a religion, subsequently placing his ideology and envisioned future as *illusory* rather than *real*. Due to the *illusory* narrative presented, *Mexico Today and Tomorrow* fully functions as propaganda, not to the oppressed, but rather the oppressor. Marx proclaims, "Religion is the sigh of the oppressed creature, the heart of a heartless world, just as it is the spirit of a spiritless situation. It is the *opium* of the people."⁵⁶ While Rivera's mural may be the "spirit" of the Mexican people, the reality of Mexico is a "spiritless situation."

Call for a New Revolution

⁵⁵ Ibid, 42.

⁵⁶ Ibid, 42.

Rivera intended to critique the Callas' administration by portraying Callas (Fig.17) in *Mexico Today and Tomorrow* alongside other representations of the fascist and bourgeois powers: the clergy and the military. The fresco functions as propaganda for Rivera's communist ideology and calls for a new revolution on a wall of the National Palace. The ultimate Mexican Communist propaganda unknowingly benefits another cause, Lázaro Cárdenas' election seized control of the government from Callas in 1934. Undermining the call for a "new revolution," the election of Cárdenas introduced a new *caudillo* for Mexico and fulfilled Rivera's prophecy, but the new *caudillo* was not a Marxist.

Since 1821, the year Mexico gained independence from the colonial rule of Spain, a *caudillo* has ruled over Mexico. Although the years of Mexican history have proven, a successor to the *caudillo* is eagerly waiting to fill the position for their country. *Caudillo* refers to a head or chief of state in Spanish speaking countries. In Mexico, the *caudillo* is also referred to as the "strongman." Coming out of a ten year civil war, the Mexican Revolution (1910-20), the *caudillo* was viewed by the majority Mexican people as the revolutionary leader to usher in an age of prosperity and lead Mexico into the twentieth century.⁵⁷

During the first century of Mexico's independence, the presidential palace was occupied by over forty presidents.⁵⁸ Bertram D. Wolfe describes the repetitive, unstable leadership, "Most of them [the presidents] were in office only fragments of terms, sometimes only a few months, a few days, even a few hours; shadows that scarcely

⁵⁷ Fighting continued well into the 1920s until the Obregón regime extinguished the competing power factions or potential coups. Due in part to the military aid provided by the United States government.

⁵⁸ Wolfe, 114.

darkened the doors of the presidential palace as they passed through into repudiation, assassination or oblivion.”⁵⁹ The unstableness of the *caudillo* persisted until the leader who sparked the need for revolution took control of Mexico: Porfirio Díaz, who ruled over Mexico for over thirty years.⁶⁰ Although, certain instances of opposition are to be expected when a new *caudillo* takes office; accompanied or followed by armed insurrections, military “pronouncements,” and even popular uprisings.⁶¹

Much like the Díaz period (pre-revolution), the Callas period only benefitted specific groups or people in Mexico; the very reason the revolution began in the first place. Under the Díaz dictatorship, Mexico experienced a full generation of economic development and growing prosperity.⁶² Disaffected men of wealth initiated the 1910 revolution, only later gaining support of the masses due to ill-conceived promises.⁶³ Primarily wealthy landowners and wealthy individuals denied political opportunity comprised the early stages of the revolution; only after the fighting began the middle-class and peasants were allowed a place on the side of opposition to Díaz.⁶⁴ The ill-conceived notion that the revolution would ultimately benefit the majority class of laborers and peasants, placed the majority on the side of the revolution.

The end of military conflict in 1920 permitted a consolidation of the revolution under the platform of a stable government and social peace.⁶⁵ Being the mindful

⁵⁹ Ibid, 114.

⁶⁰ Ibid, 114.

⁶¹ Ibid, 114.

⁶² Edwin Lieuwen, *Mexican Militarism: The Political Rise and Fall of the Revolutionary Army* (Albuquerque: University of New Mexico Press, 1968), 5.

⁶³ Ibid, 5-7.

⁶⁴ Ibid, 5-6.

⁶⁵ Folgarait, 18.

caudillo Callas was, the goal for his administration included financial decisions that benefitted himself and his followers, but most important of all, to control the masses.

The early phases of the Callas administration deceptively appeared to enact measures providing spoils of the revolution to the lower classes (the peasants and the laborers), but the government deliberately shifted concerns to foreign capital in industry.⁶⁶ The government essentially returned to a pre-revolutionary statesmanship, while presenting itself as authentically revolutionary.⁶⁷ The post-revolution government leaned on the muralist movement to fill in the gaps of support.

Initially started in the early 1920s under Obregón's administration, the muralist movement was created for three reasons; to signal to the international community that Mexico transformed from semi-feudal agrarianism to a modern and industrialized nation-state, to internally construct an ideology of cross-class national consensus, and to resolve the of the rebellious peasantry.⁶⁸ All three of these initial concepts functioned as state sponsored propaganda. Obregón's administration (due partially to the muralist movement) successfully amended the international perception of Mexico and won over the peasants. The peasants were appeased through the acquisition of land and false promises, while the international community was placated by state-sponsored concessions and access to national resources.⁶⁹ The ideology of a national cross-cultural consensus focused on incorporating indigenous heritage and populist nationalism, opening avenues between artists, government officials, populist

⁶⁶ Ibid, 18.

⁶⁷ Ibid, 18.

⁶⁸ Alejandro Anreus, Robin Adele Greeley, and Leonard Folgarait, eds., *Mexican Muralism: A Critical History* (Berkeley: University of California Press, 2012), 18-9.

⁶⁹ Ibid, 18-21.

movements, and unions.⁷⁰ The muralist movement provided a means for cross-cultural dialogue, but simultaneously provided a method for the government to channel mass demand for social justice away from the political and economics spheres.⁷¹ With the government employing artists for public murals and those artists channeling themes of social justice, the act appeared proactive on behalf of the government. Propaganda played the essential role in controlling the masses by a government who incidentally appeared as proponents of social justice.

Rivera, anticipating the end of the Callas era in favor if the more liberal Cárdenas, took full advantage of his opportunity to convey social justice and his ideology in propagandistic form. A critique of the old regime and call for a new revolution on the south wall of the National Palace stairwell was set into motion. Rivera finished *Mexico Today and Tomorrow* in 1935, displaying Callas among the fascist and bourgeois powers, while a revolution lead by Marx surrounds the previous *caudillo*. Rivera took full advantage of his opportunity to display the embodiment of Marxist ideology overthrowing the *caudillo* of Mexico on a wall of the National Palace. What Rivera did not anticipate when he began to paint *Mexico Today and Tomorrow* was the quick, populist rise of Cárdenas.

With the presidential “election” of 1934, Callas chose Cárdenas to become the next “puppet” president of Mexico: after all, he was a *Callista*.⁷² The decision was made but Callas soon realized his mistake, Cárdenas had plans to take over as the *caudillo*.⁷³ The notion of a mere “puppet” presidency did not satisfy Cárdenas. Knowing

⁷⁰ Ibid, 18.

⁷¹ Ibid, 18.

⁷² *Callista* references a political or revolutionary follower of Callas.

⁷³ Wolfe, 193-94.

that his election was assured, Cárdenas intensely traveled around Mexico gaining overwhelming support of the people and local governments.⁷⁴ Exploiting a moment of weakness and hesitation by Callas, Cárdenas ousted the “puppet master,” supplanting himself as the new strongman for Mexico.⁷⁵ In 1935, Rivera finished *Mexico Today and Tomorrow* and was publically praised by the Cárdenas administration for the revolutionary spirit of the fresco.⁷⁶ However Cárdenas recognized that and subsequently the critique of Callas was truly a critique of all Callas’ appointees, including himself, Rivera did not receive another state commission under the Cárdenas administration.⁷⁷ They were keenly aware that Rivera’s new painting was a critique of both the old and new regime and that it essentially called for a new revolution on the public walls of the National Palace.

Conclusion

Diego Rivera’s *Mexico Today and Tomorrow* successfully functioned as propaganda toward displaying his ideology and idealistic future for Mexico. The compositional alteration and manipulation of iconography show Rivera’s mastery as an artist and an opportunist, while Rivera’s artwork praises Marxist ideology and glorifies the proletariat, he continually accepts contradictory employment from exploiting state officials and capitalists. Using his status as a world renowned artist for pursuing personal and ideological fulfillment over instituting dramatic social change, Rivera took full advantage of his opportunity to forever embed his ideological legacy on a wall of the National Palace. Unfortunately for Rivera, the call for a new revolution and a *caudillo* of

⁷⁴ Ibid, 193.

⁷⁵ Ibid, 193-4

⁷⁶ Marnham, 267.

⁷⁷ Ibid, 267.

the people was too late. The Mexican Revolution ended fifteen years prior to the completion of *Mexico Today and Tomorrow* and, in 1934, a new *caudillo* already ruled Mexico.

Images



Fig.1
Diego Rivera, *The Aztec World*, fresco, 1929-30, National Palace, Mexico City.



Fig.2
Diego Rivera, *From Conquest to 1930*, fresco, 1929-31, National Palace, Mexico City.



Fig.3

Diego Rivera, *Mexico Today and Tomorrow*, fresco, 1934-35, National Palace, Mexico City.

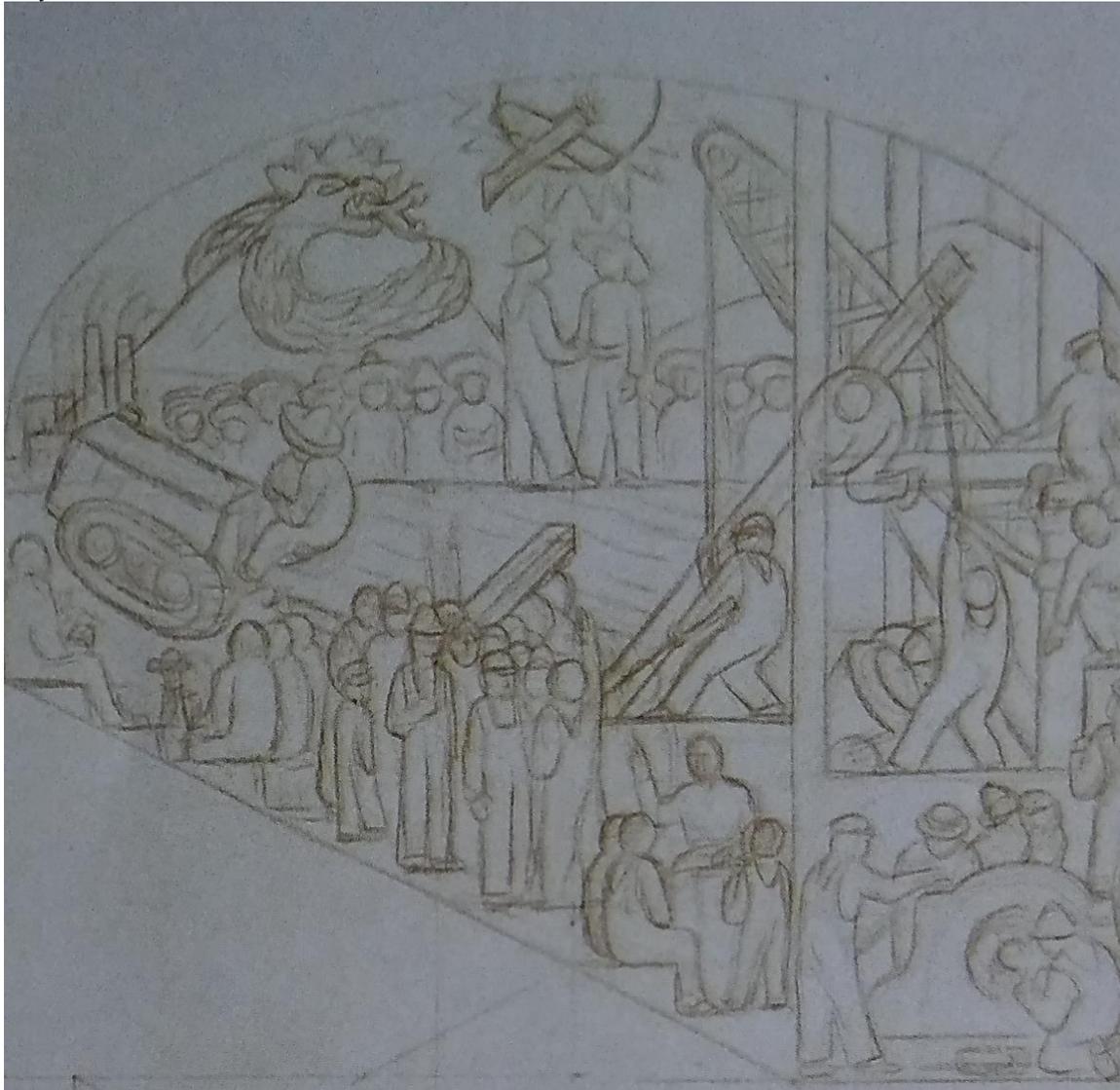


Fig.4
Diego Rivera, preparatory sketch for *Mexico Today and Tomorrow*, sanguine on paper, c.1929.

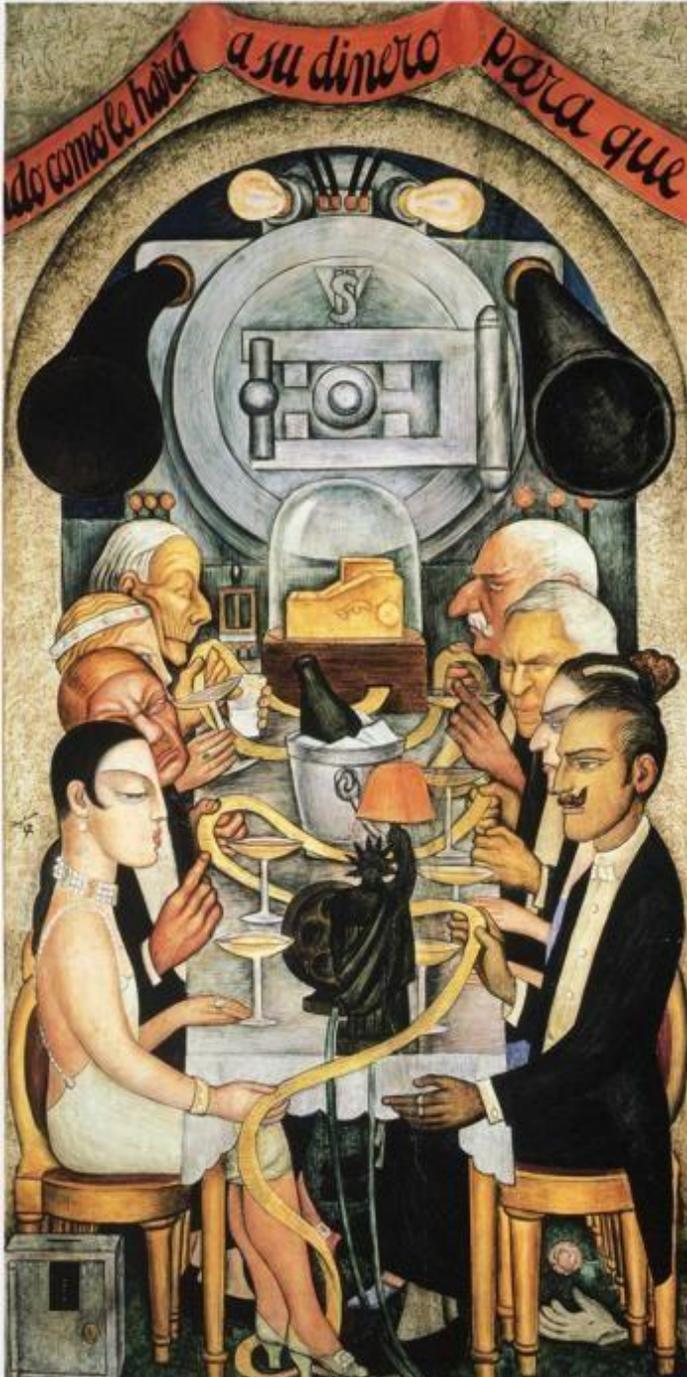


Fig.5
Diego Rivera, *The Wall Street Banquet*, fresco, 1928, Ministry of Education, Mexico City.

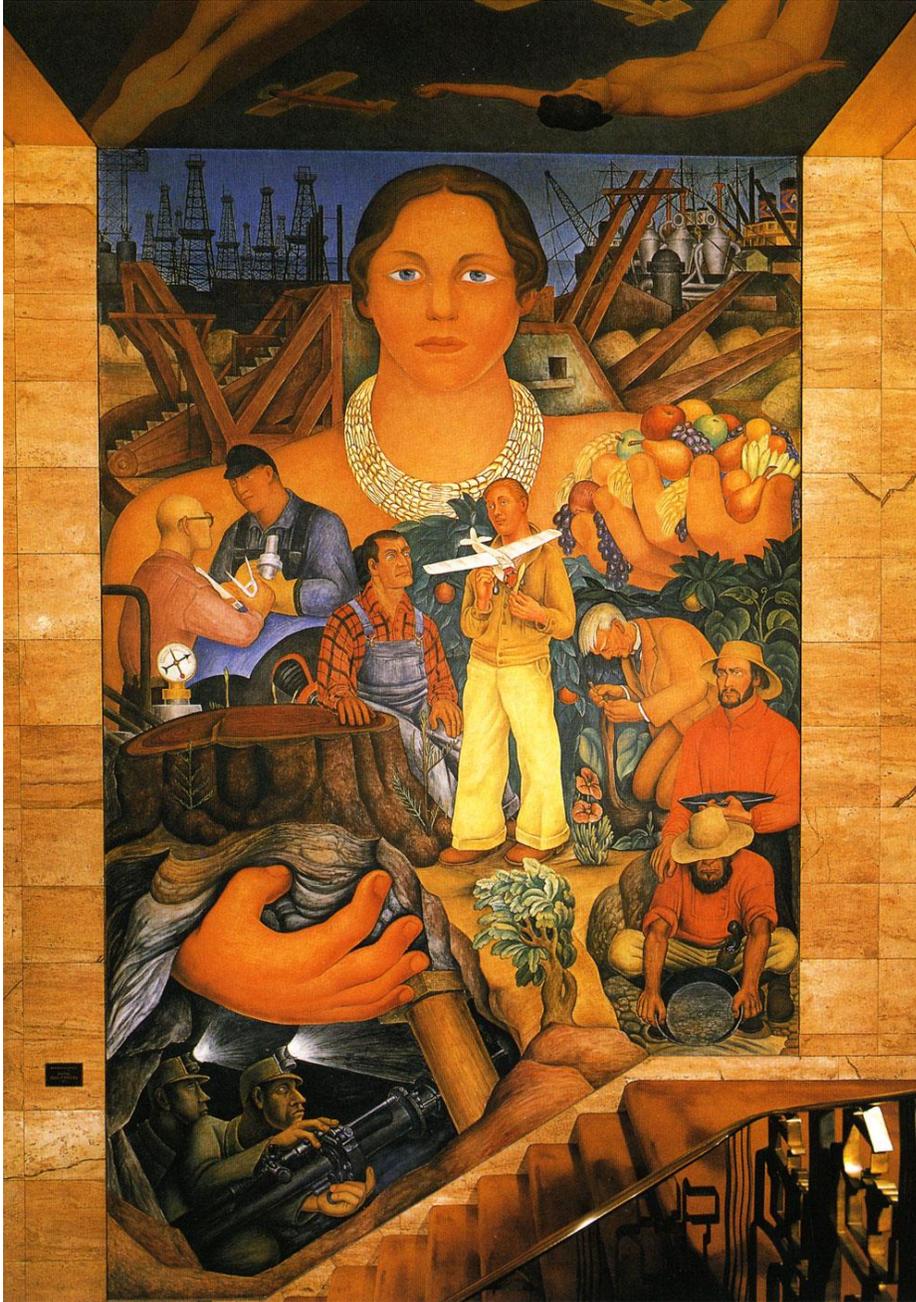


Fig.6
Diego Rivera, *Allegory of California*, 1931, Pacific Stock Exchange, San Francisco.



Fig.7
Diego Rivera, *The Making of a Fresco*, fresco, 1931, San Francisco Art Institute, San Francisco.



Fig.8
Diego Rivera, *Detroit Industry*, fresco, 1932-33, Detroit Institute of Arts, Detroit.



Fig.9

Portrait of V. I. Lenin in *Man Controller of the Universe* (displayed in place of destroyed RCA mural)



Fig. 10

Diego Rivera, *Man Controller of the Universe*, fresco, 1934, Palacio de Bellas Artes, Mexico City.



Fig. 11
Diego Rivera, *Liberation of the Peon*, fresco, 1923, Ministry of Education, Mexico City.



Fig.12
Giotto, *Laying Out of Christ's Body*, fresco, 1304-06, Scrovegni Chapel, Padua.



Fig.13
Benozzo Gozzoli, *Procession of the Magi*, fresco, 1459-61, Palazzo Medici Riccardi, Florence.



Fig.14
Giotto, *Last Judgment*, fresco, c.1305, Scrovegni Chapel, Padua.



Fig.15
Giotto, *Kiss of Judas*, fresco, 1304-06, Scrovegni Chapel, Padua.

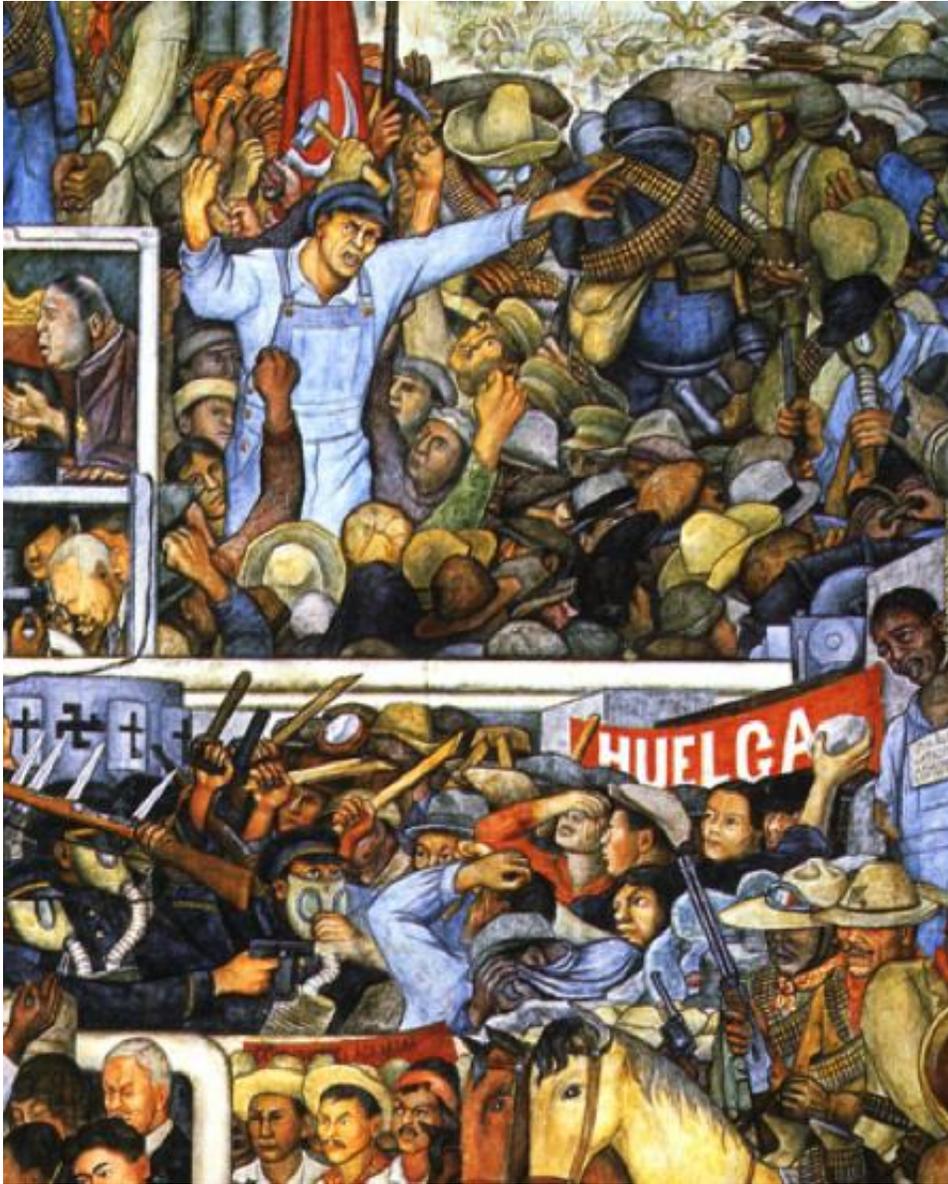


Fig.16
Close up of gas masked fascist forces fighting with striking workers in *Mexico Today and Tomorrow*.



Fig. 17
Close up of Callas with other fascist bourgeois forces in *Mexico Today and Tomorrow*.

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LGBTQ Visibility in Children's Television: An Analysis of Steven Universe

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Despite the strides in LGBTQ visibility over the past few decades, much can still be done in children's media. Some may argue there have been multiple animated shows that featured LGBTQ themes and/or characters, but rarely are they central to the story. Among today's popular animated television series, Steven Universe, a fantasy/action coming-of-age story, presents one of the most progressive LGBTQ portrayals. In two key episodes, this show depicts a healthy lesbian relationship through the character Garnet while demonstrating how these characters also play an important role in the plot beyond their sexuality. Due to its popularity, Steven Universe can have a greater impact than other LGBTQ animated works have had before and sets an example for current and future children's television shows to follow.

Despite the strides in LGBTQ visibility over the past few decades, much can still be done in children's media. Hilton-Morrow and Battles (2015) outline two main ways LGBTQ visibility matters: representation in the media is firstly "an important form of social and political recognition" and secondly, "a vital source for self-recognition and identity formation" (p. 77). In other words, visibility offers LGBTQ groups a platform in the public sphere as well as a way for these minorities to identify themselves, especially since these representations are often the "first point of contact with [LGBTQ] identities" since they usually live in communities and families that do not share their identities (Hilton-Morrow & Battles, 2015). With this in mind, visibility can arguably be exceptionally significant in children's television shows (and even children's media in general)—an area in which LGBTQ visibility is lacking. Among today's popular children's animated television series, *Steven Universe* presents one of the most progressive LGBTQ portrayals through its character Garnet.

Some may argue that multiple LGBTQ animated characters have existed in the past. These media texts do not state it directly because these characters are merely "in the closet," but this argument risks falling into the problematic notion that there are physical and/or clear distinctions between LGBTQ groups and heterosexuals (Hilton-Morrow & Battles, 2015). Undoubtedly, many cartoons, children's films, and even educational programs today are increasingly becoming open about LGBTQ topics, but they generally refrain from making these themes and characters central to the story. For example, Cartoon Network, a popular television channel for children and teens, runs cartoons such as *Adventure Time* and *Clarence* that have garnered much popularity as well as included LGBTQ themes. *Adventure Time* exhibits a close relationship packed

with romantic tension between Princess Bubblegum and Marceline, two female characters, and *Clarence* presents an openly gay couple at one point and later reveals Jeff, one of the major characters, to have lesbian parents. However, the visibility ends there as it often does in other children's media. Though *Adventure Time* creates a romantic atmosphere surrounding two female characters, the show (so far) does not go any further. This ultimately leaves readers with the responsibility to decode, or make meaning of, the text only to come to the conclusion that the writers *possibly* encoded, or produced, these characters as lesbians since it is not explicitly stated in the narrative. *Clarence* seems to have this issue resolved, but the LGBTQ characters in this show play no significant part in the plot, and they, instead, simply make an appearance. While many consider the exponential growth of LGBTQ visibility over the past few decades a great stride forward for these sexual minorities, much has been debated about whether this visibility is "positive" or "negative" (Hilton-Morrow & Battles, 2015-c, p. 70). In the cases of *Adventure Time* and *Clarence*, this visibility is present but generally lacking.

Rebecca Sugar's *Steven Universe*, one of Cartoon Network's highest ranking shows, is a fantasy/action coming-of-age story following the adventures of the protagonist after which the show is named: Steven Universe, a young boy coming to terms with his identity alongside his magical companions known as the Crystal Gems. The Crystal Gems are mystical aliens that arrived on Earth in order to protect its inhabitants from the tyranny of their origin planet, the Gem Homeworld. Steven's late mother, Rose Quartz, founded this rebellion thousands of years ago before meeting Steven's human father, Greg Universe. The show takes place after the wars with Homeworld and presents Steven dealing with his hybrid identity of Gem and human. For

guidance, Steven lives with the remaining members of the Crystal Gems: Garnet, the stoic leader, Amethyst, the fun-loving troublemaker, and Pearl, the elegant perfectionist. The first season does much to define the mechanics of the Gems, and relevant to this paper, one ability includes being able to *fuse* with another Gem. *Fusion*, as explained by the show, is the combination of two different Gems, their personalities and skills manifested in a single, new physical form, initiated through dance. Each fusion takes on a new name and personality that differs from that of her components, and the show first establishes that this ability is only used in times of battle or necessity. Viewers initially had known this show for its pastel and light animation, musical numbers, and unique storyline and world building, but its popularity exploded once it was revealed that Garnet was a fusion.

However, this plot twist is not nearly as significant as the story behind it. In “The Answer,” an episode from the second season, Garnet tells Steven the story of how she came to be, or rather, how her components, Ruby and Sapphire, came together (Abrams & Mitroff, 2016). Before they met the Crystal Gems, Ruby, a tough, disciplined Gem, was one of the soldiers assigned to guard the aristocratic Sapphire, a Gem valued by the Homeworld’s elite for her ability to predict the future (Abrams & Mitroff, 2016). During their stay on Earth, Sapphire predicted that the Crystal Gems (the initial members) would make an attempt to take down their base and strike down a few Gems, including herself, before being captured by Homeworld soldiers (Abrams & Mitroff, 2016). However, once they arrived, Ruby shielded Sapphire and accidentally fused with her in the heat of the moment, and their fusion was Garnet (Abrams & Mitroff, 2016). This impulsive action disrupted Sapphire’s prediction and allowed the Crystal Gems to

escape, and as a result, Ruby, being of lower class, was to be executed before Sapphire helped her escape into the wilderness (Abrams & Mitroff, 2016). The episode then rolled a montage of the two Gems exploring the Earth until they reached the decision to fuse and to stay fused as Garnet (Abrams & Mitroff, 2016). Garnet then encounters the Crystal Gems and joins their cause (Abrams & Mitroff, 2016).

This particular episode contains much LGBTQ discursive content to analyze. In this magical setting, Garnet's character embodies a loving, lesbian relationship. What confirms these characters as lesbian is the specific use of she/her pronouns. Though Gems are not human, Ruby and Sapphire identify in the show as female, and to verify their relationship as romantic, the episode makes particular, stylistic choices: the purposeful low-lighting in tender moments between Ruby and Sapphire, the subtle blushes in their cheeks, the sweet song playing during the montage, and the slow waltz they perform before fusing into Garnet (Abrams & Mitroff, 2016). If viewers were not swayed then, the final scene makes it official. At the end of the episode, Garnet, still adjusting to her new form, asks Rose, the Crystal Gem's leader, why Ruby and Sapphire would want to stay fused. Rose responds, "You already are the answer" (Abrams & Mitroff, 2016). In present time, Steven asks Garnet what Rose meant, to which she responds, "Love" (Abrams & Mitroff, 2016).

What is equally significant is how the setting provides clear connections to homosexuality and even homophobia, despite the magical, sci-fi context. Ruby was sentenced to death for fusing with Sapphire not only because of Ruby's lower social standing but because Homeworld regards fusion solely as a practical function and allows fusion between only same-type gems. When Ruby and Sapphire first fused into

Garnet, Homeworld gems angrily crowded around, spewing hateful comments about their fusion (Abrams & Mitroff, 2016). This short sequence clearly demonstrated the rules and context of Homeworld's way of life and the consequences of any form of divergence. This can be readily compared to our still heteronormative society as well as the ongoing discrimination against LGBTQ groups. While Ruby, Sapphire, and other Homeworld gems are not human, it is through this specific narrative that viewers can recognize these characters as sexual minorities and draw connections between this fictional story and real life.

Not only does *Steven Universe* provide children audiences with an example of a lesbian relationship but it also provides them with an example of a *loving*, lesbian relationship. This progressive portrayal opposes the specific kind that typically dominates LGBTQ representation in television (i.e., white, upper middle class, gay men). Some could say that this episode only focuses on these characters' sexualities; however, these characters appear in other episodes that explore their roles in the overarching plot and their relationship on a deeper level.

In "Keystone Motel," another episode from the second season, Steven and his father, Greg, take a trip to a fictional neighboring state called Keystone, so Greg can settle some business. Garnet tags along to get away from tensions at home. In the previous episode, the Crystal Gems took on a mission that called for Garnet and Pearl to temporarily fuse into Sardonyx. The mission was completed without a hitch, but Pearl became obsessed with the power gained from being fused with Garnet and began to secretly stage situations to make Garnet fuse with her. Much fighting ensued once Garnet found out. Steven looks forward to spending time with Greg and relieving some

of Garnet's stress. However, the trip is not what he hopes for. While Steven is alone with Garnet at the motel, Garnet suddenly un-fuses into Ruby and Sapphire, and immediately, the two gems argue about Pearl. The enraged Ruby argues that they should not forgive her; meanwhile, Sapphire maintains her composure and counters that they need to "get past this" (Villeco, Molisee, & Sugar, 2015). Steven tries to mediate between the two but to no avail. For a majority of the trip, Ruby and Sapphire stay separated and refuse to talk to each other, creating an uncomfortable atmosphere among the group. Steven has an outburst, upset that their trip has been ruined. He becomes so upset that he questions if he made things worse. Ruby and Sapphire are quick to reassure him that was not the case, and they both admit to their faults and apologize to each other. They re-fuse happily, and the episode concludes with Steven and Greg returning home with Garnet.

In contrast with "The Answer," this episode highlights Ruby's and Sapphire's distinct personalities and presents their relationship in a different light. By juxtaposing their conflicting dispositions and ideas, this episode works against the notion that sexual minorities can be readily identified by external or characteristic traits. Furthermore, having these characters engage in conflict allows them to develop, unlike other same-sex couples in other children's animated shows who remain static throughout the narrative because they are merely background characters. This is progressive for LGBTQ relationships as the show does not portray Ruby and Sapphire's relationship as entirely ideal or entirely problematic. Instead, these characters actively change in the work. In addition, this episode is not simply a subplot subjected to only their relationship; it actually moves the story forward as it also focuses on Garnet's (Ruby's and

Sapphire's as well) relationships with Steven and Pearl. Had it not been for Pearl's wrongdoing, they would not have felt so distressed to separate. Similarly, had it not been for Steven's intervention, they would not have reunited. This suggests that this relationship does not exist in a vacuum or in the background; it, in fact, plays a major role in the story.

Another essential component in *Steven Universe's* inclusion of LGBTQ storylines is its vast viewership. This show has been held in critical acclaim by fans and critics alike since its debut in 2013 and has been viewed by children, teens, and even adults, and much of this popularity is owed to its story and production. This is significant for a children's animated show because *Steven Universe* portrays lesbian characters in a way others have not while also maintaining its place in popular culture. The makers of the show also play an important role. The creator, Rebecca Sugar, is not only the first female to create a show on Cartoon Network but is an openly bisexual woman. Last year, at the San Diego Comic-Con, Sugar confirmed her sexuality, earning an overflow of positive feedback from her fans (Amidi, 2016). According to Katherine Sender's circular model of media production, LGBTQ content made by LGBTQ producers for LGBTQ audiences exist mainly within "the periphery," or the outer ring of the circle in which works are defined as "precarious, amateur, [and] unfunded" (as cited in Hilton-Morrow & Battles, 2015). However, *Steven Universe* is one all-around LGBTQ show that exists within the "center" as its host channel Cartoon Network counts as "institutionalized, professional, [and] well-funded," despite the creator and the content explicitly being LGBTQ (as cited in Hilton-Morrow & Battles, 2015). Due to its place in popular culture, this show can have a greater impact than other LGBTQ animated works

have had before. With Garnet, Ruby, and Sapphire, *Steven Universe* continues to portray progressive LGBTQ storylines and characters and sets an example for current and future children's television shows to follow.

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A Minor Unnamed God's Warning to His Daughter

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Meeting of Minds XXV

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A didactic poem told from the perspective of an unknown Greek god. He warns his daughter about his lustful brothers – namely Zeus, Apollo, and Hermes. He alludes to classical myths containing the sexual violence of his “brothers” and Hera’s jealous wrath, utilizing them as exempla in order to caution his daughter. He names other family members she can go to in case his brothers ever lust after her. In the end, he says he will do anything to protect her, and his last line becomes mythopoetic as an etiology: a myth intended to explain a natural phenomenon.

My dear sweet child, before you
Go out to play, listen to me well now that

You are no longer at an age where
I can hide your beauty. You, my daughter

Whose gender I shrouded in
Childhood, are grown.

Your trim ankles and white skin
Will catch your uncles' eyes. Remember:

Hide yourself in the cloak
I fashioned for you. Do not

Let any skin show; I fear
They may perceive your beauty and

Harm you, take you away. Or
Transform or exile you as punishment.

Do not be tempted by:
A goose, an offering of shade, or a handsome bull.

That is your Uncle Zeus
Enemy to your purity.

You doubt me? Look at the stars
That form the bear and the hunter

Callisto, who nursed you as a babe.
Your uncle raped her and

Your Aunt Hera changed her into a bear.
Before her son could kill her by mistake

Zeus changed them into those constellations.
See, there they are now passing overhead.

Zeus is the one you should fear most;
Your Aunt Hera, second.

Your other uncles, Hermes and Apollo,
Are not exempt from these crimes of passion.

Apollo chased the nymph, Daphne, and to save her,

Her father transformed her into a tree.

Yes, *that* laurel tree. In the center.
The one you like to sleep under.

What of your favorite uncle, Hermes?
The two of you like to play pranks but

He took Chione's mortal virginity in her sleep.
Despite this, I trust him more because

He sees you as his own child
Since I bore you without a mother.

He rightfully sees me as your mother
And himself as your father.

If you catch any of their wolf-like eyes
Run. Hide yourself from their gazes and

Remember to be suspicious of all men and
Their deceit but if or when

Tragedy does taint you and they take you
Escape and outrun Hera's jealous wrath.

Though with hesitancy I advise you,
Go to your uncle Hermes so

He may be able to carry you far from
Zeus and Hera's reach, to the Underworld

Where you can ask your cousin
Persephone to care for you, to

Supplicate herself to her husband, your Uncle Hades,
On your behalf to offer a safe haven

But I warn you, he took her
Against her will; let us hope

His eyes are only on her.
Be wary and if he does not accept you,

Go to your Aunt Demeter
Your second mother who dotes on you like

A second daughter
While her own Persephone is

Trapped in the underworld every
Winter. Perhaps she can save you from

My brothers' lustful gazes. Please listen
To me, I don't want to lose you.

I don't want to lose you to
Hera's ire or forced alterations that

She or Zeus may perform as
Punishment or in salvation. This isn't

A fate I want for you, pained and
Taken far from Olympus,

Far from your home and far
From your carefree life. If I must, I will craft

A shell for you to hide from
Their eyes,
My dear sweet child, Pearl.

Untangling the NATO Intervention in Libya

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Meeting of Minds XXV

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Abstract: In 2011, as the reverberations of the Arab Spring swept across the Middle East, NATO-supported forces assassinated Libyan revolutionary Muammar Qaddafi under the pretense of the Responsibility to Protect doctrine. This paper analyzes the particulars leading up to the assassination of Qaddafi. It argues that there are reasons to speculate that the West had alternative motives for invading Libya that go beyond the Responsibility to Protect doctrine by which the NATO invasion was publicly rationalized, made evident by historical nuances between the West's relations with Qaddafi's Libya. The details given in this paper regarding the 2011 assassination serve as a deeper study into the violent and controversial ethics of NATO's intervention into Libya's domestic political affairs, and as an example in the broader debate regarding the ethics of Global North meddling in the Global South.

For decades, Libya has been a site of enormous conflict and contestation. Looking at Libya's current state of affairs—political chaos, violence, and instability—we are left with the looming questions of how and why. Conventional narratives, especially in the United States, would quickly pin Libya's seemingly downward spiral on the eccentricity of its previous leader, Muammar al-Qaddafi, who was killed in 2011 by NATO-supported forces under the pretense of the Responsibility to Protect doctrine (Kuperman, Nuruzzaman). Qaddafi was by no means a saint, and resorted to violence against his citizens which nominally prompted international action against him, and ultimately legitimized his overthrow and assassination (Nuruzzaman). However, looking more deeply and critically at the context and nuances which led up to the end of Qaddafi in 2011, such a simplistic justification for the violation of Libyan sovereignty and Libya's descent into chaos fails to address ulterior motives regarding Western intervention.

On September 1, 1969, Colonel Qaddafi and other members of the military overthrew the Libyan monarchy, headed by King Idris, and established the Libyan Arab Republic. Initially, Western countries held the new government of Libya in good graces due to its anti-communist rhetoric. However, Qaddafi was only anti-communist because he believed the "atheism" in Marxist theory was not congruent with Islam. In practice, Qaddafi's policies were geared toward nationalism and socialism, and as the West came to understand this, tensions and apprehension emerged (Blum 287). Qaddafi was characterized as an eccentric person because of his dedication to retaining his Bedouin culture and identity—even in New York City, for example, he would do business and have meetings in a pitched tent, something reminiscent of his roots in the desert (Boyle

15-16). While the West often exploited the differences in culture to make Qaddafi out to be a “mad dog”—as stated by President Ronald Reagan—his insistence on retaining his culture was one element of rejecting Western imperialism and maintaining solidarity with his people (Boyle 16; Solomon & Swart 469).

Rejecting imperialism and Western penetration of Arab and African cultures was a central component to Qaddafi’s policies and ideologies. He considered himself the next Nasser, insofar as he wanted to rectify the movement of Pan-Arabism and create transnational unity throughout the Muslim world via Islam (McDermott). He strove for a “utopian socialism” founded in culture and religion (Solomon & Swart 469-470). Qaddafi’s “Green Book” lays out this vision: carving a third way between capitalism and communism which is consistent with Islam (Boyle 18). He was quite hostile to US and Western interests, which he perceived as imperialist. Once he took power, he closed down foreign military bases in the country—namely, US and British bases—an antagonistic act in the eyes of the West. In addition, he worked effectively to isolate Israel from other African regimes, seeing the existence of Israel as imperialist in nature and a puppet of Western (especially US) interests at the expense of the Arab world—which was a recurring theme in Western and Middle Eastern/North African relations that was especially aggravating to Qaddafi (Solomon & Swart 470-71). On top of his anti-Western rhetoric and nationalist actions, there is also the fact that Libya is sitting atop huge oil reserves, and Qaddafi even entered oil development agreements (along with arms agreements) with the Soviet Union, the US’s nemesis in the Cold War (Blum 283, 287).

With this context, we can begin to understand how Qaddafi was deemed a threat to US and Western hegemonic interests. Sitting on a wealth of oil, yet being nationalistic and rejecting Western imperialism, Qaddafi had the potential to be devastating to the US's vision of an open door, free market world. At a more abstract scale, too, Qaddafi threatened US ideological leadership—advocating socialism rather than capitalism, and Islam rather than Christianity, to build up the Middle East and Africa's own abilities while fostering social strength and transnational solidarity (McCormick 19). Libya's geographical location—both an African state yet a part of the Arab world—made his attempts to create unity that superseded borders even more threatening, because unifying both regions as a bloc against US material and ideological hegemony would negatively impact the US economy. The US necessarily requires access to foreign markets both for resources to fuel its industry, and as an outlet for surplus production. Especially during the Cold War, Qaddafi's friendliness and deals with the Soviet Union, and the elimination of US military bases within Libya, were viewed as a significant threat and counterproductive example to the US in its battle for world domination against the USSR (McCormick 4-5) .

Thus, the fact that Qaddafi was pursuing nationalistic, self-concerned policies based on an ideology much at odds with what the US advocated served to rationalize years of US intervention in Libya. Intervention tactics varied, but much of them depended on the process of disinformation—in which the US used foreign and domestic press to spread fabricated information about Qaddafi, with the purpose of delegitimizing him internationally and creating paranoia in Libyan society. Disinformation campaigns were so powerful that it has become historically "difficult in most cases to separate fact

from fiction” (Blum 286-287). The US, especially under the Reagan administration, would “link” Qaddafi to almost all terrorist attacks occurring across the globe, regardless of evidence (Blum 287). Claiming Qaddafi committed—or was at least likely to have committed—terrorist attacks was the means by which the US could justify military and economic intervention (Blum 281-82, 285). After years of varying forms and degrees of intervention, Qaddafi began to display willingness to work with US interests, even ending his nuclear program (Guiora 264). Though tensions eased some, the US remained wary and relatively hostile (Blum 289). Such were the circumstances leading up to the conflict in 2011 that resulted in Qaddafi’s death.

In 2011, the Arab Spring broke out across the Middle East and North Africa. What began in Tunisia quickly sparked a movement of protests across the region demanding an end to authoritarian regimes and the beginning of greater democracy. Libya was one such state affected by the Arab Spring protests (Nuruzzaman). There exists much debate in the academic community about the specifics of these events, considering how recently they happened. For example, Pattison says that in response to these protests, Qaddafi made serious and alarming threats about crushing dissent, such as “cleansing Benghazi” of its rebels (Pattison). In contrast, Kuperman suggests these threats were “empty” (Kuperman). Pattison says that Qaddafi was the first to use physical force against protesters, and that the force he used was indiscriminate (Pattison). Kuperman, however, says that it was the protesters who first became violent, and that Qaddafi’s use of force was at first intended to be nonlethal (until the protesters’ violence had escalated so much that it was not possible to avoid lethal force). Kuperman goes even further to claim that the government tried to avoid any

unnecessary casualties, as evidenced by the fact that only 0.0006% of the population was killed in the first two months of fighting, out of a population of 400,000 in the city of Misrata (Kuperman).

Regardless of the debate in the academic community surrounding how the events in Libya unfolded, the conventional Western narrative given to legitimize the intervention was the Responsibility to Protect (R2P) (Nuruzzaman). The R2P doctrine is a normative standard which holds that if a foreign government is not able to protect its citizens, or is actively harming them, it is the responsibility of the international community to intervene. While this sounds noble in theory, some scholars are pointing out hypocrisies in the case of the R2P doctrine in Libya. For example, the US and the UN Security Council had been historically lukewarm about the notion of R2P, yet seemed to embrace it eagerly when it came to the situation in Libya (Nuruzzaman). This fact is made ever more glaring when considering the UNSC's belated or nonexistent intervention in other situations of international crisis, such as during the genocide in Rwanda, or with the brutal civil war in Syria (which was occurring during same time as the Libyan war) (Freind, Hehir). Another critique of the intervention is that although NATO was supposed to be neutrally protecting citizens, it took obvious sides during the conflict—supporting and arming the anti-Qaddafi rebels (Nuruzzaman). The R2P doctrine's historic inconsistencies, along with NATO's support of the rebels, suggests that the goal of the NATO intervention was more than neutrally protecting civilians. Thomas Weiss, in a cynical comment about R2P's deployment in Libya, states: "Libya suggests that we can say no more Holocausts, Cambodias, and Rwandas—and occasionally mean it" (Hehir).

While there is no single answer as to why the NATO intervention came to fruition, analyzing the nuances surrounding it bears deeper and more consistent insights than the R2P explanation. Objectively, we know that the United States took an unusual backseat to its NATO allies, France and Britain, when executing the intervention—in contrast to the US’s previous ventures in which it normally assumed a leading role (St. John). In fact, France was instead the most vehement proponent of intervention. France’s interest in Libya, at least partially, can be traced back to its domestic issues and colonial roots. Some speculate that former French President Nicolas Sarkozy used aggressive foreign relations to boost popularity amongst his citizens as he lagged behind other French presidential candidates in the polls. A strong military intervention in Libya would supposedly reassure the public of France’s capability as a European power, vis-à-vis Germany’s growing influence (Forbes). This claim is made more plausible when considering how outspoken Sarkozy was in emphasizing France’s role in the intervention (France24). The intervention, aside from being a display of power, was also a way for France to ensure its interests would be represented in Africa: Sarkozy was promised by the National Transitional Council in Libya that in return for French support, the new government of Libya would favor French interests and businesses if the Qaddafi regime was overthrown. And at the very least, France’s military-industrial complex flourished during and after the intervention, with a 42% increase in arms sales (Hallinan).

While Britain was not as adamant about the intervention as France, its motivator for the NATO venture could have been energy interests. Britain’s major energy corporation, BP, had been hit hard after the oil spill in the Gulf of Mexico in 2010. It had

lost about \$17.7 billion worth of profits, as well as incurring \$38-60 billion in cleanup costs. If the intervention on the side of the rebels turned out to be successful in overthrowing Qaddafi, the new Libyan government would most likely favor Britain's oil interests in the country, offsetting BP's major devastation. Although the NATO intervention is quite recent and details remain murky, these complexities make it appear that France and the UK are reasserting their 19th century colonial dominance over their regional interests in the Middle East and North Africa (Forbes).

For the US, its motives also appear multifaceted. Despite Obama's first foreign policy address in Cairo, which stipulated that the US would work to ensure Middle East/North African countries governed with "consent, not coercion", the Arab Spring uprisings were met with US hesitation. Obama was reluctant to get involved in any Middle East conflict regardless if it was a swing toward democracy. Critics of Obama's stance said that his failure to aid rebellions showed that in terms of the Arab Spring, the US was in favor of continued dictatorial oppression (Hastings). As a result, Obama began to feel pressure from others in his administration to act when news about Qaddafi's threats reached them. Susan Rice, the US ambassador to the UN, was one of those who advocated NATO intervention; she had also served on the National Security Council while the Rwandan genocide occurred, which explains her adamancy to avoid another humanitarian disaster (Hastings).

Samantha Power was another critical advocate for the intervention in Libya. Power ascended in White House due to her activism and journalism surrounding human rights. She is the author of several books and academic articles, including "*A Problem from Hell*": *America and the Age of Genocide*, in which she strongly advocates for

Western intervention in cases of genocide and human rights abuses (Power 4-5). In 2008 she was forced to resign from her position as one of Obama's foreign policy advisors due to scathing remarks she made about Hillary Clinton, in which she called her a "monster" (Hastings). In the case of Libya, Power most likely viewed the possibility of mass violence with the same urgency which she had viewed Rwanda, Bosnia, and Cambodia; perhaps as a chance to make up for America's slow action in the face of genocide in the past. In addition, her advocacy for intervention could have also been her means to reassert herself in the White House following her resignation three years prior (Hastings).

Hillary Clinton, although lukewarm about intervention in Libya in the beginning, also ended up putting pressure on Obama with Rice and Power. Initially, she had worried that an intervention would "overtax the Pentagon", with a possibility of adding another blow to American credibility if the intervention was a failure. However, with the State Department's weakening influence, and word that several Arab countries would back the intervention, Clinton soon changed sides. Intervention in Libya offered opportunities for her career in the White House. If it were successful, she would enhance her foreign policy credentials for when she ran for president again, reassert American power, and strengthen ties with the Middle East (Hastings).

Obama's motives in Libya can be understood in an even broader context, as well. When he had entered office, he inherited two unpopular wars, a \$500 billion budget deficit, and low American morale (Hallams & Schreer 318). Obama was thus charged with the responsibility to both minimize the US's overseas commitments, while reasserting the country's position. Libya, in this sense, provided a unique opportunity.

By agreeing to an intervention against Libya that had a possibility to be a cost-effective success, the US could regain some military legitimacy and moral sympathy both domestically and internationally. In fact, the US could enforce more burden-sharing amongst the NATO members by playing a supporting role for France and Britain, rather than leading it as it normally would have, which dramatically reduced US economic strain (St. John); highlighting the wisdom of Obama's "leading from behind" doctrine that had been criticized by domestic opponents (Hallams & Schreer 318-19). In a time of US economic insecurity, increased NATO burden-sharing was something for which many Americans had been advocating (Hallams & Schreer 318-21).

The outcome of NATO's intervention was sadly one of devastation for Libyan society. The immediate result of NATO's intervention was an increased civilian death toll of an estimated 2,000 to 30,000 people (Nuruzzaman). More distressing is that once the conflict ended, Libyan society descended into a state of chaos. Similar to the events that unfolded in Iraq after the US invasion in 2003, once Libya's central government was destroyed by NATO-backed forces and Qaddafi was removed and executed, a power vacuum remained that ultimately resulted in extreme violence as differing groups fought and clashed to gain control (Nuruzzaman). These catastrophic effects are made more glaring when considering the speculations that, had NATO not intervened, status quo would have resumed after the protests died down. Kuperman notes that the Libyan rebels were not adequately armed to wage a full-scale war; besieged cities tended to fall back into government control within two days of contestation between rebel and government forces. A counterfactual analysis indicates that the conflict most likely would have lasted about six weeks, with an estimated 1,100 deaths between

combatants and civilians, if NATO had not intervened. This contrasts the actual death toll, which is 7-10 times greater, and the war which extended 30 weeks (Kuperman). Qaddafi's government may have retaken control, and considering the ease in tensions between Qaddafi and the West, resumption of status quo could have meant Libya's further integration into the US-led world system (Freind). Instead, the NATO intervention has only polarized Libya and magnified conflict (Kuperman).

To conclude, US foreign policy in Libya has resulted in tragedy for the Libyan population. Qaddafi was far from a perfect leader, but what became of Libya as a result of the NATO intervention is much more unstable—not only for civilians, but also in regard to Libya's position in the world system. What makes the situation more unpalatable are the Western self-interested motives for the intervention, masked in the guise of the R2P doctrine. The Western actors involved in the intervention saw possible profits, ranging from Britain's oil access to Clinton's career opportunities. The Libya case study highlights the danger of selfish motivations for use of the R2P, and the need for strategizing and careful planning to avoid the collapse of society and power vacuums that result from interventions. Sloppy interventions are a fuel of anti-American sentiment not only in Libya, but in the entirety of the Arab world, and are ultimately a danger to US and Western interests for that reason (Freind). The NATO intervention in Libya is but one example of a Western self-interested pursuit at the expense of a Global South state—and at the expense of her citizens

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Systems of Government in The Republic:

On the Question of Justice and Plato's Warning Against Democracy

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Meeting of Minds XXV

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The purpose of this essay is to examine in a detailed manner Plato's analysis of democracy and justice. It aims to critically explore various concepts and ideas discussed throughout the books of Plato's Republic to analyze the implications therein held for modern political science. This essay investigates the question of the nature of justice as laid out in Books I through IV before considering the question of how justice should be established in a system of government -as discussed in later books. After exploring and establishing the details of Plato's Kallipolis, the discussion will shift to Plato's rejection and critique of the four other forms of government –as well as implications for the present day. Republic not only raises the question of what justice is, but also whether justice can be established—if it can be at all—on the governmental level. In terms of political strategy, Plato proposes an ideal state governed by “philosopher kings.” He lays out very specific conditions for this state, proposing a concrete social hierarchy running from the philosopher kings (possessing souls of gold) to the guardians/auxiliaries (possessing souls of silver) to the working class (possessing souls of bronze/iron). With the establishment of the perfect city ruled by philosopher kings, Plato (through Socrates' character) goes on to discuss—or rather, critique—other forms of government below the Kallipolis. The final sections of this essay are dedicated to examining Plato's challenge of democracy in ancient Athens and the method by which this challenge reflects itself in the modern debate. It will consider modern thoughts and arguments that coincide with Plato's rejection of democracy in order to assess whether he was right; and if so, to what degree. Plato's democracy, after all, was much different from modern, large-scale, representative democracy. Even so, there are obvious lessons that apply, particularly to American democracy, and the question of its justice or injustice.

Introduction

The *Republic*, which exists today as Plato's perhaps most renowned contribution to Western thought, stands as one of the most critical and comprehensive philosophic texts of its kind and in political science. Through the involvement of various characters and thought hypotheticals in discussion, the ten books which comprise *The Republic* go on at length to explore various facets of the concept of justice –delving into tensions regarding its essential nature, consequent implications, and practical application. The text's rigorous deconstruction of the basic tenets of justice proceeds in that question-answer based fashion most particular to Platonic discourse: Socratic dialogue – a dialectical form of discussion which aims to arrive at truth about through intense questioning. In the last few books of *The Republic*, the attempt to answer the question of justice culminates into a metaphor linking justice of the city to that of the soul- an analysis of which requires an understanding of Plato's view of human nature, also considered. The purpose of this essay is to examine the various proposed concepts of justice within the text's opening books, explicate Socrates' understanding of justice on both the individual and political levels through his understanding of human nature, and to further assess his rejection of democracy and how that manifests in the modern debate.

Cephalus, Polemarchus, and Thrasymachus On the Nature of Justice

The most famous point of discussion in *The Republic* involves the question "What is Justice?" – the answer to which transforms from a seemingly simple attempt to extrapolate a basic definition into an actually majorly complicated and multi-faceted

examination of philosophy and political science. Points of this discussion, which ensue most primarily in the first half of *The Republic* in Books I through IV, come to compel interlocution between various characters in the effort to effectively capture the fundamental essence and nature of justice. Through their engagement in critical dialogue both with Socrates and often with each other, each of the characters introduced into the discussion—Cephalus, Polemarchus, Thrasymachus, Adeimantus, and Glaucon (among others)—comes to draw out some of the various complexities surrounding the question of justice. With each of the various characters, the discussions of justice tend to fall into a general pattern: a character proposes a definition of justice, a question/response dialogue with Socrates ensues, then a conclusion is arrived at after many a revision after revision of the initial definition. The discussion culminates into an ultimate search with Glaucon to establish justice in the city, and link this concept to justice in the soul by metaphor. On whole, the characters' distinct viewpoints represent important, technical spokes on a wheel in the perennial attempt to establish justice conceptually, and also, practically. The discussion, which initially seeks to understand justice on its own terms, later conditions itself to a palpably political dimension which sets out to discover not only what justice is on the individual level, but also on the political -whether it be established governmentally, and if so, how.

The first instance of dialogue in which the discussion of justice arises occurs between Socrates and Cephalus –the elderly father of Polemarchus. In an attempt to leave the Piraeus, a major port in Athens, Socrates and Glaucon are stopped by the forces of Polemarchus, who compels them to accompany him and his crew of Adeimantus (among others) back to his home to talk before a torch race later on. It is at

this home that the character of Cephalus is first introduced, described as particularly old and sitting on a stool, post sacrificial performance. The group gathers to sit around Cephalus who, upon seeing Socrates, opens discussion and welcomes him warmly. Socrates receives Cephalus in a likewise manner and delights in the ability to “discuss with the very old [...] since they are like men who have proceeded on a certain road that perhaps we too will have to take” (328d). Per proclamation of this delight, Socrates proceeds to inquire about Cephalus’ account of being in “the threshold of old age” (328c). Discussing changes that occur from youth to old age, such as the cessation of certain desires, Cephalus explains his discovery that “there is one just cause [in life]: [...] the character of human beings” (328e). To the ends of living “out a just and holy life,” Cephalus explains that money is most worthwhile for “the decent and orderly” man insofar as it protects his character for the afterlife. He argues that money allows a man to be just by helping him refrain from engaging in wrongful activities and aiding him in correcting his wrongs and debts. In short, the greatest good Cephalus claims to have received from money is aid in avoiding injustice and impiety (Bloom 315).

In routine of his dialectical method, Socrates comes to derive an implied definition of justice from Cephalus’ remarks. He explains that under these Cephalus’ terms, justice is defined as always telling the truth and paying ones’ debts. After articulating the notion of justice which Cephalus’ thoughts entail, Socrates questions whether the old man’s implied definition is correct and stands the rigor of questioning. He proceeds to put this definition to the test, asking whether or not it can be “sometimes unjust” to do the “very things” which this definition requires –a possibility which, if conceivable, would invalidate the entire notion de facto. Socrates proceeds to describe

the scenario of a mad man demanding his weapons back -a scenario where it would be considered unjust, by Cephalus' own agreement, for the friend in possession of the weapons to tell the whole truth and return the man's belongings. With this one counter example, Socrates provides an exception to Cephalus' proposed definition and effectively renders it the first refuted definition of justice in *The Republic*. In response to this refutation, Cephalus "hand[s] down the argument" to his son Polemarchus and dismisses himself from the conversation to "look after the sacrifices" (331d).

The contribution Cephalus' character makes to the discussion proves short-lived and is clearly succinctly debunked by Socrates; still so it lays a foundational platform for the remainder of the discussion, establishing itself as the first of many discredited definitions to follow. In his authority of old age and routine appeal to the Gods, Cephalus in many senses "typifies the ancestral which cannot, but must, be questioned" (Bloom, 313). In the context of political science and understanding justice, Cephalus –as commenter Allan Bloom suggests- embodies the important theme of tradition, and his dismissal -which gives space for the important conversation to follow sans authority- illustrates a departure from tradition and "unaided reason" for search of the rational (Bloom, 312).

Upon inheriting the argument from his father, Polemarchus draws on the authority of the poet Siminodies to pitch another proposed definition of justice: "that it is just to give to each what is owed" (331e). At face-value, this definition appears to be similar to the second tenet of Cephalus' refuted definition –paying one's debts. Once again, Socrates plays out the implications of this definition with the scenario of the man "of unsound mind." Polemarchus concedes that the man should not be returned his

items in an unsound mental state. With respect to the newly established definition, Socrates points out a paradox in Polemarchus' thinking: How can it be just to not return to the man his belongings in any a state of mind? Aren't those belongings, by inherent implication of the term "belonging," technically *owed* to him? Polemarchus concedes that those belongings are indeed technically owed to him and proceeds to revise his logic in defense of his definition. He redefines justice by adding a conditional to what he means by "owe," explaining that "friends owe it to friends to do some good and nothing bad" (332a). The two characters continue on to discuss the nature of "owing" until Polemarchus arrives at a new definition of justice: "doing good to friends and harm to enemies," as those are what are owed to each (332d).

This newly conceived notion of justice adds two more dimensions to the question of understanding justice: the community and the good (Bloom, 313). In order to understand justice, it now becomes evident that it must first be understood what "doing good" is and further how that activity must relate to friendship and community in order to be "just." This revision diverges from Cephalus' in that it provides direction for the exception of the mad man: returning his belongings if he is a friend but keeping them if he is an enemy. On the scale of this discussion, Cephalus was concerned with doing justice for the good it would do for himself; as he nears death with his old age, he tries to engage in justice –right his wrongs and withhold the weapons- to protect his soul from damnation and his body from physical harm. In both instances, Cephalus engages in justice to benefit himself. By contrast, Polemarchus considers justice not only as how it can be advantageous for the self but also how it can be for "friends" -or rather, the community. His definition, which reflects justice as a social complex proceeding beyond

the individual, elucidates the important political juxtaposition of justice for the self vs for the common good –the distinction of which proves a major theme of concern in *The Republic* that is particularly important in attempts to theoretically establish just government later on. This distinction culminates into the ultimate metaphor defining justice for the city and for the individual in later books (Bloom 317).

Within the remainder of the preceding dialogue, it becomes apparent that the aforementioned definition of justice is flawed on many levels. Socrates raises various criticisms against the definition to point out the holes in Polemarchus' thinking. He ascertains, for example, that the fallibility of human beings to judge friends and enemies wrongly is one discredit of the definition. Dragging Polemarchus through the argument, he expounds upon this notion by pointing out that people often mistake friends for enemies and enemies for friends. By this logic, if a person were to follow Polemarchus' definition under such a scenario, he/she would effectively be harming his friends and doing good to his enemies –inducing the exact opposite effect of what the definition intends. Beyond this point, Socrates also criticizes the definition's directive to do bad at all, even unto enemies. He demonstrates to Polemarchus the effects of doing harm unto people –namely, that just as harming a dog puts it in a necessarily worse condition, so does harming people cause them “necessarily [to] become more unjust” (335d). Thus, on Socrates' view, the notion of harming others as an intrinsic part of justice, which Polemarchus suggests, logically negates itself because “it is never just to harm anyone” (335e).

Although at the end of their conversation it appears that Socrates has fully rejected Polemarchus' definition of justice (helping friends and harming enemies),

investigation of the framework of his proposed regime proves very quickly Socrates' belief in the idea of loyalty to friends and severity to enemies as a necessary condition for political life. As Bloom points out, "justice as helping friends and harming enemies is peculiarly a political definition of justice. [...] If the distinction between friends and enemies [...] were obliterated, [...] political life would be impossible" (Bloom 318). By similar logic, Socrates seems to recognize that without the boundaries of kinship –which de facto create those of enemy- there would be no possibility of political life as no state would contain the backing of a citizenry (community/friends) to do anything. The warriors of Socrates' Kallipolis are obviously allegiant to their community over others; Socrates compares them to noble dogs, possessing "gentleness toward acquaintances and harshness towards strangers" (Bloom 319). This point indicates that, despite the argumentative defeat over Polemarchus, Socrates' notion of justice does not fully dismiss his definition.

After debasing Polemarchus' proposed notion of justice, Socrates is interrupted by Thrasymachus who, in a tellingly violent manner, jumps into the conversation of justice. After an onslaught of condescension towards Socrates, Thrasymachus provides the next major definition of justice: that "the just is nothing other than the advantage of the stronger" (338c). In an attempt to flesh out this definition, Thrasymachus considers the various setups of cities –how in a democracy, democratic laws are set down, in a tyranny, tyrannical laws and so on. Thrasymachus proclaims that these ruling bodies are "masters" of their respective cities, and as such, the laws which they set forth unto their people –laws which are necessarily to their advantage- dictate the just and unjust so that "in every city the same thing is just: the advantage of the established ruling

body” (339a). Socrates begins his response to Thrasymachus by agreeing that justice is indeed advantageous, but with regards to whether or not it is so for the stronger must be considered further. Similarly to how he utilizes the fact of human fallibility in judging friends and enemies wrongly to discredit Polemarchus’ definition, Socrates’ first refutation of Thrasymachus’ definition plays on the same fallibility in context of the ruling bodies which Thrasymachus claims justice depends. He explains that because rulers may sometimes set down laws incorrectly –insofar as they sometimes inadvertently gear towards their disadvantage-, defining justice as advantaging the stronger is flawed by the simple and very plausible possibility of rulers “unwillingly command[ing] what is bad for themselves” (339e).

In response to this, Clitophon suggests a revision of Thrasymachus’ argument: that the just is not necessarily the advantage of the stronger -as this may sometimes be inhibited unwillingly by their actions- but rather, the just is “what the stronger *believes* to be his advantage” (340b). Thrasymachus rejects Clitophon’s revision, mocking its notion to call a man making a mistake stronger when doing so is not a sign of strength but of weakness. He holds true to his initial definition, questioning whether it is right to define an artist as an artist by the mistakes he makes; he asks, “do you call a man who makes mistakes about the sick a doctor because of the very mistake he is making?” (340d). Drawing the occupation analogy further, the examples of calculators and grammaritarians making mistakes are discussed, and Thrasymachus claims that in the moment in which the doctor or calculator or grammaritarian is making a mistake, he/she is acting on “a failure in knowledge” of his craft and is so “in that respect no craftsman.” In the moment of making his mistake, the crafter, insofar as he is failing at his craft, is

“no craftsman” (340d). As he explains, “no craftsman, wise man, or ruler makes mistakes in the moment when he is ruling;” those who make mistakes are not rulers (340d). He suggests, with this defense, that the stronger are those who do not make mistakes. With this response, Thrasymachus attempts to defend his notion of justice by inherently precluding the prospect of fallibility from the definition of ruling, so that “the ruler, insofar as he is a ruler, does not make mistakes, and not making mistakes, he sets down what is best for himself” (340e).

With Thrasymachus’ suggestion that justice is a craft, Socrates precedes to analyze the nature of crafts –deliberating on their inherent meaning and ultimate purpose. Considering the art of medicine, he ascertains that medicine was devised not for the advantage of itself, but rather for the advantage of the body (341e). He analogizes that just as “medicine doesn’t consider the advantage of medicine, but of the body,” neither so does “any other art consider its own advantage –for it doesn’t have any further need to- but the advantage of that of which it is the art” (342c). With the establishment of this rule, which Thrasymachus reluctantly accepts, Socrates further considers the nature of crafts, positing that there doesn’t exist a kind of knowledge of craft which aims to the advantage of the stronger, -as Thrasymachus’ definition suggests- but rather, only that which aims towards the subject of its craft: that which is “weaker and ruled by it” (342c). After delineating this trend, Socrates analyzes the examples of first the doctor, later the pilot, and ultimately the ruler. As he explains, just as a doctor does not engage in action for the benefit of his own advantage but instead for the advantage of the sick, neither does a pilot act for his own advantage but for that of the sailors he rules. Applying this consideration of crafts to justice, Socrates

maintains that like the doctor and pilot, so also does a ruler of a city not act for the benefit of himself –the stronger- but he rather acts in a manner conducive towards the benefits of those he commands –the weaker. At the end of this point in the discussion, Socrates has demonstrated what effectively proves the opposite of Thrasymachus' selfish intention of advantaging the stronger: that crafts –justice included- are directed appropriately towards the good of their subject matter and not selfishly towards the good of themselves (324c).

Although Thrasymachus had appeared to agree with Socrates' logic up to this point, his response to this refutation suggests differently. Thrasymachus contests Socrates' conclusion that crafts aim towards the advantage of their subjects and not to their practitioners. To prove this, he draws on the example of the shepherd and the sheep. He mocks the idea that "shepherds [...] consider the good of the sheep" for anything beyond their own benefit, as well as the accompanying idea that rulers consider the ruled beyond anything except subjects of exploitation for their own advantage (343b-d). In its understanding of people as sheep to be herded –or as Machiavelli incites in *The Prince* centuries later, "matter to be molded"- Thrasymachus' notion of justice encourages the exploitation of the ruled for the advantage of the ruler without any principled dissent. Further contending that "the just man everywhere has less than the unjust man," Thrasymachus makes an argument on behalf of tyranny, "the most perfect injustice" (334a). He explains that living an unjust life undetected is favorable over the just life because of the fruits of benefit which engaging in injustice provide over withholding from it. After Thrasymachus develops his argument for

injustice over justice, Socrates proceeds to provide a series of defenses as to why living justly is better than living unjustly.

Thrasymachus' notion of justice entails political tyranny, wherein he suggests that by position of ruler-ship, the sovereign ruler is the strongest and by ascription to whatever the strongest decrees, the laws therein set forth by the sovereign represent the just. Thrasymachus' consideration of justice entails that there is "no recourse beyond" the code of law laid down by the established sovereign (Bloom, 327). As in the case of tyrannical regime, the "just" is whatever the ruler says it is –justice is defined only by power. This notion resonates very strongly with the *Leviathan* system which Thomas Hobbes envisions much later in antiquity. As Bloom puts it:

"Thrasymachus' thesis is simply that the regime makes the laws and that the members of the regime look to their own good and not the common good. The city is not a unity, but a composite of opposed parties, and the party which wins out over the others is the source of the law. [...] Justice [...] is not a fundamental phenomenon; the lawgiver cannot base himself upon it, for justice is a result of law." (Bloom, 328)

A Defense of Justice over Injustice, the Metaphor of the Kallipolis, and the Tri-Partite Understanding of Soul

Socrates' notion of justice, as evident by the various conversations and dictates he lays out for the Kallipolis, rejects this Thrasymachus' claim of justice as the law and law as the advantageous of the stronger. Whereas Thrasymachus maintains that, with regard to justice, the laid down laws are "ultimate," Socrates inspires the idea that laws are not necessarily just by virtue of their having being placed, but rather, their truth to justice depends on their alignment with a certain objective code that exists beyond that of the ruler –one that ranks even the ruler himself (Bloom, 328). In comparing the two characters' conceptions of justice, it appears that despite obvious tensions, there still

exist certain overlaps between them. Socrates, by the mandates of the Kallipolis, concedes with Thrasymachus on the point that it is the stronger and not the weaker of men who rule and should rule. While their concessions that the stronger should rule concur, their understandings of who “the stronger” are do not. Thrasymachus demarcates the stronger as those who perform injustice to their advantage the most successfully; they are the ones who complete injustice most cleverly. By contrast, the stronger on Socrates’ view are the philosopher kings who succeed through the Kallipolis’ education and possess the most balanced souls, as he soon suggests.

The two interlocutors also agree, as Bloom points out, “that the character of the ruling group is the core of politics” (Bloom, 328). They disagree, however, on what that character is defined by. For Thrasymachus, character of the ruler and so of the city is defined by power through success in injustice, while for Socrates it is defined by power through philosophy, the soul, and education. Furthermore, both characters regard knowledge as a very important quality for rulers. However, the subject of what that skill in knowledge should be of proves a critical point of distinction between Thrasymachus’ and Socrates’ concepts. Thrasymachus’ prioritization of knowledge esteems the knowledge of how to use injustice for one’s own advantage. He values knowing how to theoretically and practically ascertain selfish desires. By contrast, Socrates’ prioritization of knowledge in the Kallipolis esteems the knowledge of how to use justice for the public—a notion embodied by the philosopher king’s consecration to philosophize for the good of the people. While both notions venerate knowledge, they represent opposite poles in terms of political positions in their fundamental divergence of who that knowledge should be directed towards: the self or the public. As Bloom points out, rulers for

Thrasymachus will be trained with knowledge to guide their perfect selfishness, while for Socrates they are to be trained with knowledge to be “perfectly public-spirited” (Bloom, 329). Under Thrasymachus’ ideal, a city dictated by self-interest of the strongest implicates a tyrannical regime that holds no notion of public good over itself. By contrast, under Socrates’ ideal, a city dictated by more selfless interest of the ruled body implicates a *republic* which considers the good of the public rather than the private most quintessentially.

Socrates’ defense of the just life over that of the unjust is revamped in his discussion with Glaucon and Adeimantus in Book II. Unpersuaded by the defense of the just life which Socrates provides Thrasymachus in Book I, Glaucon, sets out to discover whether “it is in every way better to be just than unjust” (357a). Asking Socrates to delineate under which category justice falls, Glaucon divides the good into three types: “good [...liked] for its own sake,” good liked “both for its own sake and for what comes out of it,” and good liked just for just “whatever comes out of it” (357c). Socrates ascribes justice as the second type of good –that which is liked for both its own sake as well as for the sake of its consequences. Glaucon proceeds to present a threefold defense of injustice, arguing: i) the notion of justice only invents itself as a negotiation by weak people who fear suffering injustice at the hand of the stronger (358e-359a); ii) people drive to justice out of necessity only and not desire, and so it is good only for its consequences and not for its own sake (359c-360d); and iii) the unjust person who is believed to be just lives more happily than his counterpart who embodies the reverse (360d-362c). Glaucon invokes the story of the “ancestor of Gyges” who finds a ring which turns him invisible to prove that no one [just or unjust alike...] would be so

adamant as to stick by justice and bring himself to keep away from what belongs to others” if given the ability to do injustice without fear of reproach. In concession with Glaucon, Adeimantus similarly attacks justice. Conceding with Glaucon’s idea that the unjust man who appears to be just is happier than the just man who appears to be unjust, Adeimantus asserts that being reputed for justice is more conducive to being happy than actually being just.

In response to these attacks against justice, Socrates undertakes the task of defending his delineation of justice as good not just for its consequences, but also independently for its own sake. To do this, he sets off to “investigate what justice is like in the cities” before seeing what is in the individual, as “there would be more justice in the bigger and it would be easier to observe more closely” (368e). He sets out to bring “into being in speech” a just city which fulfills the most basic human needs; this is the first city constructed and is done so with Adeimantus (369a, pg45). Socrates contends that the formation of cities is the result of the human inability to be “self-sufficient” which demands collaboration with other men for basic needs. Building off the claim that each person is better inclined towards one certain natural ability over others—the farmer at providing food, for example, - the constructive model which would prove most efficient in satisfying everyone’s needs entails that each person of that city do the single job which he/she is most disposed. This first city can be appropriately considered a city of producers, where unlikely, contains an equally distributed division of labor for the most basic and simplest needs- those of the body.

Glaucon dissents at the banality of this first city which Socrates and Adeimantus propose, calling it “a city of pigs” – to which Socrates responds with the description of a

second city: a “feverish city” which allows for luxuries (372e-373e). Necessarily born of war, this sort of city requires guardians to protect itself from outsiders (373e). It does not hold the same basic standard of equality which the city of producers did, but rather marks a distinction between “the wage class” of producers and their guardian counterparts, and further, a distinction between higher and lower guardians. Echoing the discussion with Polemarchus, Socrates compares the guardians of the city to noble dogs by their natural inclination to be gentle with familiars and harsh with strangers. By virtue of the fact that they distinguish between familiars and strangers through recognition and knowledge, Socrates maintains that each guardian “must by nature be a philosopher and a lover of learning; [...he must be] philosophic, spirited, swift, and strong” (375b,c). Socrates asserts that these guardians must be educated very carefully and their education must begin at a young age - “for at that stage it’s most plastic, and each thing assimilates itself to the model whose stamp anyone wishes to give to it” (377b). He goes on to lay out a very specific model of training for the guardians, describing at length specific procedures of poetry, arts, physicality and other aspects of education they will need to go through; he calls upon music to train the soul and gymnastics the body. The training of the guardians proves a major point of discussion in Books II through VII, culminating in the proposal of a total revision of the current system. It is here where Socrates first famously distinguishes training of the body and training of the soul –suggesting that the two are separate and distinct factions of the individual which must be nurtured. This idea provides one of the first insights to Socrates’ tripartite understanding of human nature and the soul –an analysis of which is necessary to articulating his view of justice. This polis Socrates proposes further grounds itself in a

noble lie which Socrates contrives as a fictitious story to perpetuate to the masses so that they will be more inclined to help themselves and help their state. This story, as relayed in sections 414e-415c of Book III, serves as a metaphor relating to human equality, effectively generating the three facets of the polis' generated caste system; each person -born of the earth- possesses a soul of either gold, silver, or bronze that dictates their class of guardian, auxiliary, or producer, respectively. Even with this division in place, however, this second city is ill and in a constant state of war and sickness because of the fact that everyone desires luxuries.

With the discussion of justice in the city as a metaphor for understanding justice in the individual, an accurate interpretation of Plato's conception of justice requires understanding his Kallipolis –which itself requires understanding his outlook of human nature. In Book IV, Plato divides the human soul (psyche) into three distinct parts: appetite, spirit, and reason (436a). In sections 436b to 442a, he lays out a logical platform to distinguish between each of these three parts, deliberating that reason and spirit may forbid appetite and spirit may forbid reason, therefore each is clear and distinct from the other. After explicating the three parts of the soul, Plato contends that people are often dominated by one of these parts more so than the other two, accounting for the different “natures” and difference in abilities between people. Plato comes to explain these differences in terms of a “noble lie,” differentiating between people with different metals of the soul: souls mixed with gold are disposed to rule, those with silver to protect, and those with iron/bronze to produce (415a-c). People with silver mixed souls will be dominated by spirit over reason and appetite, while the guardians –people of gold mixed souls- will dominate in both spirit and reason/wisdom

(412c). The remainder of people, those souls mixed with bronze and iron will be dominated by appetite.

In accordance to each of the three parts of the soul, Plato explicates that there exists a corresponding virtue which idealizes that part. With spirit comes courage, with reason wisdom, and with appetite moderation. With regards to the city, if the spirited protectors/auxiliaries are courageous, the city will be correspondingly courageous. Additionally, the extent to which rational decisions are made by the guardians and acceptance of caste placement is respected and followed by producers, the city will be equally wise and moderate (428b-432c). Under these conditions, Plato articulates justice in the city as the extent to which each person respects and fulfills his/her position; the polis' justice is defined by each individual "doing one's own work, and not meddling with what isn't one's own" (433a).

Now that Socrates has defined the terms of justice in the city, he goes on to translate that metaphorically to explicate the meaning of justice in the soul, as he initially promises Glaucon. As in the case of the city, justice in the individual corresponds to the balance of the three-fold virtues wisdom, courage, and moderation. The extent to which a person allows their reason to control their decisions dictates their wisdom; the extent to which spirit protects from harm dictates courageousness; and the extent to which appetite respects its position dictates moderation (442b-d). Just as justice in the city involves the balance of these virtues by each person in the caste, so too does justice in the individual enjoin the balance of these virtues for the soul, where each part performs its role properly. Justice on the individual level then, as described by Plato's tripartite

theory of the soul, corresponds to justice on the level of the polis, and both these levels of justice involve a balanced and “natural harmony” of the soul (444b). (Bloom)

Unlike the first city which contains one equal class of people, the latter city Socrates describes divides the people into three classes –guided by desire/appetite, spiritedness, and reason. Born of war and run by rampant desire, the feverish city, as its name suggests, develops into a sick city requiring a certain cure to become just. In response to the fundamental quality of sickness inherent to the feverish city, Socrates lays out the conditions of a third and ideal city which purifies the second –that of the Kallipolis. From the root *kalli* meaning beautiful, the ideal city state is made up of the aforementioned levels of class: gold esteeming wisdom and referring to the philosopher kings, silver esteeming bravery and referring to the auxiliaries/soldiers, and bronze/iron esteeming labor and referring to the producers. Because the guardians of this state contain the potential to be dangerous and become lions to their own kind, Socrates places certain parameters around them to keep them in check: with regards to their living quarters and wages, they must be open and public, respectively. Furthermore, they cannot own private property or any silver and gold. The ideal polis is further predicated on the stasis of a relatively small state –inciting later thinkers like Aristotle to agree “a great polis is not to be confounded with a populace one” (*Politics*). While Athens at the time might have ranged around 300,000 people, Socrates’ proposed state flounders at a max out general population of about 25-30,000 people, or 5,000 families, for optimum size –a size intimate enough for knowing the rulers’ characters -an intimacy of which is necessary for properly installing the city. Socrates lays out further conditions of his proposed republic in Book V. These conditions include the establishment of a

massively radical system of equality between men and women, which goes on at length to demand both genders receive equal education and explain the reasons –or lack thereof- in not doing so. He maintains that if a woman can succeed in the education system to the point of becoming a philosopher king, there is no reason to deny her guardianship; if she is mentally and physically as able bodied as her male counterparts, she may equally become a ruler. Plato’s theory here marks what is perhaps one of the first, most radical calls for equality between the sexes; he argues that equal ability render equal status. Beyond this system of equality, though, Socrates also explicates a very specific, state run breeding program to strengthen the quality of the guardians in his Kallipolis. The aim here would be to produce the best of humans, with individuals being rated a number and paired to other mates according to the numbers they receive. The family program does not end at the birth of the offspring, but extends to dictate how the young should be raised –that is, by the entirety of the guardianship.

Beyond the equality and breeding systems, Socrates also articulates a specific training plan in the ideal state for the selection of the philosopher kings. He posits a completely voluntary education program that begins with music, physical education, and mathematics from ages 10 to 15 –before this age, children are intended to play and live in youth to discover the world around them. After this stage comes intense physical education for ages 17 to 20, then rigorous math and philosophy for ages 20 to 30, followed by dialectic teaching from ages 30 to 35. The final stage of education involves practical politics from ages 35 to 50, and it is only once they reach stage that the philosopher kings may be chosen. As Socrates suggests, it is necessary that the

philosopher kings undergo this rigorous and extensive education program because it is they who will be in charge of the most important matters of the city.

In order to treat the ills of the aforementioned feverish city, the Kallipolis aims to attain the good and just by teaching people to hate what is bad for them and love what is good for them. The way to successfully do this and teach them the natures of the good from the bad is by rule of the philosopher kings implicating the guardians. The disease of the second city is war, and the cure to that disease, as suggested by the ideal state, is adequately teaching the guardians who will impose the conceptions of the good (the forms) which only they have access to. It is only through philosophy, ambition, and the intensity of their education that the philosopher kings gain the capacity to be the just, selfless, and upright rulers which the city demands; the city thus fosters the nurture of virtue, wisdom, and reason for the good of the public. With the establishment of the perfect city ruled by philosopher kings, Socrates goes on to discuss—or rather, critique—other forms of government below the aristocratic Kallipolis in Book VIII. He places lesser forms of government in order of decreasing justice: timocracy, oligarchy, democracy, and tyranny. (Bloom)

Aristocracy degenerates into timocracy when parts of the should-be exclusive gold class guardians become infiltrated by non-gold silver and bronze counterparts. With this infiltration, the guardians' goals of reaching wisdom and virtue for the city become riddled with the lesser goals of self-interest and appetite as brought about by the should-be lower class members. The deviation from the perfect society as entailed here marks a corruption of justice -a disharmony between the three virtues and parts of the soul, where spirit becomes favored with appetite over reason. This creates the

perfect breeding ground for corruption where selfless service to the public for wisdom is no longer the primary concern, but exists with the infection of certain self-interested motives. As Plato explains, this system does not entirely depart from the proposed aristocracy –it does retain some of its positive aspects. However, it becomes more geared towards a war-like prospect where virtues entailing money and power are favored over those entailing wisdom; the warrior king becomes favored over the philosopher king. Timocracy degenerates into oligarchy which timocrats act in the favor of their self interest to the point that the citizenry becomes ruled by the wealthy. As the government comes to limit rule to the exceedingly powerful and withhold it from the poor, money becomes favored over philosophy and virtue is no longer the priority. Oligarchy degenerates into democracy when the once ruled by the rich poor populace incite a revolution, overthrow the wealthy governing bodies, and distribute their goods among themselves. The injustice of democracy manifests as disharmony of the soul where appetites are the primary concern. Finally, democracy degenerates to tyranny – where no wisdom or courageousness prevails and appetite of a tyrant dominates.

Plato's Criticisms of Democracy: Manifestations in the Ancient and Modern

Debates

By the mere ascription to an aristocratic regime alone, Plato's republic is unmistakably antidemocratic in nature. His integration of an inherently class split structure is suggestive of the contention that he does not place all people on an equal level for ruling. This notion speaks volumes to his dismissal of democracy –a system of government which predicates itself on that very notion of absolute equality. Under his

aristocracy, guardians do not want to rule, yet are compelled to do so out of ambition, spirit, and love for the state. Under democracy, rule of the many, there is no compulsion for men to rule. It appears that Plato rejects democracy on the basis that it assigns a sort of “equality to equals and unequals alike” –a notion echoed by Thomas Hobbes centuries later. Instead of esteeming philosophy and knowledge as utmost, democracy attempts to establish freedom as key –though the practicality of that freedom envisages slavery instead. Though Plato’s “reasons for criticizing democratic theory are not as clearly agreed upon,” as the commentator Gerasimos Santas contends, it can be probably ascertained he thinks “democracy prizes freedom far too much and knowledge far too little” (Santas, 70). Plato’s most obvious criticisms of democracy arise in the form of sarcasm in Book VIII, where he describes democracy as “a delightful form of government, anarchic and motley, assigning a kind of equality to equals and unequals alike” (*Rep.* VIII.558c4–6). Socrates, among other ways, criticizes the freedom of democracy on the grounds that it allows “free choice of profession” –something which his aristocracy notably rejects (Santas, 85). The republic he proposes does not contain this freedom of occupation to allow people to enter into whatever profession they want – politics included. Rather, people are classified into distinct occupations based on their natural abilities; people with the ability of bronze souls become producers, those of silver souls become soldiers, and those of gold souls become guardians. Designated placement into the appropriate class is based on ability and measured level of success in the rigorous educational system. Any entrance of people into a professional category beyond or not contained within their natural ability –such as “one of the soldiers [entering] into the class of the counselors and guardians, for which he is not fitted”-

leads to the ruin and demise of the perfect city. Plato contends that “this kind of substitution or multitasking” -a process of letting people choose their occupations which the freedoms of democracy allow- “is the ruin of the city” (Book IV, 434a). In assigning a sort of “equality to equals and unequals alike” and allowing bounties of freedoms to reign over structured caste, democracy in Plato’s eyes forfeits the virtue and knowledge needed for a just city (Santas, 85-87). This idea is embodied in a biographical case study of Socrates himself. The Athenian democracy under which he presides supported his execution in the name of ensuring equality or what it appears to be. The details encompassing his trial and death in themselves act as a metaphor to show just how democracy executes virtue and philosophy in the name of ensuring “equality” (Marshall, 95). With the excess diversity in ruling caused by the installment of the poor as the ruling class, virtue becomes ultimately lost.

In his essay, *Democracy in Plato’s Republic: How Bad is it Supposed To Be?*, Mason Marshall brings another analysis of Plato’s implicit criticisms of democracy. Attempting to unravel Plato’s reasons for criticizing democracy, he explains that this case is indicative of the idea that in “working to ensure equality, democracy might aim to limit every citizen’s freedom just enough to limit all citizens’ freedom equally,” – suggesting the sort of slavery through “equal” freedom mentioned earlier (Marshall 95). By means of contrasting democracy to the Kallipolis, further democratic criticisms in *The Republic* follow the idea that in attempting to allow many “poor” to rule, democracies don’t make way for enough of their citizens to actually be heard because of the vastness of the attempted power distribution. This point highlights Plato’s emphasis on smaller government, as the extent of citizens’ political voice and the corresponding

population size are inversely related -i.e., the bigger the city, the smaller the impact of the individual's voice. Even more so, democracies in their nature tend to reduce to productions of majoritarianism dictated by services aimed at placating the impulses of the citizenry as opposed to attaining the Good. This notion coincides with his understanding of the democratic man –whose soul infringes upon the harmony of the tripartite soul by becoming dominated by desire and lacking in reason. On the scale of the democratic system, this translates into the idea that democracy is ruled not by reason, but by the passions and desires of its people, which ultimately leads to a state of chaos and anarchy – a breeding ground for the worst system: tyrannical regime.

Despite considerable critical commentary, the discussion of how Plato construes democracy in *The Republic* is complicated and remains the subject of ongoing debate millennia after the fact. “As a matter of fact,” Marshall asserts, “this whole issue—the issue of how bad democracy is supposed to be in the Republic—is pretty murky” (Marshall, 99). Plato's democracy, after all, was much different from modern, large-scale, representative democracy. Even so, there are obvious lessons that apply, particularly to American democracy, and the question of its justice or injustice. In terms of the debate today, many modern voices such as those of Frederick Nietzsche and Charles Maurass have come to echo the conclusions drawn by Plato. Heralders of democratic criticisms consistently draw on issues that have become widespread in modern democracies –such as the dependence on irrational voting bodies, inefficiency of system, disparity of wealth, corruption, and sidelining of morality. Plato's 2,000-year-old denouncement of democracy appears to have successfully predicted many of these problems which have become so commonplace with the most large democracies in

place today. Irrational voting peoples and the adverse effects of their political power embody what happens when the rulings of a state are placed in the hands of people who have not been critically educated –something Plato attempts to preclude from the guardian class through the requirement of rigorous educational training, and designation of bronze, silver, or gold capacities. Plato also speaks to the massive wealth disparity which plagues many democratic societies –when the governing class becomes permeated by people not led by purely philosophic and public oriented motivation, impure motives of wealth and self-interest come to infiltrate and dictate policies set upon the people. Israeli politician Rabbi Elazar Menachem Shach affirms Plato’s prediction that democracy becomes based on self desire, which often manifests in the form of desire for wealth; he maintains, “democracy is a machinery of lies, false notions, pursuit of narrow interests and deceit. [...] The whole point of democracy is money” (Hellinger, 6). Though Sach answered the debate with a Judeo-religious response, his criticism of democracy rings true in the light of Plato: “[democracy] is not based on seeking the ultimate truth,” but rather fulfilling the whims of desire. On another note, in his book *Democracy, The God That Failed*, libertarian theorist Hans-Herman Hoppe similarly deconstructs the platforms of democracy and the “classical liberal belief in the possibility of limited government” (Hoppe). In his chapter entitled “On the Impossibility of Limited Government and the Prospect for Revolution,” Hoppe highlights natural order and the deficiencies of social democracy, foreseeing “secession as the likely future of the US and Europe resulting in a multitude of region and city-states” (Hoppe). Practically speaking, the ideal *Republic*, by Plato’s own admission, raises a plethora of functional and application concerns as to whether or not it is an even possible state to create –and

further whether or not Plato intended it to be. Still so, the Republic has, on many levels, proven undeniably accurate in its prediction of problems with large democracy – problems that ensue on the much larger, grander scale level “democracies” of today that even Plato could not have anticipated. The question of whether Plato was right in his warnings against democracy is one that many would respond with a resounding yes –it is undeniable that he correctly predicted many of the philosophical and political problems we see in our large democracies today. Whether his Kallipolis, on the other hand, holds the guide for a more just, and practical alternative to democracy is debatable. Though the actualization of his Republic might never be possible, as he recognized, Plato’s daunting accuracy goes to show just how much we could perhaps learn from its perceived intent to make society more just, millennia after his time. The actualization of Hoppes’ predicted division of large democracies into smaller states might prove a step in the right direction.

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International Criminal Court's Dealings and Perceived Biases with and towards African Nations contra Interactions with Western Governments

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Why Uhuru Kenyatta, and not Tony Blair? Why Omar Al-Bashir, and not George W. Bush? This work examines why the 31 people whom the International Criminal Court (ICC) has sought charges for, are all exclusively African. In 2016, President Yahya Jammeh of the Gambia, echoing growing sentiments on the continent, referred to the International Criminal Court as the "Infamous Caucasian Court". That same year, South Africa, Burundi, and the Gambia proclaimed their intention to withdraw from the court, followed in 2017 by an African Union non-binding resolution calling for a mass withdrawal of member states. In addition to examining, perceived bias against Africans in the court, this paper will compare actions taken against African heads of state or government versus the treatment of Western signatories to the court, such as the 2016 decision by ICC prosecutors to rule out trying British Prime Minister Tony Blair for involvement in the Iraq War, or the treatment towards leaders of Western withdrawn or non-signatories such as President George W. Bush, a former head of state of a United Nations Security Council member, a body which itself is empowered to refer cases to the ICC, even though it consists largely of non-signatories.

Founding and Principles of the International Criminal Court

The International Criminal Court (ICC) was founded to fill the gap left by the frequent failure of sovereign states' national courts to fairly prosecute crimes that are often committed by national security forces, and military. The crimes currently covered by the International Criminal Court include genocide, war crimes, and crimes against humanity. The idea of an international court to try crimes committed by states in war time can be traced to the early 19th century. In earnest, the momentum towards the founding of an international court began with Gustav Moynier, a founding member of the International Committee of the Red Cross, who, in 1872, proposed an international court in response to the atrocities of the Franco-Prussian war (Coalition for the International Court 2010). Although World War I also resulted in unsuccessful calls for an international justice system during the negotiations at Versailles, the true impetus towards an international court began after World War II. This would manifest itself in the Nuremburg and Tokyo tribunals that tried Nazi German and Imperial Japanese war crimes, respectively (Coalition for the International Criminal Court 2010).

In 1948, "the United Nations General Assembly (UN GA) adopted the Convention on the Prevention and Punishment of the Crime of Genocide in which it called for criminals to be tried "by such international penal tribunals as may have jurisdiction" and invited the International Law Commission (ILC) 'to study the desirability and possibility of establishing an international judicial organ for the trials of persons charged with genocide.'" (Coalition for the International Criminal Court 2010). However, the efforts were thwarted by Cold War tensions between the United States and the Soviet Union. Nonetheless, due to the end of the Cold War and in response to the crimes committed

in Yugoslavia and Rwanda, the Rome Conference was held in July 1998, which was attended by 160 nations, and resulted in the Rome Statute of the ICC with 120 votes in favor and only seven against: the United States, Israel, and China among the seven (Coalition for the International Criminal Court 2010). 124 nations are members of the court, which is based in The Hague, Netherlands, with 34 coming from Africa (International Criminal Court³).

Jurisdiction and ways of referral to court

According to documentation published by the International Criminal Court: “The mandate of the Court is to try individuals (rather than States), and to hold such persons accountable for the most serious crimes of concern to the international community as a whole, namely the crime of genocide, war crimes, crimes against humanity, and the crime of aggression, when the conditions for the exercise of the Court’s jurisdiction over the latter are fulfilled” (International Criminal Court). However, the ICC follows the principle of complementarity, in which national courts are given priority to try such crimes, and the ICC only investigates when a state is unable or unwilling to do so (International Criminal Court). Genocide is defined as acts intended for the destruction of a national, ethnic, religious, or racial group (International Criminal Court). War crimes are crimes committed during armed conflict (International Criminal Court). Crimes against humanity are systematic attacks against any civilian population including but not limited to murder, rape, torture, imprisonment, and enslavement (International Criminal Court). The crime of aggression is the planning, preparation, initiation, or act of using armed force against another state’s sovereignty or independence (International Criminal Court), however, this fourth crime has not been formally codified into the mandate of the

International Criminal Court (International Criminal Court²). At the first Review Conference of the Statute in Kampala, Uganda, in 2010, it was agreed to amend the Rome Statute to include the crime of aggression, nonetheless, this decision has to be both ratified by 30 states by 2010, and voted upon by the state parties that same year (International Criminal Court²).

There are various modes of referral to the International Criminal Court. The first is a request by a member state to the Office of the Prosecutor of the International Criminal Court (International Criminal Court). A member state might choose this option in order to bring forth an element of neutrality in conflict resolution, or when its national courts are not strong or legitimate enough to deal with alleged domestic or international crimes. A member state can also request an investigation of another member state due to the same concerns with a foreign nation's legal system. The next mode is similar to the first, except it involves a non-member state requesting an investigation and accepting the jurisdiction of the court for the duration of said investigation (International Criminal Court). The following mode involves the United Nations Security Council referring a situation to the court (International Criminal Court). This is in spite of the fact that three of the five permanent members (United States, Russia, and China) of the United Nations Security Council, each armed with veto power, are not currently subject to the court's jurisdiction as non-members. The most common mode, however, is an investigation of crimes committed in a member state or by a national of a member state (International Criminal Court²). This does not require the approval of, or referral from the member state (International Criminal Court²).

In all cases, if an investigation, which is led by the Office of the Prosecutor, results in a confirmation of the ICC's jurisdiction and a determination of a suspect or suspects, the prosecution requests ICC judges for an arrest warrant or summons (International Criminal Court²). As the ICC does not have a police force, it is the responsibility of states to transfer a suspect to the court (International Criminal Court). Once transferred, a suspect faces a pre-trial, before three judges, that determines the suspect's identity, ensures the suspect understands the charges facing them, and decides whether there is enough evidence for the case to go to trial (International Criminal Court²). ICC trials take place before three judges (International Criminal Court²). If the trial results in a guilty verdict, which must be proved beyond any reasonable doubt, the judges can sentence a person to up to 30 years imprisonment, and under exceptional circumstances, life (International Criminal Court²). In addition, judges can order reparations for the victims (International Criminal Court²). If there is not enough evidence, the case is closed and the suspect must be released (International Criminal Court²). However, both guilty and non-guilty verdicts are subject to appeal by the defense and prosecution (International Criminal Court²). The Appeals Chamber is made up of five judges that are different from the original trial (International Criminal Court²). The Appeals Chamber can uphold, amend, or reverse a judgement, however, this is a final judgement, except in very exceptional cases (International Criminal Court²).

Case study of Western interaction with ICC

To investigate the experience of so-called "Western" nations with the court, this study examines actions during armed conflict committed by the United Kingdom of

Great Britain and Northern Ireland, party to the Rome Statue of the ICC, and the United States of America, a non-party to the Rome Statue. The time-frame is limited to post-2002 events as the jurisdiction of the International Criminal Court is limited to situations occurring after the full implementation of the Rome Statue in July 2002, and does not have retroactive jurisdiction

The United States and the founding of the International Criminal Court

The United States was a leading member in the negotiations that led to the Rome Statue of the ICC, however, the United States voted against the Rome Statue along with seven other states out of the 160 participants (Coalition for the International Criminal Court 2010). Nonetheless, the United States under President Bill Clinton signed the Rome Statue of the ICC before the December 2000 deadline (Shah 2005). In a turn of events, President George W. Bush in May 2002, *unsigned* the Rome Statue (Shah 2005). Furthermore, President Bush signed in August of that same year the “American Service members Protection Act” (ASPA): the so-called “Hague invasion act” (Shah 2005). The act authorizes the US military to rescue any of its citizens or citizens of allied countries held by the ICC (Shah 2005). In addition, the act provides for the withdrawal of military assistance to any state signing the Rome Statue, and restricts US participation in UN peacekeeping mission unless the US receives immunity from prosecution (Shah 2005). Ironically, the same act allows the US to assist in bringing those to justice accused of crimes prosecutable by the ICC, including assistance to ICC efforts as long as those efforts do not include US citizens: the so-called “we will help you bring others to justice, but not us” principle (Shah 2005). Under US pressure, the UN Security Council passed a resolution to exclude UN peacekeepers from ICC

prosecution (Shah 2005). There continues to exist pressure by the US government on foreign governments to not cooperate with the International Criminal Court so far as US citizens are concerned.

The United Kingdom membership in the International Criminal Court

The United Kingdom voted in favor of the Rome Statue of the ICC (Coalition for the International Criminal Court). The United Kingdom is a founding member of the International Criminal Court, and is a full party to the Rome Statue (Shah 2005).

ICC and US war crimes in the Iraq War

According to the report by Joachim Guillard, *Body Count: Casualty Figures After 10 Years of the War on Terror*, one million people died as a result of the Iraq War of 2003, and this figure does not include US military involvement past the official withdrawal of US forces that ended in 2011, nor does it include the official redeployment of US forces in 2014 (Jamail 2015). The International Criminal Court, to repeat, classifies use of force against another state's sovereignty as the crime of aggression; notwithstanding, the required ratification of this crime in the ICC's mandate (International Criminal Court²). On December 22, 2014, the American Civil Liberties Union and Human Rights Watch called on then Attorney General Eric Holder to prosecute George W. Bush Administration officials, including then former President Bush and Vice President Cheney (Goodman 2014). In addition to aggression, the United States, according to Col. Lawrence Wilkerson, interned around 700 prisoners without due process, who happened to be at places of battle, in Guantanamo Bay (Goodman 2014). This could be evidence of crimes against humanity as these internments were of civilian actors, not armed personal, falling under the definition of

imprisonment and slavery as part of crimes against humanity as defined by the Rome Statute. However, due to US non-acceptance of the Rome Statute, not a single American has been brought to the ICC.

ICC and UK war crimes in the Iraq War

The United Kingdom under Prime Minister Tony Blair was a full participant in the Iraq War from the onset in alliance with the United States; however, unlike the United States, the United Kingdom is a full party to the Rome Statute of the ICC. In 2014, the ICC opened investigations into alleged British war crimes in Iraq (Farmer 2014). The 250-page dossier detailed allegations of beatings, electric shocks, mock executions, and sexual assault, and said those bearing ultimate responsibility for the abuses included some of the country's most senior commanders and politicians, such as former UK Defense Minister Geoff Hoon and Armed Forces Minister Adam Ingram (Farmer 2014). At the time, the UK government rejected the allegations while accepting the right of the ICC to investigate complaints, and pledged cooperation with the investigation (Farmer 2014). The Iraq Historic Allegations Team (IHAT), as of 2014, was dealing with 52 allegations of unlawful killings by British forces after the toppling of Saddam Hussein, and was also looking at 93 allegations of mistreatment (Farmer 2014). In fact, the ICC by December 2015, had received 1,268 allegations of maltreatment including unlawful killings (Oakford 2016). Of these 256 killings, 47 are alleged to have occurred while in British custody (Oakford 2016). In spite of British denial of war crimes in Iraq, the United Kingdom has already paid 19.6 million pounds in compensation for 323 cases without offering any breakdown of the allegations (Oakford 2016). According to Andrew Williams, professor of law at the University of Warwick, "The MOD [Ministry of Defense]

doesn't settle unless there's good cause — that's the fairest assumption" (Oakford 2016). Only one case of a killing by a UK soldier has resulted in a sentence. Hotel receptionist Baha Mousa died in British custody in September 2003, and Mousa's death resulted in a manslaughter sentence for Cpl. Donald Payne, who ultimately only served only one year in prison (Oakford 2016). All the others tied to the case were acquitted in spite of Mousa sustaining 93 injuries while in custody (Oakford 2016). In fact, in the United Kingdom's domestic courts, perhaps reflecting a history of empire, not a single senior politician or high military officer has been charged for the crimes attributed to their subordinates since 1651 (Oakford 2016).

In spite of obvious cruelties occurring as a result of UK military actions and its role in some of the one million deaths of the Iraq War, the International Criminal Court has determined that British architect of the war, Prime Minister Anthony (Tony) Blair, can never be charged for the crime of aggression in the International Criminal Court (Shiner 2014). This is because even if the crime of aggression is codified in ICC law, which would cover illegal invasions, it would not be applied retroactively (Mendick 2016). Therefore, Tony Blair's actions lie outside of ICC jurisdiction (Mendick 2016). Furthermore, the United Kingdom's Supreme Court refused to recognize the crime of aggression in British law (Robertson 2016). Although the Nuremburg Principles of universal jurisdiction for war crimes, which included the crime of committing aggressive war in the Nuremburg Trials, had been seeping into British common law, the Supreme Court decided that the crime of aggression could not be codified into British law without an act of parliament (Robertson 2016). Therefore, Tony Blair will most likely never be tried for his actions in regards to the Iraq War of 2003 (Robertson 2016). Nonetheless,

the ICC is investigating individual British soldiers for allegations of war crimes (Mendick 2016).

Case study of ICC action in Africa and African disillusionment

Africa is the most represented continent in regards to membership of the International Criminal Court with 34 of the 124 nations belonging to the court located in Africa (International Criminal Court³).

Overview of prosecutions and selected cases

As of January, 2016, of the 23 cases resulting from nine distinct situations that have been brought to the International Criminal Court, all have been from Africa (Schmitt 2016). In fact, of the 39 current or past defendants indicted by the court, all of them have been African without exception (International Criminal Court²). In spite of this, ICC Chief Prosecutor Fatou Bensouda, from Guinea, denies that the International Criminal Court singles out Africans, pointing to preliminary investigations in Palestine, Georgia, Afghanistan, Colombia, and Iraq (Schmitt 2016). The fact remains that none of these cases have been brought officially before the court, or resulted in sentencing. Keeping in mind the possible one million deaths resulting from one Western military intervention in breach of sovereignty, here are some noteworthy cases from Africa that have resulted in indictments of African leaders.

The case resulting in the indictment of President Omar Bashir of Sudan has been the result of by far the most deaths. President Omar Bashir has been accused by ICC spokesperson, Laurence Blaison, of five counts of crimes against humanity: murder, extermination, forcible transfer, torture and rape (Rice 2009). After an uprising of minority ethnic groups in the Darfur region of Arab-dominated Sudan, Bashir armed

Arab militias to attack and pillage villages across Darfur resulting in murder, rape, and looting (Rice 2009). In addition, his army provided air and ground support to the militias (Rice 2009). The strategy resulted in 35,000 violent deaths, and President Bashir stands accused of the attempted genocide of the Fur, Marsalit, and Zaghawa ethnic groups (Rice 2009). The indictment was supported by the United Kingdom, United States, and France, while opposed by the African Union and Arab states in order to not increase tensions (Rice 2009). Bashir has avoided capture. The following military leaders and militia chiefs have also been charged for similar crimes committed in Darfur resulting in ICC indictments: Bahr Abu Garda, Abdallah Banda, Ahmed Haroun, Abdel Rahim Hussein, Saleh Jerbo, and Ali Kushayb.

Former Vice President Jean-Pierre Bemba of the Democratic Republic of the Congo stood accused by the ICC of sending troops in 2002-2003 to crush a coup in the neighboring Central African Republic (Burke 2016). The victims of his actions are numbered at up to 5,000 people who suffered murder, pillaging, and the rape of 1,000 women (Burke 2016). In 2016, he was tried before The Hague and received a prison sentence of 18 years (Burke 2016). In addition, the following associates of Bemba in a separate case were charged for supplying false testimony in the original Bemba case: Aimé Kilolo Musamba, Jean-Jacques Mangenda Kabongo, Fidèle Babala Wandu, and Narcisse Arido (International Criminal Court²). They were all found guilty, however, all but Musamba escaped additional imprisonment since the time already served in detention while awaiting trial was greater than the sentences they received (International Criminal Court²). Musamba's time already served in detention was not deducted from his sentence. On March 22, 2017, he was sentenced to serve two years

and six months in prison. Bemba had one year added to his previous sentence resulting in a total sentence of 19 years (International Criminal Court²).

The other cases result from violence in the the DRC during civil war. German Katanga killed 200 people of the rival Hama ethnicity (Amnesty International 2014). He was tried and sentenced to 12 years imprisonment (International Criminal Court²). Thomas Lubanga Dyilo was charged and sentenced to 14 years in 2014 for recruitment of child soldiers (International Criminal Court²). In November, 2008, Bosco Ntaganda killed 150 civilians in Kiwanja (Amnesty International 2014). Ntaganda is currently on trial accused of war crimes and crimes against humanity (International Criminal Court²). In 2011, Callixte Mbarushimana was released due to lack of evidence (International Criminal Court²). Sylvestre Mudacumura is classified as a fugitive, and stands accused of war crimes (International Criminal Court²). In 2009 and 2010, Mudacumura allegedly killed 7,000 civilians (Human Rights Watch 2015). Mathieu Ngudjolo Chui was charged with war crimes, but was acquitted in 2012 (International Criminal Court²).

Former President Laurent Gbagbo of the Ivory Coast is unique in that he was brought to the court by a foreign, French military intervention. In 2010, he lost the presidential election to Alassane Ouattara, but refused to give up the presidency, and 3,000 civilians died in the violent unrest (Burke² 2016). Gbagbo and the leader of the youth movement of Gbagbo's political party, Charles Blé Goudé of the *Congrès Panafricain des Jeunes et des Patriotes*, are currently on trial in the ICC for various crimes against humanity: murder, rape, other inhumane acts or – in the alternative – attempted murder, and persecution (International Criminal Court²). Simone Gbagbo, the wife of Laurent Gbagbo, has also been indicted by the ICC, however, the current

leadership of the Ivory Coast has refused to transfer her to the ICC (Simone Gbagbo cleared of war crimes charges, Al Jazeera 2017). Instead, the Ivory Coast has insisted on trying her only in national courts, which is normally permitted by the principle of complementarity. As part of her involvement in the 2010 violence, she was sentenced in 2015 to 20 years for crimes against the state (Simone Gbagbo cleared of war crimes charges, Al Jazeera 2017). In addition, in March, 2017, Simone Gbagbo was tried for war crimes and crimes against humanity in an Ivorian court, but was acquitted of all charges amid controversy. The ICC still urges her transfer to the court (Simone Gbagbo cleared of war crimes charges, Al Jazeera 2017). The reasons for this are concerns about the lack of a fair trial. Param-Preet Singh, associate international justice director at Human Rights Watch said about the case, “The acquittal by Cote d’Ivoire’s high court of Simone Gbagbo for crimes against humanity reflects the many irregularities in the process against her, and leaves unanswered serious questions about her alleged role in brutal crimes committed during the 2011 post-election crisis”, and “ The poor quality of the investigation and weak evidence presented in her trial underscore the importance of the ICC’s outstanding case against her for similar crimes, not least as an opportunity for victims of her alleged crimes to obtain justice” (Human Rights Watch 2017). Some specific issues with the trial included the inability to obtain evidence, the rushing of the case, and Simone’s victims not being allowed to testify in the hearing confirming Simone’s charges in violation of Ivorian law (Human Rights Watch 2017).

Similar to the above case, the prosecutions in Libya are entangled with foreign intervention. These prosecutions result from the end of Muammar Gaddafi’s regime which was brought by rebellion assisted by outside intervention, primarily from the

United States, United Kingdom, and France in the form of aerial bombing (Black 2013). Before the intervention, the rebels claimed that tens of thousands had been killed by the Gaddafi regime, estimating that the casualties had reached 50,000, however, after taking power, the post-Gaddafi regime estimated casualties of rebel supporters at 4,700 according to Miftah Duwadi, the Libyan deputy minister of martyrs and missing persons (Black 2013). The Gaddafi case began in 2011 against Muammar Gaddafi, his son and successor Saif Al-Islam Gaddafi, and spymaster Abdullah Al-Senussi (International Criminal Court²). The crimes were for two charges of crimes against humanity committed during the suppression of the rebellion against Gaddafi: murder and persecution (International Criminal Court²). The case against Al-Senussi was declared inadmissible in 2013, however, in 2015, after being deported from Lebanon to Libya, Al-Senussi was tried and executed (Fisk 2015). The case against Muammar Gaddafi ended with his death in November 2011 (International Criminal Court²). The case against Saif Al-Islam Gaddafi is ongoing, and a warrant has been issued for his arrest; although, he has evaded transfer to the ICC so far (International Criminal Court²). Until the beginning of June, Gaddafi had been held by the declared Libyan government in Zintan since receiving a death sentence in 2015 (ICC demands 'immediate arrest' of Saif al-Islam Gaddafi, Al Jazeera 2017). However, within the last few days, he was released with a pardon, which prompted an immediate demand by the ICC to detain Gaddafi and transfer him into ICC custody, which as of now, has not been followed (ICC demands 'immediate arrest' of Saif al-Islam Gaddafi, Al Jazeera 2017). Recently, a second case has been brought related to the Gaddafi regime. The former head of Gaddafi's Internal Security Agency, Al-Tuhamy Mohamed Khaled, has had his

warrant unsealed on April 24, 2017, and he has been charged with crimes against humanity, including imprisonment, torture, and persecution (International Criminal Court²).

A noteworthy case is that of current President Uhuru Kenyatta of Kenya. In 2014, President Kenyatta, due to being indicted by the ICC, testified in The Hague about accusations of post-election violence in 2007 that resulted in 1,000 deaths (Bowcott 2014). In addition, the Commissioner of the Kenya Police, Mohammed Hussein Ali, and the Head of Public Service, Francis Muthaura, were also indicted. However, the judges refused to confirm the charges against Ali in 2011, and the charges against Muthaura were withdrawn by the prosecution in 2013 (International Criminal Court²). Due to a lack of evidence, the charges against Kenyatta were dropped by the prosecutor (Bowcott 2014). The prosecution blamed the withdrawal on massive interference by the Kenyan government, and the bribing and intimidation of witnesses, plus the refusal to hand over crucial documents to the prosecution (Escritt 2015). Critically, the judges did not throw out the charges which leaves the prosecution the right to revive the case if new evidence emerges (Escritt 2015).

William Ruto was on the opposing side of the post-election violence in Kenya. Violence from his militia in favor of the losing party allegedly resulted in 230 people dead, 505 people injured, and over 5,000 people displaced in the Uasin Gishu District (International Criminal Court²). Joshua Arap Sang is also charged for allowing his radio show, Lee Nee Eme, to be used to incite violence (International Criminal Court²). Henry Kiprono Kosgey was originally tried but judges refused to confirm the case against him.

Similar to the above case, due to a lack of cooperation, the charges were dropped without prejudice to allow possible retrial in the future (International Criminal Court²).

These Kenyan cases are complicated by the active case against Paul Gicheru and Philip Kipkoech Bett, and the active case of Walter Barasa. The case against Gicheru and Bett was filed in 2015, and the Barasa case in 2013, and both are for the corruption of the prosecution's witnesses (International Criminal Court²). The suspects are at large and Kenya has not turned them over for prosecution (International Criminal Court²).

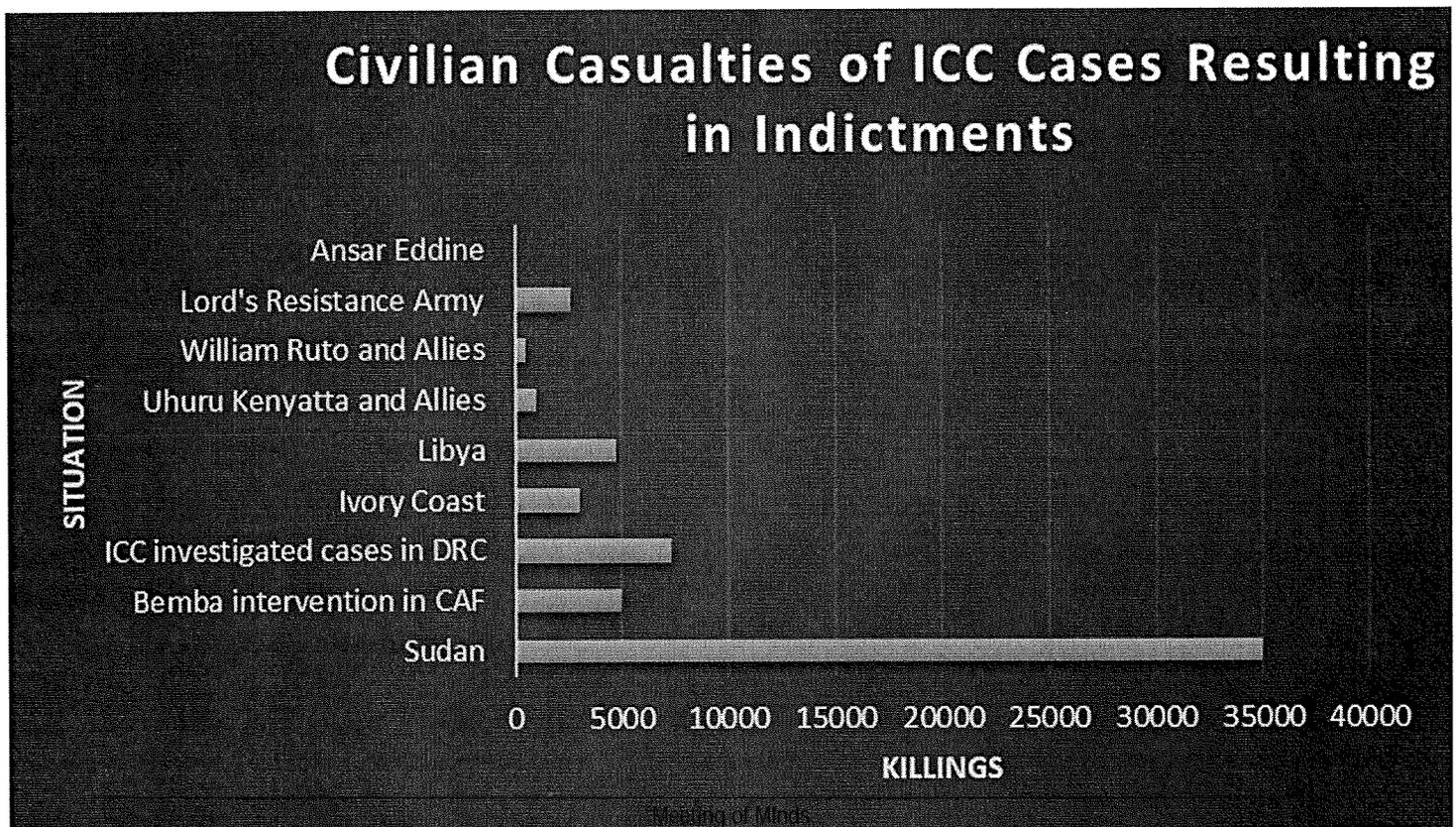
Although most cases involving the ICC have not resulted in great interest among Western populations, Joseph Kony's case certainly has succeeded in drawing attention to human rights violations in Africa. When it comes to ICC involvement, Joseph Kony stands accused of 12 counts of war crimes including pillaging, inducing rape, attacking civilians, and the forced enlistment of children as soldiers. In addition, he stands accused of 21 counts of crimes against humanity, including inducing rape, murder, and enslavement (International Criminal Court²). These counts result from being the leader of the Lord's Resistance Army (LRA), a rebel group in northern Uganda. The crimes are alleged to have taken place since July 1, 2001, although only the crimes committed since July 2002 are relevant, and Kony is a fugitive with an ICC warrant for his arrest (International Criminal Court²). Exact statistics regarding the death count attributable to Kony are difficult to encounter. However, in 2012, Human Rights Watch estimated that the Lord's Resistance Army had killed more than 2,600 civilians and had abducted more than 4,000 people, many of them children (2012).

Although Joseph Kony drew the most attention from the Lord's Resistance Army, others were also charged on the same crimes. Raska Lukwiya and Okot Odhiambo were also commanders in the LRA, but their cases were terminated following their deaths in August 2006, and October 2013, respectively (International Criminal Court²). The fourth accused in the case, Dominic Ongwen, has been captured, and has had his case separated from the others. He is now charged with three crimes against humanity, and four war crimes (International Criminal Court²). He is in ICC custody, and is currently on trial in The Hague (International Criminal Court²).

The final case is that of Ahmad Al Faqi Al Mahdi of Mali. As a member of Ansar Eddine, associated with Al Qaeda in the Islamic Maghreb, Al Mahdi destroyed several historical sites in Timbuktu and was sentenced to nine years in 2009 (International Criminal Court²).

The crimes grouped by case:

Figure 1)

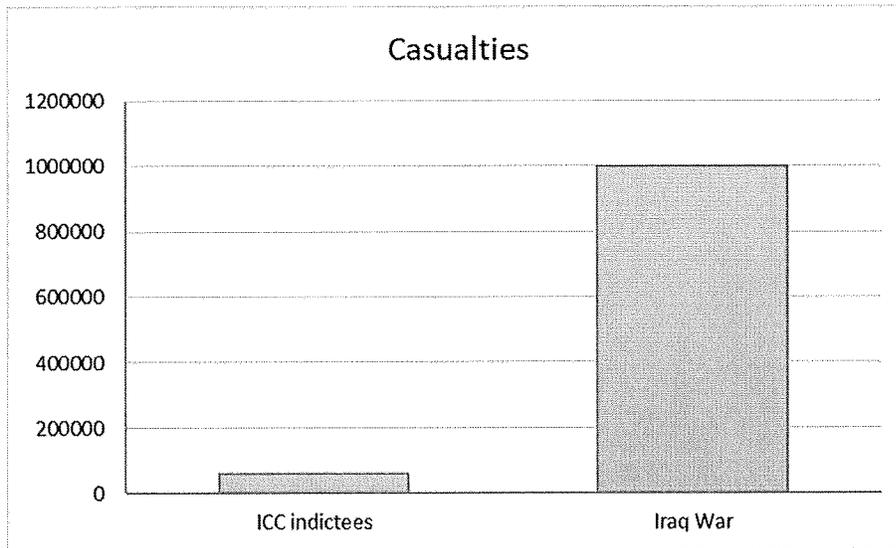


Recent African Reaction to alleged ICC anti-African bias

In spite of the recent appointment of the African Fatou Bensouda as Chief Prosecutor, allegations of Anti-African prejudice in the ICC are rampant (Schmitt 2016). The pushback in the latter half of the current decade to the intense enforcement of African crimes in comparison to other regions has been ongoing. In 2016, South Africa, Burundi, and the Gambia announced their intention to withdraw from the International Criminal Court due to feelings of being picked upon by the court (Burke 2017). The Gambian Information Minister, Sheriff Bojang, referred to the court as the *International Caucasian Court* due to its almost exclusive focus on African issues (Hersher 2016). The reaction has not been limited to these three nations and has, in fact, become a pan-African phenomenon. In January, 2017, the African Union passed a non-binding resolution recommending withdrawal of member-states from the court (African leaders plan mass withdrawal from the International Criminal Court, The Guardian 2017). This is in spite of Nigeria, the Republic of the Congo, and Senegal speaking up for the court (African leaders plan mass withdrawal from international criminal court, The Guardian 2017). However, the picture on withdrawal is currently more complicated due to more recent events. Newly-elected President Adama Barrow of the Gambia has cancelled withdrawal of his nation from the court (Burke 2017). South Africa, on the other hand, rejected criticism of its allowing Sudan's wanted President Bashir to visit, which may have influenced its decision to leave the court (Burke 2017). However, the African powerhouse's Supreme Court blocked the withdrawal of South Africa in January 2017 due to constitutional issues. Nonetheless, South Africa's government has promised to find the proper manner to withdraw in the future (Burke 2017).

Findings and Conclusions

Figure 2)



United States' hypocritical attitude towards ICC

The United States' non-participation is a factor in the weakening of the court due to its overwhelming hegemony in world affairs. However, the United States' use of its right as a United Nations Security Council member to sanction leaders and individuals in other countries, such as Sudan, results in the even greater delegitimizing of the court. The United States has arguably shown the strongest resistance to the court with its "American Service members Protection Act," which can easily be seen as a physical threat to the court. A country with such strong opposition to the court referring such cases to the court as Sudan leaves the court open to allegations of pro-Western bias. It is no coincidence that countries in Africa, like South Africa, that opposed Sudan's

referral to the ICC, but were overruled by Western votes on the United Nations Security Council, ended up attempting to leave the court within a decade. Furthermore, unlike other nations that have left or never joined the ICC, the United States promises to protect allied nations from having their citizens prosecuted. It is safe to say that many of these American allies who have refused ICC membership do not have the highest standards of human rights, such as Indonesia, Turkey and Pakistan, creating the impression among nations of the developing world that there is selective enforcement. Nations that are not aligned to American foreign policy goals are going to be upheld to very high standards lest they make a mistake that allows the United States to intervene in their domestic affairs under the banner of human rights, while nations that align themselves to the United States, whether democracies or not, are typically given a pass when it comes to human rights. The United States' human rights violations arguably have a much greater global effect, especially if the crime of aggression is formally ratified, since the American military is involved in conflicts around the world, and human rights violations easily occur in armed conflicts. This is evident in figure 2. In order for the International Criminal Court to survive into the 21st century, non-members of the Rome Statute in the UNSC should forfeit their right to refer cases to the ICC, since a nation that won't allow neutral scrutiny of their human rights violations should have no right to pass judgement on countries that have taken the moral step to accept this weakening of sovereignty in favor of human rights. In simpler terms, the ICC should lose its formal link to the UNSC and should be run exclusively by member states, thereby, encouraging states such as the United States that tend to demand intervention for human rights in other states to join the court themselves.

Culture of complacency

The International Criminal Court is very complacent in regards to members of the court that come from the West. The ICC does not display a willingness to confront crimes of great magnitude deriving from *first-world nations*, such as the United Kingdom's behavior in the Iraq War. Imagine for a moment that the name of the leader was not Tony Blair, and the name of the country not the United Kingdom. Replace the name Tony Blair with the fictional African name Ade Abdul, and the country United Kingdom with the made-up, African country of Ubusi. Now say, Ubusi attacks its neighboring country, claiming that the country has deadly weapons that threaten its security. The weapons are never found, but Ubusi, nonetheless, occupies the country for almost a decade. Hundreds of allegations of torture, killings, and maltreatment are discovered. The allegations begin in 2003. Although the Ubusi government and leader Ade Abdul deny all allegations of mistreatment, it has been discovered they have quietly paid 19 million pounds in compensation to the victims. That is the United Kingdom's experience in Iraq. However, for Ubusi in Africa, the story will have a different plot line: a warrant for Ade Abdul's arrest by the ICC along with the whole Ubusi government at best, and foreign military intervention resulting in Ade Abdul's death at worst. Why was the outcome for Tony Blair and the United Kingdom different? The answer is in-built neocolonialism within the ICC. The standard for intervention in a Western member such as the United Kingdom is apparently much higher than that for intervention in a comparatively weak African state. The crime of aggression, which has existed in common parlance since the Nuremburg trials, needs to be formally adopted by the court as it is a crime that Western nations are often guilty of more than not. It also then needs

to be enforced. In sequence, Canada and European nations make up a small portion of membership in the ICC, and the lack of willingness to confront them reflects the domination of the ICC by people who see actions through a Western prism. This could perhaps be seen as deriving from the location of the ICC. The choice of The Hague as the headquarters of the ICC was shortsighted and needs to be reconsidered. Within a very short radius of the ICC in The Hague, Europe, lie the headquarters of the Red Cross in Geneva, Switzerland; NATO and EU headquarters in Brussels, Belgium; the headquarters of the Organization for Economic Cooperation and Development in Paris, France; and the International Court of Justice also in The Hague, Netherlands. The location of these institutions within Europe sends a message to Africans that the outlook of these institutions is primarily a Western one. Since the International Criminal Court is so focused on African issues, a step in the right direction would be to move the court itself to the African continent, or at least away from Europe, which often has a vested interest in African affairs and a history of intervention in the region. Fatou Bensouda's appointment as Chief Prosecutor was also a step in the right direction, but it was too little, too late. In order for the ICC to win Africans' trust again, many more of the faces of the prosecutors and judges, need to reflect their own.

Excessive focus on Africa

The reality is that not all human rights violators are located in Africa, even as everyone prosecuted by the ICC for human rights violations has been from this continent. This selective enforcement must cease. African leaders who violate human rights should be rightfully prosecuted to the full extent of the law, but the same must apply to all leaders. Investigations tend to go relatively fast in Africa, while none of the

aforementioned cases in Palestine, Colombia, Georgia, Afghanistan, nor Iraq have resulted in an indictment. The apparent sensitivity to prosecute in those countries must also apply in African nations. The Palestinian and Colombian conflicts, in particular, have been ongoing for decades. It is inconceivable that no leader or non-state actor from either conflict has committed indictable offenses. Denials of bias against Africa by the ICC are mere words, but dealing with violations in countries outside Africa would send a sincere message to Africans that there is no impunity, and that all are equal before the Rome Statue of the International Criminal Court.

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Does Childhood Trauma Inhibit the Ability to Perceive Growth in Adulthood?

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Meeting of Minds XXV

Research has demonstrated that when an adult's most impactful trauma was experienced in their childhood, higher posttraumatic stress symptoms (PTSS) are elicited when compared to adults who experienced their most traumatic event after childhood (Ogle & Rubin, 2013). The impact of childhood trauma on reported posttraumatic growth (PTG) in adulthood is unknown. PTG is defined as positive outcomes experienced through the struggle with trauma (Tedeschi & Calhoun, 1996). This study tested the hypothesis that adults who experienced both childhood and adulthood trauma (Group 1) will report lower PTG, higher PTSS, and higher hyperarousal than adults who experienced only adulthood trauma (Group 2). Results revealed no significant differences between Group 1 ($n=67$, $Mage=31.60$, $SD=12.60$) and Group 2 ($n=22$, $Mage=33.00$, $SD=.60$) in PTG and hyperarousal. A Mann-Whitney U test found significant differences in PTSS scores: Group 1 ($Mdn=11.00$) and Group 2 ($Mdn=4.00$), $U=456.50$, $p=.04$. Experiencing childhood trauma may not inhibit growth, but rather provide more opportunities to grow and additional time to undergo key processes of PTG such as rumination. Future research should assess how time since childhood trauma or perceived trauma severity may have a greater impact on the ability to perceive growth in adulthood.

Keywords: childhood trauma, adulthood trauma, posttraumatic growth, stress

Traumatic events experienced across the lifetime have brought about differing effects on individuals when assessed in elderly years (Ogle & Rubin, 2013). Elderly individuals who experienced their most impactful traumas when they were a child or adolescent, rather than when they were a young adult, midlife adult, or old adult, reaped the greatest deleterious effects in old age. Participants who experienced significant childhood or adolescent trauma were associated with worsened psychological health and functioning decades following the trauma when compared to participants who had experienced trauma outside of those developmental years. Additional consequences associated with the experience of early trauma were decreased perception of social support and heightened stress reactivity. When one experiences stress reactivity, stimuli associated with the originally stressful event or stimuli associated with newly stressful events can cause the individual to undergo a stress response that is more debilitating than it would have been prior to experiencing the originally stressful event (Weiss, 1988). These negative effects stemming from childhood and adolescent trauma that translate into old adulthood are suggested to be the result of developmental immaturity at the time of the trauma (Pratchett & Yehuda, 2011). Posttraumatic stress symptoms (PTSS), are thought to be dormant after experiencing childhood or adolescent trauma and may fail to surface until young adulthood because the stress expression has not yet developed. This dormant symptomology may arise from a child or adolescent's lack of adequate self-regulatory resources, such as rumination, to deal with the stress on their own.

Posttraumatic growth (PTG) is a phenomenon which assesses positive outcomes that may be acquired through the struggle with a traumatic life event (Tedeschi &

Calhoun, 1996). Previous research on PTG has not delved into the trajectory of childhood trauma and its implications on perceived growth in adulthood. However, the PTG literature has addressed a similar design by dividing participants with a history of childhood illness into two groups: those who had recovered and those who were still undergoing treatment (Devine, Reed-Knight, Loiselle, Fenton, & Blount, 2010). The recovered participants reported higher PTG than the group still receiving treatment, suggesting that growth is attainable following childhood stress, but perhaps not as attainable in the midst of the stress. However, this study failed to assess the comparison of growth between recovered victims of childhood illness and individuals who had not experienced a childhood illness or highly traumatic childhood event. Additionally, elements of perceived severity of the illness and PTSS were significant predictors of PTG. Yet, when PTSS was identified as a significant predictor of PTG it was not assessed between groups, but rather as an overall predictor. Assessing PTSS in this manner may have masked a weak underlying relationship between PTSS and PTG in the ongoing illness group. Likewise, growth was assessed in victims of childhood and adolescent sexual abuse, but through grouping victims into different developmental periods: those abused during ages 12 and younger, and 13 to 19 years old (Shakespeare-Finch & Dassel, 2009). Although growth was hypothesized to differ between the two cohorts, significant differences were not detected. These results suggest that the proposed differences in growth between developmental periods may not arise when assessing pre-adulthood developmental periods. Instead, a cumulative approach through the combination of both childhood and adolescent trauma followed by

subsequent contrast against later adulthood trauma may better distinguish differences in growth.

The subsequent impact of childhood and adolescent trauma on adulthood growth has yet to be assessed. Research has demonstrated that experiencing trauma in early developmental years can manifest in negative late life outcomes (Ogle et al., 2013). The PTG literature has addressed developmental differences between the experience of a traumatic childhood illness followed by either remission or prolonged treatment (Devine et al., 2010), or the grouping of cohorts based on the age at which childhood sexual abuse was experienced to assess potential PTG differences (Shakespeare-Finch et al., 2009). Due to the fact that early trauma is associated with heightened hyperarousal and lower perception of social support (Ogle et al., 2013) while PTG is negatively associated with emotional reactivity (Oginska-Bulik, 2014) and is facilitated by social support (Tedeschi & Calhoun, 2004), the potential negative outcomes that early trauma has on growth may be of interest to developmental psychologists. The purpose of the following study is to examine differences in PTG, PTSS, and hyperarousal between adults who experienced childhood trauma and adulthood trauma (Group 1), and adults who only experienced adulthood trauma (Group 2).

Hypotheses

1. *Adults in Group 1 will report lower PTGI averages than adults in Group 2.*
2. *Adults in Group 1 will report higher PTSS averages than adults in Group 2.*
3. *Adults in Group 1 will report higher hyperarousal averages than adults in Group 2.*

Method

The sample consisted of 88 predominantly white American adults (92.10% white, 7.9% non-white) who were further divided into groups based on which developmental

period(s) they experienced trauma. Group 1 was assigned to those who experienced both childhood and adulthood trauma while Group 2 was assigned to those who experienced only adulthood trauma. Group 1 consisted of 64 participants ($M_{age}=31.89$, $SD=12.79$) while Group 2 consisted of 22 participants ($M_{age}=32.88$, $SD=14.26$) with ages ranging from 21 to 70 in both groups. In both groups the majority were female with 77.30% in Group 1 and 61.50% in Group 2. To be included in analyses, participants were required to have reported at least one traumatic event and to be 21 years of age or older. Participants engaged in an online survey which consisted of childhood and adulthood trauma screeners (i.e., death, sexual abuse, etc.), the first ten items of the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), and the Impact of Events Scale – Revised (IES-R; Weiss, 1988). The first 10 items of the PTGI assess growth in response to a highly stressful life event and is rated on a 6 point Likert scale (0=*not at all* to 6=*very great degree*; Cronbach's $\alpha=.82$). A sample item of the PTGI is *"I changed my priorities about what is important in life."* The IES-R was included to assess posttraumatic stress symptomology through 22 items and is rated on a 5 point Likert scale (0=*not at all* to 4=*extremely*; Cronbach's $\alpha=.92$). An example item of the IES-R is *"I found myself acting or feeling like I was back at that time."* The hyperarousal subscale of the IES-R was used to specifically assess stress between groups in this study, as did prior literature concerning stress reactivity following childhood trauma (Ogle et al., 2013). The hyperarousal subscale was comprised of 6 items (Cronbach's $\alpha=.88$). A sample item of this subscale is *"I had trouble concentrating."*

Results

Upon completion of survey materials participants were divided into either Group 1 or Group 2 based on their lifetime trauma disclosure. Assumptions required to run an independent samples t-test were violated due to uneven sample sizes between groups (Group 2 < 30) and the positively skewed distribution of IES-R scores. As a result, Mann Whitney U tests were employed to assess median differences in PTGI, IES-R, and Hyperarousal subscale totals. When the variables of interest were assessed between Group 1 and 2, no significant differences were found in PTGI and Hyperarousal subscale totals, whereas marginally significant differences were found in IES-R totals. After assessing the distribution of scores on the IES-R, three outliers were identified. These three outliers were removed from the data, subsequently decreasing the drastic positive skew, but not to the extent that the positive skew was remedied from the distribution entirely. Group descriptive statistics among the PTGI, IES-R, and Hyperarousal subscale both before removal of outliers and after removal of outliers have been included (see *Table 1*). Once the outliers were identified and removed, Mann Whitney U tests were ran once again. The second round of Mann Whitney U tests yielded nonsignificant results in the PTGI and Hyperarousal subscale, while significant results were found in IES-R scores. PTGI levels in participants who experienced both childhood and adulthood trauma (Group 1; $Mdn=29.00$) did not significantly differ from participants who experienced only adulthood trauma (Group 2; $Mdn=28.00$), $U=555.50$, $Z=.485$, *n.s.* Likewise, Hyperarousal levels in participants who experienced both childhood and adulthood trauma (Group 1; $Mdn=1.50$) did not significantly differ from participants who experienced only adulthood trauma (Group 2; $Mdn=0$), $U=513.00$, $Z=-1.48$, *n.s.* However, IES-R levels in participants who experienced both childhood and

adulthood trauma (Group 1; $Mdn=11.00$) significantly differed from participants who experienced only adulthood trauma (Group 2; $Mdn=4.00$), $U=456.50$, $Z=-2.04$, $p=.04$.

Discussion

Results indicated that the experience of trauma in both childhood and adulthood, or exclusively in adulthood does not reap differences in PTG or in hyperarousal, but does produce differences in IES-R total scores. Our first hypothesis regarding PTG differences between Groups 1 and 2 were inconclusive as both groups displayed almost identical median growth scores. Therefore, experiencing childhood trauma did not appear to inhibit PTG in our sample. Rather, the experience of childhood trauma may have contributed to a greater accumulation of stressful events that provides more opportunities to experience growth. Additionally, experiencing trauma in childhood may allow for more time to ruminate in adulthood which may have contributed to the unexpected similarity in PTGI scores. Another feature that could explain the congruent PTGI scores could be that adults who only experienced adulthood trauma may still be managing repercussions of their trauma, similar to those still dealing with illness in Devine et al., (2009) study. If this is the case, adults who experience trauma only in adulthood may be at a greater risk of dealing with more recent effects of their adulthood trauma such as heightened stress symptomology. These heightened stress symptoms may be inhibitory when reporting growth because the coping trajectory has not yet been completed (Levine et al., 2015). Our third hypothesis regarding hyperarousal differences between groups was also inconclusive as both groups had similar hyperarousal medians. The hyperarousal domain of the IES-R was severely underreported in our sample (see *Table 1*) which resulted in our inadequately addressed hyperarousal

hypothesis. In the absence of hyperarousal for both samples, our hypothesis could not be tested to our desired ability and should be further assessed in future studies. However, our second hypothesis regarding PTSS was supported as we found significantly different stress scores between the two groups after excluding the three outliers. Our findings show that Group 1 reported more stress than Group 2; these findings are consistent with previous literature (Ogle & Rubin, 2013). Hyperarousal was only one of the three subscales within the overall tested construct of PTSS. The remaining two subscales, avoidance and intrusion, may be responsible for the significant differences between the two groups. It is possible that avoidance fostered the significant difference between groups, which may explain why participants underreported hyperarousal as they were potentially evading emotions or reminders of their stressful event. Future studies should further examine the relationships between the two groups and the two remaining subscales of the IES-R.

These results are accompanied by a number of limitations. First, the IES-R scale was positively skewed and even after excluding 3 of the most significant outliers the distribution remained positively skewed. Our study also had uneven group membership with Group 2 having less than 30 participants. In order to meet parametric assumptions, future studies should attempt to recruit a minimum of 30 participants in each group and achieve a normal distribution on the IES-R. To address the skewed data concern, data collection should be pursued in different populations that may have experienced greater stress. Targeting populations that are subject to diverse stressors may help return the distribution to a normal distribution, subsequently allowing outliers who have reported greater stress to remain in the study. Future studies may also consider assessing

different groups (i.e., participants who only experienced childhood trauma, participants who experienced adulthood or childhood trauma, or both but did not experience PTSS symptoms, etc.). Because previous studies grouped participants based off their “most influential” trauma (Ogle & Rubin, 2013), future studies involving PTG should strive to do the same, rather than grouping based off of overall trauma report. It is possible that our grouping process may have incorrectly grouped participants as our research design only identified group membership based off of the report of a predefined trauma through a traumatic event screener. Future studies should incorporate a rank order system for participants to rank their most distressing events or perhaps take event severity ratings into account. Doing so may elicit differences in PTGI scores between those identified in either Group 1 or Group 2. Another inconsistency between the current study and Ogle and Rubin’s study (2013) was the loose inclusion criteria for age. Ogle and Rubin specifically targeted elderly individuals, while our study was more flexible, allowing young adults, middle age adults, and old adults to participate. To gain certainty that age cohort differences are not influencing our results, future studies should strive to focus on samples that are exclusively young adult, middle age adult, or elderly adult.

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Appendices

Table 1. Group Descriptive Statistics With and Without Outliers

	With Outliers				Without Outliers			
	Group 1 (n=64)		Group 2 (n=22)		Group 1 (n=62)		Group 2 (n=21)	
	Mean (SD)	Median	Mean (SD)	Median	Mean (SD)	Median	Mean (SD)	Median
First 10 Items of PTGI (0-50)	28.94 (11.31)	29.00	27.58 (11.58)	28.50	28.74 (11.58)	29.00	27.48	28.00
IES-R (0-88)	18.45 (18.05)	12.00	12.64 (18.05)	2.00	16.89 (15.98)	11.00	10.29 (13.26)	4.00
Hyperarousal (0-24)	3.58 (4.84)	2.50	2.64 (4.60)	1.00	3.21 (4.27)	2.00	1.86 (2.87)	.50

Do Children Recognize Kinship as a Biological Principle?

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Abstract:

This study investigates children's understanding of the biological principle of kinship. The first design will investigate the child's understanding of parent relationships to their kin. The other design will examine a child's understanding of birth order in regards to blood related sibling relationships. This study will further explain the limits to a child's understanding of the concept of kinship as a steady concept over time regardless of physical changes such as birth order of another sibling, age, and height. The children will be presented with various vignettes highlighting the relationships between the child and the parent as well vignettes highlighting the child and sibling with corresponding images that illustrate the individual characters within the family presented.

Children's minds are home to some of the most interesting thoughts in our day to day world. The difference in what a child understands of his or her surroundings can alter greatly in as little as a few months, given their surroundings. It is often difficult to establish whether children form their opinions of their surroundings based on the external appearance of the subject or based on internal attributes and characteristics.

There have been numerous studies in children's domain of biology that have demonstrated that young children make judgments in the domain of biology based on internal attributes rather than external appearances (Raman, in press; Raman & Gelman, 2005; Kalish, 1996). Kinship is a biological principle that is not altered across circumstances. The present study seeks to examine if children have an understanding of the concept of kinship as a biological principle. To be more specific, the aim of this study is to identify how well children understand the concept of kinship in comparison to their older counterparts such as college students. A child's view on a concept such as kinship can be altered in different situations such as environmental changes or physical changes. An example of an environmental change would be a child of divorced parents who now has gained a step parent. A few examples of physical changes are, but are not limited to: age, height and birth order. This study specifically looks at physical changes in the individual's environment. If children do understand the concept of kinship as a biological principle, then they should be able to identify that relationships stay constant regardless of physical changes.

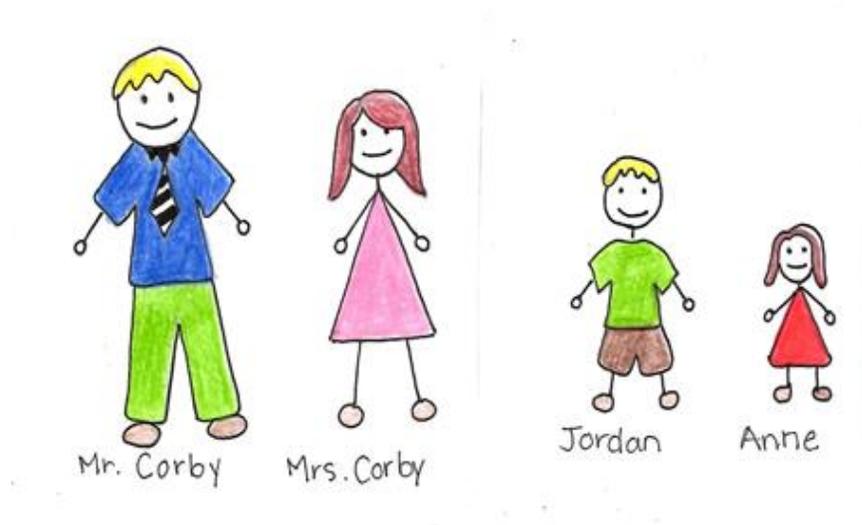
Method

Twenty-one preschoolers ($M = 4.5$ years) were recruited for the study from the Lowry Early Education Center as well as twenty-seven college students of the age 18 or

higher. Each participant was shown a picture of a family of four. The pictures consisted of one mother, one father, one brother and one sister. The pictures were randomized and the birth order of the brother and sister were alternated in each photo. While the photo was presented, a vignette was read verbatim by the research assistant describing the family and the birth order of the siblings.

Two versions of questions were utilized in the study. The first questionnaire focused on parent relationships, and the other focused on sibling relationships. An example of the parent vignette is: “Mr. and Mrs. Corby had a baby boy. That means the baby boy came out of Mrs. Corby’s tummy. They named the baby boy Jordan. After a long time, Mr. and Mrs. Corby had another baby. She was a girl and they named her Anne.” The questions following this vignette consisted of two control questions: “Whose tummy did (child 1) come out of?” and “Whose tummy did (child 2) come out of?” as well as questions aiming to identify who the mother and father of each sibling was “Who is Jordan’s mother?”. The vignette focusing on the sibling questions consisted of the same model of a vignette followed up by the questions: “Who is Jordan’s sister?” and “Is (child’s answer) Jordan’s big sister or little sister?”.

Each participant was read the eight vignettes and asked the questions along with being presented a sketch of the family. The sketches were utilized in the study in order to maintain the child’s attention while being read the vignettes. Each sketch did not reveal any resemblance and consisted of individuals with neutral facial expressions. The participants were asked to respond to the questions and their answers were recorded verbatim.



Model of picture presented with vignette

Results

In order to code the data, the correct control and target answers were recorded as “1” and the incorrect control and target questions were recorded as a “0”. The data collected was organized into two groups, college answers and preschool answers. Once divided into groups, subgroups of data were formed in each main group consisting of the following groups: Control 1, Control 2, Birth order questions, Sibling questions, Parent of child 1 questions, and Parent of child 2 questions. The sum of each subgroup was taken and the mean of each sum of data was noted. The data collected was analyzed using four separate t-tests. The first t-test compared parental responses between preschoolers and adults focusing on parental recognition for the first child. This t-test showed a marginal significance ($p=.052$). A second t-test was conducted comparing preschool and adult responses for parental recognition for the second child in the vignette. This t-test showed that the results were not significant ($p>.05$). The following t-test compared birth order responses between preschoolers and adults and were significant ($p<.05$). The final t-test conducted compared sibling responses and

showed that they were not significant ($p > .05$).

Discussion

The results showed that there was no developmental difference between the preschool students' responses and the college students' responses when identifying the second parent child relationship. This shows that the children were equally able to identify this relationship as well as the adults. A marginal significance was shown when comparing college and preschool responses for the first child's parents. This marginal significance identifies the fact that children were able to identify this relationship. However, they struggled with this comparison more-so than when identifying the second parent relationship. There was no developmental difference between preschoolers and adults when identifying the correct sibling, showing that children are as capable as adults when identifying this relationship. The final result shows that there was a developmental difference between adults and preschoolers when asked to identify the correct birth order of the two siblings presented in the vignette. This suggests that children were less capable in identifying the birth order of the siblings as adults were.

Conclusion

The results demonstrate that there was a significant developmental difference between a preschooler's concept of the biological principles of kinship in the identification of the correct birth order of the siblings and the first child's relationship with the parent. The comparisons that showed no developmental difference, suggests that children were equally able to identify the second parent-child relationship and the sibling relationships.

Through gaining a better understanding of where children are developmentally

when understanding the concept of kinship as a biological principle, we are able to identify a general age where they are still developing personal conceptions of familial relationships. In the study, children of the ages four and five were tested and were able to equally identify siblings and the parent/child relationship for the second child in the vignette. The children showed a developmental difference in regard to the birth order questions as well as correctly identifying the parent/child relationship for the second sibling. This concept shows us that children have a rudimentary model of kinship and are still forming their understanding of kinship as a biological principle.

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Children's Understanding of Family Relationships

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The following study examines preschool children and college students' understanding of the biological aspect of kinship by their ability to differentiate biological family members as being part of their kinship family members compared to step-family members. We are interested in determining if preschool children recognize that kinship does not change based on external relationships, such as marriage or living arrangements. This was analyzed with a questionnaire containing eight familial vignettes involving step-parents or step-siblings. We collected data from 24 preschoolers and 25 college students and compared their results using four t-tests. The results showed that preschool students were just as skilled at identifying step-parent and step-sibling relationships as college students. The only significant difference shown by the data was that preschoolers had a greater ability to distinguish step-parents from biological parents when compared to step-siblings from biological siblings.

Introduction

Kinship is a biological phenomenon that transcends physical appearances, space, and time. There has not been much research conducted on whether or not children are able to recognize this differentiation between biological family and step-family members. With the increasing amount of blended families, this is a topic of interest. Are children classifying their step-family members in the same way that they are classifying biological family members?

There has been much debate about other underlying biological phenomena such as illness, growth, and inheritance and how children make inferences on these phenomena based on external physical appearances (Raman, in press: Raman, 2016; Raman & Gelman, 2005; Kalish, 1996). Most of the current research points to the notion that young children are not guided by physical phenomena and focus on underlying biological principles instead.

In the evolutionary domain, there has been research specifically on the biological aspect of kinship. It was found that this recognition is a nonconscious process of the brain. From an evolutionary perspective, this process guides people to be more apt to assist others and sexually avoid the ones that they recognize as “family” or part of themselves (Lieberman, Tooby, & Cosmides, 2007). This study suggests that older children are able to identify their younger siblings by watching how the mother interacts with the new infant; this is also known as the Maternal Perinatal Association (MPA). This association had a positive correlation with altruistic acts and sexual aversion. Furthermore, it was found that younger children are able to identify who their older siblings are by living together during their childhood. The longer that two children live

together, the greater their altruistic acts and sexual aversion toward each other would be. The study did not take into account feelings toward step-siblings or other children that may live together during childhood but do not have a biological relation. The following study examines whether preschool children and college students are able to differentiate biological family members as being part of their kinship family members compared to step-family members.

Hypotheses

The following hypotheses are possible: (a) based on the previous developmental research, we would expect children to be able to distinguish biological family members from step-family members; (b) however, if children are swayed by environmental factors, such as proximity, we would expect children not exposed to blended families to classify all members of the family as kinship family members; (c) based on previous evolutionary research, we would expect children to be able to recognize their kin to enhance survival by altruistic motives.

Methodology

Participants

We collected data from 24 preschool children, aged four to five, and 25 college students in the Oakland University area, giving us a total of 49 participants. For preschool participants, we utilized Oakland University's on-campus daycare facility, Lowry Early Childhood Education Center. For college students, we utilized the Oakland University Psychology subject pool that allows students to volunteer their participation in various on-campus research.

Materials

Participants were read a total of eight vignettes. The order of the vignettes was randomized by a random number generator. Each family member figure was recognized in two vignettes: step-mother, step-father, step-sister, and step-brother. Examples of each are as follows:

Step-Mother: Mr. and Mrs. Droo had a daughter named Sarah. That means Sarah came from Mrs. Droo's tummy. Right after Sarah came out of Mrs. Droo's tummy, Mrs. Droo went to go live in another cave. After Ms. Droo left, another creature, Ms. Flax came to live with Mr. Droo. Ms. Flax was very nice to Sarah, and she bought her a puppy. Is Ms. Flax Sarah's mom or step-mom?



Figure 1: step-mother creatures

Step-Father: Mr. and Mrs. Dobb had a daughter named Jenna. That means Jenna came from Mrs. Dobb's tummy. Right after Jenna came out of Mrs. Dobb's tummy, Mr. Dobb went to go live in another cave. After Mr. Dobb left, a new creature, Mr. Monz came to live with Ms. Dobb. Mr. Monz was very nice to Jenna and would take her swimming. Is Mr. Monz Jenna's dad or step-dad?



Figure 2: step-father creatures

Step-Sister: Mr. and Mrs. Dax had a baby girl. They named her Anne. That means Anne came out of Mrs. Dax's tummy. Right after Anne came out of Mrs. Dax's tummy Mr. Dax went to live in another cave. After Mr. Dax left, a new creature, Mr. Put came to live with Ms. Dax. Mr. Put was very nice to Anne. He bought her presents and spent time doing fun activities with her. Mr. Put had a daughter that came to live with Ms. Dax and Anne. Her name is Grace. Is Grace Anne's sister or step-sister?



Figure 3: step-sister creatures

Step-Brother: Mr. and Mrs. Green had a baby girl. They named her Amy. That means Amy came out of Mrs. Green's tummy. Right after Amy came out of Mrs. Green's tummy, Mr. Green went to live in another cave. After Mr. Green left, a new creature, Mr. Tiny came to live with Ms. Green. Mr. Tiny was very nice to Amy. He would take her out to go get ice cream. Mr. Tiny had a son that came to live with Ms. Green and Amy. His name is John. Is John Amy's brother or step-brother?



Figure 4: step-brother creatures

Procedure

The experimenter read all eight vignettes in their previously randomized order. The monster images were used as reference points to clarify which image corresponded with which character in the plot of the vignettes. The participants were asked to respond to the question at the end of each vignette and the experimenter recorded their answers verbatim.

Results

Coding

Correct answers, identifying the step-family member in the vignette, were coded as “1” while incorrect answers were coded as “0.” T-tests were conducted comparing preschool and college student responses on their scores. For the t-tests, step-mother and step-father were grouped together as step-parents, as well as step-sister and step-brother as step-siblings. The following four analyses were conducted: 1. college versus preschool scores on step-parent responses, 2. college versus preschool scores on step-sibling responses, 3. college students on step-parent versus step-sibling responses, and 4. preschool children on step-parent versus step-sibling responses.

Results (see figure 5) indicate that there was no significant difference between preschool children and college student scores on step-parent responses ($p > .05$).

There was also no significant difference between preschool children and college student scores on step-sibling responses ($p > .05$). College student scores for step-parent responses versus step-siblings showed no significant difference on the t-test ($p > .05$), while preschool student scores for step-parent responses versus step-siblings was the sole t-test that displayed a significant difference ($p < .05$).

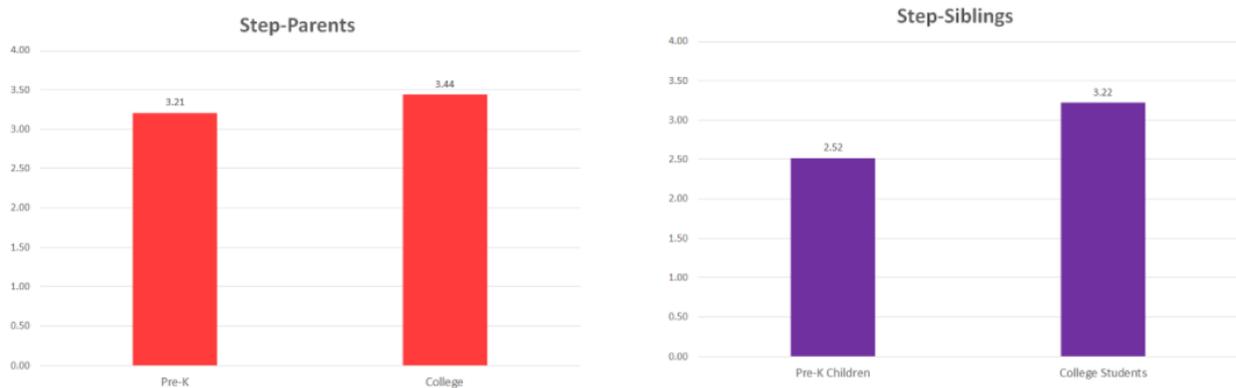


Figure 5: number correct of step-parent and step-sibling vignettes for pre-k and college participants

Conclusion

Preschool children's responses on both step-parent and step-sibling vignettes were similar to college student responses. This indicates that young children have just as advanced of an understanding of step kinship relationships as college students. These results suggest that young children have a biological framework for the determination of kinship relationships and that they do not rely on external factors, such as proximity, to determine biological family members. College students performed equally well on both step-parent and step-sibling responses, showing a clear understanding with both groups of step kinship members. Preschool children performed better on step-parent vignettes compared to step-sibling, showing a better understanding of step-parent kinship relationships.

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Retired United States Congressmen from the State of Michigan

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Abstract

Conventional wisdom in the study of members of Congress, pioneered by Richard Fenno, argues that one of the chief goals of elected officials is their reelection. However, this theory does not account for those who willingly retire from Congress. Who are these former members and what activities do they pursue once they leave office? To answer the first question, this project analyzes data on retired members of Congress from the state of Michigan regarding the years they served, party identification, and their age of retirement. The second and perhaps more interesting question in this research, examines the post-congressional careers of former members of Congress and whether their new line of work has any connections with their time in Congress through committee assignments and issue advocacy. In addition to quantitative analysis of the attributes of former members and their post-congressional careers, a qualitative analysis is conducted through a comparative case study of retired Senator Donald Riegle and former Representative Mike Rogers. This aspect of the study more closely examines their respective career paths through congress and post-congressional vocations.

Introduction

In 1974, Democratic Congresswoman Martha Griffiths announced her retirement from the House of Representatives citing her age, 62, as a key motivation for the decision. After this, Griffiths would serve two terms as Michigan Lieutenant Governor before being dropped off the ticket, at the age of 78, due to concerns about her age, a claim she deemed “ridiculous” (“Griffiths, Martha Wright”). Griffiths, and many other former members of Congress, demonstrate that retirement occurs for complicated reasons that may not be the same as the ones they profess and that leaving Congress does not necessarily mark an end to their professional careers. I study retired congresspersons from the state of Michigan to determine important factors that lead to a member of Congress to willingly leave office and what types of activities do these former members engage in following their time in office. For the purpose of this study a “retired congressperson” will be defined as an individual who has chosen not to seek reelection to another term in either chamber of Congress or has willingly resigned from one of the two bodies. This definition excludes former members who were defeated in reelection bids, failed to secure their party’s nomination for reelection, sought and failed to win a seat in the Senate instead of seeking another term in the House, or died during their final term in office. Studying the factors that lead to a member of Congress retiring office offers valuable insight into current members and how they may behave in their final term of office. Additionally, a major focus of this research is the type of activities retired members engage in after leaving congress. The goal is to discern any connections these post-congressional careers may have with their

time in congress, through committee assignments and other expressions of policy interest, or with pre-congressional professions in which they may have participated.

I begin by reviewing the relevant scholarly literature on congress and its members, and how the theoretical arguments presented pertain to congressional retirement and post-congressional careers and also establish what my research contributes to this field of study. Then, I analyze biographical information gathered from *History, Art, Archives: House of Representatives* and *States in the Senate* on every member of congress from the state of Michigan from 1819 to the present. From these sources, important data such as partisan identification, time spent in office, the age of members when they left office, and some of the activities many members engage in after leaving office. These data are utilized to begin to draw conclusions about different factors that may attribute to retirement including loss of interest, age, changes in political prospects and redistricting, and better opportunities available outside of congress. While examining this information, I evaluate how political concepts such as citizen statesmen versus career politicians, strategic politicians, the revolving door – the phenomenon in which former politicians work in the private sector as lobbyists after leaving office, and electoral pressures apply over the course of time. Next, I provide two detailed case studies on Senator Donald Riegle and Representative Mike Rogers, examining the steps of their political and post-congressional careers to determine the contributing factors to their respective retirements and how their activities since are indicative of their time in congress. Finally, I summarize my findings, from data collected and discussed in the case studies to draw conclusions on the most important factors

that contribute to congressional retirement and the significance of post-congressional involvement.

Literature Review

The current research in the field of United States congressional politics is incredibly vast and diverse, covering a wide-breadth of topics analyzing the institution and its members.

Mayhew (1974) consider seeking reelection to be one of, if not the greatest, motivations of members of congress. Their work has played a key role in establishing many of the later theories regarding the study and behavior of members of congress, though this assumption of theirs ignores members of congress who willing choose to leave office. Hibbing (1982), challenges this general conception, particularly because of an increased number of retirements from the 1960s to the 1970s. The focus of Hibbing's work is the U.S. House of Representatives and addresses the personal situations that predispose certain members for retirement and how these attributes explain the rising number of retirees. Theriault (1998) focuses on quantifying what he identifies as the career ceiling variable, the concept that eventually congressional careers stagnate and representatives retire around this time. Parker and Dabros (2012) question the possibility that congresspersons are able to indulge themselves without fear of electoral backlash in their final term in office. They discredit the notion that congressmen will behave in a manner that may be contrary to their previous voting record and, by extension, the actions of members of congress are not purely motivated by reelection prospects. Edward and Frederick Schapsmeier (1992) take a different approach to

congressional study, examining the 40-year career of Representative Leslie Arends from Illinois in a case study. In their study of Representative Arends, the Schapsmeiers look at his congressional history and the factors that contributed to his retirement during the Ford administration. King (1997) provides the perspective of an outsider, as a British scholar, and looks at the features of Congress that leaves representatives vulnerable to electoral pressures, especially compared to British politics, potentially leading to a less voluntary retirement. Kiewiet and Zeng (1993) study the interrelatedness of career options for congresspersons namely seeking reelection, retirement, and seeking higher office and estimate the variables that contribute to the final decision made by a member of congress.

Compared to previous research on retired or retiring congresspersons, this study examines a more geographically focused group of individuals, former members from the state of Michigan. This study also diverges from previous studies in that it is also examines a broader period of time, spanning a period of nearly two centuries, 1819 to the present, as opposed to only focusing on decades in which there was a spike in retirements. Furthermore, this research examines former members from both chambers of congress unlike previous studies which focus primarily on members of the House of Representatives. Another component to this project that has not been heavily analyzed by prior research is the various forms of involvement inside and outside of politics that former members engage with after retiring. Additionally, the subjects of the case studies on political and post-congressional careers, Donald Riegle and Mike Rogers, have not been utilized in previous research in this area. In conducting this research, especially after so many prominent Michigan politicians have recently retired, including

John Dingell, David Camp, Mike Rogers, and Carl Levin, a better understanding can be gained regarding the roles former members from Michigan have assumed in the legislative process and what public services they are currently providing or may provide in the future.

Thesis

I consider several different influences on congressional retirement including age, lack of interest in having a politically focused career, the desire to pursue other career options, and deteriorating political capital. Examining each of these indicators, I hypothesize that age is an unpredictable and less frequently applicable reason for retirement, members not interested in serving multiple terms of office are a dying breed in the modern era, seeking other opportunities and retiring to avoid challenging reelection fights are common and significant indicators a member of Congress will seek retirement. Additionally, I find that the activities former members of Congress pursue once they leave office has changed over time, evolving from returning to previous pursuits to more frequently pursuing lines of work that call more directly on their experience in Congress.

Retirement and Post-Congressional Activities Data

Before delving into the findings on the different indicators for Congressional retirement, it is important to note that these categories are not mutually exclusive and that a combination of factors can attribute to a member deciding to leave congress. When considering these factors, it is important to consider the overall trends in retirements of Michigan congresspersons. I observed a total of 305 representatives and

45 senators. Of these, 117 representatives retired and 17 senators did the same with a total of 38% voluntarily leaving office. Figure 1 shows the number of voluntary retirements of Michigan members of Congress from both chambers during the years under investigation (1819 – 2016) save those years where there were no retirements.

[[Figure 1 Here]]

The large span of time from 1923 to 1951 reflects a period of tremendous turnover, in spite of what the lack of retirements may suggest. During this nearly three-decade period, several members died in office and many more were defeated in reelection which makes sense when considering this was a particularly tumultuous period which included the Great Depression and the Second World War. Figure 1 demonstrates that typically when there are voluntary retirements; it is rare for more than three members of Congress to retire at the same time. The implications of this is that the more of Congressional retirements in Michigan are generally driven by more personal motivations as opposed to wider acknowledgement that several incumbents face a disenchanting electorate.¹

Four key factors are observed to determine their role in indicating the reasoning for why a given member may choose to retire. These factors include age, honoring the concept of civilian legislators, the desire to seek better opportunities outside of the congress, and facing a challenging reelection fight. While not necessarily mutually

¹ Another caveat to the data collected displayed here, and in most of the graphs, is that there are a small number of former members of Congress, such as Henry Waldron, who serve non-consecutive terms in office, both of which ended voluntarily, because of this these numbers do not necessarily correspond with the number of former members, rather the tenures served by former members.

exclusive, these indicators encompass several significant reasons for why members of Congress willingly seek retirement.

Age

When discussing the topic of retirement in any profession, one of the first contributing factors that come to mind is age. Indeed, there are many members who do not seek reelection when their advancement in years finally catches up to them, and these members generally do not pursue professional activities afterwards. However, there are many examples of congresspersons retiring at ages far younger than what would typically be considered “retirement age.” The varying age, ranging from 35 to 89, of congressional members complicates the consideration of the role age plays in choosing to leave congress. Another consideration that must be kept in mind when considering the role of age is how life-expectancy and overall quality of life has improved over time. Congressman John Dingell was able to retire in 2015 at the age of 89 while Congressman Melbourne Ford dies during his term in 1891 at the age of 42 (“Mapping Congress”). Figure 2.1 shows the average age of retirees for each year in which a member of the House of Representatives from Michigan retired, while Figure 2.2 shows the average age of retirees in the Senate.

[[Figure 2.1 Here]]

[[Figure 2.2 Here]]

Figure 2.1 and Figure 2.2 demonstrate that the average age of retirement for former members of Congress does not appear to exhibit a particular trend for increased age over time, in spite of increased life expectancy, as the age of retirees appears to be

rather varied. It is also interesting to note that the data indicates that there is a correlation with senators retiring at an older age (approximately 70.4 years old) while representatives retire younger (approximately 55.2). The average age for representative retirement makes a case that age is not a major consideration for most members of that body. As noted at the outset, Representative Martha Griffith retired at the age of 62, after citing her age as the reason. Maybe Rep. Griffith was right; 62 is the age to retire. The data shows that only 42 former members of Congress from Michigan retired at the age of 62 or older, meaning only 31% of Michigan's retirees would qualify. However, when one considers her sixteen years of involvement with politics afterwards, this qualification rings hollow in her case, and may imply the appropriate threshold for predicting retirement is in fact older than 62.

There is no clear age threshold when considering Congressional retirement. What may seem like an appropriate age for one member of Congress to retire may be several terms away from when another finally decides to call it quits. Though a poor predictor for retirement, this does not mean that age is an entirely insignificant indicator; there are examples such as John Dingell (89), Dale Kildee (84), and Vernon Ehlers (77) where they more believably cite age as a reason for retirement and proceed to avoid any vocations after leaving Congress. Nonetheless, age is not the most important reason for retirement.

Lack of Interest – Civilian Statesman Vs. Career Politician

The concept of career politicians, while synonymous with most conventional understandings of the congress today, is a phenomenon that did not always dominate

the federal legislative bodies. Many of the Framers envisioned members of congress as civilian statesmen who would serve brief tenures in office before going back home to reengage with their former affairs. Though some scholars question the sincerity of founders on this subject, there have been several members who have served from the Michigan delegation that accurately reflect this description, serving very few terms in Congress before returning home. To differentiate between this type of member from the more recognized career politician, I will consider any member who has served for six or less years (the length of one Senate term) to qualify as a civilian statesmen.² This is not a perfect qualification, as it ignores their political careers outside of the U.S. Congress, and there are some members who choose to pursue office later on but it does satisfy the condition that members were not intended to serve federal office for large periods of time. Figure 3.1 and Figure 3.2 show the average time in office by retirement year for former members of the House of Representatives and Senate respectively.

[[Figure 3.1 Here]]

[[Figure 3.2 Here]]

Figures 3.1 and 3.2 demonstrate an overall trend for members of Congress from Michigan to spend more time in both bodies of Congress. For most of the 19th Century, the average member of Congress is spending six or less years within the institution. The 1950s witnessed a tremendous upswing in the number of terms retiring members

² Six years also corresponds with term limit proposals argued for in the mid-1990s and reflects current term limits in the Michigan State Legislature. I have kept this threshold the same for the House and the Senate in part to keep consistency, but also due to only two retiring senators served more than two terms, the typical term limit proposal for that chamber.

had served compared to their predecessors. The precise reasons for this are unclear but I speculate that these members enjoyed favorable and long-lived political fortunes and were incentivized to remain in office for much the same reason as President Franklin D. Roosevelt who served in office throughout the majority of the period in which these members would have served. It is also worth considering that these members were inspired to remain in office for a longer period of time due to having a president who broke the precedent on president terms and they were similarly comfortable with breaking the trend set by their predecessors. Even after this period there are members serving brief periods in office before leaving voluntarily, most recently Representative Dan Benishek did not seek reelection for a fourth term in 2016 (“Benishek, Dan”). Though non-career politicians are in the minority in the modern era, their historical prevalence demonstrates a considerable shift in the overall mentality of members of Congress overtime. Leaving office out of a sense of obligation not to become a Washington career politician is far rarer today but it is also one of the easiest indicators to predict. When Dan Benishek announced his retirement, he was honoring a commitment he had made when he first ran in 2011 to only serve three terms in Congress (Sprangler and Kathleen, 2015). Essentially, if a politician intends to only serve a small number of terms in Congress, they are more willing to openly share that information in this age as a means of distinguishing themselves from the pack. Politicians rarely retire after serving six or less years, but it is important to keep in mind the historical context and that it was not until the 20th century where politicians would willingly retire only after serving for more time than that.

Additionally, personal reasons such as a desire to spend more time with one's family may motivate a member of Congress to retire. This reasoning is typically derided and dismissed in today's political climate where members who offer such a reasoning stay in D.C. and work on K Street instead of the family-oriented lifestyle they claimed to want to pursue. Similar to the non-career politician indicator, these personal reasons are a better indicator for retirement in the past than they are today.

Greener Pastures – Better Opportunities

While there are members of Congress that choose to step aside when their political prospects have deteriorated, there are those who may see a new opportunity outside of the congress as an elevation of their current standing. Some changes in position can almost universally be viewed as a promotion such as Representative Gerald R. Ford resigning to assume the role of the vice president, while others, such as working as an activist or lobbyist, may be less prestigious but have other benefits. Members can feel as though they have reached their "peak" in congress, or only sought congressional office as a stepping stone in the first place. Tracking the pursuit of better opportunities as an indicator for retirement is something that can generally only be achieved after they have left Congress unless the former member in question openly cites their desire to pursue a particular opportunity as their reason for retiring.

If a higher office is vacated, or a member of Congress strategically sees an opportunity to beat an incumbent, it can be a strong indicator for a member of Congress, with some level of notoriety, to consider pursuing that position instead of seeking reelection. Appointments to a variety of offices may also constitute a career

opportunity worth abandoning the U.S. Congress. Senator Lewis Cass willingly left the U.S. Senate on two occasions, the first occasion he resigned during his first term to run for president in 1848, and the second time when he was appointed as President James Buchanan's Secretary of State in 1857 ("Cass, Lewis"). In the case of appointments, members of Congress may have to resign during their term in office, creating a nearly seamless transition from one vocation to the next. Other former members pursue positions within the State of Michigan such as James Blanchard who was elected governor in 1982 ("Blanchard, James Johnston"). State or locally based positions are not always as prestigious or recognized; Represented Candice Miller decided not to seek reelection in 2016 and instead chose to run for public works commissioner in Macomb County (Burke, 2016). Decisions like Miller's, who many consider a potential gubernatorial candidate, demonstrate the subjectivity of what political opportunities may be deemed superior to the individual member of Congress. While far less notable, Miller's new position may afford her the benefit of working closer to home and on issues in which she may be more interested.

Ambitious members of Congress are willing to set aside their congressional careers in search of better opportunities that are generally political in nature. Through running for another office and rising to appointed positions, these members are able to potentially gain more fulfillment than they otherwise would from serving in Congress.

Change in Political Fortunes

The concept of "strategic politicians" has often been used to explain when and where an aspiring member runs but it can also be utilized to justify when a member

decides to step aside. While reelection rates are high, many factors in the electorate could change from when a member of congress was first elected. There are some years, commonly referred to as wave elections, such as 2010, where members of one party are drastically favored and receive increased representation at the expense of the opposition. Perhaps a member only narrowly won reelection the time prior, or faced scandal that could similarly impact their reelection prospects. Furthermore, a severe redistricting can also produce a scenario in which a member would choose to neglect to run again rather than face a less favorable electorate. All of these may attribute to a member deciding that a less than guaranteed reelection may not be worth the resources and that it is best to simply seek opportunities elsewhere.

Referring back to Figure 1, recent wave election years such as 1974, 1994, and 2010, have produced at least one retiring member in the following year. While one may expect there to be more dramatic shifts in members of Congress during these election years, it is important to keep in mind that these are only those who willing decided not to seek reelection, making them more strategic than their counterparts who decided to run and lost their seat. Interestingly, the year during which the greatest number of members retired, 1992, produced an equal number of retirees from both parties. While wave elections are generally associated with one party being a clear victor, 1992 appears to be a year with a prevalent “anti-incumbent” wave. Gallup found that approval ratings for Congress were at near historic lows, with a 29% approval of the institution itself and 48% approval of the one’s own representative (Jones 2014).³ More personalized factors, such as a single member of Congress’s declining margin of victory between

³ In 2014, Congress had a 22% approval rating but personal U.S. representatives had a 50% approval rating.

elections are very difficult to quantify through data due to the lack of available polling information in previous cycles. Scandals, when they threaten a member's standing in the institution and their reelection prospects can contribute not only in choosing not to run but also in resignation. An example of this scenario would be Representative Charles Diggs Jr. who after facing federal investigation and a movement to oust him from Congress by several members, resigned ("Diggs, Charles Coles, Jr.").

Redistricting, which impacts the elections two years after every census, also can indicate retirement as a likely option for members affected by it. A particularly noteworthy example is former House Minority Whip Representative David Bonior who retired in 2003. Following the 2000 census, Michigan lost a Congressional seat, necessitating a new map where Bonior's 10th district was expanded to include a much larger Republican electorate that elected his successor, Candice Miller, by a large margin ("Bonior, David Edward"). Bonior would instead pursue the office of governor but was defeated in the Democratic primary. While Bonior's new district did not necessarily bear the misshapen trappings of a more traditionally gerrymandered district, it is likely that his position as a Democratic leader in the House of Representatives made him an attractive candidate for state Republicans to dissuade from retaining his seat.

In the age of safe seats and high incumbency rates for members of Congress, the thought of a member retiring due to a fear of losing their reelection bid seems almost outlandish. Yet, the occurrence is far more frequent than would appear based on general assumptions. Members of Congress can still make political decisions that are unpopular with members of their district, become involved in implicating scandals,

and face a vastly different electorate thanks to redistricting. The last two of these factors are amongst the easiest indicators of potential retirement to track and there will be a greater expectation for retirement under such circumstances.

Post-Congressional Activities

[[Figure 4 Here]]

Figure 4 charts the various activities that former members of Congress engage in. Some more industrious former members pursue multiple vocations after they leave Congress so Figure 4 reflects all of the activities they may have pursued. Addressing the “elephant in the room” the one member who willingly decided to leave Congress (through resignation) that was imprisoned is Representative Charles Diggs Jr., who was charged with committing mail fraud and falsifying payroll forms during his time in Congress (“Diggs, Charles Coles, Jr.”). Interestingly, the most frequent post-congressional activity is for a member to return to their legal practice. While a far more common phenomenon earlier in history, many politicians continue to return to practicing law when they retire. The second most frequent vocation is the pursuit of state or local politics. In recent years, this field primarily means pursuing the office of governor, as James Blanchard successfully did in 1982, lieutenant governor, in the case of Martha Griffiths, or other state wide offices. In the past, many would actually become state legislators after retiring from the U.S. Congress or even serve as mayors, positions generally viewed as far less prestigious today. Business pursuits, including service at executive level positions at various private sector institutions, have been a consistently

popular vocation for former members throughout Michigan's history. Twenty-three former members of Congress elected to retire from all careers after leaving office and enjoy a simpler lifestyle. Appointments include a variety of executive and judicial positions held by former members and are attained by members who demonstrate a level of expertise in a particular policy issue or as an extension of their legal careers. Notably, lobbying and other forms of political activism for some type of nonprofit or profit organization, the vocation most associated with the revolving door phenomenon, has only been pursued by 8 former members who willingly retired, all of which have occurred post 1991. This finding is not a repudiation of the revolving door hypothesis, rather it indicates how new the revolving door phenomenon is compared with the history of Congressional retirement.

Case Studies

Donald Riegle

Born in Flint, Michigan on February 4, 1938, Donald Wayne Riegle, Jr. is part of two rare clubs: those who have served in both chambers of congress, and members who have changed their party affiliation ("States in the Senate - Michigan's United States Senators"). Riegle was raised in a political environment, as his father, Donald Wayne Riegle, Sr., served as city commissioner (1950-1952) and mayor (1952-1954) as a Republican in Flint (University of Michigan-Flint). Prior to being elected to the Ninetieth Congress in 1966, Riegle would attend various academic institutions, the highest degree he received being an M.B.A. in finance and marketing from Michigan State University, though he did pursue a D.B.A. degree from the Graduate School of

Business Administration at Harvard University in 1964 (University of Michigan-Flint). Riegle sacrificed his educational pursuits in 1966 to run for Michigan's heavily Democratic 7th Congressional District as a Republican, and defeated the opposing incumbent, John Mackie, owing in part to campaign support from Richard Nixon (Germond and Witcover 1993). Elected at the age of 28, Congressman Riegle made his political ambitions known, telling journalists that his goal was to become president by the time he was 50 (Germond and Witcover 1993).

Though Riegle maintained his father's partisan identification, his service in the House of Representatives hardly aligned with the Republican Party where he received the reputation of a maverick. His tenure in the House earned recognition and praise from several liberal organizations including the UAW and the magazine *The Nation* which selected him as one of the two best congressmen in 1967 (University of Michigan-Flint). One of the political issues that earned Congressman Riegle this support was his stance against the Vietnam War. Opposition to the war put him in conflict with the man who helped Riegle get into office in the first place, President Nixon, whose reneging on his promises to end the war would drive Riegle to support Pete McCloskey's primary bid against Nixon in 1972 and to change parties the following year (Yoshinaka 2016). Further demonstrating his disassociation with Nixon, Riegle gave a floor speech announcing his intentions to formally impeach the president following the Watergate scandal.

Also during his time in the House of Representatives, Riegle would publish *O Congress*, a book intended to portray the "human side of Congress honestly and to reveal its inner workings" by recording his time in Congress from 1971 to 1972 (Riegle

1972). In publishing *O Congress*, Riegle took a career risk, potentially straining his relations with his fellow members of congress, along with exposing his own personal woes including his divorce and new found love affair. This would not be the last time details of Riegle's personal life would be exposed to the public, an earlier affair would be released by the *Detroit News* in an attempt to harm his Senate race, yet they would mire his path to the Senate where he was elected to in 1976 after being appointed following the untimely death of Philip Hart who previously announced his retirement (University of Michigan-Flint).

Senator Riegle's educational background in business would be utilized in the upper chamber as he was assigned to, and would eventually chair, the Senate Committee on Banking, Housing, and Urban Affairs ("States in the Senate - Michigan's United States Senators"). Economic issues would shape Riegle's focus in the Senate, especially issues that would impact Michigan leading him to take positions in accord with the auto-industry and labor interests. Amongst his activities in Senate, Riegle fought to enact the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) in 1989 which helped end the savings and loan crisis, along with combatting NAFTA, and working on health care reform (University of Michigan-Flint). Riegle's opposition to NAFTA was strong enough for him to hold a rally with failed third-party presidential candidate Ross Perot, a move that was greatly disapproved of by the White House. During Riegle's final term in office was tainted by his involvement with savings and loan executive Charles H. Keating along with five other senators known as the "Keating Five." The "Keating Five" were under investigation by the Senate Ethics Committee in 1991 for intervening with federal regulators on behalf of Charles Keating,

Riegle's personal actions were found to give "the appearance of being improper" but the committee recommended no actions to be taken against him (Eaton 1993). Along with two of the other Senators involved in the scandal, Riegle would announce that he would not seek reelection in 1994. While many speculate that his involvement with the "Keating Five" contributed to this decision, Riegle's official reason for retirement was his desire to spend more time with his family and to exert more energy on important issues in Congress such as NAFTA and health care reform as opposed to devoting the time to a reelection campaign (Tolchin 1993).

The more "interesting" conclusion is that the scandal and the ensuing deterioration of political stock for Riegle was the primary motivation for his surprise retirement, however, it would be intellectually dishonest to entirely discount other contributing factors. As someone who went through two previous marriages during his time in congress and was raising two children at the time, it is understandable that Riegle would desire to take a break from politics for the sake of spending more time with his family (University of Michigan-Flint). It is also important to consider how much Riegle's reelection bid would have been at risk. Fellow Michigan Senator Carl Levin maintained that Riegle was prepared for "another winning campaign," and another Senator caught in the Keating Five scandal, John McCain, continues to serve in the Senate as an influential member to the present (Eaton 1993). Regardless of Riegle's true reasons, he would leave office in 1995.

Shortly after leaving office Riegle would assume a part-time position working at the public relations firm, Shandwick Public Affairs, and would also become an adjunct professor at Michigan State University School of Business (University of Michigan-Flint).

In 2001, Riegle would join APCO Worldwide, another public relations firm, as the chairman of Government Relations a position he continues to hold to this day (“Donald W. Riegle, Jr.”). Working for public relation firms, being part of the “revolving door,” fits Riegle’s 28 years of experience in Congress well, and having served with both parties in this time he has a unique set of relationships with current members that can be utilized for the causes he represents. During the 2016 presidential campaign, Riegle made a surprise endorsement of Democratic Candidate Bernie Sanders, citing his support for the candidate’s position on campaign finance reform (Gold 2016). While perhaps ironic that a lobbyist supported Sanders’s perspective on money in politics, Riegle’s endorsement of Sanders calls back to his earlier political career as the two share similar views on several key issues including free trade which both were ardent critics of.

Mike Rogers

Born in Howell, Michigan on June 2, 1963, Michael J. Rogers would serve in the House of Representatives for 14 years during a time where the country’s priorities rapidly evolved. The youngest of five sons, Rogers, like Riegle, grew up in a political environment with his father serving on the Brighton Township board and as a township supervisor while his mother served on the Brighton Chamber of Commerce (OU Libraries). Prior to his political career, Rogers was a small business owner, served the United States Army, and most notably, joined the FBI in 1989 (OU Libraries). Rogers’s time in the FBI bestowed him with valuable experience and knowledge regarding crime and the intelligence community which would become major focuses of his later career.

In 1994, Rogers's would begin his political career by running as a Republican for the Michigan State Senate. During his time in the State Senate, Rogers would focus his legislative agenda on easing small business regulation and combatting internet crime and would eventually ascend to the position of Majority Floor Leader (OU Libraries). Rogers would run for the U.S. House of Representatives in 2000 on a platform of protecting social security, improving Medicare and education, and strengthening the military, he would win the election by a notoriously slim margin of 111 votes (OU Libraries). Early in his congressional career, Rogers was tapped to serve as a deputy whip by Republican leadership. Rogers priorities would quickly change during his time in Congress. After the 9/11 attacks, as the sole former FBI member in Congress, Mike Rogers became a major asset to the Bush administration, being sent to Iraq and Afghanistan on separate fact-finding missions.

Rogers's most defining role in Congress would be his service as chair of the House Permanent Select Committee on Intelligence where he oversaw the \$70 billion of funding for America's 17 intelligence agencies ("Mike Rogers"). His time as chair was highly praised as a "rare island of bipartisanship" and Rogers would make frequent media appearances discussing national security alongside the committee's ranking member Dutch Ruppersberger and his Senate counterpart Diane Feinstein (Ignatius 2014). Rogers media exposure brought him into the spotlight for several pertinent issues pertaining to the intelligence community during his time in Congress. Following the leaks by Edward Snowden in 2013, Rogers took it upon himself to dismiss the scandal and defend the NSA and the programs used to gather intelligence to combat terrorism (Rogers 2013). The Intelligence Committee would also be tasked to

investigate the Benghazi attack and determine whether the Obama administration was at fault for not preventing the episode. Rogers would release the committee's report in 2014, finding that there was no evidence of conspiracy to cover up the cause of the attack though his findings would greatly disappointing members of his own party who would continue investigating the incident (Lanny 2014).

Surprisingly, Rogers would announce that he would not be seeking reelection in 2014, shortly after his Benghazi report, citing his respect for the framers' intentions for a citizen legislature and that he would begin work on a radio show on Westwood One where he would be able to continue advocating for his concerns about national and cyber security (O'Keefe 2014). Rogers's statement about being a citizen legislator rings hollow when considering his 14 years spent in Congress, and his movement to hosting a radio show is surprising considering he seemed otherwise content with serving as chairman of the Intelligence Committee and even declined running for the Senate seat that would be vacated by Carl Levin in that cycle. It is possible that Rogers felt disillusioned with the state of political affairs, especially in the Congress. While Rogers and the Intelligence Committee were praised for their bipartisan efforts, he was often critical of the partisan tension that existed in the institution at large. In addition to his radio show, Rogers has also served in two cybersecurity firms, IronNet Cybersecurity and Next Century Corporation, and has been a contributor on CNN where he hosts and produces his own show *Declassified: Untold Stories of American Spies* ("Mike Rogers"). In the political world, Rogers avoided endorsing any candidates during the 2016 Republican primary, a move that may have been to avoid political risks of endorsing the wrong candidate, and briefly served on the Trump transition team before being forced

off due to his closeness to Chris Christie who was also taken off the team (Shabad 2016).

Donald Riegle and Mike Rogers are two former members of Congress who were both raised by families engaged in the political process, had considerable political ambitions of their own, and retired relatively young at the ages of 57 and 52 respectively. Though from two very different political ideologies, Riegle's and Rogers's careers have many things in common. Both would define their politics on key foreign policy issues of their day, Riegle in opposition to the Vietnam War and NAFTA and Rogers in support of the War on Terror and associated conflicts. This also demonstrates one of their key differences, where Riegle's stances often went against his party line, or at least with his party's president in the case of NAFTA, Rogers would not find any real conflict with members of his own party until his Benghazi Investigation's findings disappointed many of them. Riegle's more brash, maverick style also carried over into other facets of his congressional and post-congressional career as demonstrated by his overt expression of personal ambitions, willingness to publish a book on the inner workings of Congress while a sitting member of Congress, and endorsing a presidential candidate, Bernie Sanders, largely rejected by his party's mainstream members. Conversely, Rogers has dodged questions regarding his political aspirations, and avoided making enemies by not endorsing any presidential candidate in the 2016 Republican primary.

Retiring from two different institutions, it is also worth considering what bearing being a member of the Senate or the House of Representatives may have had on the eventual retirement of both individuals. Riegle's involvement with the Keating Five

scandal may have been enough to doom him in an election with a statewide constituency, an outcome he selected to avoid. Rogers' involvement with the NSA scandal following the Edward Snowden leaks as a major defender of the organization and its actions may have adversely impacted his electoral odds in a statewide race, but not in the heavily Republican 8th District of Michigan. The body of Congress a member retires from has little bearing on the overall attributes of members of Congress but it does open them up to different sets of electoral pressures that may influence a decision to retire.

Conclusion

I have argued that a multitude of factors have and continue to contribute to the voluntary retirement of members of Congress, the most significant of which are the desire to pursue other career opportunities and deterioration of political fortunes. The case studies of Donald Riegle and Michael J. Rogers demonstrate that many indicators, including those not readily apparent, can contribute to a member of Congress's decision not to seek reelection and that they may not be mutually exclusive factors. Similarly, former members of Congress can pursue a wide number of professions. Historically, this has largely been returning to legal practices and/or pursuing state or local offices and the concept of the revolving door is a relatively fresh phenomenon.

Reviewing members from only one state has limitations. Generalizations that can be made about Michigan's former members during various periods are not necessarily applicable to the nation as a whole, especially in states that are politically and demographically quite different from Michigan. States in the Deep South, for

instance, which were known for having non-competitive races from Reconstruction to the 1960s, I suspect would have a greater percentage of members voluntarily retiring than being forced out of office. Nonetheless, the findings here should encourage similar examinations of former congresspersons, both to see how factors within each state may play a role in shaping the data and to substantiate the conclusions found in Michigan.

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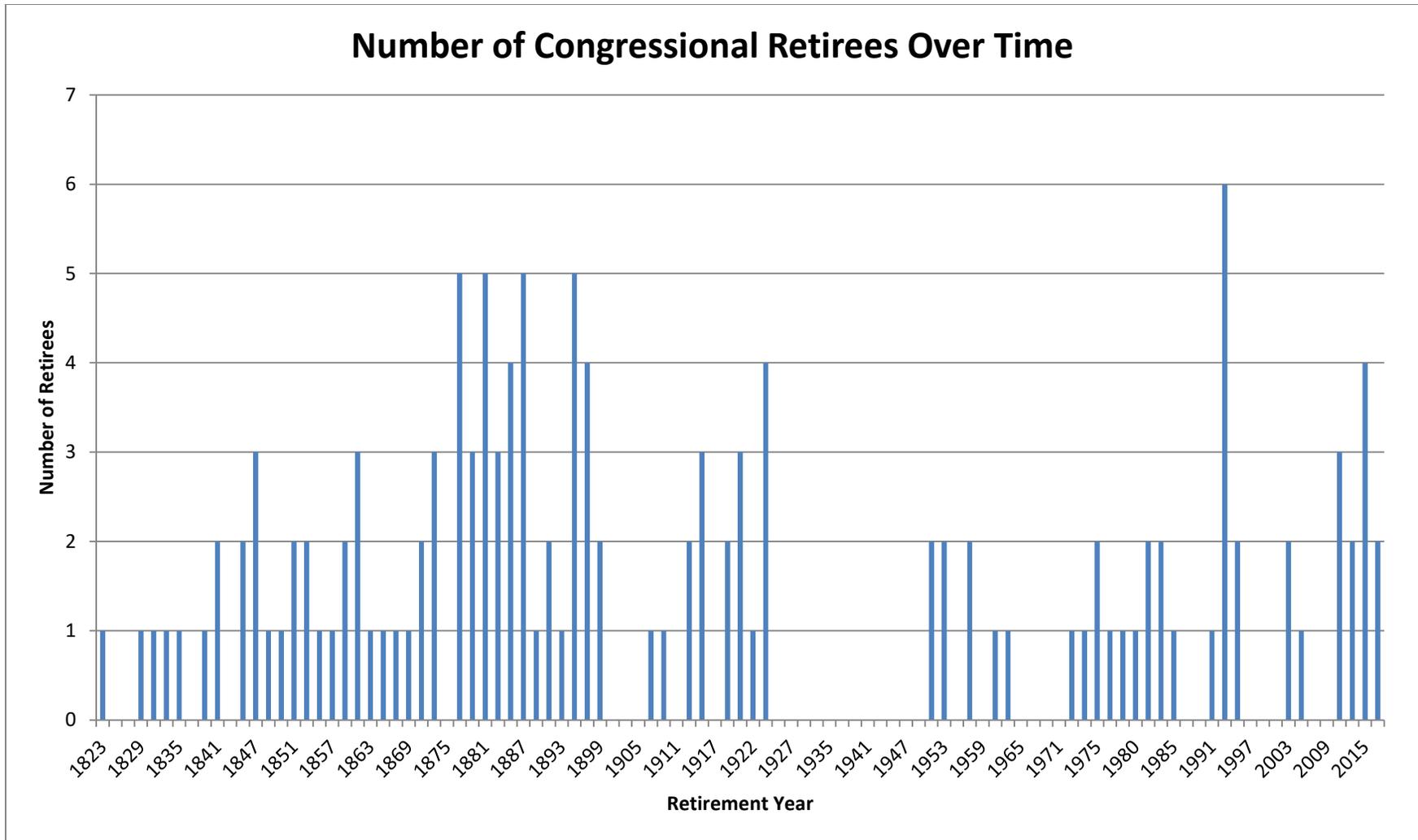


Figure 1

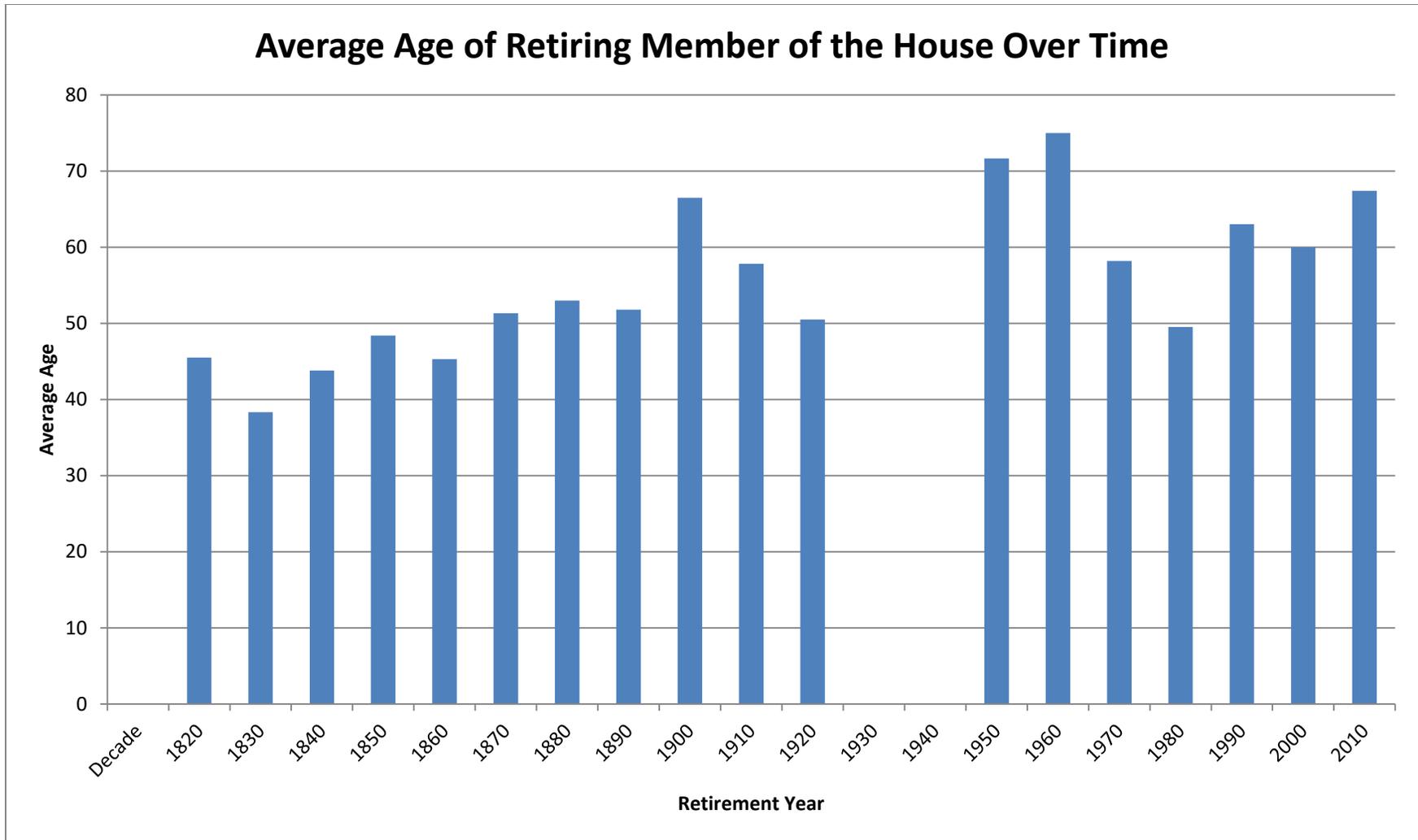


Figure 2.1

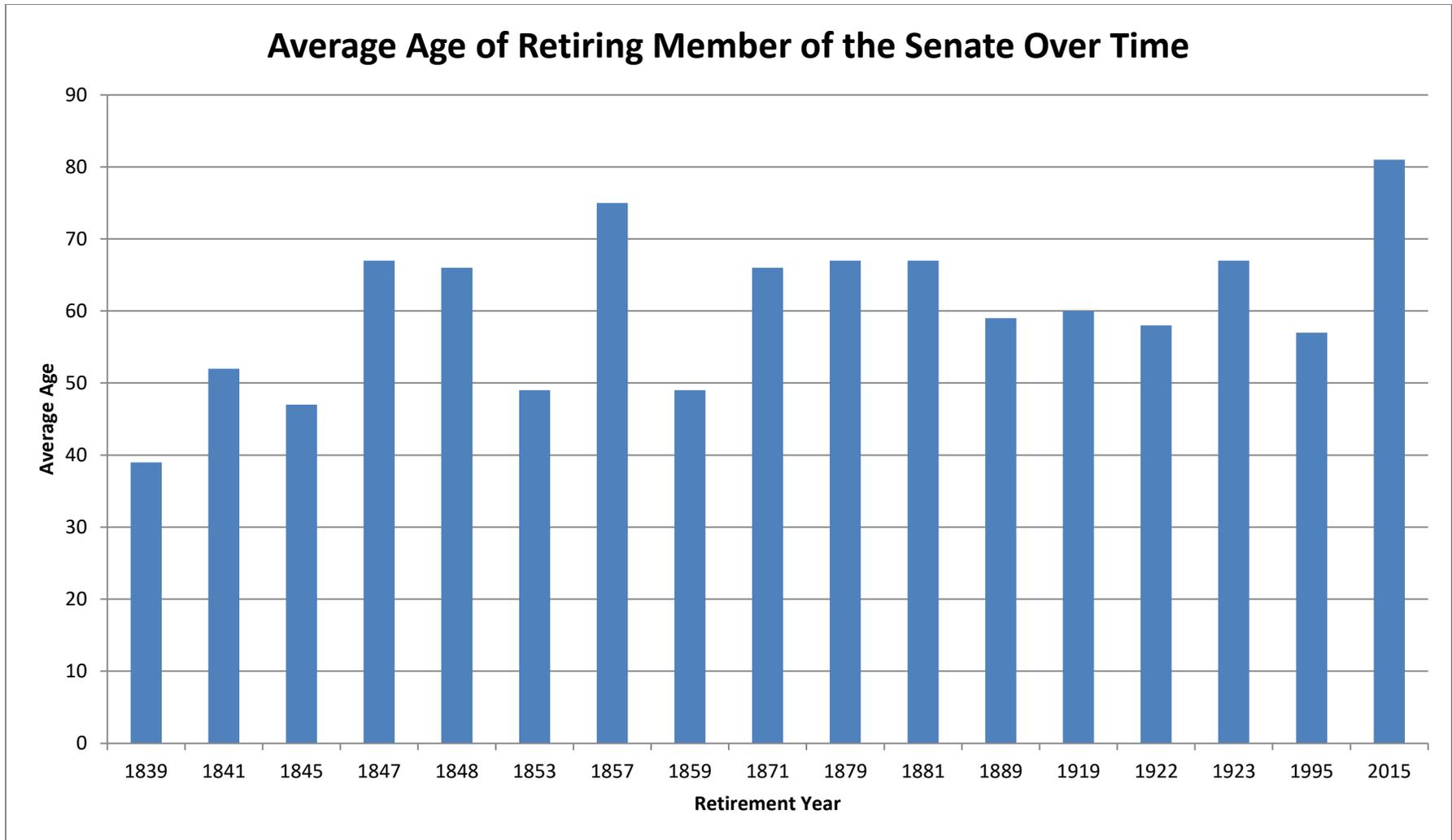


Figure 2.2

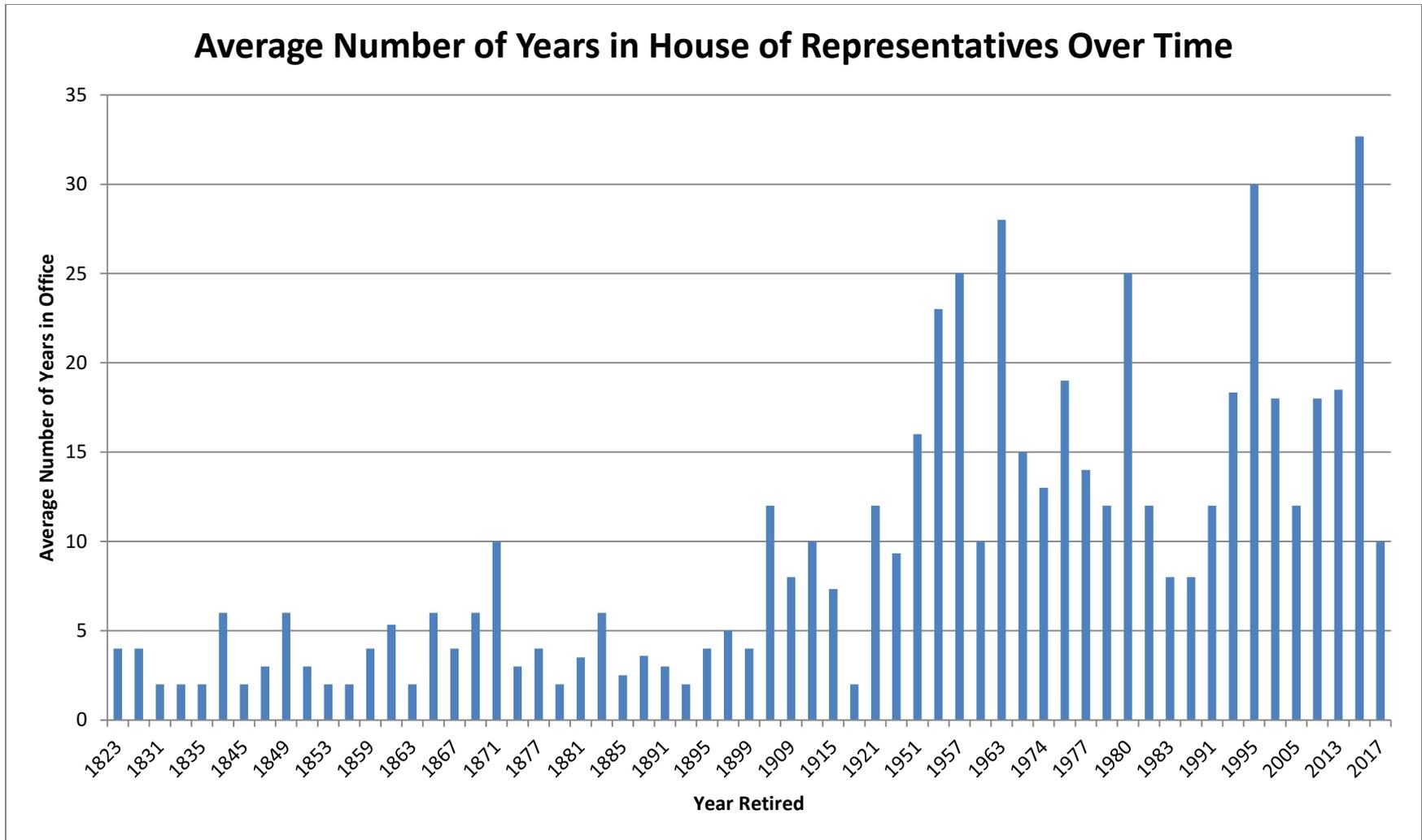


Figure 3.1

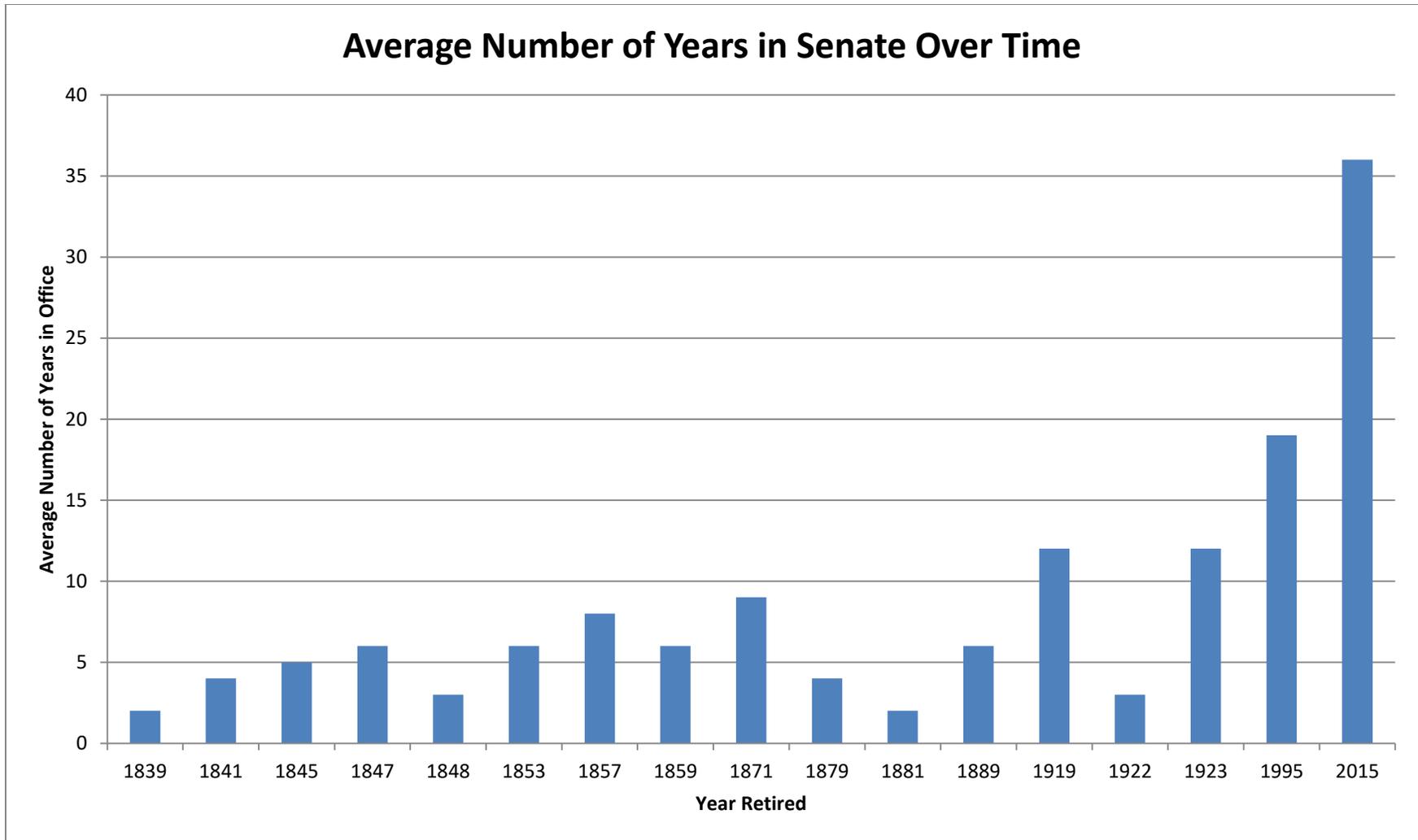


Figure 3.2

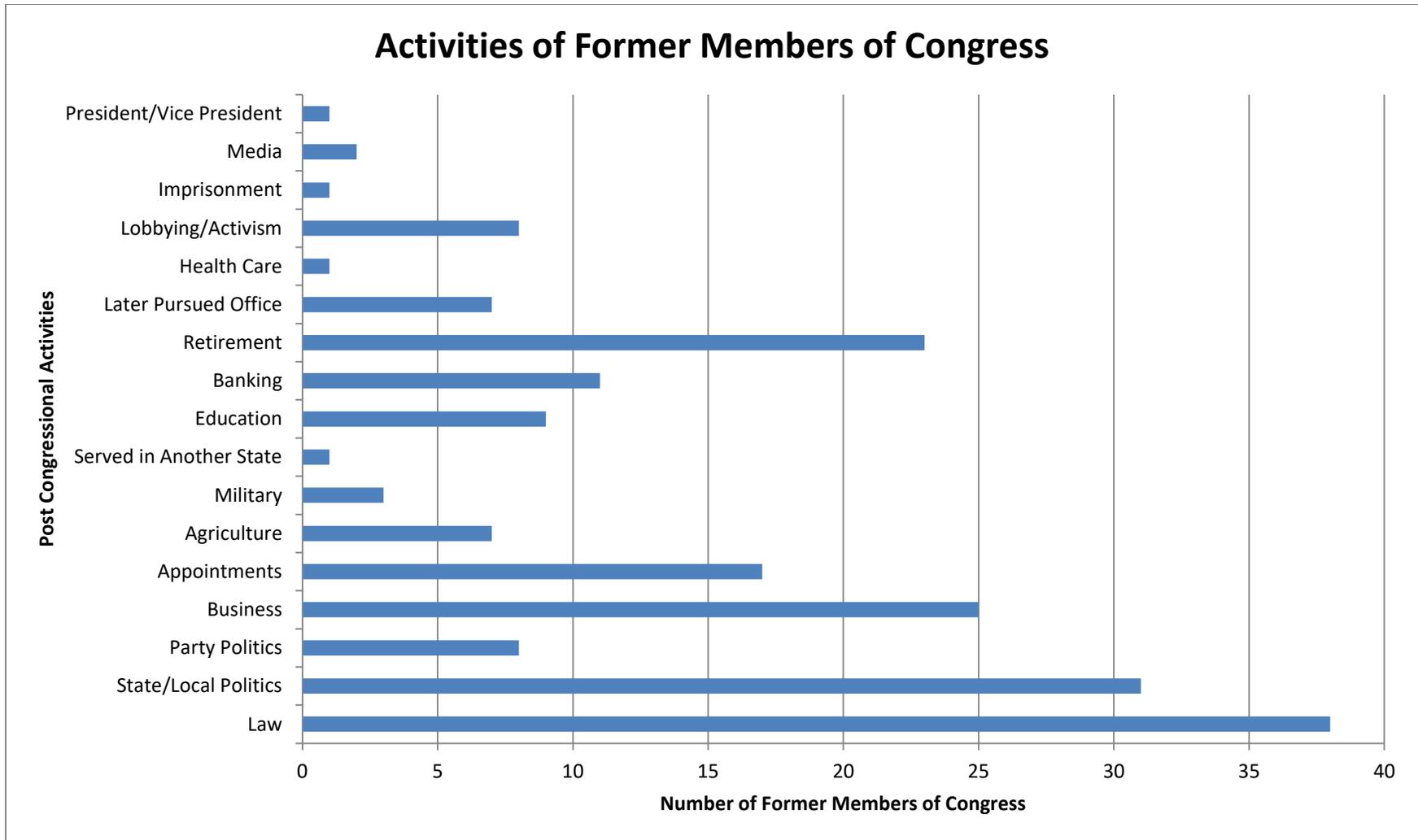


Figure 4

A Representation of History, Culture, and Identity Through Spanish Fashion

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Spanish fashion is something that exists all around us, but we may not be aware of it, nor the true meaning behind what is seen. Many people associate the color black, a flamenco dress, or a fan with Spain, but it's only the surface. To fully understand Spanish fashion, this study has looked back at important milestones in the country's history to trace its roots, uncovering cultural influences, as well as any political, social, and economic characteristics and changes that have directly influenced the creation and evolution of Spanish fashion. Trends and characteristics throughout history will be examined to understand their implications and representations of the country's identity. The rise of the Spanish Empire in the 16th century put Spain in the spotlight in terms of fashion, setting trends for the rest of Europe. After a period of great expansion, the empire began to dissipate, which allowed France, England, and Italy to jump ahead in fashion. Despite this, Spanish attire still evolved in its own way and has left an impact on the world of fashion. It is ultimately a representation of the country's complex identity, comprised of its unique history, hybrid society, as well as the political, social, and economic changes that have occurred to shape Spanish society today. Modern vehicles of Spanish fashion, such as designers and brands will be used as examples to demonstrate how they project history, culture, and identity to the world through their designs and exhibitions.

A Representation of History, Culture, and Identity Through Spanish Fashion

Spanish fashion is something that exists around us, but we may not be aware of it, nor the meaning behind what is seen. Many people freely associate the color black, a flamenco dress, or a fan with Spain, but it's only the surface. Clothing has existed since prehistoric times. It was only a necessity for protection from the environment and for work, in accordance with geography and occupation. But with the evolution of human beings, clothing and its significance developed. In earlier times, clothing was used to mark social status. High fashion was only for the elites, and dressing well signified power. With the passage of time, moving towards modern day, fashion evolved into a form of creative expression for designers, which became the industry that we know today. Around the middle of the 20th century high fashion became accessible to the public through technological advancements and the brands that adapted the designs and trends from designers into clothing of medium quality at affordable prices. Today the latest trends can be experienced and appreciated by the masses.

In Spain, fashion is a representation of history, culture, and identity. This study has looked back in history to give a panoramic vision of it and find its roots, discovering cultural influences and the political, social, and economic changes that have had an impact on the creation and evolution of Spanish fashion. Trends in clothing throughout history have come from these factors, such as the Arabic influence from its reign over southern Spain from 711 until 1492, the Catholic kings and queens during the Spanish Empire, and the access to natural resources from the Spanish colonies to create new styles in the 16th century. The fall of the empire, which led to the stagnation of Spanish

fashion, permitted France and England to gain more attention in fashion, because Spain did not have money to create new trends. Modern vehicles for fashion such as Cristóbal Balenciaga, Agatha Ruiz de la Prada, Manuel Piña, and Zara will serve as examples to demonstrate how they project Spanish history, culture, and identity to the world.

To understand how Spanish fashion came to be what it is today, it's imperative to know the important parts of Spanish history that were crucial for the development of fashion. The fifteenth century was when politics and society changed, so this had a direct impact on fashion the following century because Spain became the most powerful empire in Europe due to these changes, putting the country in the center of attention in terms of fashion. The marriage of the Catholic King and Queen Ferdinand and Isabella in 1469 broke the harmony that existed among the Christians, Jews, and Muslims that inhabited the country. The Muslim reign in the south was such a prominent part of Spain that Arabic culture affected fashion even in Castile, the north central part of the country where the Catholic monarchs lived and ruled. But Spain was no longer a tolerant country- the King and Queen wanted to unite Spain under one religion, one law, and one language. They were jealous of the success that the Arabs and Jews had won for their cultural contributions to Spain; they wanted to reclaim power and attention in the country. The most recognizable signs of the Arabic influence in Spanish fashion are the use of black, bright colors for special occasion dress, silk, and the mantilla veil.

In 1492 they expelled all Arabs, Jews, and anyone who did not follow Catholicism. The King and Queen took over the final Muslim kingdom of Granada, which gave them total control over Spain. This financed the voyage of Cristóbal Colón to the Americas, which was the beginning of the Spanish Empire and the most definitive

moment in history for Spanish fashion because it put Spain in the center of attention in Europe. Many characteristics of Spanish fashion that people recognize today come from the 16th century.

The Empire was the most powerful in Europe under the rule of Charles Habsburg from 1516 to 1556. He acquired large amounts of land, which made Spain very powerful politically and socially, making Spain the most fashionable country in Europe. The trend “Vestir a la Española” was created by the Catholic Monarch, which was inspired by medieval fashion. It displayed the rigor of Catholicism to show devotion to the church, which was the most prominent aspect of Spain during this time. The article, “ ‘Vestir a la Española’: the court of Madrid imposes black across Europe,” says about this, “The military, political, and cultural hegemony of the Spanish Empire made the whole continent look with attention to the fashion and traditions that the Castilians proposed.” The article continues to state about this trend,

“ Charles I and Phillip II were big supporters of this trend. It is consonant with the religious rectitude that they wanted to project to the world, the Habsburg Dynasty adopted in the court a style of great sobriety, characterized by the use of dark colors and tight garments, without wrinkles or creases and a rigid aspect, especially in women who wore the farthingale...”(2)

The farthingale, one of the most important pieces of clothing in history, originated in Castile in the 15th century; it was a hooped skirt made normally of wood or whalebone, worn under dresses to create a full shape in the skirt. This trend became popular the following century, spreading throughout Europe, when the Spanish Empire was at the

height of its power. The book *Fashion in Costume* says about its expansion and influence in Europe, “ It was adopted in England in the early 16th century and referred to as the Spanish farthingale, and was worn in England and France until the middle of the century...” (43) The expansion of the farthingale was a result of the prestige that Spain had; other European countries looked to her for the latest trends. This prestige came from the huge amount of colonial power that it had, and so this political and social power meant domination in fashion.

The nobility mainly wore black with high white ruffled necks that were in style in Madrid. The intense use of the color black was not only a reflection of the potency of Catholicism in society but also of the Arabic influence in clothing. This showed how society was during this time; everything functioned around the church, but nevertheless, Arabic influence remained. Although on the outside Spain seemed to be exclusive in its new identity beneath the Catholic Monarchs, the Spanish society continued to be influenced by an external culture.

To complement the extremely dark, somber, and formal look of this Spanish trend, the nobility wore a lot of jewelry made of gold from the Spanish colonies in the Americas, such as chains, buttons, rings, necklaces, and thread used in clothing. The excessive use of gold by the nobles was a result of the imperial power that Spain had in the Americas at this point in history, because it had control over the land, so it mined the gold and brought it back to Spain. Being adorned in gold was a way in which the nobles showed their social and economic status. Clothing was a way to strictly mark the division between social classes, especially between the bourgeoisie and the nobility. High fashion, which means clothing of expensive material made by hand by the most

experienced professionals, did not apply to the lower classes; they mainly dressed in simple brown and white clothing.

The Spanish Empire began to decline at the end of the 16th century, going bankrupt because of its underlying economic problems from controlling too much land and having to pay for wars against its colonies that wanted their independence. Spanish fashion stagnated because of this, since creating new trends was no longer a priority for Spain, and so European fashion began to change, no longer being heavily influenced by the Spanish nobility. Fashion in France and England changed often in the 17th century and the centuries to come while Spain stayed the same. France became the leader in fashion under the reign of Louis XIV (1638-1715) when the country focused on the production of luxury items. Rococo style was so popular in the 18th century that it even influenced Spanish fashion, when it seemed that nothing else could for so long:

“European fashion was still dominated by the French. During the first years of the century no particular changes occurred, but the transition to rococo elegance and delicacy began with the accession of Louis XV in 1720. Even the Spanish succumbed to its charms.” (Condra, 76)

Despite this, Spanish fashion was still strongly influenced by the Catholic church and Arabic culture; women dressed very modestly in black and wore mantillas and rosaries in the streets. This showed that even though Spain lost so much political, social, and economic power to France and England, its cultural identity still remained intact through clothing. But above all Spain did not have the attention in fashion like before during its imperial reign in the 16th century because of its political and economic impotence.

The 20th century was crucial for contemporary Spanish fashion because it contained the most famous and influential designers in the industry that have expressed Spanish history, culture, and identity through their works. In this century, designers became the principle vehicles of Spanish fashion. In the first decades, high fashion remained only accessible to the elites, because ready to wear clothing still did not exist until the seventies, when technological advancements allowed brands to produce affordably priced ready to wear clothing for the masses.

Cristóbal Balenciaga (1895-1972) was and still is known domestically and internationally as one of the greatest fashion designers of all time. He was born in Getaria, Spain and worked in Madrid until the Civil War in 1936. What made him unique was that he was a tailor before becoming a clothing designer. Balenciaga was a perfectionist, and his aesthetic focused on simplicity and fluid lines. He moved to Paris to escape the war and found international success there but although he worked away from Spain for the majority of his career, he never forgot his culture. In fact, Spanish culture served as a great source of inspiration for his works. The things that inspired him were Catholicism, flamenco, bullfighting, and the nobility of the Spanish Empire. His designs were modern adaptations of historical clothing, which served as reminders to Spanish society of better times, when Spain was successful and powerful politically, economically, and socially. Balenciaga's career took place when the country had a lot of political instability and fell under the dictatorship of Francisco Franco for almost forty years, from 1939 to 1975. Balenciaga reminded Spain and Europe of its history, culture, and identity, and kept them alive in the international realm when Spain was closed off from the rest of the world.

One of his most famous works, which gave him a lot of international attention and success after moving away from Spain for the first time, was the “Infanta” dress of 1939, inspired by the 1656 painting “Las Meninas” by Diego Velázquez. The artist painted the court of King Philip IV during the 17th century. Velázquez was one of the most important and influential people of the Spanish Golden Age, so recreating a dress inspired by the painting was a huge historical and cultural reference made by Balenciaga. He kept the spirit of Spanish identity alive during times of political, social, and economic desperation with the Civil War and dictatorship under Franco. The article, “Cristóbal Balenciaga’s ‘Infanta’ Gown (1939): A Story About Origins?” elaborates on this by saying:

“Balenciaga’s reference to art history was interpreted as a personal quest for cultural identity and a nostalgic longing for its origins.... The Infanta dress had been designed by a ‘real Spaniard’ and as a result, it was interpreted as a manifestation of Balenciaga’s distinctive national identity and culture.... it was this kind of exoticism that, in 1939, sparked interest in his clientele and proved undoubtedly beneficial to the cultural and economic capital of an emerging designer in Paris.” (1)

This dress brought attention to Balenciaga in Paris, and helped him gain success for the first time outside of Spain. This reference to historical Spanish art created interest in Europeans because a Spaniard made the dress. If a non-Spaniard had created this dress, it probably would not have gained as much attention. The Infanta dress was more than an article of clothing, it was a symbol of the greatness Spain was and continued to be, despite the bad political, social, and economic conditions of the beginning of the 20th century.

As said previously, the Catholic Church, flamenco, bullfighting, and the nobility inspired Balenciaga. The article “Balenciaga’s Spanish influenced designs” says, “Even after his success in Paris, he remained very deeply influenced by the culture and folklore from Spain, from the religious to the gypsies, flamencos and bullfighters.”(1) The De Young Museum in San Francisco, California had an exhibition for him in 2011 that presented his works that were inspired by Spanish culture. This exhibition was important because it gave a good summary of the different parts of Spanish culture that influenced Balenciaga in his career. It is an easy and interesting way for everyone to be able to better understand Balenciaga as a designer and get to know Spanish history, culture, and identity. Various simple black dresses are presented, and also some with the farthingale that look like the dress of the Madrid court during the 16th century.

Another part of the exhibition shows dresses inspired by the gypsies. The flamenco dress began in the 19th century when gypsy wives accompanied their husbands to cattle fairs. The dresses they wore was so beautiful that eventually the fairs became all about the fashion. Today the event is called The April Fair of Seville. The flamenco dress is an important part of Spanish fashion because it represents the history, culture, and identity of an ethnic group that has formed part of the Spanish society (although they have been marginalized).

The suit of lights is presented in the exhibition as well. It represents bullfighting, which is another part of Spanish culture that has influenced Balenciaga in his career. A painting of a bullfighter in a stadium is shown, highlighting his suit and the replica that Balenciaga made that almost exactly imitates the painting. The intricate details of the

jacket and the red and gold colors are shown. It says in the article, “Traditional Spanish Dress” about the history of the suit,

“Originally bullfighting was a privilege of the nobility during the 17th century. The designs of typical bullfighting costumes are still based on elegant styles from the 16th-18th century bullfighting fashion (commonly known as the Goyesca period). Typically, the richer coloured fabrics were more expensive, and this a sign of upper class for those who wore them.”

(2)

For centuries bullfighting has been a huge part of Spanish culture, and its fashion has been a definitive part of the sport, similarly to the flamenco dress in connection with gypsy culture and its dance. It's another way in which the Spanish could show their social status through clothing, which has been a characteristic of Spanish society since the 16th century. Like flamenco, bullfighting is something that is immediately associated with Spain by foreigners. Producing designs based on his culture showed the pride that Balenciaga had in his country even though having a career away from Spain.

Towards the end of the 20th century was when politics, society, and culture drastically changed once again with the ending of the dictatorship in 1975, which signified transition and change to democracy. With Spanish society finally free of so much repression in many different aspects, including creative ones, a counter cultural movement was born, called La Movida Madrileña (the Madrilenian Scene). It was defined by the excess and extreme in everything, and ultimately a new Spanish identity emerged. The article “Medio siglo de moda española” says,

“La transición a la democracia, a mediados de los 80, da a luz un excelente momento creativo para la moda española, con algunas firmas reconocibles hoy para el gran público como Sybilla, Manuel Piña, Agatha Ruiz de la Prada o Francis Montesinos.” (3)

Agatha Ruiz de la Prada is a Spanish designer and noble who was born in Madrid in 1960. Her career began in the 80s, when Spain finally became a democracy and the economy greatly improved. She had her first runway show in 1981 when Spain was in its most revolutionary time in terms of politics, society, economy, and ultimately identity. She is one of the designers that facilitated La Movida Madrileña, and she was a representation of the New Spain. De la Prada was known for her peculiar and eccentric aesthetic, and the excessive use of bright colors. This unique aesthetic represented the new freedom that society had, especially younger people, in experimenting and going to the extreme with everything, which is what she did and continues to do in her designs.

Manuel Piña was another protagonist of La Movida Madrileña, who started his career in the 70s when fashion began to change. He was the first Spanish designer to create ready to wear clothing in Spain. His aesthetic was representative of La Movida because similarly to Agatha Ruiz de la Prada, it was anything but normal; very unconventional and non traditional, which reflected the social and cultural changes that were occurring in Spain. His aesthetic was characterized by extremely voluminous pieces, the use of strange materials such as plastic and metal, for example. The country made a transition from an extremely conservative dictatorship to a democracy, so fashion changed accordingly. The article “Manuel Piña, Diseñador de Moda” says,

“In the 80s Spain was a very different country to what it is now, it was a country awakened from a long gray and dark dream that rose a powerful creative liberation, an explosion of artistic energy with the desire to change, to experience without limits, the beauty of freedom and the illusion of democracy. “(1)

Spanish fashion during the 80s and 90s was all about the expression of the new Spanish identity that came to be strongly influenced by external cultures since the international doors opened after the fall of the dictatorship in 1975.

The increase of global communication in recent decades and the use of social media have contributed to the increase in awareness and international success of Spanish fashion in the 21st century. Vehicles of fashion continue to be designers and brands, but now as well models and bloggers such as Gala González, Ana Albadalejo, and Mirian Pérez. “Fast Fashion” has been very important to the Spanish fashion industry because it allows the masses to experience designs from the runway, but at affordable prices. Zara is a good representation of this. Although it does not promote itself as a Spanish brand, its global success has brought attention to Spain. There is a homogeneity in “fast fashion” because brands like Zara and H&M have stores in different countries, so people throughout the world are wearing similar styles, which shows how internationalized the industry in Spain has become today. This is a reflection of how much Spain has grown and improved politically, socially, and economically since 1975.

The fashion weeks that happen twice a year, the Mercedes Benz Fashion Week Madrid, Barcelona Bridal Fashion Week, as well as others are opportunities for Spanish designers and brands to show their new collections to the world, what inspires them,

and what is changing in fashion. Manuel Piña and other protagonists of the Movida created Pasarela Cibeles, known today as the Mercedes Benz Fashion Week Madrid, in 1985. It gave way to the fashion weeks in Spain today, which are the largest and most important projections of Spanish fashion every year.

Spanish fashion has been a representation of history, culture, and identity for many centuries. The main characteristics that we recognize today come from the 16th century when Spain was the most powerful empire in Europe. This power came from the political, social, and economic changes that occurred in the 15th century with the marriage of Isabella and Ferdinand. The Catholic Monarchs of the 16th century created the trend “Vestir a la Española”, strongly based in the Catholic Church and with Arabic influence. During this time, dressing well marked social status of the elites; the distinction between classes was very important. Towards the end of the 16th century the Spanish Empire lost its colonies in Europe, which stagnated fashion and allowed France and England to advance in fashion because they were rich politically and economically. France had the strongest influence in fashion in the 17th century and later, affecting Spain as well, although Spanish fashion remained different from the rest of Europe.

Cristóbal Balenciaga was known as one of the greatest fashion designers of all time. He showed Spanish history, culture, and identity through his designs. The 16th century court, the Catholic Church, gypsy culture, and bullfighting served as sources of inspiration for him; he created modern adaptations of these things, which kept happy memories of Spanish history and culture alive during difficult times. The end of the dictatorship in 1975 changed politics, society, and the economy for Spain because finally it was free from so much repression, which directly affected fashion. Agatha Ruiz

de la Prada and Manuel Piña, designers of La Movida Madrileña, represented the new Spanish identity through their eccentric aesthetics, and they created the new Spanish fashion industry that we know today. The increase in global communication in the 21st century has promoted Spanish fashion to the outside world, bringing awareness to Spanish history, culture, and identity to those who aren't familiar with it, and bringing an appreciation to those who have lived it.

Una Representación de La Historia, La Cultura, y La Identidad A Través de La Moda Española (Spanish Version)

La moda española es algo que existe en nuestro alrededor, pero podemos no estar conscientes de ella, o la significancia detrás que lo que se ve. Muchas personas libremente asocian el color negro, un vestido de flamenco, o un abanico con España, pero solo es la superficie. La vestimenta ha existido desde tiempos prehistóricos. Solo era una necesidad para protección del clima y para trabajo, de acuerdo con la geografía y la ocupación. Pero con la evolución de los seres humanos ha desarrollado la vestimenta y su significancia. En épocas anteriores, la vestimenta se usaba para marcar el estatus social. La alta costura solo era para los élites, y vestirse bien significaba el poder. Con el paso de tiempo, moviendo hacía el día moderno, la moda

evoluciona en una forma de expresión creativa para diseñadores, la cual se convirtió en la industria que conocemos hoy. Alrededor del medio del siglo XX la alta costura se hizo accesible al público a través de los avances tecnológicos y las marcas que adaptaron los diseños y las tendencias de diseñadores en ropa de media calidad y de precios económicos. Hoy en día las últimas tendencias pueden estar experimentadas y apreciadas por las masas.

En España, la moda es una representación de la historia, la cultura, y la identidad. Este estudio ha mirado hacia atrás en la historia para dar una visión panorámica de ella y encontrar sus raíces, descubriendo las influencias culturales y los cambios políticos, sociales, y económicos que han tenido un impacto en la creación y evolución de la moda española. Las tendencias en la vestimenta a través de la historia han venido de estos factores, así como la influencia árabe de su reinado sobre el sur de España desde 711 hasta 1492, los reyes católicos durante el Imperio Español y el acceso a los recursos naturales de las colonias españolas para crear estilos nuevos en el siglo XVI. La caída del Imperio que llevó al estancamiento de la moda española permitió a Francia e Inglaterra ganar más atención en la moda, porque España no tenía dinero para crear nuevas tendencias. Los vehículos modernos para la moda así como Cristóbal Balenciaga, Ágatha Ruíz de la Prada, Manuel Piña, y Zara servirán como ejemplos para demostrar cómo proyectan la historia, la cultura y la identidad española al mundo.

Entonces, para entender cómo la moda española llegó a ser lo que es hoy, hay que conocer las partes importantes de la historia española que fueron cruciales para el desarrollo de la moda. El siglo XV fue cuando la política y la sociedad cambiaron

entonces este tuvo un impacto directo en la moda el próximo siglo porque España se convirtió en el imperio más poderoso en Europa debido a estos cambios, poniendo el país en el centro de atención en términos de la moda. El casamiento de los reyes católicos Fernando e Isabel en 1469 rompió la armonía que existía entre los cristianos, judíos, y musulmanes que habitaban el país. El reino musulmán en el sur era una parte tan prominente de España que la cultura árabe afectaba la moda incluso en Castilla, la parte norte central del país donde vivían y gobernaban los monarcas católicos. Pero España ya no era un país tolerante- los reyes querían unificar España bajo una religión, una ley, y una lengua. Estaban celosos del éxito que han ganado los árabes y los judíos por sus contribuciones culturales a España; querían reclamar el poder y atención en el país. Los signos más reconocibles de la influencia árabe en la moda española son el uso de negro, los colores brillantes para el vestido de ocasión, la seda, y el velo de mantilla.

En 1492 expulsaron los árabes y judíos, y quien no seguía el catolicismo. Los reyes se apoderaron del último reino musulmán de Granada, lo que les dio control total sobre el país. Esto financió el viaje de Cristóbal Colón a las Américas, lo que fue el comienzo del Imperio Español y el momento más definitivo de la historia para la moda española porque se puso España en el centro de atención para la moda. Muchas características de la moda española que la gente reconoce hoy viene del siglo XVI.

El Imperio fue lo más poderoso en Europa bajo el reino de Carlos Habsburgo desde 1516 hasta 1556. El adquirió grandes cantidades de tierra, que hizo España poderosa políticamente y socialmente, que hizo España el país más de moda de Europa. La tendencia “Vestir a la Española” fue creada por el monarca católico que fue

inspirado por el ascetismo medieval, que significaba el rigor y la evitación de todas las cosas indulgentes para mostrar devoción a la iglesia católica, ya que esto era el aspecto más destacado de España durante este tiempo. No había separación entre el gobierno y el estado. El artículo, “ ‘Vestir a la española’: la corte madrileña impone el negro en toda Europa,” dice sobre esto, “La hegemonía militar, política, y cultural del Imperio Español hizo que desde todo el continente se miraran con atención a las modas y las tradiciones que proponían los castellanos.” El artículo sigue a decir sobre esta tendencia,

“Carlos I y Felipe II fueron los grandes valedores de esta nueva tendencia. Es consonancia con la rectitud religiosa que querían proyectar al mundo, la dinastía de los Habsburgo adoptó en la corte un estilo de gran sobriedad, caracterizado por el uso de colores oscuros y prendas ceñidas, sin arrugas ni pliegues y aspecto rígido, sobre todo en las mujeres que usaban verdugado...”(2)

El verdugado, una de las piezas de vestir más importantes de la historia, se originó en Castilla en el siglo XV. Era una falda “hooped” hecha normalmente de la madera o del hueso de ballena, usada debajo de los vestidos para crear una forma completa en la falda. Esta tendencia se hizo popular en el próximo siglo, extendiéndose a Francia e Inglaterra cuando España estaba el imperio más poderoso. El libro *Fashion in Costume* dice sobre su expansión y influencia en Europa, “It was adopted in England in the early 16th century and referred to as the Spanish farthingale, and was worn in England and France until the middle of the century...” (43). La expansión de esta pieza fue una respuesta directa del prestigio que tenía España; otros países europeos miraban a ella

para las últimas tendencias. Este prestigio vino de la gran cantidad de poder colonial que tenía ella, y entonces este poder político y social significaba dominación en la moda.

Los nobles se llevaban principalmente negro con lechuguillas blancas (cuellos altos y rizados) que estaban de moda en Madrid. El uso intenso del color negro no solo era una reflexión de la potencia del catolicismo en la sociedad pero también de la influencia árabe en la vestimenta. Esto mostraba como era la sociedad durante este tiempo; todo funcionaba alrededor de la iglesia, pero a pesar de esto, la influencia árabe permanecía. Entonces aunque en el exterior España parecía ser exclusivo en su nueva identidad bajo los monarcas católicos, la sociedad española seguía ser influenciada por una cultura extranjera.

Para complementar la mirada extremadamente oscura, sombría y formal de este vestido español, se llevaba mucha joyería hecha del oro de las colonias españolas en las Américas. Se llevaba cadenas de oro, botones, anillos, collares y otras piezas de joyería que eran muy populares. El uso excesivo del oro por los nobles fue un resultado del poder imperial que tuvo España en las Américas en este punto de la historia porque tenía control sobre la tierra, por lo que extraía el oro y lo traía de regreso a España. Estar adornado en oro era una manera para que los nobles mostraran su estatus social y económico. La vestimenta era una manera de marcar estrictamente la división entre las clases sociales, especialmente entre la nobleza y la burguesía. Las tendencias de alta costura, que significa la vestimenta hecha de mano de material caro por los profesionales más experimentados, no se aplicaban a las clases bajas. Se vestían en su mayoría de ropa simple en marrones y blancos.

El Imperio Español comenzó a declinar a finales del siglo XVI, yendo a la quiebra por sus problemas económicos subyacentes de controlar demasiado tierra y pagar por guerras contra sus colonias que querían su independencia. La moda española se estancó debido a esto, ya que crear nuevas tendencias ya no era una prioridad para España, y así la moda europea comenzó a cambiar, dejando de estar fuertemente influenciada por la nobleza española. La moda en Francia e Inglaterra cambió a menudo en el siglo XVII y en los siglos por venir mientras que España se mantuvo el mismo. Francia se convirtió en el líder de la moda bajo el reinado de Luis XIV (1638-1715) cuando el país se centró en la producción de artículos de lujo. El estilo de rococó del siglo XVIII fue tan popular que incluso influyó la moda española, cuando parecía que nada más podía por tanto tiempo,

“European fashion was still dominated by the French. During the first years of the century no particular changes occurred, but the transition to rococo elegance and delicacy began with the accession of Louis XV in 1720. Even the Spanish succumbed to its charms.” (Condra, 76)

A pesar de esto, la moda española todavía estaba fuertemente influenciada por la iglesia católica y la cultura árabe; las mujeres se vestían muy modestamente en negro y se llevaban las mantillas y rosarios en las calles. Esto mostraba que a pesar de que España perdió tanto poder político, social, y económico a Francia e Inglaterra, su identidad cultural se mantuvo en tacto a través de la ropa. Pero sobre todo España no tuvo la atención en la moda como antes durante su reinado imperial en el siglo XVI debido a su impotencia política y económico.

El siglo XX era crucial para la moda española contemporánea porque contenía los diseñadores más famosos e influyentes en la industria que han expresado la historia, cultura, y identidad española a través de sus obras. En este siglo, los diseñadores se convirtieron en los vehículos principales de la moda española. En las primeras décadas, la alta costura se mantuvo sólo accesible a los elites, porque la ropa de listo para llevar todavía no existía, hasta que los años setenta cuando los avances tecnológicos permitieron a las marcas producir la ropa lista para llevar de precios asequibles para las masas.

Cristóbal Balenciaga (1895-1972) era y sigue siendo conocido nacional e internacionalmente como uno de los mejores diseñadores de moda de todos los tiempos. Nació en Getaria, España y trabajó en Madrid hasta la Guerra Civil en 1936. Lo que lo hizo único fue que era un sastre antes de convertirse en un diseñador de ropa. Balenciaga era un perfeccionista, y su estética se centraba en la simplicidad las líneas fluidas. Se mudó a Paris para escapar la guerra y encontró éxito internacional allí pero a pesar de trabajar a fuera de España por la mayoría de su carrera, nunca olvidó su cultura. De hecho, la cultura española sirvió como una gran fuente de inspiración para sus obras. Las cosas que le inspiraban Balenciaga eran el catolicismo, el flamenco, la tauromaquia, y la nobleza del Imperio Español. Sus diseños eran adaptaciones modernas de ropa histórica, que sirvieron como recordatorios a la sociedad española de tiempos mejores, cuando España fue exitosa y poderosa políticamente, económicamente, y socialmente, La carrera de Balenciaga tuvo lugar cuando el país tenía mucha inestabilidad política y cayó bajo la dictadura de Francisco Franco por casi cuarenta años, desde 1939 hasta 1975. Balenciaga recordó a España y

Europa de su historia, cultura, e identidad, y la mantuvo vivo en el ámbito internacional cuando España estaba cerrada del resto del mundo.

Una de sus obras más famosas, que le dio mucha atención y éxito internacional después de mudarse de España por la primera vez, fue el vestido de “Infanta” de 1939, inspirado por la pintura de 1656, “Las Meninas” de Diego Velázquez. El artista pintaba el corte del Rey Felipe IV durante el siglo XVII. Velázquez es una de las personas más importantes e influyentes de La Edad De Oro Española así que recrear un vestido inspirado por la pintura fue una gran referencia histórica y cultural hecha por Balenciaga. Mantuvo vivo el espíritu de la identidad española en tiempos de desesperación política, social y económica con la Guerra Civil y la dictadura bajo Francisco Franco. El artículo, “Cristóbal Balenciaga’s ‘Infanta’ Gown (1939): A Story About Origins?” elabora en esto por decir:

“Balenciaga’s reference to art history was interpreted as a personal quest for cultural identity and a nostalgic longing for its origins.... The Infanta dress had been designed by a ‘real Spaniard’ and as a result, it was interpreted as a manifestation of Balenciaga’s distinctive national identity and culture.... it was this kind of exoticism that, in 1939, sparked interest in his clientele and proved undoubtedly beneficial to the cultural and economic capital of an emerging designer in Paris.” (1)

Este vestido llamó atención a Balenciaga en Paris, y le ayudó ganar éxito por la primera vez fuera de España. Esta referencia al arte español histórico creó interés en los europeos porque el vestido fue hecho por un español. Si un no español había creado este vestido, tal vez no hubiera ganado tanta atención. El vestido de Infanta era más

que un vestido, era un símbolo de la grandeza que España era y seguía siendo, a pesar de las malas condiciones políticas, sociales e económicas de los principios del siglo XX.

Como se ha dicho anteriormente, Balenciaga se inspiraba por la iglesia católica, el flamenco, la tauromaquia, y la nobleza. El artículo “Balenciaga’s Spanish influenced designs” dice, “ Even after his success in Paris, he remained very deeply influenced by the culture and folklore from Spain, from the religious to the gypsies, flamencos and bullfighters.” (1). El Museo De Young en San Francisco, California tuvo una exhibición para él en 2011, que presentaba sus obras que eran inspiradas por la cultura española. Esta exhibición fue importante porque dio un buen resumen de las partes diferentes de la cultura española que influyeron a Balenciaga en su carrera. Es una manera fácil e interesante para que todos puedan entender mejor Balenciaga como diseñador y conocer la historia, cultura, y identidad española. Se presentan varios vestidos simples y negros, y también algunos con el verdugado que parecen a la vestimenta del corte madrileña durante el siglo XVI.

Otra parte de la exhibición muestra vestidos inspirados por las gitanas. El vestido de flamenco comenzó en el siglo XIX cuando las esposas gitanas acompañaron a sus maridos a las ferias del ganado. Los vestidos que llevaban eran tan hermosos que eventualmente las ferias se convirtieron todo sobre la moda. Hoy en día las ferias se llaman La Feria de Abril de Sevilla. El vestido de flamenco es una parte importante a la moda española porque representa la historia, la cultura, y la identidad de un grupo étnico que ha formado parte de la sociedad española (aunque han estado marginalizados).

El traje de luces se presenta en la exhibición también. Representa la tauromaquia, que es otra parte de la cultura española ha influenciado Balenciaga en su carrera. Se muestra una pintura de un torero en un estadio, destacando su traje y la réplica que hizo Balenciaga, que casi imita exactamente la pintura. Los detalles intrincados de la chaquetilla y los colores de rojo y oro se ven. Se dice en el artículo “Traditional Spanish Dress” sobre la historia del traje,

“Originally bullfighting was a privilege of the nobility during the 17th century. The designs of typical bullfighting costumes are still based on elegant styles from the 16th-18th century bullfighting fashion (commonly known as the Goyesca period). Typically, the richer coloured fabrics were more expensive, and this a sign of upper class for those who wore them.”

(2)

Durante siglos la tauromaquia ha sido una gran parte de la cultura española, y su moda ha sido una parte definitiva del deporte, similarmente al vestido de flamenco en conexión con la cultura gitana y su baile. Es otra forma en que los españoles podían mostrar su estatus social a través de la ropa, que ha sido una característica de la sociedad española históricamente desde el siglo XVI. Como el flamenco, la tauromaquia es algo que se asocia inmediatamente con España por los extranjeros. Produciendo diseños basados en su cultura mostraba el orgullo que aún tenía Balenciaga en su país a pesar de tener una carrera fuera de España.

Hacia el final del siglo XX fue cuando la política, sociedad, y cultura cambiaron drásticamente otra vez con el fin de la dictadura en 1975, que significaba la transición y el cambio a la democracia. Con la sociedad española por fin libre de tanta

represión en muchos aspectos diferentes, incluso creativos, un movimiento contracultural nació, se llamaba La Movida Madrileña. Se definía por el exceso y el extremo en todo y últimamente emergió una identidad nueva española. El artículo “Medio siglo de moda española” dice,

“La transición a la democracia, a mediados de los 80, da a luz un excelente momento creativo para la moda española, con algunas firmas reconocibles hoy para el gran público como Sybilla, Manuel Piña, Agatha Ruiz de la Prada o Francis Montesinos.” (3)

Agatha Ruiz de la Prada es diseñadora y noble española que nació en Madrid en 1960. Su carrera empezó en los años ochenta cuando por fin España se convirtió en una democracia y la economía mejoró mucho. Tuvo su primer desfile en 1981 cuando España estaba en su tiempo más revolucionario en términos de la política, sociedad, economía, y últimamente identidad. Ella es una de los diseñadores que facilitaron La Movida Madrileña, y era una representación de la Nueva España. De la Prada era conocida por su estética peculiar y excéntrico, y el uso excesivo de colores brillantes. Esta estética única representaba la nueva libertad que tenía la sociedad, especialmente los jóvenes, en experimentar e ir al extremo con todo, que ella hacía y sigue haciendo en sus diseños.

Manuel Piña era otro protagonista de La Movida Madrileña, que empezó su carrera en los años setenta cuando la moda comenzó a cambiar. Fue el primer diseñador español en crear ropa de listo para llevar en España. Su estética era representativa de la Movida porque de manera similar a Agatha Ruiz de la Prada, era algo menos normal; muy poco convencional y no tradicional que reflejaba los cambios

sociales y culturales que se estaban produciendo en España. Su estética se caracterizaba por las piezas extremadamente voluminosas, el uso de materiales extraños como plástico y metal, por ejemplo. El país hizo transición desde una dictadura extremadamente conservadora hasta una democracia, entonces la moda cambió en consecuencia. El artículo “Manuel Piña, Diseñador de Moda” dice,

“En los años 80 España era un país muy diferente al que es ahora, era un país despertado de un largo sueño gris y oscuro que se levantó una pujante libertad creativa, una explosión de energía artística con ganas de cambiar, de experimentar, sin límites, la belleza de la libertad y la ilusión de la democracia.” (1)

La moda española durante los años ochenta y noventa fue todo sobre la expresión de la nueva identidad española que volvió a ser fuertemente influenciada por culturas externas, ya que las puertas internacionales se abrieron después de la caída de la dictadura en 1975.

El aumento de la comunicación global en décadas recientes y el uso de los medios de comunicación social, han contribuido al aumento de la conciencia y el éxito internacional de la moda española en el siglo XXI. Los vehículos de la moda siguen a ser diseñadores y marcas, pero ahora también bloggers y modelos como Gala González, Ana Albadalejo, y Mirian Pérez. “Fast Fashion” ha sido muy importante a la industria de moda española porque permite a las masas experimentar los diseños de las pasarelas, pero a precios asequibles. Zara es una buena representación de esto. Aunque no se promueve ser una marca española, su éxito global ha llamado atención a España. Hay una homogeneidad en “fast fashion” porque las marcas como Zara y

H&M, tienen tiendas en países diferentes, entonces las personas a través del mundo están llevando estilos similares, que muestra cómo internacionalizada la industria se ha convertido hoy. Esto es un reflejo de lo mucho que España ha crecido y mejorado política, social, y económicamente desde 1975.

Las semanas de moda que se pasan cada año, Mercedes Benz Fashion Week Madrid, y Barcelona Bridal Fashion Week así como otros son oportunidades para los diseñadores y marcas españolas mostrar sus nuevas colecciones al mundo, lo que les inspira y lo que está cambiando en la moda. Manuel Piña y otros protagonistas de la Movida crearon la Semana de la Moda Cibeles Madrid, conocida hoy como la Mercedes Benz Fashion Week Madrid, en 1985. Dio a paso a las semanas de moda en España hoy, que son las proyecciones más grandes e importantes de la moda española cada año.

La moda española ha sido una representación de la historia, la cultura, y la identidad por muchos siglos. Las características principales de la moda que reconocemos hoy vienen del siglo XVI cuando España fue el imperio más poderoso en Europa. Este poder vino de los cambios políticos, sociales, y culturales que ocurrieron en el siglo XV con el casamiento de Isabel y Fernando. Puso España en el centro de atención en términos de la moda. Los monarcas católicos del siglo XVI crearon la tendencia “Vestir a la española”, fuertemente basada en la iglesia católica, y con influencia árabe. Durante este tiempo, vestir bien marcaba el estatus social de los élites; la distinción entre clases era muy importante. Hacia finales del siglo XVI el Imperio Español perdió sus colonias en Europa, que estancó la moda y permitió a Francia e Inglaterra avanzar en la moda porque eran ricos políticamente y

económicamente. Francia tenía la influencia más fuerte sobre la moda en Europa en el siglo XVII y después, afectando a España también, aunque la moda española se mantuvo diferentes del resto de Europa.

Cristóbal Balenciaga fue conocido como uno de los más grandes diseñadores de moda de todos los tiempos. Él mostraba la historia, la cultura, y la identidad española a través de sus diseños. El corte del siglo XVI, la iglesia católica, la cultura gitana, y la tauromaquia servían como fuentes de inspiración para él; Balenciaga recreaba adaptaciones modernos de estas cosas, que mantuvo vivo recuerdos felices de la historia y la cultura española durante tiempos difíciles. El fin de la dictadura en 1975 cambió la política, la sociedad, y la economía para España porque por fin estaba libre de la represión, que afectaba la moda. Agatha Ruiz de la Prada y Manuel Piña, diseñadores de la Movida Madrileña, representaban la nueva identidad española a través de sus estéticas excéntricos y ellos crearon la nueva industria de la moda española que conocemos hoy. El aumento de comunicación global en el siglo XXI ha promovido la moda española al mundo exterior, trayendo conciencia a la historia, la cultura, y la identidad española, a los que no la conocen, y trayendo una apreciación a los que la han vivido.

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360 Degree Feedback: A Personal Case Study

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Individuals naturally alter their behavior in different settings. 360-degree feedback surveys provide an overall measure of an individual's personal behavior styles. In this case study, the author completed two different 360-degree feedback instruments using the same participating raters. The results are measured qualitatively by this author's lived experience in reviewing the feedback and being debriefed on action plans. Quantitatively the scores are compared and contrasted in order to assess the pros and cons of each survey. These results were used to consider the individual's self-perspective and the participating raters' overall perspective of the individual. Conclusions are discussed. Each survey is evaluated for its usefulness and future directions are provided. Although this is a case study, the overall process can be generalized.

It is typical for individuals to believe that they behave in an ideal manner, a way in which they are helpful, productive, and positively affective (Sedikides & Strube, (1995), However, research indicates that individuals do not always acknowledge or are even aware of all their personal behavior styles (John & Robins, 1994); whereas others see the individual as they truly are (Zimmerman, Schindler, Klaus & Leising, 2017). To ensure effectiveness, both personal and professional, it is important individuals to understand their specific styles to increase facilitating behavioral styles and minimize hindering behavioral styles Bear, Cushenbery, London & Sherman, 2017).

Researchers at Human Synergistics have conducted 360-Degree Feedback studies pertaining to all areas of an organization, specifically at the individual level. The congruency of an individual's personal perspective vs colleagues' perspectives can be measured with these results. In a 1987 study conducted by Robert A. Cooke and colleagues (Cooke, Lafferty, & Rousseau, 1987), participants were provided with the *Life Styles Inventory* (LSI), and were asked to describe themselves. As well, the participants asked trusted others to describe them. The researchers examined the consistency between self-descriptions and descriptions by others. They found a high level of consistency between the descriptions done by the others; however, there were low correlations between the self-reports and the descriptions by others. They concluded that others perceive an individual in similar ways to each other but differently than the individual perceives themselves. Another, more recent, study done in 2017 involved using 360 Degree Feedback to evaluate the performance of teachers.

Many comparable studies have been conducted finding similar results. In 1993, two researchers, Manuel London and Richard W. Beatty, examined the status of 360-

Degree Feedback within organizations. They discussed its competitive advantages and clarified the differences between traditional performance appraisal and 360-Degree Feedback. The form was found to contain better content and more detailed feedback.

A more recent study from 2002 was done by Paul W. B. Atkins and Robert E. Wood (as well as Atkins, Wood & Rutgers, 2002) to determine the effectiveness and usefulness of 360-Degree Feedback. The study had two main aims, to examine the validity of ratings and to better understand the relationship between the individual's ratings and the participants' ratings. It was found while same-level employees tended to overestimate their poorly performing co-workers, supervisors underestimated the more modest recipients. These responses may result in unrealistic behavioral styles and is a factor that needs to be monitored and addressed. The authors suggest that the design of feedback formats must be matched to the requirements of the focal individual's tasks.

The overall feedback from a 360-degree feedback process can provide information about a person's performance and behavior, or the impact of their performance and behavior on others. This feedback is delivered to the focal individual to intentionally facilitate change and improvement. The feedback can be particularly useful in case studies because all information point directly to one individual. This individual can then acknowledge the behavioral styles and has the option to act. In the present case study, the author takes a closer look at the differing perceptions between herself and others using the *Life Styles Inventory*® (LSI) and ACUMEN Leadership *WorkStyles*® (LWS) 360-degree feedback instruments¹. The author used the LSI and LWS to determine her

¹ Life Styles Inventory and Acumen WorkStyles are trademarked and copyrighted © by Human Synergetics. All rights reserved.

overall behavioral and thinking styles as well as research self-congruency regarding personal behavior styles across differing situations. In addition, research was done for self-other congruency to confirm the low levels of congruency between self and others which the previously mentioned studies concluded.

Theoretical Approach

Both the LSI and LWS focus on 12 different styles that reflect an individual's thinking and behavioral styles. These 12 styles are defined by two underlying dimensions. The first dimension differentiates between a focus on people and a focus on tasks, and the second between higher order needs and security needs. These two dimensions provide the foundation for the styles and are divided into three general orientations labeled Constructive, Passive/Defensive, and Aggressive/Defensive (Cooke & Rousseau, 1983).² Table 1 lists the style names, descriptions and sample items. The twelve styles that make up these orientations are represented on a circumplex graph (Figure 1) where contiguous styles have high correlation and those styles that are noncontiguous have less correlation. Feedback consists of the circumplex where the Constructive styles are located at the top in blue (), and the Defensive styles near the bottom with Passive/Defensive in green and Aggressive/Defensive in red. Each of these styles are used to determine the individual's overall personal behavioral and thinking style.

² Style names, descriptions and items are copyrighted © and used by permission. Research and Development by: Robert A. Cooke, Ph.D. and J. Clayton Lafferty, Ph.D. From J. C. Lafferty (1986), *Life Styles Inventory Self-Development Guide*, Plymouth MI USA: Human Synergistics. All Rights Reserved.

Life Styles Inventory® (LSI)

The LSI was established to assist individuals in recognizing and understanding their thinking patterns and self-concept. Respondents can then use this information to change the way they think about themselves and others ultimately leading to an improvement in the effectiveness of their behavior (*Human Synergistics, 1989*). The inventory helps identify the beliefs, values, behaviors, and assumptions one may have. It distinguishes between thinking patterns that are either effective or ineffective. The inventory also provides a method for looking at strengths as well as self-defeating behaviors in hope that one will further improve upon what is good, and work to change what could be better. The twelve styles used in 360 Degree Feedback represent the various ways in which we choose to think about ourselves. These thinking styles influence our behavior in all areas of life.

The LSI Self-Development Guide is provided with the feedback results and consists of action-oriented suggestions and a detailed self-improvement plan to help make these changes. Using this guide can help contribute to understanding the self and becoming the person the individual desires to be through personal growth.

ACUMEN Leadership WorkStyles® (LWS)

The ACUMEN Leadership WorkStyles was developed to measure thinking and behavioral styles, and to determine personal styles that impact a manager's performance and effectiveness (*Human Synergistics, 2007*). LWS feedback addresses how these styles influence performance in managing tasks, people, conflict, and leading others. It

is administered to managers and organizational leaders of all levels and generalizes across a variety of industries (Leslie, 2013, p. 105).

The instrument provides an indication of how closely each thinking or behavioral style describes a manager, based on self-descriptions and descriptions by others. The LWS workbook provides a formalized Action Planning Process which contains a guide or evaluating and working with the results. It also outlines a personalized developmental plan for change.

Synthesis of LSI & LWS

Although the LSI and LWS use the same thinking and behavioral styles within the assessments and the instruments conclude similar results, different approaches are taken for each and the results are applied in alternative ways. These different approaches allow for the individual to be compared in a very overall basic manner using the LSI and in various settings, by different groups of people, etc. using the LWS. The reported scores can then be compared to further allow the individual to acknowledge his or her behavior style and determine if this style changes in differing circumstances.

Method

Participants

A sample of 18 participants were hand-chosen by the author. These participants, both men and women, ranged from ages 18-60 years old. The participants were broken into four separate groups, or breakouts. Breakout 1, "Family/Friends," consisted of the

author's family and close friends: 3 males and 3 females varying from all ages within the mentioned range. Breakout 2, "Classmates/Supervisors," included the author's current college classmates: 3 males and 2 females. Breakout 3, "Volleyball," was comprised of 5 college females from the author's high school volleyball team. Breakout 4, "T.L.," consisted of one male supervisor, age 52, who allowed his responses to be known.

Sampling Procedures

All participants/raters were chosen for their profound personal level of knowledge about the author. All information was collected online. Ethical standards and safety monitoring procedures were met. Participants were similarly approached by email which fully explained the questionnaire, study, and asked for their participation. Individual responses remained anonymous with the exception of T.L., who gave permission for an individual breakout

Sample size, Power, and Precision

Significant results require a minimum of 3 participants in each breakout. One participant was excluded from the "supervisor" breakout results for failure to complete the questionnaire. The "supervisor" breakout was further divided, moving one to the "Classmates/Supervisors" breakout. The other participant granted the author permission to see their responses, forming the individual breakout "T.L." (participant initials). Each breakout differs for the purpose of determining self-congruency across different circumstances.

Measures and Covariates

The LSI consists of two surveys: the LSI 1 and the LSI 2. Each inventory takes an average of 25 mins to complete. The LSI 1 is a self-assessment and contains 240 items regarding self-concepts. The LSI 2 is an assessment of the raters' perceptions of the individual. It uses the same 240 items as the LSI 1 and allows for only one group of participants. In this case study, the LSI 2 was completed by Breakout 1, "Family/Friends." At the end of each survey there are 13 Satisfaction Items, 10 Summary Perception Items, one question asked only of self, and four questions asked only of others. These items inquire about overall satisfaction with the individual's work/school organization and demographics.

The LWS consists of one survey containing 84 items focused on leadership qualities. It also contains a section for free-response comments. The survey is presented to the individual with a self-assessment. Other participants use the same survey to answer the same items based on their perceptions of the individual's leadership qualities.

Scoring and reporting of the LSI and LWS was done by the publisher of the instruments. To determine style scores for the LSI, each item is scored on a scale of 0 to 2 (0=unlike me, 1=like me sometimes, 2=like me most of the time), with 20 items per style. The scores for each style are added to determine the overall level of each style. The style score is in the High range if it is at or above the 75th percentile. The style score is in the Medium range if it is between the 25th and 75th percentiles. The style score is in the Low range if it is at or below the 25th percentile. After all styles are scored, an individual circumplex is formed. The circumplexes of the participants within the assigned breakout were averaged. This created a circumplex that represented the breakout's

response as a whole. The scoring for the LWS is like the LSI, however, each item is scored on a scale of 1 to 5 (1=not at all, 3=somewhat, 5=to a great extent), with six to nine items per style.

The Satisfaction Items (personal and work) are scored on a scale of 1 to 5 (1 – not at all satisfied, 5 – completely satisfied). The Summary Perception Items are scored on a semantic differential scale of 1 to 7 (1 – lowest possible score, 7 – highest possible score). The Satisfaction Items and Summary Perceptions were not incorporated into the circumplex, but rather put into their own feedback section. The comments from the LWS were not scored.

Procedure

Participants were placed into breakouts based on how the author knew and interacted with them. Each breakout required a minimum of three participants. All participants were aware of the conditions of this study. The LSI 1 & 2 surveys were administered to Breakout 1 and were completed online. The completed surveys were automatically sent to Human Synergetics International where they were scored by a professional analyst. The author was debriefed in person by the same individual at HSI who analyzed and scored the surveys. The author then compared and contrasted the results of the self-circumplex and Breakout 1's circumplex.

After the author received the results for the LSI, the LWS was administered to all 18 participants as well as the author. They were administered, completed, and immediately sent to a different HSI employee who analyzed and scored them. The author was debriefed virtually by the same individual who scored the breakouts. The author then

compared and contrasted the results of each breakout, as well as each breakout with the self-circumplex. In addition, the results of the LSI and LWS were also compared.

Results

Both the LSI and LWS contain a self-description profile and description-by-others profile. The description-by-others profile is an anonymous compilation of the raters scored assessments. These are presented in a circumplex and provide the overall results of how the individual and the raters view the individual. They also both have comparative profiles and spread of opinion sections. These allow the similarities and differences of how the individual rated themselves versus how the raters scored the individual.

The LSI feedback report, unlike the LWS, contains sections which provide quantified data. This includes self-description item by item and description-by-others item by item. These sections show each item in the survey and how the individual and the raters responded to each. Although this is not provided with the LWS, it can be requested at the individual's expense.

The LSI contains an LSI 1 & 2 summary grid. These sections allow the individual to visualize the similarities and differences between self and others' ratings. Satisfaction items and summary perceptions are also included in the LSI. These discuss the individual's overall life satisfaction and how they view themselves in comparison to others.

Previously mentioned, a separate self-development guide is included with the LSI feedback report. This guide provides additional, more detailed feedback that is specific to each of the twelve styles. A separate self-development guide is not included with the

LWS feedback report. However, the LWS feedback report does include customized suggestions for development based on the results. It provides a more detailed and customized section of how others perceive the individual.

The LWS allows for breakout profiles for up to six different categories of respondents. They are displayed separately to show how an individual can think and behave differently in varying situations. These breakouts are averaged into an overall breakout circumplex and represents the entire sample.

LSI

The author's Self-Description Profile (LSI 1) (Figure 2a) showed the strongest extension in the Aggressive/Defensive cluster. Her primary style is Competitive, scoring in the 94th percentile. Her secondary style is Perfectionistic with the resulting in the 92nd percentile. The Affiliative and Power styles both resulted in the 90th percentile. The remaining three Constructive styles, Self-Actualizing (85th percentile) Humanistic-Encouraging and Achievement (83rd percentile) scored in the high range. The Oppositional style was scored in the Medium range of the 72nd percentile. Her Passive/Defensive styles received the lowest four scores of the twelve styles. Avoidance (50th percentile) and Conventional (43rd percentile) scored in the medium range. Approval (20th percentile) and Dependent (10th percentile) resulted in the low range.

The Description-by-Others Profile (LSI 2) (Figure 2b) resulted with the strongest extensions in the Aggressive/Defensive cluster. Other's rated her primary style as Competitive scoring in the 90th percentile. Her perceived secondary style was

Achievement scoring in the 89th percentile. Perfectionistic (88th percentile), Self-Actualizing and Power (79th percentile) also scored in the High range. Oppositional (72nd percentile), Humanistic-Encouraging (55th percentile) and Affiliative (29th percentile) scored in the Medium range. All Passive/Defensive styles scored in the Low range (Avoidance and Conventional – 23rd percentile, Dependent – 5th percentile, and Approval – 4th percentile).

The Satisfaction Items showed little satisfaction for work-related items but much satisfaction for items regarding the author's personality. Satisfaction with current job/position and co-worker's capabilities and contributions received low scores (2). Work-related accomplishments, interpersonal relations with co-workers, and family life received middle ratings (3). Career prospects, organization, ability to manage stress, leisure activities, health, general state of mind, and personal growth and development received high ratings (5).

Summary perceptions lack congruency between self-scores and others' scores. The author perceives herself to be less effective at work (5) than others do (7). Others see the quality of the authors work relationships to be slightly higher (5.5) than the author (5). Others see the author to be much more relaxed and at ease (3) than the author (6). The author believes she does not fit in as well (3) with her organization as others do (5.5). Both the author and others perceive her to manage her time extremely well (7). The author does not think she is ready for a promotion of greater responsibility (3), while others think she should be promoted now (6.5). The author (3) and others (5) disagree does not believe her organization provides necessary support for her to do well. Both the author and others were truthful during this survey (7). The author

believes she would respond openly (7) to negative feedback while others believe she would be a little less open (5). Both the author and others see her to appear interested in improving herself (7). The author fully believes she would be able to change her behavior and adjust her personal style (7). Others think if the author is consistent in the way the author behaves at work (6.5). Others describe the author's level of satisfaction as somewhat satisfied (5). Others come into contact with this person almost every day (6.5). Others found it extremely easy to describe the author (6.5).

LWS

The author's Self Profile (Figure 3a) resulted in high scores for Power, Competitive, Perfectionistic, Achievement, and Self-Actualizing styles. Medium scores included Oppositional, Humanistic-Encouraging, and Approval Styles. The remaining styles (Affiliative, Conventional, Dependent, and Avoidance) received scores in the Low range.

The Description-by-Others Profile (Figure 3b) resulted in high scores for Self-Actualizing, Achievement, and Competitive styles. The Power, Humanistic-Encouraging, Perfectionistic, Conventional, Oppositional, and Affiliative styles received scores in the Medium range. The remaining styles (Dependent, Avoidance, and Approval) received scores in the Low range.

Breakout Profiles

Family/Friends (Figure 4a)

The styles with scores resulting in the High range include Competitive, Power, Achievement, Oppositional, Self-Actualizing, and Perfectionistic. Conventional and

Avoidance received scores in the Medium range. Humanistic-Encouraging, Affiliative, Dependent, and Approval resulted in the Low range of scores.

School Friends/Supervisors (Figure 4b)

The Low range of scores consisted of Avoidance and Approval. The remaining styles resulted in scores within the Medium range. No styles received scores in the High range.

Volleyball (Figure 4c)

All Constructive styles received scores in the High range. Conventional, Perfectionistic, Competitive, and Power styles received Medium range scores. The remaining four styles (Approval, Avoidance, Dependence, and Oppositional) resulted in scores in the Low range.

T.L. (Figure 4d)

The High range of scores included Self-Actualizing and Humanistic-Encouraging styles. Styles within the Medium range consisted of Achievement, Affiliative, Conventional, and Perfectionistic. The remaining styles (Approval, Dependence, Avoidance, Oppositional, Power, and Competitive) received scores in the Low range.

Free Response Comments

LWS participants were able to speak freely about the individual in the free response comments section where they could elaborate on specific behavior styles. (Table 2).

Discussion

LSI

Results point to the author's primary style as being Aggressive/Defensive. Both the author and Raters in Breakout 1 reported the author to be highly Aggressive/Defensive. On the other hand, results show that the author perceives herself to portray those styles more often than members of the breakouts experience. It was also reported that she exhibits Passive/Defensive styles much more sparingly. These styles had the lowest ratings of all styles for both the author and Breakout 1.

A thought-provoking visual of the Description-by-Others Profile is the way the styles decrease as they go from the Task-Orientation side of the circumplex to the People-Orientation side. This is shaped by the high levels of Aggressive/Defensive (Task-Orientation) styles and low levels of Passive/Defensive (People Orientation) styles. Others perceive the author to be very focused on tasks as opposed to people and their needs. This pattern is not found in the Self-Description Profile circumplex, meaning the author misinterprets her focus on people's needs.

The congruency between the author and the breakout was lacking most when it came to the Constructive styles. The Affiliative style had the largest misconception between the author and the raters. The author perceives herself as highly affiliative and scored that as her highest Constructive style. Members in Breakout 1 scored the Affiliative style as her lowest Constructive style. The author believes she is great at building relationships whereas others may tend to see her difficult to approach and hard to get to know. This blind spot was brought to the author's attention and she realized she

was only building satisfying relationships with the very few people she allowed herself to get to know.

The author and Breakout 1 scored the Competitive style as her number one style. It is possible that she exhibits behavior that convey she overestimates her abilities, gets upset over losing, and likes to be seen and noticed. The author rated her secondary style as Perfectionistic whereas Breakout 1 scored it as Achievement. This is a positive and interesting difference because although both styles are very similar, Perfectionistic is an Aggressive/Defensive style and Achievement is a Constructive style. The author perceives herself as impatient with own errors, tries hard to prove herself, and de-emphasizes her own feelings. Others recognize her for enjoying a challenge, thinking ahead, and setting her own goals.

The remaining styles had strong levels of congruency between the author and participants from Breakout 1.

The results of the LSI can possibly be supported by how the author scored the Satisfaction Items. The author gave satisfaction at work, work-related accomplishments, co-workers, and family life low scores. She gave career prospect (long-term), being organized, ability to manage stress, health, leisure activities, and personal growth and development high scores. These scores support the idea that the author is Task-Oriented as opposed to People-Oriented. Her current standings in life, being a college student, searching for a job, applying to master's programs also indicate goals that are driven less by people and more by tasks needed to be accomplished.

LWS

The highest scoring styles in the author's Self Profile was Aggressive/Defensive styles. Oppositional was the only Aggressive/Defensive style to score in the Medium range. The Constructive styles began in the High range and decreased as they veered toward the People-Oriented side of the circumplex. The author scored herself in the Medium range for the Approval style and Low in the remaining Passive/Defensive styles. These scores again depict an extremely Task-Oriented person.

The overall Description-by-Others Profile perceived the Aggressive/Defensive styles to be significantly lower, landing all but one (Competitive – high range) Aggressive/Defensive styles in the medium range. Constructive styles showed a significant amount of congruency between self and others. The Self-Actualizing and Humanistic-Encouraging styles received slightly higher scores than the author gave herself. The Affiliative style was scored in the Medium range where others perceive the author as much more affiliative when taking on a leadership role. Most of the differences occurred in the Passive/Defensive styles. The breakouts averaged a Medium score for the Conventional style while low scores for the remaining Passive/Defensive styles. The Description-by-Others circumplex depicted a slightly less Task-Oriented behavior style. It is the differences within each breakout that molded this depiction.

The Self Profile and Breakout 1 circumplexes were very similar regarding the Task-Oriented layout. The Constructive and Aggressive/Defensive styles showed significant congruency between the two. However, Breakout 1 showed dissimilarities in Passive/Defensive styles. Approval received a score in the Low range. Avoidance and Conventional styles were scored in the Medium range. These scores could mean that

when the author is in a leadership role, it is important that she acts appropriately. If she is unsure of what the appropriate action may be, it is possible she avoids the task until the right behavior is determined.

Breakout 2 consisting of School Friends and Higher-Level Managers is interesting because none of the styles scored in the High range. All but two Passive/Defensive styles (Approval and Avoidance) received scores in the medium range. The highest scores received was Self-Actualizing and Achievement. Her next highest was Competitive and Conventional. These additive styles might portray that the author realizes her potential when it comes to school, understands and follows directions to receive the best possible grade. Avoidance being one of the only styles to score in the low range supports the drive behind her educational success.

Breakout 3 consisting of Volleyball Teammates is specifically fascinating because of its significant levels of Constructive styles. All Constructive styles were scored extremely High, while both Defensive styles scored in the Medium and Low ranges. This can be supported by the authors level of satisfaction of leisure time activities (see *LSI satisfaction items*). The author has a strong passion for this particular activity and has fulfilled the leadership role of being team captain. This supports the idea of differing styles across different situations. Medium and Low scores for the Defensive styles support her level of impact regarding Constructive styles.

Breakout 4 involved the scores of one individual, T.L. This circumplex received its four highest scores in the Constructive styles. The Perfectionistic and Conventional Defensive styles received Medium scores. The remaining Defensive styles all received

scores in the Low range. T.L. is a leisure time activity supervisor for the author. Again, these high Constructive scores can be attributed to the authors enjoyment of this particular activity. This individual gave the author the lowest Aggressive/Defensive scores when compared to all other breakouts.

Some interesting similarities and differences across the breakouts are the similar levels of Achievement, Self-Actualizing, and Competitive Styles, with the exception of Breakout 4. These three styles were consistently scored to be some of the highest styles in the circumplexes. The Conventional style consistently received a Medium score across all Breakouts. Approval consistently received an extremely Low score across all breakouts. Affiliative consistently was scored higher than the author scored herself in this style. All breakouts scored the author lower in Power, Competitive, and Perfectionistic.

Free response comments from the respondents portray the author's ability to exhibit all styles. The phrases such as "hard work-er, -ing," "being less abrasive," "achieve," "help people succeed," "appropriate behaviors/actions," and "done correctly," support this idea. (For all comments see Table 2).

Personal Interpretation

When I first learned about the *Life Styles Inventory* I was very curious to learn how other people perceived me. I chose six participants that I felt know me and my behaviors very well. As I began answering these questions about myself, I became aware of my styles and recognized traits that I tend to display more frequently than others. Before my LSI debrief with my coworker, Sarah, I predicted what my self-description circumplex looked like. Based on my conscious awareness of how I act and react to certain

situations, I know that I tend to display Aggressive/Defensive styles. However, I also know that I am capable of displaying Constructive styles. Because I tend to act in Aggressive/Defense styles I thought my Passive/Defensive styles would be low.

Self-Description Profile

Upon opening my LSI Individual Feedback Report my prediction was confirmed. I saw high percentages of red and blue and very little green. I was not surprised by my own results in the least, as it was exactly what I predicted as I responded to each question in the LSI. My two highest styles were both Aggressive/Defensive, that is, Competitive and Perfectionistic. As I look at the many aspects of my life I can see where both of these styles play a major role. Looking at the LSI Self-Description Item-by-Item for the Competitive style, I rated myself high in being self-assertive, likes to compete, and having a strong need to win. For the Perfectionistic style I rated myself high in persistent/enduring, tries hard to prove self, and tries to be the best at things. My substantial sports background can be attributed to these high scoring styles as well as the pressures of school, work, and my parents who have always pushed for my success.

As for the high scoring Constructive styles, I scored myself highest in Affiliative and Self-Actualizing. Looking at the Item-by-Item scores, I believed I am Affiliative in ways such that I am trusted and liked by others very much, resulting in the fact that I am also good at interpersonal relations. I believed I am Self-Actualizing by rating myself high in the items of being a good leader, respected and well-thought-of, as well as being optimistic, realistic, and high personal integrity. I feel that when I am put in a situation, I tend to fall into or am given the role of the leader. By being able to have good relationships built on trust and respect it is easy for me to be well-thought-of and a good leader. My

high personal integrity leads me to carry myself in a confident manner, allowing others to trust me the way I trust myself.

When I looked at the Passive/Defensive styles, since all the styles had low scores, the extremely low scores are what caught my eye. I scored myself very low in both Approval and Dependent. Looking at the Item-by-Item scores, I scored myself low on the items of being vague/uncertain, upset if not accepted by others, and needs to be liked by everyone. For Dependent I rated myself low on items such as easily influenced by friends, reacts rather than initiates, and a good follower. I believed that I am not affected or do not display these personality styles. I attribute the low scores in the Passive/Defensive styles to my high scores in the Aggressive/Defensive and Constructive styles. By believe I possess high Aggressive/Defensive and constructive styles, these counteracting Passive/Defensive behaviors are rarely displayed.

Description-by-Others Profile

After going through my LSI Self-Description and understanding how I scored myself item-by-item, I then looked at my Description-by-Others Profile. I was somewhat shocked by the results. I saw similar Aggressive/Defensive styles, with only a very slight decrease in the red present on the circumplex. The Passive/Defensive styles were also similar yet having somewhat lower scores in all the styles. The most variance between the two circumplexes fell within the Constructive styles. These are not uncommon results. Individuals typically see themselves as much more Constructive than they really are. They also tend to de-emphasize their Aggressive/Defensive and Passive/Defensive styles.

My two strongest styles scored by others are Competitive and Achievement. Both me and my participants acknowledge my Competitive behavioral styles as being prominent. However, instead of scoring me high on the Perfectionistic styles as I did, others scored me high in being Achievement oriented. Although these styles tend to be very similar, Achievement is the more ideal style because it contains more Constructive items and behaviors as opposed to the Aggressive/Defensive Perfectionistic style. This was somewhat surprising to me because although I rated Achievement as above average, it was rated as my lowest Constructive style.

The biggest perceived difference in the Constructive styles category was my Affiliative style. While I view myself as being highly Affiliative and rated it as my strongest Constructive style, others scored this as my weakest Constructive style. Following this was another significant difference in the perspectives of the Humanistic-Encouraging style. I rated myself far above average in this style and others scored me as only average. This style includes being supportive of others, a popular leader, and develops others. As I mentioned earlier, I believed I was high in both Affiliative and Humanistic-Encouraging styles which give me the abilities to be a trustful leader who naturally enjoys teaching and encourages others. This feedback report has surprised me and made me see the reality that others do not perceive me in this way.

My Passive/Defensive styles as well as my Aggressive/Defensive styles were all scored slightly lower in the Description-by-Others Profile. This was not surprising to me. I acknowledge my defensive styles and understand how I behave when faced with a less than ideal situation. However, I was happy to learn that others do not view me quite as defensive as I view myself.

An overall view of the Description-by-Others circumplex shows a highly Task-Oriented individual as each category dwindles from high scores on the Task-Oriented side to the lower scores of the People-Oriented side of the circumplex. Again, I was very surprised by this because I always thought of myself as someone who had others' best interests in mind and someone that people looked up to and respected. This circumplex shows the opposite. People view me as someone that focuses on the tasks in front of me and will do anything in my power to accomplish those tasks while having no regard for others. Learning this about myself was difficult.

The lack of congruency within the summary perceptions can be explained by the author's perfectionistic behavior style. She perceives herself as being less effective at work because she holds high expectations of herself. This can also be attributed to the author's sense of relaxation. While others see her as being much more relaxed, the author perceives herself as being stressed and more tense. This perception can come into play by her own mental state playing a role, a factor that cannot be seen by others.

On the other hand, there is congruency about how this assessment was viewed. All participants reported being truthful and rated the author as being open to negative feedback. Raters agreed with the author in the fact that she is interested in improving herself.

The Self-Development Guide was included in the assessment and the author will utilize it in order to increase constructive and decrease defensive orientation behaviors. It is also useful in monitoring the varying behavior styles within different circumstances.

Conclusion

It has been found evident that individuals naturally alter their behavior in varying circumstances. Specifically, this individual used a 360-Degree Feedback survey to provide the overall measure of her personal behavior styles. Through this process, she discovered that a changing environment influences how she behaves. With the tools provided in the LSI and LWS she is now able to consciously acknowledge her behavior styles around other people and monitor them to better maintain a highly constructive orientation while diminishing defensive behavior styles.

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Table 1

Life Styles Inventory™ (LSI) Style Names, Descriptions, and Sample Items

Constructive: *Interacting with **people** and approaching **tasks** in self-enhancing ways that can help meet needs for satisfaction and growth.*

1:00 The **Humanistic-Encouraging** style reflects an interest in the growth and development of people, a high positive regard for them, and sensitivity to their needs. People with this style devote energy to counseling and coaching others, interact with others in a thoughtful and considerate way, and provide them with support and encouragement. *(encourages others, willing to take time with people)*

2:00 The **Affiliative** style reflects an interest in developing and sustaining pleasant relationships with others. People with this style share their thoughts and feelings with others, are friendly and cooperative, and make others feel like they are part of the team. *(cooperative, likes to include others in activities)*

11:00 The **Achievement** style is based on the need to attain high quality results on challenging projects, the belief that outcomes are linked to one's effort rather than chance, and the tendency to personally set challenging yet realistic goals. People exhibiting this style think ahead and plan, explore alternatives before acting, and learn from their mistakes. *(enjoys a challenge, sets own goals)*

12:00 The **Self-Actualizing** style is based on needs for personal growth, self-fulfillment, and the realization of one's potential. People exhibiting this style demonstrate a strong desire to learn and experience things, creative yet realistic thinking, and a balanced concern for people and tasks. *(optimistic & realistic, high personal integrity)*

Passive/Defensive: *Interacting with **people** in self-protective ways that may maintain rather than threaten personal **security**.*

3:00 The **Approval** style reflects a need to be accepted and a tendency to tie one's self-worth to being liked by others. People with this style try very hard to please others, make a good impression, and be agreeable or obedient. *(generous to a fault, agrees with everyone)*

4:00 The **Conventional** style reflects a preoccupation with conforming and "blending in" with the environment to avoid calling attention to oneself. People with this style tend to rely on established routines and procedures, prefer to maintain the *status quo*, and desire a secure and predictable work environment. *(thinks rules more important than ideas, conforming)*

5:00 The **Dependent** style reflects a need for self-protection coupled with the belief that one has little direct or personal control over important events. People who exhibit this style (possibly as a result of recent changes in their personal or work lives) allow others to make decisions for them, depend on others for help, and willingly obey orders. *(obeys too willingly, very respectful to superiors)*

6:00 The **Avoidance** style reflects apprehension, a strong need for self-protection, and a propensity to withdraw from threatening situations. People with this style “play it safe” and minimize risks, shy away from group activities and conversations, and react to situations in an indecisive or non-committal way. *(evasive, leaves decisions to others)*

Aggressive/Defensive: *Involve approaching tasks in self-promoting and forceful ways that may increase status and **security**.*

7:00 The **Oppositional** style reflects a need for security that manifests itself in a questioning, critical and even cynical manner. Though people exhibiting this style ask tough questions that can lead to better ideas, they might also emphasize even minor flaws, use criticism to gain attention, and blame others for their own mistakes. *(slow to forgive a wrong, opposes new ideas)*

8:00 The **Power** style reflects needs for prestige and influence and the tendency to equate self-worth with controlling others. People with strong tendencies along this style dictate (rather than guide) the actions of others, try to run everything themselves, and treat others in aggressive and forceful ways—which, ironically, limits their true influence. *(runs things by self, abrupt)*

9:00 The **Competitive** style is based on a need to protect one’s status by comparing oneself to others, outperforming them, and never appearing to lose. People with this style seek recognition and praise from others, view even non-competitive situations as a contest or challenge to “prove” themselves, and try to maintain a sense of superiority. *(overestimates ability, gets upset over losing)*

10:00 The **Perfectionistic** style is based on the need to attain flawless results, avoid failure, and involves the tendency to equate self-worth with the attainment of unreasonably high standards. People who exhibit this style are preoccupied with details, place excessive demands on themselves and others, and tend to show impatience, frustration, and indifference to the needs of others. *(de-emphasizes feelings, impatient with own errors)*

Research and Development by: Robert A. Cooke, Ph.D. and J. Clayton Lafferty, Ph.D. Style names, descriptions and items are copyrighted © and used by permission. From J. C. Lafferty (1986), *Life Styles Inventory Self-Development Guide*, Plymouth MI USA: Human Synergetics. All Rights Reserved.

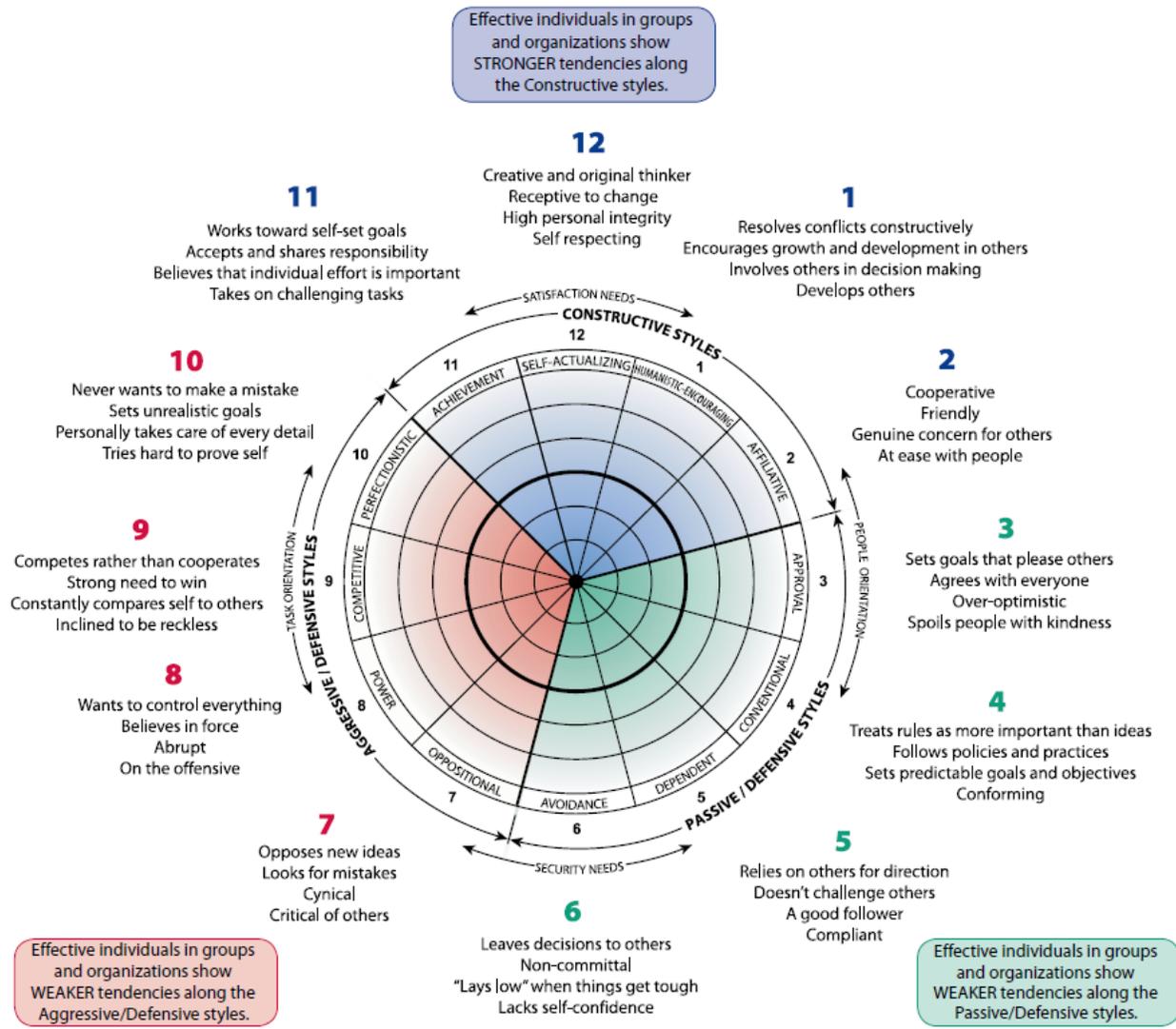


Figure 1: Circumplex model depicted by the Life Styles Inventory™ (LSI) and the Acumen Leadership WorkStyles. From *Life Styles Inventory* by J.C. Lafferty, 1973 - 2017, Human Synergistics. Circumplex Copyright 2017 by Human Synergistics, Inc. Reproduced by permission.

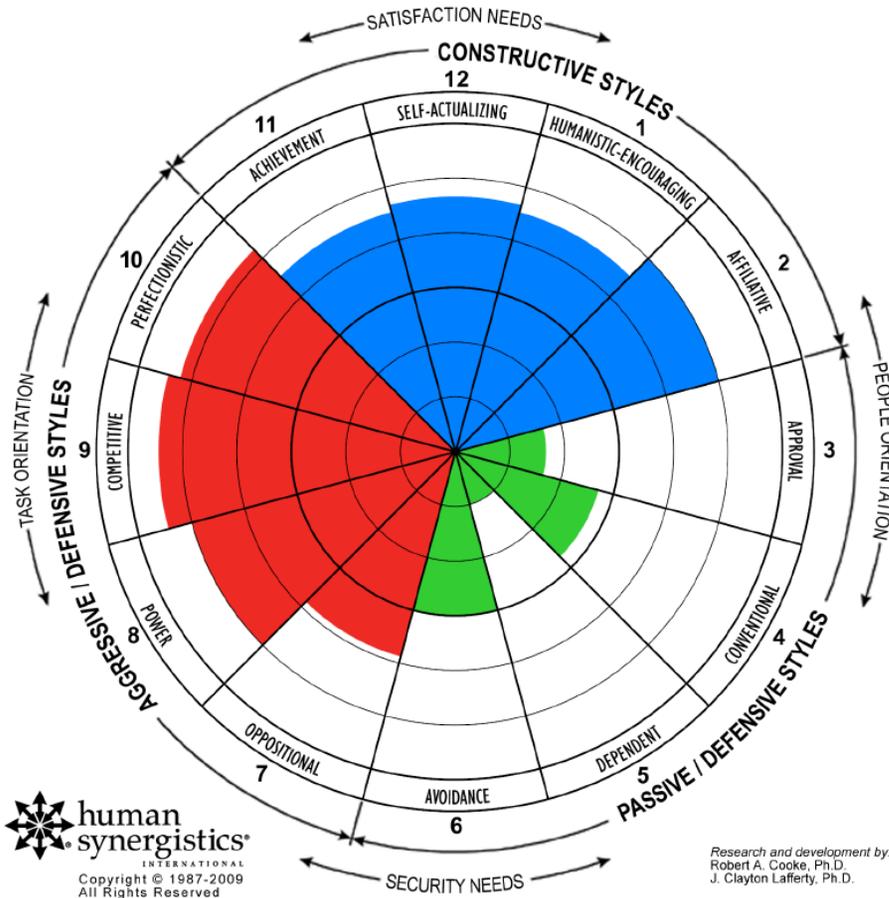


Figure 2a: *Life Styles Inventory* Self Description Profile (LSI1). From *Life Styles Inventory* by J.C. Lafferty, 1973 - 2017, Human Synergistics. Circumplex Copyright 2017 by Human Synergistics, Inc. Reproduced by permission.

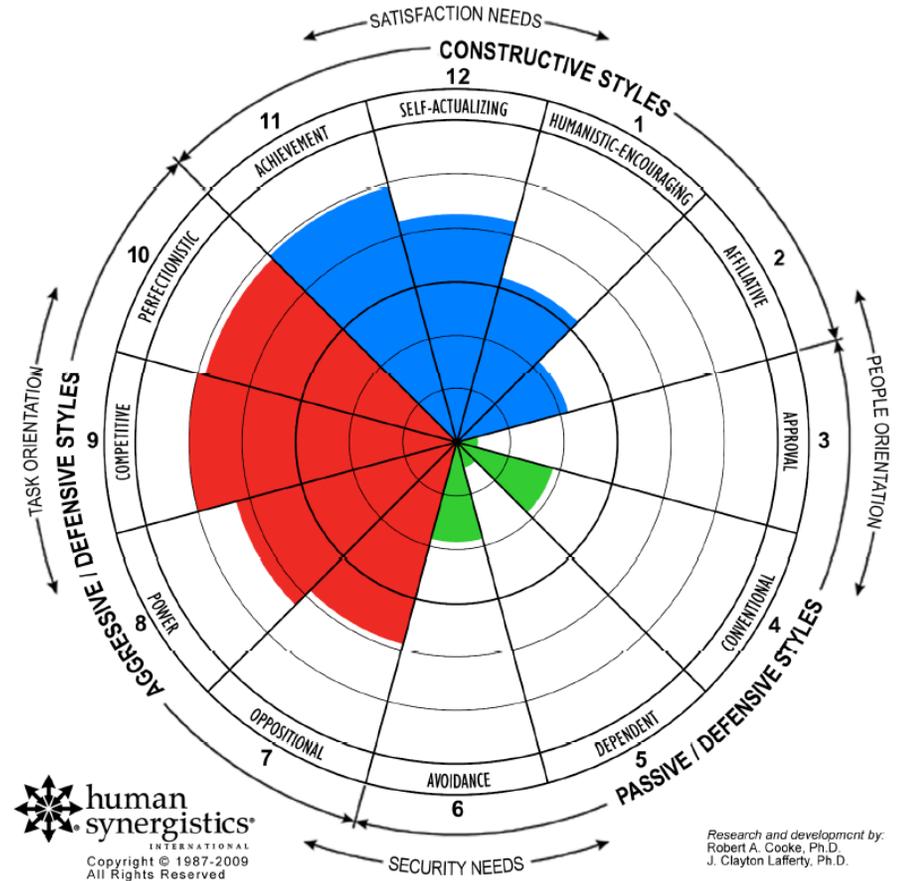


Figure 2b: *Life Styles Inventory* Description-by-Others Profile (LSI2). From *Life Styles Inventory* by J.C. Lafferty, 1973 - 2017, Human Synergistics. Circumplex Copyright 2017 by Human Synergistics, Inc. Reproduced by permission

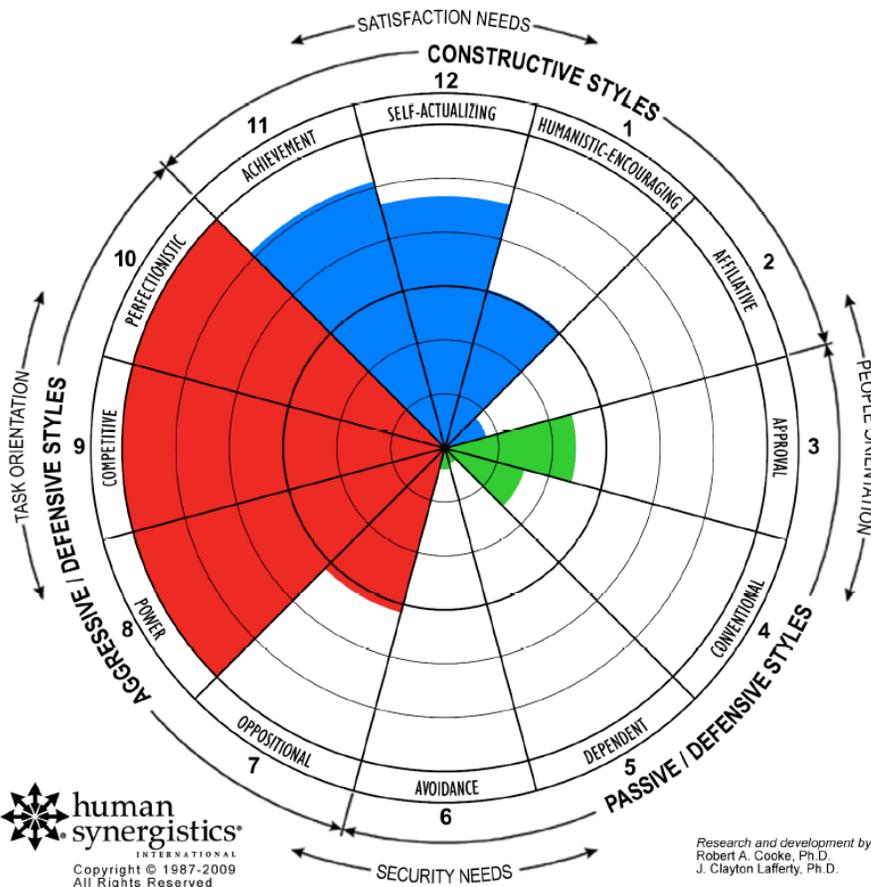


Figure 3a: ACUMEN Leadership WorkStyles Self Description Profile. From Human Synergistics (2007). ACUMEN Leadership WorkStyles Individual Feedback Report. Plymouth, MI: Human Synergistics, Inc. 2017, Human Synergistics. Circumplex Copyright 2017 by Human Synergistics, Inc. Reproduced by permission.

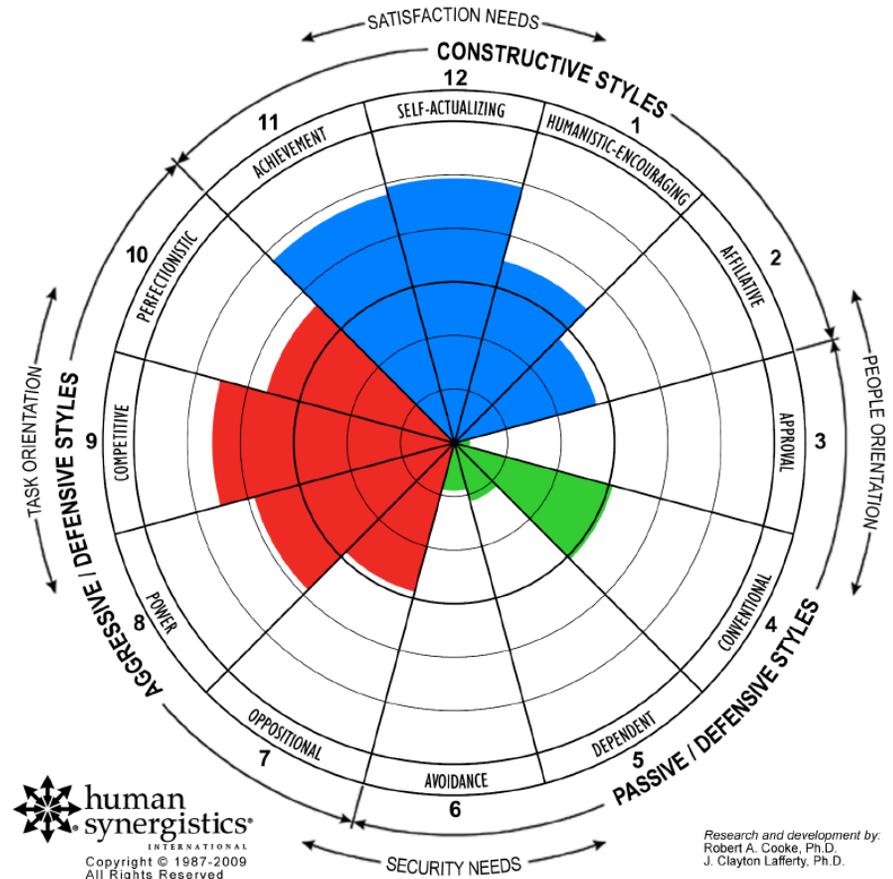


Figure 3b: ACUMEN Leadership WorkStyles Description-by-Others Profile. From Human Synergistics (2007). ACUMEN Leadership WorkStyles Individual Feedback Report. Plymouth, MI: Human Synergistics, Inc. 2017, Human Synergistics. Circumplex Copyright 2017 by Human Synergistics, Inc. Reproduced by permission.

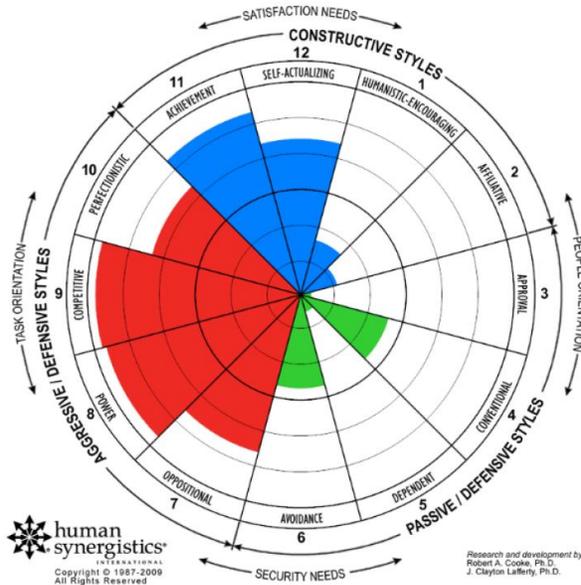


Figure 4a. Description by Family and Friends ACUMEN Leadership WorkStyles Profile.

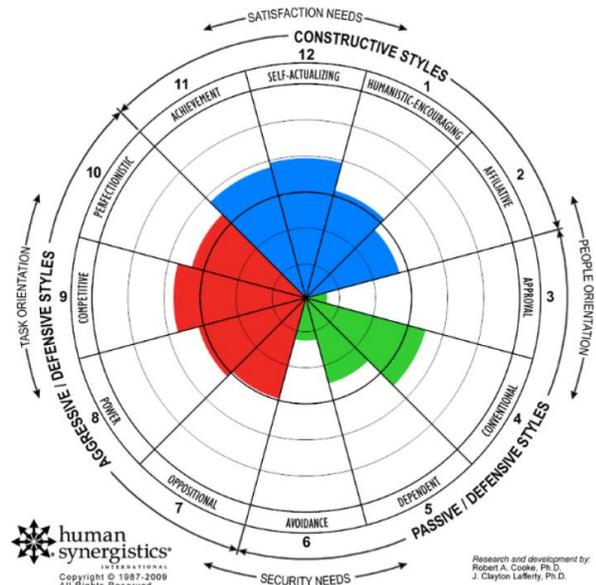


Figure 4b. Description by School Friends ACUMEN Leadership WorkStyles Profile.

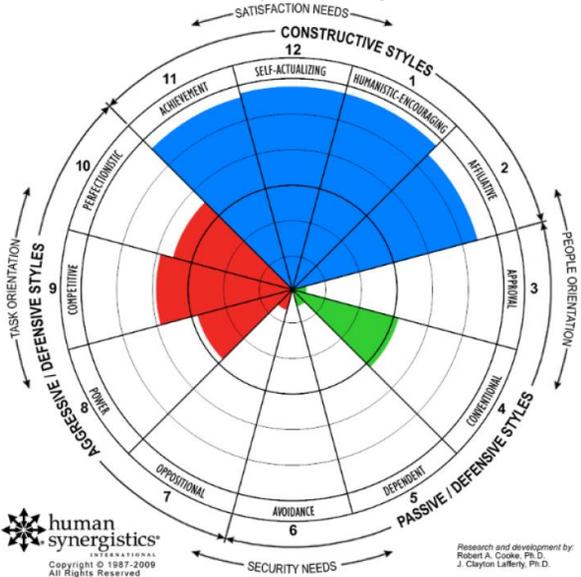


Figure 4c. Description by Volleyball Colleagues ACUMEN Leadership WorkStyles Profile.

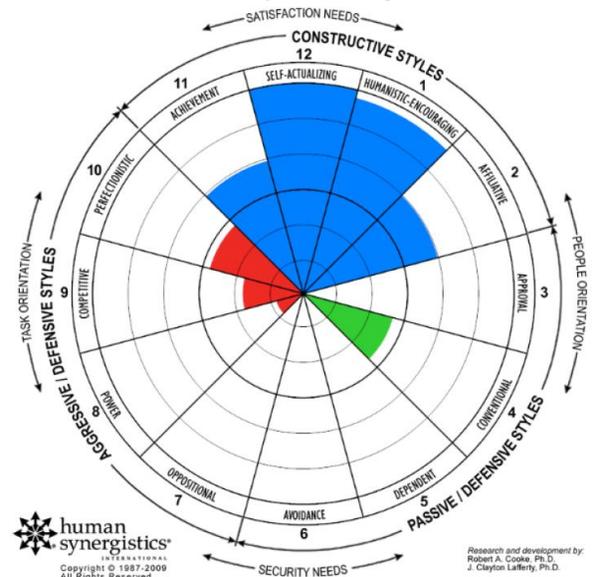


Figure 4c. Description by T.L. ACUMEN Leadership WorkStyles Profile.

From Human Synergistics (2007). ACUMEN Leadership WorkStyles Individual Feedback Report. Plymouth, MI: Human Synergistics, Inc. 2017, Human Synergistics. Circumplex Copyright 2017 by Human Synergistics, Inc. Reproduced by permission.

Table 2

Comments from Respondents.

You may dress and act too casually sometimes. It could be helpful to start out more alert and proper and edge your way to a more comfortable place from there.

Encourages others well

Very honest

Great person to ask for an opinion or advice on how to do something better

Works well with others

Keep working hard. Keep taking the extra time to help people succeed it really means something how hard you work to help people be the best at something.

Making sure everyone is learning at their own pace. Use different styles to teach others so they can learn their best way.

Melissa has a high level of confidence in her work and completes every task with great enthusiasm.

Melissa always likes to take initiative and can always develop a plan of action. She is very influential, however, will listen to others' ideas. She is a good leader and can work her way through any difficulty or problem. She could work on being less abrasive when listening to others ideas if she doesn't agree with them, though.

I believe that Melissa is very strong willed and has a great head on her shoulder. She is very passionate about what she wants and is not scared to go out and achieve it. Keep pushing forward and keep up the courage that you have!

Very good at guiding others in appropriate behaviors and encouraging them. Makes everyone feel comfortable and welcome

You're an all around amazing person

She is very optimistic and positive. She loves to teach others and is patient and understanding while still maintaining a leadership role and teaching effectively.

Melissa is a great leader, sets goals, and likes to help others. She will do anything to get the job done and will make sure everything is in order and done correctly.

Stay individually invest in every client

Consonant Cluster Development in Three-Year-Olds

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Meeting of Minds XXV

May 12, 2017

Abstract : The purpose of this study was to investigate the production of word-initial consonant clusters in the speech of typically developing three-year-olds. Previous research indicates that the acquisition of consonant clusters is a gradual process which may extend into the early school years (McLeod et. al, 2001a). Hence, it is important to understand what degree of development can be expected at various ages and what amount of individual variation can be observed among children. This study aimed to characterize consistencies and variation in production both within the speech of individual children and across individuals in the participant group. Participants were typically developing children between the ages of 2:10 and 3:11. Children's speech was elicited using a picture naming task, which included various consonant clusters in the word initial position (e.g., sky, train, plane). The accuracy of consonant cluster production as well as error types were analyzed.

1. Introduction

The acquisition of consonant cluster production has been the subject of substantial research. Compared to other areas of phonological development, the child's path to adult-like mastery of cluster production is fairly prolonged, often extending somewhat late into childhood (McLeod, van Doorn & Reed, 2001a). Although French (1989) reports that consonant cluster production may begin to emerge as early as the second year of life, children's early productions often differ substantially from standard adult forms and acquisition of some clusters may extend as late as 8 or 9 years of age (Smit, Hand, Freilinger, Bernthal, & Bird, 1990).

Many studies in the field of cluster development have focused on describing general trends in acquisition. For example, Smit et al. (1990), which investigated typically developing children between the ages of 3;0 and 9;0, reported the ages at which 75% and 90% of participants had acquired a range of word-initial consonant clusters. Other research exploring general trends has attempted to establish typical developmental stages along children's route to adult-like cluster production (e.g., Dyson & Paden 1983; Elbert & McReynolds 1979; Greenlee 1974). Detailed information about individuals' cluster acquisition can be found in diary studies of phonological development, such as those conducted by French (1989) and Smith (1973). Studies such as these contribute valuable data for understanding typical development. However, McLeod et al. (2001b) draw attention to the importance of examining the relationship between individual variability and group trends in normal cluster development:

Whilst information about universal developmental sequences and general trends is important to establish a general pattern of development against which children can be compared, differences among individuals cannot be ignored. It is in understanding the relationship between developmental general trends and individual learning and variability that a holistic view of development can be attained. (McLeod et al. 2001b, p.1147)

To address the dearth of research in this area, McLeod et al. (2001b) conducted a cross-sequential study of cluster development in 16 two-year-olds. Participants in the study were between 2;0 and 2;11 when the study began and were followed for six months. In general, the study found that individual and group performance improved with age. However, all participants continued to make errors as they neared and passed their third birthdays, and there was substantial developmental variation between individuals. Of the 17 participants observed at ages 3;0-3;1, 9 continued to produce less than 50% of consonant clusters correctly, while 5 of the 9 participants observed at ages 3;2-3;3 continued to produce less than 50% correctly. Because mastery of cluster production continues to develop beyond three years of age, there is a need for research of this type which focuses on older children.

In addition to variability between individuals, another aspect of cluster development which remains understudied is variation within individuals (McLeod et al. 2001b). McLeod et al. (2001b) present some information regarding intraparticipant variability when they discuss the gradual progression toward cluster mastery evidenced in their longitudinal data. For example, monthly observations of one participant (age 2;3-2;8) indicated that the child's realization of the initial /kl/ cluster in the word *clock(s)*

varied substantially not only across observations but also during the course of a single observation. The participant typically produced two to three different realizations of the initial cluster of this word in each session, and in three of the six sessions, incorrect productions cooccurred with production of the adult form. However, the authors do not further examine occurrences of variability in this child's speech, nor is the prevalence of within-participant variability analyzed across individuals in the study. Understanding normal speech variability during acquisition is clinically important because it has been argued that "variability ... may contribute to a profile that characterizes children with persistent phonological disorders" (Forrest, Elbert & Dinnsen 2000, p.530). Hence, the aim of the current study was to extend the research of McLeod et al. (2001b) to a group of 3-year-olds, focusing on group trends and individual differences in children's consonant cluster production during their fourth year. This study also aimed to expand upon previous work by examining the extent and nature of variability in cluster production within individuals.

2. Method

2.1. Participants

The participants were 14 typically developing children (6 boys, 8 girls) between 2;11 and 3;11, with a mean age of 3;5. None of the children had any known speech or hearing disorders. All participants came from English-speaking homes, although in the case of one participant Swedish was also spoken at home, and for two other participants Serbian was also spoken occasionally. Participants were recruited from the Oakland University Lowry Center for Early Childhood Education. The Lowry Center

divided the children into two classroom groups according to age at the beginning of the school year, one younger (toddler) and one older (preschool). Of the participants, 7 were from the toddler classroom and 7 were from the preschool classroom. These groups were used as an arbitrary division of participants into two age groups for the purposes of the statistical analysis.

2.2. Materials

The stimuli consisted of picturable English nouns and verbs with a biconsonantal cluster in word-initial position. Picturable words were also included for each of the thirteen components of the target clusters as simple onsets: /b, d, f, g, k, l, m, n, p, r, s, t, w/. The word-initial cluster types targeted were as follows: /s/+stop (/sk/, /sp/, /st/), /s/+nasal (/sm/ and /sn/), /s/+glide (/sw/), stop + liquid (/bl/, /br/, /dr/, /gl/, /gr/, /kl/, /kr/, /pl/, /pr/, /tr/), and fricative + liquid (/fl/, /fr/, /sl/). In order to enable consideration of participants' consistency in cluster production, three stimuli were included for each of the 19 target consonant clusters (e.g., *star*, *stick*, *stairs*). This also maximized the opportunity for each participant to produce at least one token for each target cluster.

2.3. Procedure

A picture-naming task was used to elicit the target words. Participants were shown each image and asked "What is this?" for nouns or "What is the [agent] doing?" for verbs. The goal was to elicit spontaneous productions in as many cases as possible. When this was unsuccessful, the researcher tried to elicit an imitation of the target word. Participants were digitally recorded using a Logitech H390 headset microphone. Each session took place at the childcare center from which participants were recruited and lasted 5-12 minutes.

2.4. Data Transcription and Analysis

Data were phonetically transcribed by the researcher, using the International Phonetic Alphabet (broad transcription). Some children spontaneously produced words which were not specifically elicited by the researcher but which contained one of the target word-initial clusters. These were transcribed and included in the data for analysis. Repeated words were also transcribed for analysis. However, in instances where repetition occurred because participants spontaneously corrected their own speech errors, only the corrected attempt was included for analysis. The number of attempted cluster tokens analyzed per participant ranged from 41 to 54 ($M = 50$).

Cluster productions were classified as correct if the component segments matched typical adult pronunciation. Otherwise, productions were classified as errors.

2.5. Statistical Analysis

Response measures from the data were the correct responses (binary) in different cluster attempts. Statistical analysis of correct response was based on generalized linear mixed-effects modeling using the `glmer` function in the `lme4` package for R (Bates & Macheler 2009). Fixed effects for the model were participant age (in months), participant gender (male vs. female) and classroom (toddler vs. preschool). Statistical significance was determined based on p-values calculated using the `summary` function in R.

3. Results

In total, 714 words containing word-initial consonant clusters were analyzed. Participants produced between 1.9% and 100.0% of attempted consonant clusters

correctly ($M: 57.0\%$, $SD: 31.4$). Thus, all participants produced at least some clusters correctly and one participant (ID 37FM) did not exhibit any incorrect cluster productions (See Figure 1). The model showed a significant main effect of gender [$z=2.4$, $p<0.05$] indicating that female participants' productions were more accurate than those of male participants. There was no significant main effect of age [$z=-0.35$, $p>0.5$] or classroom [$z=0.9$, $p>0.1$]. However, there was a significant interaction between gender and classroom [$z=-2.22$, $p<0.05$] such that girls in the preschool classroom performed better than girls in the toddler classroom, while the pattern was opposite for boys. Figure 1 presents a summary of the accuracy rate in cluster production for each participant.

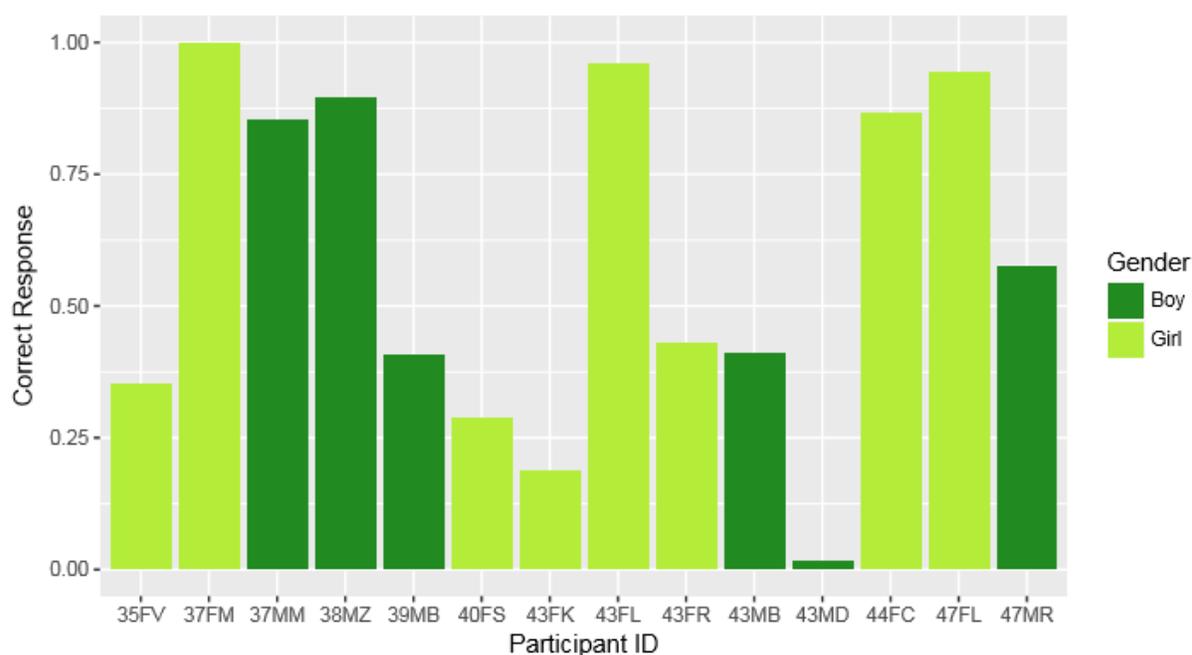


Figure 1: Rate of correct response for each participant. Participants are identified on the x-axis and listed according to age, ascending from left to right. The y-axis shows the percent of consonant clusters correct (PCCC) across all attempts.

The cluster classes which were most commonly produced correctly were /s/+nasal clusters (average 81.8% correct) and /s/+stop clusters (average 79.2% correct). Of the errors which did occur in these cluster types, the majority (83.3% of

/s/+nasal clusters; 75.0% of /s/+stop clusters) involved deletion of the initial /s/ segment. Average accuracy on /s/+w/ clusters was slightly lower (72.5% correct). In these clusters, /s/ deletion only accounted for 27.3% of all errors; the most common error type (63.6% of errors) involved substituting a different segment for /s/ (e.g., *swing* /swɪŋ/ produced as [fwɪŋ] or [wɪŋ]). Errors were most prevalent in clusters containing a liquid, with only a slight difference whether the first component was a stop (average 49.9% correct) or fricative (average 45.8% correct). The most prevalent error in such clusters was liquid gliding, which was observed in 89.2% of incorrect stop + liquid clusters and 78.6% of fricative + liquid clusters.

Consideration of error rates on individual target clusters revealed further patterns within the cluster classes already examined (see Figure 2). In obstruent-liquid clusters beginning with labial sounds (/b, p, f/), participants averaged a higher correct response rate when the liquid component was /l/ than when it was /r/. While this pattern held when the obstruent component was a velar sound (/g, k/), the difference in average correct response rate was much narrower for this class of sounds. And among obstruent-liquid clusters the average correct response rate was highest for sequences of an alveolar stop (/d, t/) plus /r/. Figure 2 presents a summary of the correct response rate across participants for each target cluster.

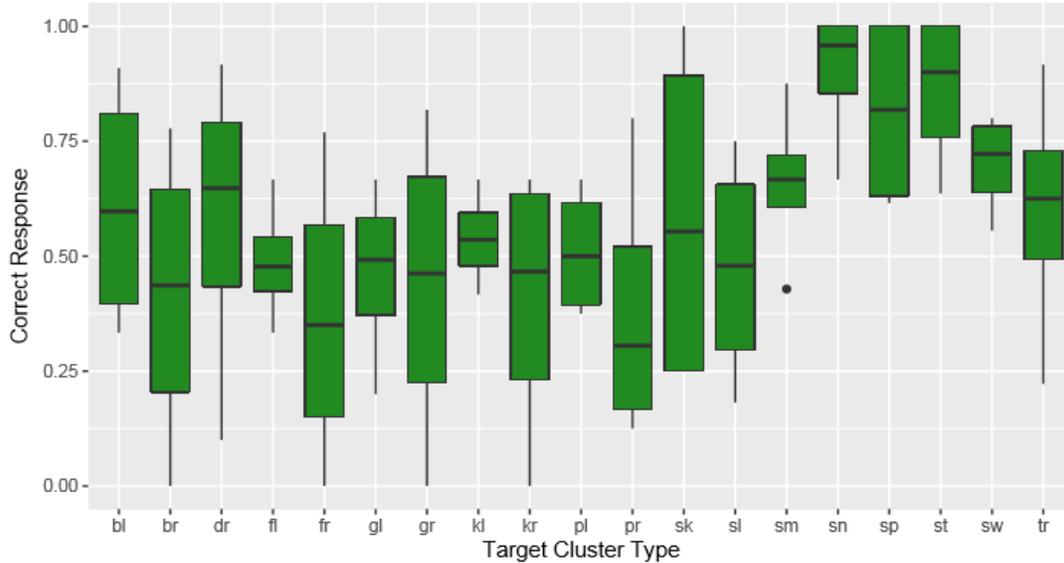


Figure 2: Correct response rate by cluster type across all participants. Clusters are identified on the x-axis. The y-axis shows the rate of correct response across all attempts for all participants.

Consideration of individuals' performance revealed notable variability among participants. Despite the general trend for girls' productions to be more accurate than those of boys, some of the most advanced participants (37MM, 38MZ) were male, performing at an accuracy rate >85%, while several female participants (40FS, 43FK) were among those with the lowest accuracy rates, performing at <30%. Variability was also evidenced in which clusters were produced correctly. Although /s/+stop and /s/+nasal clusters were the types that were most commonly correct, one participant (43MD) did not produce any of these clusters correctly, while he did produce the stop + liquid cluster /pl/ correctly.

While /s/ deletion was the typical error in /s/+stop and /s/+nasal clusters, and liquid gliding was typical in obstruent + liquid clusters, a wide range of other error types was also observed. Several participants deleted the second component of /s/ clusters (e.g., 44FC produced *skunk* /skʌŋk/ as [sʌŋk]; 47FL produced *smile* /smaɪl/ as [saɪl]). Some participants also deleted the second component in obstruent + liquid clusters

(e.g., 44FC and 43FK produced *fly* /flaɪ/ as [faɪ]); less commonly, some participants deleted the first component of such clusters (e.g., 37MM produced *fly* /flaɪ/ as [laɪ]). Participant 43FL substituted the liquid [r] for a target glide /w/, producing *swing* /swɪŋ/ as [srɪŋ]. Although her mastery of clusters was otherwise nearly adult-like, she also produced the target *glove* /glʌv/ as [blʌv].

Examining the productions of individual participants showed that not only was there considerable variation between children, there was also substantial variation within the speech of individual children. Out of the 14 participants, all but one – the child who made no cluster errors at all – demonstrated variable production of one or more clusters. Overall, inconsistency was moderately prevalent, with individual participants producing between 0 and 12 of the 19 target clusters variably ($M: 5.3$, $SD: 2.9$). The variation observed in the data was of two types. The first of these was inconsistently correct production, whereby a participant was capable of producing the correct form, but did not do so consistently. For example, one participant (38MZ) produced the target cluster /b/ in *black* correctly early in the session, but later pronounced the word as [læk], deleting the first component of the cluster. This was the most common type of variation, accounting for 59.5% of the observed variability. The second type of variation was inconsistent errors, whereby a participant always made errors in producing a given consonant cluster, but was not consistent in the error type made. For example, one participant (35FV) produced the target cluster /sl/ as [sw] in the word *slide*, as [fw] in *sled* and as [f] in *sleeping*. This accounted for 35.1% of the observed variation. In the remainder of cases participants made inconsistent errors but also produced the correct

form, as with the participant (37MM) who correctly produced the target /tr/ in *train*, but pronounced it as [fr] in *tree* and as [ʃr] in *truck*.

4. Discussion and Conclusions

The findings of the present study showed that this group of typically developing 3-year-olds exhibited a wide range of variability both between and within individuals. Overall, the data demonstrate that while some children could produce many clusters correctly, there was a wide range of variation; a few children performed in a nearly adult-like manner, while others produced very few clusters in an adult-like manner. From a cross-sectional perspective, participant age had no significant effect on performance. There was, however, a significant effect for gender, with female participants producing more accurate consonant clusters than male participants. Even when children were capable of producing a given cluster correctly, they were not always consistent in their production and continued to make errors. Most of their errors came from clusters involving the liquid consonants /l/ and /r/. Finally, typical error types could be identified for specific cluster classes, such as liquid gliding in obstruent + liquid clusters. However, just as with overall accuracy, there was also substantial variability in error types both between and within individuals. To summarize, the results of the present study indicate that mastery of consonant cluster production may be expected to extend beyond age 4;0, which is in accord with the findings of Smit et al. (1990). These results also indicate that wide variability may be expected both in the overall accuracy and the types of errors evidenced in 3-year-old children's cluster production.

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Fanning the Flames of Genius: The Relationship Between Grit and Creativity

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Generating novel solutions under stressful conditions typically requires endurance (grit) and insight into restructuring the components of a problem (creativity). The objectives of this study were to investigate the relationship between grit and creativity, and to explore how the effects of stress and personality traits may be correlated with these two constructs. Studies of grit revealed that perseverance of effort, a subscale of the construct, have shed light on grit's connection to personality as a predictor of performance (Rimfeld, Kovas, Dale, & Plomin, 2016). Recent studies have shifted toward how individual's use information rather than spontaneous creativity and the relationship to personality. The problem is then defining creative styles and how individuals use stimuli to solve a problem (Wang, Chen, Zhang, & Deng, 2016). To date, few studies have been conducted connecting grit to creativity directly, which is the aim of the present study. We tested 68 undergraduate students at the University of Michigan-Dearborn on the Grit (Grit-O), Short Grit (Grit-S) Scales and the Kaufman Domains of Creativity Scale (DoC). The objective was to investigate whether individuals who scored higher in creativity would also score high on grit. The Big Five Inventory (BFI) and the Perceived Stress Scale (PSS) were also implemented to explore individual differences. The applications of this research can be applicable to education by dissecting the nature of grit and creativity, exploring further how a student uses their innate creativity to achieve long-term educational and professional goals.

Introduction

In this study, the relationship between creativity and grit will be explored to determine a correlation between these two constructs within a university population. In this case, psychology students were recruited to test this relationship and the possible influences their educational background may have on their results. 'Creativity' as a construct is generally associated with the spontaneous generation of novel ideas in problem solving. That is, individual's ability to take known information to identify an effective means to solve a problem (Wang, Chen, Zhang, & Deng, 2017). The question is whether creativity is necessary for grit to be expressed.

The main objective for the present study was to explore to what extent creativity was positively correlated with grit. Two additional, hypotheses were also explored: (1) are personality traits highly correlated in relation to grit and creativity; and (2) what is the relationship between grit, creativity, and stress? As such, grit and creativity are expected to have high correlations with stress given their links to passion and personality.

Defining Creativity

While artistry is vital and closely associated with this construct, creativity can also be defined by focusing on how a person's way of thinking produces new information in academia based on what they have learned (Wang et al., 2017). With this understanding came consideration in how creativity is facilitated within individuals. Personality plays a key role in which creative style one would adopt; research indicates that, based on Jungian personality theory, Innovators would be high in Extroversion and Perceiving traits given their ability to gain energy from several sources of stimuli and

use it in a creative scenario, while those high in Feeling traits tended to be characterized more under the Adaptor label (Wang et al., 2017).

Another theory in the development of creativity is the Sense-Making Theory, stating that creativity is an amalgam of influences provided by information processing, motivation, knowledge, and ability (He, Yao, Wang, & Caughron, 2016). As such, this construct can be greatly influenced by factors that impact these four primary influences. Failure feedback, if one is intrinsically motivated, can help a person orient their creativity in a way that is beneficial, coming to a solution with the help of trial-and-error (He et al., 2016).

As modern psychology became more intertwined with neuroscience, the role of genetics in psychological constructs like creativity became more of a focus as well. One study used data collected from two German twin studies to analyze the role of genetics, environments, personality, and cognition in the expression of two forms of creativity: perceived creativity, typical creative thinking and behavior, and test creativity, task-related performance. Both types yielded correlations to 'openness'; however, while 'perceived creativity' was correlated with 'extraversion', researchers were unable to find heritability links to the expression of this trait, whereas 'creativity' was correlated with 'intelligence' (Kandler, Riemann, Angleitner, Spinath, Borkenau & Penke, 2016). In terms of heritability, the question then is, what is the 'creative identity' or the psychological fingerprint of a creative person?

Though researchers have yet to find a causal relationship, studies have shown that environment may play a more immediate role than genetics. When encouraged that they can become more creative through fostering a growth mindset, characterized by

the belief in the malleability of the mind, participants were able to come up with more creative responses, indicating an increase in creative potential (Hass, Katz-Buonincontro & Reiter-Palmon, 2016). While the study expresses that further research is needed, the results offer further credence to enrichment parenting styles.

Negative emotions are also found to be catalysts for creative development. Cortisol, a major stress hormone, is found to be high in those identified as creative; namely, subjects that display the ability to approach a problem in a novel way. Studies have since expanded upon this relationship, showing that cortisol's influence on working memory can help stimulate focus on certain aspects of a problem to provide novel solutions. However, too much cortisol results in promotion-focused negative emotions, such as frustration that result in a fixation on certain aspects that inhibits creativity (Yeh, Lai, Lin, & Sun, 2015). In addition, creativity can also be viewed as a source of stress itself, particularly with the involvement of extrinsic pressures that come with creative careers such as maintaining the quality of work or one's own reputation (Ceci & Kumar, 2016).

Defining Grit

To start, what distinguishes grit from self-control is timing. Self-control is defined as the ability to resist small temptations while grit is defined as passion for a goal sustained over years of tasks and tribulations to achieve it (Duckworth & Gross, 2014). With the advent of grit came a dissection of the concept as a whole. Two studies conducted in the Philippines indicated that perseverance of effort, a subscale of grit, was a better predictor of life satisfaction in addition to behavioral and emotional engagement than consistency of interest, another subscale (Datu, Valdez, & King,

2016). These results may be reflective of the passion that defines grit as one may not be interested in the entirety of a life pursuit but continue to persevere out of some internalized motivation.

Further evidence of this phenomenon comes into play with the inclusion of self-regulated learning (SRL). When accounting for SRL before perseverance, the factor acted as a strong predictor of achievement, indicating that engagement in SRL is necessary for maintaining perseverance and meeting goals. While perseverance was also consistent and adaptive for all indicators of SRL, consistency of interest was only associated with environment management and procrastination, showing no relation to achievement (Wolters & Hussain, 2015). The relationship between the two subscales of grit becomes apparent when one asks the question as to why a person pursues a goal: fulfillment. Studies have found perseverance is strongly associated with engagement whereas consistency was strongly associated with pleasure, indicating that differences in grit may be linked not only to what engages someone enough to pursue it but consistently brings pleasure in some form (Von Culin, Tsukayama, & Duckworth, 2014).

With this connection to pleasure came questions into grit's links to personality, particularly the strength of distinguishing grit from traditional Big Five traits (Extroversion, Openness, Conscientiousness, Agreeableness, and Neuroticism) to predict performance. One study explored this matter using data from the Twins Early Development Study to control for and explore the genetics of both constructs in relation scores on General Certificate of Secondary Education exams. As such, researchers found that while grit was moderately hereditary, it added very little to the prediction of achievement when other personality traits were controlled for (Rimfeld, Kovas, Dale, &

Plomin, 2016). If certain traits can predict performance in a similar manner as grit, it stands to reason that these traits are fully integrated into the construct as well. Thus, these findings lend credence to the idea that these long-term goals help form an identity.

Grit has also been shown to be useful in overcoming stress. Most studies have focused on grit and the prospect of achievement to be motivators in times of stress: one qualitative study explored the relationship between the two variables among adolescents in Hispanic-American communities, which found that the desire to achieve a long-term goal helped individuals push against racism and overcome challenges to make their families proud (O'Neal, Espino, Goldthrite, Morin, Weston, Hernandez, & Fuhrmann, 2016). Quantitative research is limited on the subject; however, studies have found that grit is negatively associated with stress, indicating the empirical data collected by the qualitative research may be verifiable as grittier individuals find coping mechanisms against stress to rationalize their perseverance (Meriac, Slifka, & LaBat, 2015).

Method

Participants

The hypothesis for this study is creativity will be positively correlated with grit. As such, the subject pool consisted of undergraduate psychology students to control for the goal variable intrinsic within grit research: since all students will be striving to meet the same goal, their degree, only their passions for said goal will vary and will be reflected by their entries in the scales. Participants were recruited through the University of

Michigan-Dearborn's Psychology Research Participation System (SONA) with no restrictions on the demographics of participants. Data collection sessions were scheduled for a half-hour and each participant was granted a half credit toward their introductory psychology class participation grade.

Grit Scale

Created by one of the pioneers of grit research, the Grit Scale has been used in a variety of studies with each corroborating its reliability and validity in multiple settings. The 12-Likert items are designed to measure grittiness in a manner that asks about distractibility of the subject in addition to their passion. Originally acting as a checklist (participants check their answer rather than circle a number), this will be reworked to making coding more efficient; as such, participants rate each statement on a scale of one to five (1=Strongly Disagree, 5=Strongly Agree) to determine how much the statement could relate to them (Duckworth, Peterson, Matthews, & Kelly, 2007). The test is then scored based on the average of the items with the highest score being five and the lowest being one.

Short Grit Scale

Created by the same author as the original scale, the Short Grit Scale is a condensed version that makes the separation between the two subscales—perseverance of effort and consistency of interest—more of the primary focus whereas the original focused on general grittiness. Thus, the eight item Likert scale contains many of the same questions with four new ones added in, but using it to help score the original can act as a supplement in determine scores for each subscale. Given its length and versatility, many find this version to be just as reliable and valid but also quick and

easy to implement into research (Datu et al., 2016). For this study, participants rate each statement on a scale of one to five (1=Strongly Disagree, 5=Strongly Agree) to remain consistent with the other scales. The test is then scored based on the average of the items with the highest score being five and the lowest being one, with repeated questions being cut for length.

Kaufman Domains of Creativity Scale

Used in previous studies for creativity, the Kaufman Domains of Creativity Scale has been validated by the researchers using it as a means of self-reporting multiple forms of creativity among subjects without relying on traditional definitions of the construct (McKay, Karwowski, & Kaufman, 2016). The 50 Likert items cover subscales entitled Everyday, Scholarly, Performance, Science, and the Arts to measure an individual's strength across disciplines that other scales may have ignored. As such, participants rate each question from one to five based on how creative they believe themselves to be in the specified scenario (1=Much Less Creative, 5=Much More Creative), allowing researchers to find correlations across variables (Kaufman, 2012). Originally, items are placed in order based on what subscale they represent, requiring randomization to avoid possible trends that may influence a participants' answers.

Big Five Inventory

Regarded as the most widely used personality measure, and the most accessible means of understanding it, the Big Five Inventory (BFI) has been used as a reliable and valid scale for decades (John, Naumann, & Soto, 2008). The 44 Likert items cover the five personality traits associated with the modern understanding of personality (Extraversion, Openness, Agreeableness, Conscientiousness, and Neuroticism) on a

scale of one to five based on how much the participant feels the statement could apply to them (1=Strongly Disagree, 5=Strongly Agree). As such, this makes the test ideal for correlational study as each trait can be individually analyzed with a variable or variables with ease (John, Donahue, & Kentle, 1991).

Perceived Stress Scale

When used as a two-dimensional model, the Perceived Stress Scale (PSS) is found to be a valid means of testing generalized stress within a person. Using 10 Likert scale items, the PSS tests for the prevalence of two stress related constructs (Perceived Stress and Coping Ability) with the items taking on a more reflective focus for the participant to assess these constructs in general on a scale of one to five (1=Never, 5=Very Often) (Nielsen, Ørnbøl, Vestergaard, Bech, Larsen, Larsgaard, & Christensen, 2016). With this reflective and generalized approach, the relationship between stress and creativity and grit can be assessed in a more personalized manner, no longer requiring individuals to react to a stressor.

Procedure

Participants were given the scales on paper and asked to fill out the demographic information, Grit and Short Grit Scales, and the Kaufman Domains of Creativity Scale completely and honestly. Participants had a half-hour to complete the scales, but were given credit upon their arrival to ensure they are adequately compensated for their participation. Once data collection was complete, the primary investigator entered the information from the scales into IBM SPSS Statistics 24 for analysis. Information collected from participants were summed to create the scale results. The Grit Scales required an added step as both required the scores to be averaged prior to analysis.

Certain items in all scales, with the exception of the Kaufman Domains of Creativity Scale, required to be reverse-scored to maintain the validity of the results. The Kaufman Scale required that the individual subscales of creativity to be scored separately, creating five independent scores ranging from 10, “uncreative,” to 50, “creative.”

Results

The results of the Kaufman Domains of Creativity Scale (Table 1) indicate that, on average, this sample generally adheres to Everyday Creativity ($m=40.44$, $SD=4.69$). This sample is also shown to be somewhat gritty ($m=2.74$, $SD=0.47$), with Perseverance of Effort ($m=3.20$, $SD=0.63$) and Consistency of Interest ($m=2.92$, $SD=0.38$) following suit. Though on a smaller scale than the Creativity Scale—ranging from 1, “low grit,” to 5, “high grit,”—the standard deviation of the grit factors reflects a similar consistency across all participants within the sample. Ergo, it can be assumed that the sample is fairly homogenous in terms of creativity and grit. To further establish the significance of the data within the population, one-tailed t-tests with a 95% Confidence Interval were also conducted to uncover the probability of the responses to both the Creativity and Grit Scales (Table 1). Given the degrees of freedom, the critical value was found to be approximately 1.67 ($df=67$); as such, all factors of creativity and grit were found to be significant though highly varied. Reflecting the descriptive statistics, Everyday Creativity was found to have the highest t-value ($t=71.18$, $p<0.001$), further elaborating on the significance of this average.

Table 1: Descriptive Statistics

	<i>N=68</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>T-Value</i>
<i>Everyday</i>		40.44	4.69	71.18

<i>Scholastic</i>	36.82	6.41	47.38
<i>Performance</i>	27.97	9.76	23.63
<i>Scientific</i>	26.26	7.89	27.46
<i>Artistic</i>	29.27	7.85	30.78
<i>Grit</i>	2.74	0.47	47.73
<i>Effort</i>	3.20	0.63	41.95
<i>Interest</i>	2.92	0.38	63.65

To determine the significance of the relationships between the constructs of creativity and grit, correlations were conducted with a 95% confidence interval (Table 2). Grit appears to only have a significant concurrent relationship with Performance Creativity ($r=0.29, p=0.009$) while correlations with Scientific ($r=0.09, p=0.23$) and Artistic Creativity ($r=0.07, p=0.28$) remain extremely weak and insignificant in terms of the population. Performance Creativity is also found to have a significant positive correlation with the subcategories of grit, including Perseverance of Effort ($r=0.33, p=0.003$) and Consistency of Interest ($r=0.22, p=0.03$) while Artistic Creativity is the only construct found to have a significant relationship with a subcategory of grit, in this case Perseverance of Effort ($r=0.23, p=0.03$). Thus, results indicate that the null hypothesis must be retained as an indication for the lack of significant relationships between grit and creativity in any form.

Table 2: Correlations, Grit v. Creativity

	<i>N=68</i>	<i>Everyday</i>	<i>Scholastic</i>	<i>Performance</i>	<i>Scientific</i>	<i>Artistic</i>
<i>Grit</i>	<i>r</i>	-0.17	-0.041	0.29	0.09	0.07
	<i>p</i>	0.09	0.37	0.009	0.23	0.28
<i>Effort</i>	<i>r</i>	0.01	0.15	0.33	0.17	0.23
	<i>p</i>	0.46	0.11	0.003	0.09	0.03
<i>Interest</i>	<i>r</i>	0.004	-0.08	0.22	-0.004	0.12
	<i>p</i>	0.49	0.27	0.03	0.49	0.17

As suggested by previous research, certain personality traits have been shown to be significantly correlated with elements of creativity and grit. To determine the significance of the relationships between the constructs of creativity and grit, correlations were conducted with a 95% confidence interval (Table 3). For instance, Extroversion ($r=0.35, p=0.002$), Agreeableness ($r=0.29, p=0.008$), Conscientiousness ($r=0.34, p=0.002$), and Openness ($r=0.33, p=0.003$) have highly significant positive correlations with Everyday Creativity. In addition, Openness is concurrently correlated with Scholastic ($r=0.49, p<0.001$), Performance ($r=0.68, p<0.001$), Scientific ($r=0.38, p=0.001$), and Artistic Creativity ($r=0.55, p<0.001$). Though not as significant, Scholastic Creativity is also correlated with Conscientiousness ($r=0.22, p=0.04$) and Performance Creativity is correlated with Neuroticism ($r=0.21, p=0.04$), a further reflection on the pervasive relationship between creativity and personality.

Table 3: Correlations, Personality v. Creativity

	N=68	Everyday	Scholastic	Performance	Scientific	Artistic
<i>Extroversion</i>	<i>r</i>	0.35	-0.008	0.16	0.02	0.12
	<i>p</i>	0.002	0.48	0.10	0.42	0.17
<i>Agreeable</i>	<i>r</i>	0.29	0.18	-0.01	0.04	-0.03
	<i>p</i>	0.008	0.07	0.47	0.38	0.41
<i>Conscientious</i>	<i>r</i>	0.34	0.22	-0.12	-0.02	0.03
	<i>p</i>	0.002	0.04	0.17	0.44	0.40
<i>Neuroticism</i>	<i>r</i>	-0.13	-0.01	0.21	-0.11	0.16
	<i>p</i>	0.15	0.46	0.04	0.19	0.10
<i>Open</i>	<i>r</i>	0.33	0.49	0.68	0.38	0.55
	<i>p</i>	0.003	0.00	0.00	0.001	0.00

Similar correlations were conducted between personality and grit as a means of identifying possible mediating factors for the relationship between creativity and grit (Table 4). Most significantly, Conscientiousness has a significant inverse relationship

with Grit ($r = -0.66, p < 0.001$) as well as with Perseverance of Effort ($r = -0.47, p < 0.001$) and Consistency of Interest ($r = -0.42, p < 0.001$). For the other traits of personality, all aspects of grit have weak and insignificant correlations outside of the 95% Confidence Interval.

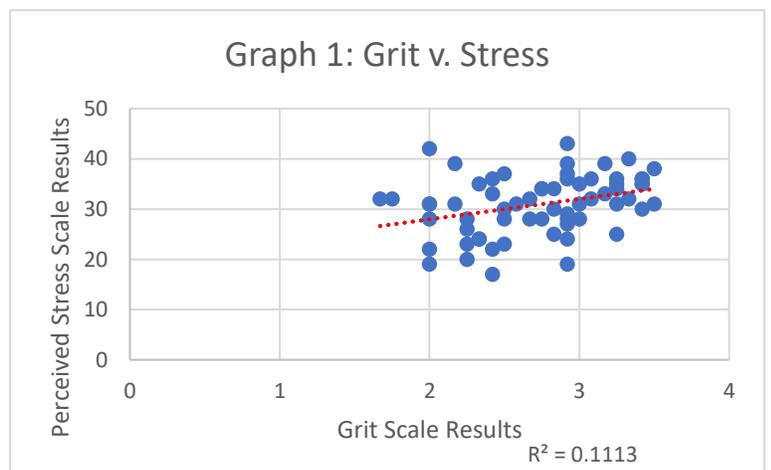
Table 4: Correlations, Grit v. Personality

	N=68	Extroversion	Agreeable	Conscientious	Neuroticism	Open
Grit	r	-0.10	-0.17	-0.66	0.24	0.11
	p	0.21	0.08	0.00	0.03	0.19
Effort	r	-0.07	-0.13	-0.47	0.18	0.22
	p	0.28	0.14	0.00	0.07	0.04
Interest	r	-0.09	0.10	-0.42	0.03	0.15
	p	0.22	0.22	0.00	0.42	0.11

As an added test, grit was correlated with stress along with its subcategories with a 95% Confidence Interval (Table 5). It is worth noting that, while most did complete the scales, invalid answers on the PSS resulted in a smaller population for results relating to stress ($N=64$). As a result, stress appears to have a highly significant positive correlation with grit ($r=0.33, p=0.004$) as well as Perseverance of Effort ($r=0.25, p=0.02$). The regression (Graph 1), however, indicates that this result may remain inconclusive given the distribution of the data and subsequently weak trend ($r^2=0.11$)

Table 5: Correlations, Grit v. Stress

	N=64	Grit	Effort	Interest
Stress	R	0.33	0.25	0.15
	P	0.004	0.02	0.12



Discussion

This study set out to investigate whether creativity was positively correlated with grit. In addition, secondary hypotheses were also explored: personality traits such as Extroversion and Openness were expected to have a high presence in individuals when acting as a mediator between grit and creativity.

As reflected by the descriptive statistics, the sample's background in psychology may have had an impact on its expression of creativity. Given the large average, it appears that the majority of the sample adheres to Everyday Creativity more so than other forms (Table 1). Essentially, this form of creativity suggests that students find ways to alleviate boredom or complete another mundane task rather than pursue traditional creative endeavors. In terms of the sample population, this could reflect the students' introspective view of the world as an understanding of one's own mind can help create solutions to problems that can yield unexpected benefits.

The descriptive statistics also indicate that the sample population identifies highly with grit and its subscales, Perseverance of Effort and Consistency of Interest (Table 1). General Grit is the lowest of the three, which may be a reflection on the state of mind of the participants: most are freshman that had just completed their first semester of college, remaining uncertain of their futures including if they should continue with school. As a result, this may reduce the overall average of the sample as this uncertainty would be a reflection on one's wavering sense of grit. This idea, however, would most likely not impact Perseverance of Effort or Consistency of Interest though. While an adherence to long-term goals takes discipline and confidence—two factors that can falter — 'Effort' and 'Interest' may be more intrinsic. Both are rooted in the

ability to go on following a failure or find something worthwhile in the goal despite setbacks (Datu et al., 2016). If these two factors do fuel grit, it may be why they act as motivators, and why they may be more pronounced than 'grit' itself in an uncertain population, much like the uncertainty that could characterize the population of freshmen within this sample.

Based on the correlations previously described, this sample lacks any significant connections between grit and creativity, retaining the null hypothesis for the population. However, the significant positive correlation between Performance Creativity and all aspects of grit hints that a more diverse sample may yield more significant results (Table 2). This direct relationship can also be understood as indicative of what drives a performer: sticking with a subject over a long period can be a grueling task as new prospects and new rejections work to undermine one's grit. Ergo, those who identify as being able to find not only excitement, but sustain their effort over an extended period may also find an intrinsic reward in the project as well.

This is further reflected in the significant positive correlation Performance Creativity (Table 3), Grit, and Perseverance of Effort (Table 4) have with Neuroticism, a personality trait defined by its high emotional intensity (John et al., 2008). Speculation from these results may reflect that these two constructs help to alleviate the intense negative emotions that are characteristic of highly neurotic people. Similar speculations can be made for the correlations between creativity and the personality traits specified in the BFI. Extroversion may help Everyday Creativity to flourish as large groups of friends allow for inspiration within this trait, providing more solutions to alleviate mundane issues. The same could be said for Openness and its relationship with both

Performance and Artistic Creativity, allowing inspiration to come from the exploration of new ideas and experiences rather than recycled through a closed person's filter.

However, the most significant finding for this data set is the inverse correlation between all aspects of grit and conscientiousness (Table 4). Both constructs can be related back to planning with grit reflecting long-term goals and conscientiousness indicating how detail oriented a person is. The strength and significance of this inverse relationship indicates that these different aspects may be more different than expected: when reviewing both scales, the questions asked for the Conscientious section of the BFI reflect more short-term planning, focusing on work ethic which is generally attributed to smaller projects (John et al., 1991). Both versions of the Grit Scale, however, question how one reacts in the face of an obstacle, wording it in a way that may prime the participant to think long-term (Duckworth et al., 2009). These ideas may be spiritually related, but this key difference between them may be the reason behind such a strong inverse relationship.

While this inverse correlation has seemingly never been directly explored, research indicates these findings may be common. Studies in predictors for exercise behavior found that grit was far more effective and accurate than Conscientiousness, showing signs as an important differentiator in the Transtheoretical Model for the concept (Reed, Pritchet, & Cutton, 2012). Perseverance of Effort and Consistency of Interest showed signs of a similar relationship as well, as subjects who reported regularly exercising scored high on the Short Grit Scale but no such correlation was found for Conscientiousness on the BFI (Reed, 2014). Adversely, a study conducted among high school students showed Conscientiousness to be a significant predictor of

Emotion Regulation Abilities, but not grit; researchers in this study went on to define why this may be the case, as Conscientiousness takes on a broader connotation to allow students to navigate life while grit is specified too much to be an effective predictor in this instance (Ivcevic & Brackett, 2014). As teenagers have limited life experience, it may be that the short-term nature of 'Conscientiousness' would be more impactful on them than grit. This may explain some of the results from the present study; grit and Conscientiousness are closely related but still distinct. This distinction warrants further exploration.

In addition, the significant positive correlation between Grit and Stress is contrary to some previously reported results found among Latin populations as it appears that grittier people tend to perceive more stress in their day-to-day lives. The qualitative study with Latinos indicated that Grit and Stress may have an inverse relationship; the subjects appeared to find comfort in their long-term goals (O'Neal et al., 2016). However, the present research with college students indicates the opposite. It appears that the most ambitious students tend to become stressed easily in pursuit of their short- and long-term goals. However, demographic differences may play a role in the differences of these results. Many of the participants in the Latino study were undocumented, and involved in their own struggles and that of their family (O'Neal et al., 2016). As such, it would not be surprising to find that the opportunities (available in the U.S.) for those immigrants would be a positive despite having to endure hardships, while those who may take such opportunities for granted would find those goals to be stressful. Thus, further exploration is warranted in order to further understand the

relationship between Grit and Stress as well as the environmental factors that could be influential.

The present study had some limitations, particularly the lack of diversity of the sample population. All 68 participants were psychology students enrolled in the same university, creating a homogeneous population with regard to experience. As such, the analysis was an initial investigation to develop an understanding of which variables may produce significant results, and provided a data set for comparisons with other populations. Further studies with participants in disciplines and professions other than psychology would provide insight into understanding the relationships in diverse populations, thereby gaining a more complete picture of how grit and creativity interact, as well as the impact personality and stress have on these constructs.

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Children's use of the Minimal Distance Principle and Canonical Sentence Strategy in Understanding Thematic Roles

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This study considers children's ability to understand thematic roles in various types of sentences with the use of the minimal distance principle (MDP) and the canonical sentence strategy (CSS). Thematic roles refer to how subject and object nouns relate to the verb (the "doer" of the verb and the "undergoer" of the verb) (Kim & Sells, 2007). MDP (Chomsky, 1969) is a linguistic processing strategy which says the implicit subject (= "doer") of the complement verb is the nearest noun preceding the verb (e.g., the subject of the verb "wash" is Bill, not Mary, in "Bill promises Mary to wash the dishes", but the MDP would predict Mary as the subject). CSS (Slobin & Bever, 1982) is a linguistic processing strategy which says the "doer" of the verb is the first noun (the noun before the verb) and the "undergoer" of the verb is the second noun (the noun after the verb) (e.g. the "doer" of "chase" in "The dog was chased by the cat" is cat, not dog, but the CSS would predict dog as the "doer").

Data was collected from 20 children under the age of five who were asked to identify the "doer" in various types of sentences ("promise" sentences, active and passive sentences). The data was analyzed comparing the correct and incorrect assignment of thematic roles in "promise" sentences and in active and passive sentences. A higher number of correct assignments of thematic roles in active sentences than in passive and "promise" sentences would provide support for the use of the MDP and the CSS.

Preliminary data suggests that this study could provide support for Chomsky (1969), which argues that children use the MDP to understand "promise" sentences, and also Baldie (1976), which argues that children use the CSS to understand passive sentences. The use of these strategies would cause children to assign the incorrect thematic roles to the nouns in these sentences.

1. Introduction

In this essay I will try to answer the following question: How do the canonical sentence strategy and the minimal distance principle (MDP) affect a child's understanding of thematic roles?

To begin, it is necessary here to define thematic roles. Thematic roles describe the relationship that nouns in a sentence have with the verb. I will be defining the three thematic roles that are most important in this paper: agent, experiencer, and theme. According to Kim and Sells (2007), the agent is "a participant which the meaning of the verb specifies as doing or causing something, possibly intentionally" (Kim & Sells, 2007, p. 44). For example, in the sentence "*The man drove the car*" the agent is "*the man*". He is the *doer* of the verb "*drove*". The experiencer is "a participant who is characterized as aware of something. Examples: subject of perception verbs like *feel, smell, hear, see, etc.*" (Kim & Sells, 2007, p. 44). For example, in the sentence "*The dog smelled the flowers*" the experiencer is "*the dog*". The theme is "a participant which is characterized as changing its position or condition, or as being in a state or position" (Kim & Sells, 2007, p. 45). For example, in the sentence "*The man pushed the rock*" the theme is "*the rock*". It is the *undergoer* of the verb "*pushed*".

When it comes to understanding thematic roles, adults often have no trouble. However, children do sometimes have trouble. There have been several strategies suggested for how children understand thematic roles. O'Grady (2005) argues that these strategies are the canonical sentence strategy and the minimal distance principle. He argues that in some cases when children misunderstand sentences, that

misunderstanding can be attributed to the failure of these two methods (O'Grady, 2005, p. 123, 127).

According to O'Grady (2005), the canonical sentence strategy is to “expect the first noun to be the doer and the second noun to be the undergoer” (p. 123). This strategy seems to be used by children to understand sentences with two nouns, one coming before the verb and one coming after. Take for example the sentence “*The cat chased the dog*”. The first noun “*the cat*” is the doer of the verb “*chased*” and the second noun “*the dog*” is the undergoer.

One exception to this rule is passive sentences. In passive sentences, the doer and the undergoer have switched positions in the sentence (O'Grady, 2005, p. 123). Therefore, the canonical sentence strategy would predict the incorrect agent in passive sentences and young children should have more trouble understanding passive sentences than active sentences.

This appears to be true with certain types of passives. Baldie (1976) conducted an experiment in three parts testing children's understanding of the passive and active sentences. In the first part he read a sentence and asked the child to point to the picture that it represented (Baldie, 1976). In the second part he showed a picture to the child and asked what was happening in the picture (Baldie, 1976). In the third part he asked child to repeat passive sentences back to him (Baldie, 1976).

He found that young children (under five) still had trouble comprehending reversible passive sentences as opposed to non-reversible passive sentences and agentless passive sentences (Baldie, 1976). According to Baldie (1976), the reversible passive is a sentence “where the passive subject and object can be interchanged while

still maintaining a syntactically and semantically acceptable construction” (p. 331). The non-reversible passive is a sentence “which will not tolerate the above manipulation” (Baldie, 1976, p. 331). The agentless passive is a sentence “that results from the deletion of the agent or passive object” (Baldie, 1976, p. 331).

The minimal distance principle says “to find a missing subject, look for the nearest previous noun” (O’Grady, 2005, p. 125). Take for example the sentence “*The girl walked to school*”. The first noun “*the girl*” is the subject of the verb “*walked*”. This principle seems to be used by children to understand sentences with two nouns, both of which come before the verb. For example, in the sentence “*Sarah told Bill to walk the dog*” the nearest previous noun from the verb is “*Bill*” and that noun is the subject of the verb “*walk*”.

One exception to this rule is “promise” sentences. In “promise” sentences, the agent is the first noun in the sentence, not the one immediately preceding the verb (O’Grady, 2005, p. 126). Therefore the MDP fails to predict the correct agent in “promise” sentences and young children should have trouble understanding those sentences. Chomsky (1969) did a famous experiment with children involving sentences with the verb “promise”. In her experiment, Chomsky (1969) told children promise sentences and asked them to act it out with dolls. For example she said “*Bozo promises Donald to do a somersault. Make him do it*” (Chomsky, 1969, p. 34). Some of the children consistently responded by making “*Donald*” do a somersault even though it should have been “*Bozo*” (Chomsky, 1969, p. 40). Here, the MDP predicts “*Donald*” as the agent which is what some of the children did. They had not figured out how to handle “promise” sentences as exceptions to the MDP (Chomsky, 1969, p. 38).

In my experiment I will test how children determine the correct thematic roles, providing support for both the MDP and the canonical sentence strategy. This experiment was modeled off of the experiments done by Chomsky and Baldie.

2. Experiment 1

In the first part of my experiment, I tested the MDP and the canonical sentence strategy in relation to the experiencer role. In half of the sentences used in this part of the experiment, the experiencer role could be determined using the MDP and the canonical sentence strategy. In the other half, the MDP and the canonical sentence strategy would predict the wrong noun to be the experiencer. If children use the MDP and the canonical sentence strategy, the number of correct responses they give when asked which noun is the experiencer should be higher when the MDP and the canonical sentence strategy correctly predict the experiencer role. The number of correct responses should be lower when the MDP and the canonical sentence strategy incorrectly predict the experiencer role.

2.1 Method

2.1.1 Participants

The participants in part 1 of my experiment were nine children (age 3 years 8 months to 5 years 3 months old, with an average age of 4.083 years old). The children were from the Lowry day care.

2.1.2 Materials

The materials were eight sentences in which one noun acted as the experiencer of the verb. Five of the sentences had a relative clause intervening between the experiencer and the verb and three of the sentences did not. The following is an

example sentence in which there is a relative clause coming in between the experiencer and the verb: “*The cat standing next to the dog is excited. Who is excited?*” The following is an example sentence in which the relative clause comes after the verb: “*The elephant feels angry when looking at the giraffe. Who feels angry?*”

The following is a list of the sentences used in the experiment.

- Without a relative clause intervening between the noun and the verb
 - The elephant feels angry when looking at the giraffe
 - The bird is shy when singing with the monkey
 - The boy is nervous when talking with his sister
- With a relative clause intervening between the noun and the verb
 - The horse standing near the cow is clean
 - The cat standing next to the dog is excited
 - The man holding hands with the woman is happy
 - The circle next to the square is green
 - The river behind the lake is cold

2.1.3 Procedure

The participants were asked who the experiencer was in each sentence. For example, the children were asked “*The man holding hands with the woman is happy. Who is happy?*”

2.2 Results

On average the children gave correct responses to sentences without the intervening clause 77.78% of the time and gave correct responses to the sentences with

the intervening clause 47.73% of the time. The following figure shows the results for each child.

Figure 1

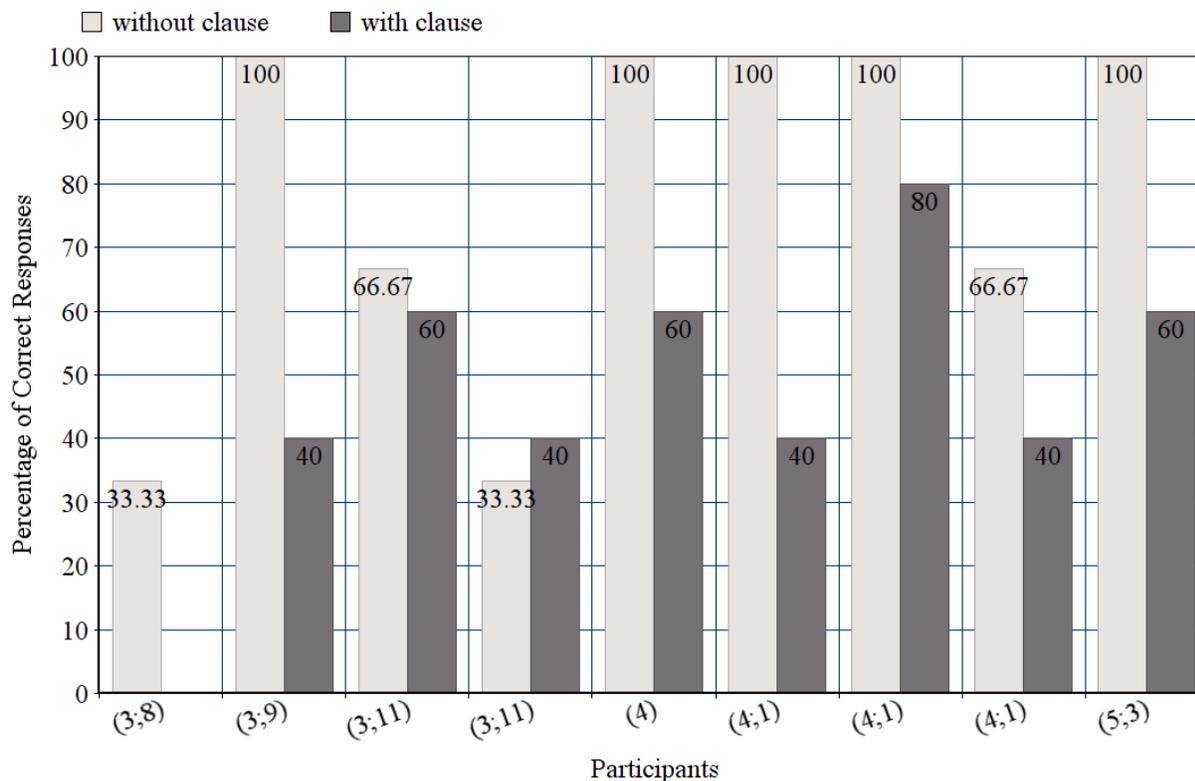


Figure 1: This figure shows the individual results for each child. The results are given as the percentage of correct responses. The participants are labelled by their age in (years; months).

This provides support for the MDP and the canonical sentence strategy. The children did better when the MDP and the canonical sentence strategy predicted the correct agent (the sentences without the intervening clause).

3. Experiment 2

In the second part of my experiment, I tested the canonical sentence strategy in relation to agents and themes in sentences in the passive voice and active voice. My

experiment was based on Baldie (1976). In some of the sentences (those told in the active voice) the agent could be determined using the canonical sentence strategy. In the other sentences, the canonical sentence strategy would fail to predict the correct agent. If children use the canonical sentence strategy to understand passive and active sentences, the number of correct responses they give when asked which noun is the agent should be higher when the canonical sentence strategy predicts the correct agent (active sentences). On the other hand, the number of correct responses should be lower when the canonical sentence strategy predicts the wrong noun to be the agent (passive sentences).

3.1 Method

3.1.1 Participants

The participants in part two of the experiment were eleven children from Lowry day care (age 3 years 5 months to 5 years 3 months old, with an average age of 3.90 months old).

3.1.2 Materials

The materials were eight sentences in which one noun acted as the agents of the verb and another acted as the theme. Five of the sentences were in the passive voice and three were in the active voice.

The following is a list of all the sentences used in this part of the experiment.

- Sentences in the active voice
 - The blue fish follows the red fish
 - The bird hides behind the snake
 - The tall man pokes the short man

- Sentences in the passive voice
 - The boy was kicked by the girl
 - The cat was painted by the dog
 - The lion was chased by the cheetah
 - The frog was washed by the bug
 - The girl is seen by the boy

3.1.3 Procedure

The participants were read each sentence and shown two pictures¹. One of the pictures represented nouns in the active voice and the other picture showed the nouns in the passive voice. Then they were asked which picture represents the sentence they were just read. For example the participants were told: “*The lion was chased by the cheetah.*” Then they were shown the following pictures and asked: “*picture 1 or 2?*”



3.2 Results

On average the children gave correct responses to sentences in the active voice 68.75% of the time. They gave correct responses to sentences in the passive voice 47.27% of the time. The following figure shows the results for each child.

¹ All of the pictures used in the experiment were taken from Google Images.

Figure 2

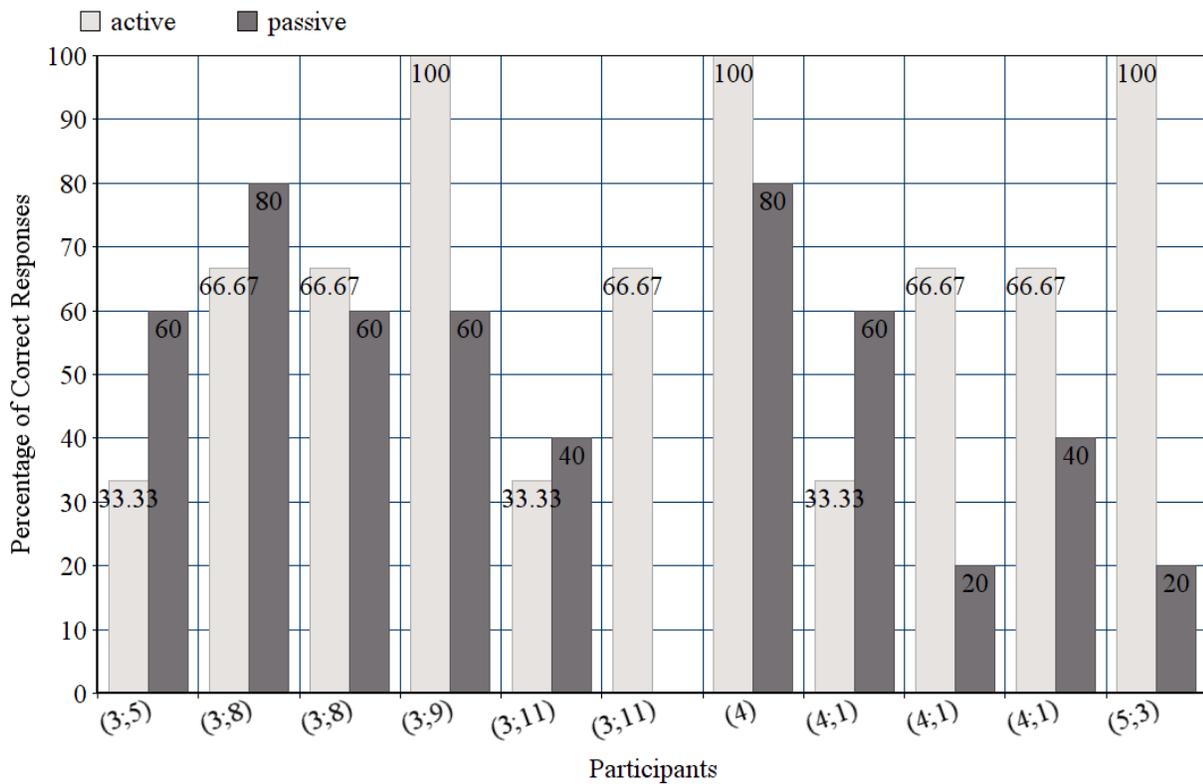


Figure 2: This figure shows the individual results for each child. The results are given as the percentage of correct responses. The participants are labelled by their age in (years; months).

This provides support for the canonical sentence strategy since the children were able to correctly guess the picture more often when the canonical sentence strategy predicted the correct agent.

4. Experiment 3

In the third part of my experiment, I tested the MDP in relation to the agent role. My experiment was modeled after Chomsky (1969). In this part of the experiment, the agent role could not be determined using the MDP. If children use the MDP, they would predict the incorrect agent role in the sentences they are shown.

4.1 Method

4.1.1 Participants

The participants in part three of this experiment were seven of the children from Lowry day care (age 3 years 9 months to 5 years 3 months old, with an average age of 4.00 years old).

4.1.2 Materials

The materials were five sentences in which one noun acted as the agent of the verb. All five sentences had one noun acting as the agent and another noun intervening between the agent and the verb.

The following is a list of the sentences used in this part of the experiment.

- John promises Mary to sweep the floor
- Ellen promises Mike to put away the toys
- Bill promises Annie to cook the eggs
- Lily promises Tom to eat the cookies
- Joe promises Alex to bake the cake

4.1.3 Procedure

The participants were read each sentence. They were then asked who did the action in the sentence. The following is an example sentence that the participants were asked: “*John promises Mary to sweep the floor. Who sweeps the floor?*”

4.2 Results

In this experiment, the children were not able to correctly answer all of the “promise” sentences. They were able to correctly respond 20% of the time.

The following figure shows the results for each child.

Figure 3

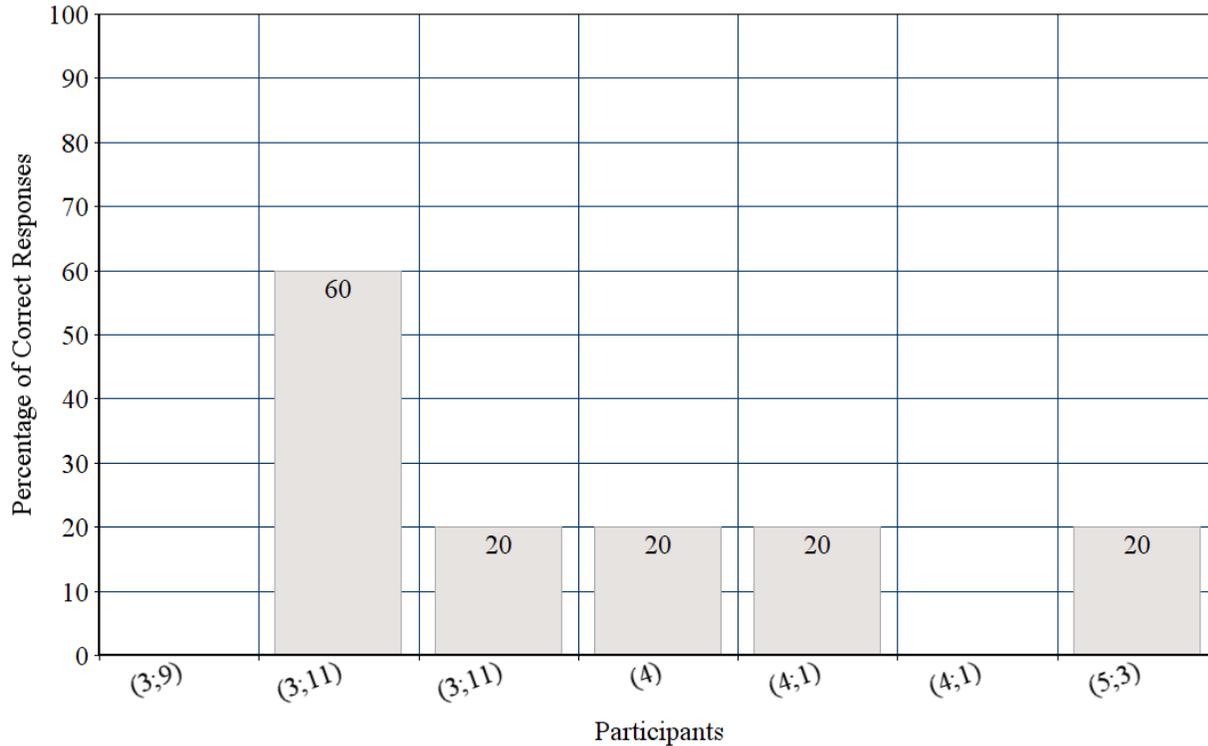


Figure 3: This figure shows the individual results for each child. The results are given as the percentage of correct responses. The participants are labelled by their age in (years; months).

This provides support for the MDP. The children were not able to guess the correct agent every time and the MDP did not predict the correct agent.

5. Conclusion

From my experiment it can be concluded that the MDP and the canonical sentence strategy did play a role in children's understanding of thematic roles. Overall, children showed a better understanding of sentences in which the MDP and the canonical sentence strategy predicted the correct response. The results of this experiment provide support for the results gained from the experiments conducted by

Chomsky in 1969 and by Baldie in 1976. It can also be concluded that by five years and three months old (the age of the oldest child participant), the children had not yet mastered thematic roles.

However, it is also evident that the MDP and the canonical sentence strategy cannot be the only factors that determine how a child understands a sentence. This is shown in experiments 1, 2, and 3 which show that children failed to understand some sentences in which the MDP and the canonical sentence strategy would predict the correct agent/experiencer. The children also correctly answered some questions in which the MDP and the canonical sentence strategy would have predicted the incorrect answers.

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Foreign Language Immersion in an Urban Context: A Culturally Responsive Approach to Teaching French to African American Kindergarten Students

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Abstract: *This article outlines culturally responsive approaches that are relevant to foreign language immersion in an African American kindergarten classroom in an urban context. The use of gestures, collaborative conversations, and auditory-visual approaches are discussed. The role of student motivation in the kindergarten foreign language immersion classroom is examined in relation to students' responses to the instructional approaches. The qualitative data was obtained through a preservice teacher classroom practicum experience and based on classroom observations and informal interviews with the classroom teacher.*

Keywords: *English as a Foreign Language (EFL), early French immersion (EFI), Foreign language immersion, second language learning, collaborative conversations, Auditory-Visual Strategies, Critical Race Theory (CRT), and Culturally Responsive Texts (CRT), Teaching Students about Race*

“One language sets you in a corridor for life. Two languages open every door along the way.” – Frank Smith

When I was in middle school, French was offered as an elective. Like most students, I took the semester-long class because it was exciting to learn a new language. However, the instruction was not continuous and concluded with my eighth-grade year.

More than fifteen years later, I started to seriously study the French language with the goal of becoming proficient in reading, writing, listening and speaking French. Foreign languages interest me because they can bridge people and communities and enhance learning.

As an African-American preservice teacher and a proponent of culturally responsive instruction, I endeavored to understand effective English Foreign Language (EFL) instruction in a kindergarten classroom in an urban context. To this end, my reading models and methods professor recommended a practicum placement in a French partial language immersion school because of its large minority student population, urban locale, and its offering of opportunities to observe culturally responsive literacy instructional practices in a kindergarten classroom.

During the course of my field research, the students in the classroom displayed high levels of motivation to read and speak in French. Furthermore, they were responsive to Madame Walker’s (a pseudonym) models and methods of instruction. As a form of analysis, field notes were coded for themes and relevant peer-reviewed articles were reviewed to understand possible approaches that enhance English Foreign Language instruction in an urban context.

Literature Review

There is strong evidence that suggests that culturally responsive language instructional approaches can be used to scaffold kindergarten student's English foreign language (EFL) learning in an urban context within the U.S. Second language learning research studies in the U.S. primarily focus on English Learners (EL) for English language acquisition with limited studies that focus on EFL learning. There are currently few bodies of research that explicitly focus on EFL immersion in urban communities in the United States. However, EFL immersion in urban communities is well documented outside of the U.S. The articles and literature selected for this project were based on their relevance to the specific research area of EFL and their usefulness in evaluating the data collected from the preservice teacher French partial language immersion classroom observations.

Several studies indicate a decline in overall English Foreign Language immersion schools in the United States (Pufahl & Rhodes, 2011; Stein-Smith, 2016). In 1997, 24% of U.S. public elementary schools offered foreign languages, compared to 15% of public elementary schools in 2008 (Pufahl & Rhodes, 2011). Of the number of EFL immersion schools in the U.S., EFL schools in urban communities are less in number due to the general decline in public school language program offerings, federal funding, EFL teacher shortages, feasibility, and district curriculum priorities (Pufahl & Rhodes, 2011). There is a continuous need for standards-based and culturally responsive EFL instruction, especially in urban communities where learners tend to learn in

environments that are socioeconomically and linguistically homogenous and access to EFL education has historically been limited due to racial segregation (Dorner, 2016).

With developmentally appropriate and culturally responsive EFL content and language instructional practices, research has shown that students in urban EFL schools can experience quality language learning outcomes (Cammarata & Tedick, 2012; Derman-Sparks & Olsen Edwards, 2015; Walsh & Yeoman, 1999). Yet, diverse cultural representations in EFL instructional content remains an area of concern in EFL curriculum programs (Cammarata & Tedick, 2012).

In conducting research in the French partial language immersion classroom, a Critical Race Theory (CRT) framework was used in the selection and implementation of a read-aloud with a culturally responsive text (CRT), *My Dream of Martin Luther King* by Faith Ringgold, to provide the African-American kindergarten students with visual representations of their culture and to expose them to informational text that reflected aspects of their history in the French language immersion classroom.

There is a lack of culturally responsive bilingual texts. Culturally responsive texts are defined as texts in which characters speak as the child and family speaks, resemble the child and family members in appearance, share the same gender, and experience similar circumstances (Freeman & Freeman, 2004). There are bodies of research that show exposure to diverse texts that reflects student's lived experiences are critical to students' classroom learning outcomes because they help students negotiate their identities. Furthermore, they provide students with accurate learning experiences about human differences and similarities and give them a foundation for resisting incorrect and

harmful messages about themselves and others (Brown & Brown, 2011; Derman-Sparks & Olsen Edwards, 2015; Ladson-Billings, 1994; Martell, 2016).

When engaging students in learning a foreign language in classrooms in urban contexts, a culturally responsive instructional approach that is supported by research is the use of functional and meaningful content and language that considers students' identity in implementing language instruction and building a classroom community (Cammarata & Tedick, 2012; Walsh & Yeoman, 1999). More specifically, research suggests that "learning occurs within a community of learners who learn through supported reciprocal interactions and dialogue where critical and creative language is used as an element of literacy. Additionally, research indicates that linguistically appropriate and authentic materials are not always available in French immersion; nor, because of language limitations, is the child's grasp of a concept always to ascertain" (Cammarata & Tedick, 2012; Walsh & Yeoman, 1999).

As with EFL schools in suburban and rural areas, the goals of early foreign language instruction in urban schools and classrooms are categorically the same. That includes, "1.) to increase learners' abilities to communicate through the written word and to enjoy the interpretive mode of communication; 2.) to facilitate the learners' acquisition of language from the use of personal inventions and approximations to the use of correct social conventions of the second language; and 3.) to help learners develop a self-efficacy in their own capacity to understand and use the written language" (Colville-Hall & O'Connor, 2006).

Foreign language instruction can be facilitated using a range of approaches; among these approaches are partial language immersion classrooms. As it relates to the classroom that was observed for the purpose of this research, a partial language immersion model is discussed, which is typically defined by foreign language instruction occurring for at least half of the daily classroom instructional time. There are several definitions of foreign language instruction. A definition that is considered by many researchers in the field as the most comprehensive description of foreign language learning comes from the work of Lyster (2007) who asserts that foreign language immersion is a form of bilingual education that aims for additive bilingualism by providing students with a sheltered classroom environment in which they receive at least half of their subject-matter instruction through the medium of a language that they are learning as a second, foreign, heritage, or indigenous language. In addition, they receive some instruction through their medium of [the majority language] in the community.

When students have high levels of motivation to learn a foreign language, research shows that this is an early indicator of future language learning success that can lead to the development of bilingualism and biliteracy; high academic achievement; and cross-cultural competency (Dorner, 2016; Stein-Smith, 2016).

There is a need for more documented preservice and in-service teacher experiences to inform the plans and implementation of daily classroom instruction in foreign language immersion classrooms, especially in urban contexts (Sleeter, 2001). EFL schools are underrepresented in urban communities and there is a continuous

need to more fully understand how instructional approaches enhance foreign language learning. The observations and findings presented in this article represents an important aspect of English foreign language immersion research that comes from an African-American preservice teacher's perspective and takes place in an urban context.

Methodology

Findings highlighted in this article are part of a foreign language immersion research project centered on a French partial language immersion kindergarten classroom at Amherst Foreign Language Immersion Elementary School (a pseudonym). The K-8 school was located in a large Midwestern city, and served approximately 690 students, with nearly 65% of students receiving free or reduced lunch. The students were admitted to the school based on their performance on a standardized admissions exam and interview.

Female students accounted for 58% of the school's population, whereas male students accounted for 42% of students. More than 90% of the school's student population was African-American with less than 2% Hispanic and Caucasian students. The kindergarten French language immersion classroom was comprised of 23 African-American students. Of that number, 10 students were boys and 13 students were girls, a ratio indicative of the overall demographics of the school.

Madame Walker (a pseudonym), the student's teacher, was of an Irish, German, and African-American background and identified as biracial. She had taken French in high school and in college. She had taught in the kindergarten French classroom for five

years. Prior to her French classroom teaching experience, she taught in urban communities for 32 years, with 25 of those years teaching in K-2 grades.

I observed Madame Walker's classroom one-day per week for three hours and 30 minutes, over the span of 13 weeks, from September to December 2016. In addition to observations, I worked alongside her to support students language learning during daily literacy blocks in the classroom.

I led two classroom lessons in the course of the research project that centered on one narrative mentor text and one expository mentor text: *The Day the Crayons Quit* by Drew Daywalt and *My Dream of Martin Luther King* by Faith Ringgold. Students were engaged in the use of the French language before, during, and after the reading of *The Day the Crayons Quit* through the use of French names of colors mentioned in the text.

Madame Walker structured her classroom to facilitate reading, writing, listening, speaking, mathematics, science, and leadership learning experiences in French and English. During approximately 50% of the classroom instructional time, students used Standard American English to communicate and exchange ideas with their peers and teacher.

Madame Walker's classroom integrated French into daily classroom transitions and afforded students explicit opportunities to listen to and practice speaking French in language and numeracy learning experiences that were aligned with Common Core State Standards (CCSS) and classroom content and language objectives.

Formal assessments were administered in English for letter and number recognition during the observation period. Informal assessments were administered to

evaluate students' French language acquisition. Madame Walker indicated that formal French language assessments were not a focal point in the kindergarten classroom. Rather, French instruction in the classroom was centered on listening, speaking and understanding the language in useful and practical ways.

My placement in Madame Walker's classroom was based on my reading models and methods professor's recommendation. She indicated that the foreign language immersion school had a sizable minority student population and offered opportunities to observe culturally responsive language instructional practices in an urban context.

The following research questions were investigated:

- 1.) What does it mean to be an English foreign language learner in this kindergarten classroom?
- 2.) How does the teacher facilitate culturally responsive language learning opportunities?
- 3.) How do students respond to these opportunities?

As a participant observer, I used my interactions with the students and observations of the teacher's instructional approach to understand how the instructional decisions contributed to students' language learning. Furthermore, I sought to understand how the teacher's culturally responsive instructional approach contributed to students' motivation to learn French. Throughout my observations, I noted individual

student's temperaments and motivation to speak French, when prompted by the teacher and independently. I often spoke with the teacher about student's peer interactions and their participation in group language learning experiences.

In this article, I examine and discuss the language and literacy instructional approaches that were used to scaffold students' French language learning in the kindergarten classroom and capture how students responded to the language learning opportunities.

Data Collection and Analysis

My field notes documented Madame Walker's instructional practices and student interactions. An informal interview with Madame Walker was conducted and documented. From September to December 2016, one-day per week, over a period of 13 weeks for a total of 45 hours, I engaged students in language learning experiences alongside their teacher during morning and afternoon learning centers. I closely observed the students' interactions with their teacher and with their peers to note indications of French language use and comprehension. My conversations with the students were often guided by their interests and were not based on a specific line of questioning.

I maintained field notes of my interactions with students and analyzed my data with the use of qualitative methods that involved coding for themes (Strauss, Anselm L.; Corbin, Juliet M., 1998). Themes that emerged in the student's reading responses and peer conversations were related to their respective relationships with their siblings and

parents; their personal interests; their desire to lead French language learning tasks; and their preference for predictable books and active learning experiences. The students' comments and responses indicated a high level of motivation towards group cohesion and interactive learning. Through consistent instruction and lesson facilitation, Madame Walker encouraged student leadership, group cohesion, and interactive learning by incorporating students' interests and input into instructional time to guide learning experiences.

What Does it mean to be an English Foreign Language Learner in this Kindergarten Classroom? French Language Learning in the Kindergarten Classroom

Madame Walker formally and informally assessed students use of English in the classroom. Students were formally and informally assessed in English on academic tasks that aligned with Common Core State Standards such as counting to 100, recognition of sight words, and phonemic awareness. The language and literacy skills tests were conducted based on the Imagine It! Reading program. The performance-based tests were given bimonthly to measure students progress.

For French language learning, students were informally assessed individually and collectively based on oral tasks completion that included counting and naming colors, days of the week, months, seasons, weather, greetings, and moods.

Students had opportunities to share personal responses to readings and lessons in French and English, which were typically followed by collaborative talks that were a part of students daily learning experiences. For example, one classroom phonemic awareness lesson involved a Big Book about a cat. Madame Walker pointed to the words as she read and she asked students questions about the book illustrations that featured the cat in different parts of the house. She asked students what objects in the illustrations could they see in the classroom. Madame Walker proceeded to share an oral story about her family cat and invited the students to share some of their cat stories. Several students shared their experiences with cats. One student shared an audible imitation of her family cat. According to one research study, emergent literacy begins with students listening to stories being read aloud, initial writing experiences, and noticing signs and labels in their surrounding (Colville-Hall & O'Connor, 2006, p. 490).

Students frequently voiced a desire to lead language learning tasks such as naming carpet colors in French to call on peers to transition to their seats at their assigned tables. Furthermore, students' classroom responsibilities rotated daily and gave all students opportunities to use hand gestures while verbalizing French vocabulary. As a result, students developed their leadership assets, supported their peers' learning, guided their own learning, while being engaged in classroom reading experiences. Research shows that it is important to align reading instruction in the foreign language with reading instructional practices in the first language for effective second language learning (Colville-Hall & O'Connor, 2006, p. 489). The classroom French reading and sight word instruction was related to students daily lives and their

surroundings. This instruction occurred daily during a consistent classroom literacy block.

In a case study that focused on kindergarten through third-grade French language immersion classrooms in an urban Canadian community, researchers Adele Walsh and Elizabeth Yeoman read stories in French while using hand gestures, dramatizations, and pictures to aid in students' comprehension of stories. The authors noted that the instruction was most effective when the stories were short and repetitive for students to gain a working knowledge of the vocabulary and word meanings in the texts (Walsh & Yeoman, 1999, p. 349, 350). Similarly, Madame Walker used short texts and picture charts of French words during daily explicit instruction and repeated readings with the whole group. The students were engaged in daily French learning experiences because their teacher rotated students during instructional times. This gave individual students opportunities to practice reading and speaking the French words and phrases for comprehension.

How Does the Teacher Facilitate Culturally Responsive Language Learning Opportunities? French Collaborative Language experience in the classroom

At the beginning of each day, students gathered on the carpeted floor in the classroom to review the days of the week, months, weather, numbers, and colors in French and English. Madame Walker gave students opportunities to practice speaking

French. She selected a new student each day to stand before the class and practice following her verbal instructions in French with hand gestures for guidance.

Students were given opportunities to match cards with the appropriate day and weather. As a group, the students reviewed the days of the week and months in French with the guidance of the teacher. Research shows that awareness of and curiosity about graphic forms of communication compels language learners to explore how written words convey meaning and how certain letters represent sounds (Colville-Hall & O'Connor, 2006).



Daily Concept Word Wall: The classroom was print-rich with French and English concept word walls that were used for daily classroom instruction.

The guided practice was followed by a singing and a dancing time that gave students an opportunity to get physical exercise in the classroom while learning French

through the use of educational music. The students' response to the French music was enthusiastic and they enjoyed the opportunity to dance.

Following the French music movement learning experience, students were instructed in French to take their seats on the carpet to begin studying the letter of the day from the Imagine It! Big Book. Like the carpet, the letters in the book were color coded. The vowels were featured in red and the consonants were featured in black. The same letters on the classroom walls followed the color coded pattern. In addition to the letters in the book, the students were encouraged to look at the letters on the wall.

When the guided letter recognition practice concluded, the student leader was called to the front of the group to name the colors in French. With each color called, students who were seated on the colors would rise to take their seats at their assigned tables. This signaled the start of the second half of the classroom period. The classroom transitions were integrated into the instructional practice of the classroom.

Students gained practice writing the letter of the day during the second part of the classroom period. Madame Walker guided the students through the writing experience by using a Smartboard to draw the uppercase and lowercase letters for students. Students were given paper to practice writing their uppercase and lowercase letters. They were required to write their names on their paper. In this way, reading and writing were integrated into the classroom curriculum and learning routine.

Once students had shown their work and completed the required letter writing practice, they were given time to color or engage in a planned arts learning experience such as coloring and cutting out scarecrows.

The learning targets were clearly posted on the classroom board and remained the same until students mastered the target learning objectives. Consistent learning targets for the classroom were to provide students with opportunities to use their five senses and talk about them, count groups of objects and tell which ones had more/ fewer or the same, and to have students talk to other students about how they have grown and changed.

The use of peer talks in French and English, music and movement, read-alouds, repeated readings, and oral storytelling are reflective of current trends in English foreign language immersion that emphasizes the importance of facilitating learning experiences for students to explore concepts in various ways that incorporates concrete objects, events, and authentic materials (Walsh & Yeoman, 1999, p. 341). Furthermore, research suggest that children who learn French through the immersion process have considerably superior receptive and productive skills in French than students in traditional core French programs (Walsh & Yeoman, 1999, p. 341).

How Do Students Respond to these Opportunities? Student Motivation in Foreign Language Learning

Madame Walker consistently maintained high expectations for students' learning and classroom behavior, and her rapport with the students served as an anchor for their foreign language learning. Students were given opportunities to lead and engage in language learning experiences. Furthermore, many of the students were motivated to

actively participate in group language instruction because of the opportunities to lead in the classroom. For example, students often inquired about opportunities to lead the whole group in matching the French word cards to the weather and days of the week located on the concept wall. Students valued being responsible for calling the French color names on the carpet squares that students sat on to initiate the transition from one learning center to another learning center.

The integration of student leadership roles into language learning experiences offered students repeated practice in speaking French. This model of instruction provided students with independent language practice and it engaged the whole group in using the target foreign language through shared responses. It aided them in developing active listening skills in the target language.

Periodically, during classroom read-alouds, Madame Walker posed questions to the whole group. When a student responded accurately to questions, she used a colloquial phrase such as “Renae's (a pseudonym) on fire!” The students understood this phrase to mean that the student she was referring to had given an accurate response because they listened. This seemed to motivate students to maintain their focus on the teacher's instruction because they wanted an opportunity to share their thinking and responses. As a result, students were motivated to speak in French even when they were not prompted by the teacher to speak in French.

Many students demonstrated proficiency in naming their colors and days of the week in French through active participation in classroom dialogue. The most common words and phrases used independently by students were “Oui” (yes), “Merci” (thank

you), “Ça va bien” (it’s going well), “Ça va mal” (it’s going bad) to express their feelings and thoughts.

Students were given active learning breaks to dance to their choice of French-English translation music. The music selected for each day was based on students’ input. This gave students options and allowed them to take ownership of their learning. The students seemed more motivated to dance and move when it was a song that they chose.

Madame Walker guided the students’ language learning during this portion of class by standing in front of the whole group and motioning the movements of the song using hand gestures that corresponded with the French song verses.

These ‘classroom community’ instructional approaches aligns with the culturally responsive practice of building and encouraging an extended family classroom culture, in which students have opportunities to work together, participate in knowledge building, and support each other’s learning and achievement as noted in Dr. Gloria Ladson-Billings’ seminal work *The Dreamkeepers* (Ladson-Billings, 1995, p. 69, 81). Additionally, Madame Walker’s consistency in high academic standards aligns with Ladson-Billings’ research findings that indicate that African-American students are more likely to experience academic gains and contribute to classroom learning when they are held to high academic standards.

Preservice Teacher Experience in the Classroom

There is evidence that children detect racial differences at a relatively young age and that discussions about race are common in the early elementary grades. Race continues to be a significant factor in determining inequity in the nation's political, economic, justice, and educational systems (Martell, 2016, p. 75). Therefore, I used Critical Race Theory (CRT) in the French partial language immersion classroom. CRT is a theoretical framework that stems from the field of critical legal studies that addresses the racial inequities in society. In 1995, CRT was introduced to the field of education by Dr. Gloria Ladson-Billings and continues to provide a lens through which to assess equitable representation in instructional practices and student/teacher perspectives.

When I taught lessons in the French immersion classroom, I modeled my instruction after Madame Walker's instruction to maintain continuity in the classroom instructional model. However, I incorporated different inactive instructional strategies. I led an expository and a narrative lesson in the classroom.

It was challenging to identify French bilingual children's literature that featured African-American characters or other people of color to use in the language immersion classroom. Several research studies support the need for published materials and textbooks that are balanced in language and content to use in English foreign language learning classrooms (Cammarata & Tedick, 2012, p. 263). For my expository lesson, I selected *My Dream of Martin Luther King*, a culturally responsive English text. It met the criteria for curating informational text for classroom readings that aligned with recommendations in the 2008 article *Quick Guide to Selecting Great Informational Books for Young Children* by Kathy E. Stephens.

The learning objective of the lesson was for students to demonstrate their comprehension of who Martin Luther King, Jr. was and the purpose of civil rights protests by engaging students in dramatic play to act out sequential historical events. My instructional approach contained components of repeated interactive read-alouds that included pre-reading, during, and post-reading components.

In 2004, *Connecting Students to Culturally Relevant Texts* appeared in the National Council of Teachers of English. The authors discuss the importance of culturally responsive texts to student learning during reading events. According to the authors, when teachers use culturally responsive texts, students understand the books more fully, and, as a result, become more engaged in their reading. When students become engaged in texts, they are motivated to read (Freeman & Freeman, 2004, p. 7).

There were words in the text that were above grade level for the students. Therefore, at the beginning of the lesson, I front loaded the student's vocabulary by discussing keywords and terms from the text. Additionally, I introduced other words that were relevant to the topic. As a means of clarifying word and term meanings, I gave students relatable and age-appropriate examples to communicate word meanings.

For example, before the reading, I asked the students to raise their hands if they rode a bus to school or in their communities. The majority of the students raised their hands. Then, I asked the students, "If I told you that tomorrow you had to sit on the back of the bus because your skin is black, how would you feel? Would you be sad?" Many of the students said they would be sad.

As I posed the question, I motioned with my hand and rubbed my skin. When I did that, a student said, “But your skin is not black, it’s white.” I paused and responded to his statement by saying, “I am Black. My skin is just a lighter shade but both of my parents are Black. I am Black like you.” Then, the student paused and pointed to Madame Walker and asked, “Is Madame Walker White?” I did not respond for her. Instead, I responded by asking, “Madame Walker, do you want to answer his question?” She came over to the students and said, “Madame Walker looks the way that she does because her mother is White and her father is Black.” Then, we proceeded with the pre-reading discussion.

I responded to his question because it was relevant to our lesson and mentor text. It gave the students an opportunity to learn that Black people have different shades of skin. Also, the conversation served as a transition into talking about discrimination based on skin color.

The discussion shifted to discrimination and I explained to the students that not too long ago Black people were made to sit on the back of buses, not because they did anything wrong and not because they did not pay, but because of the color of their skin. Furthermore, I explained that some people thought that Black people were not equal to White people so they treated Black people unfairly.

I solicited students for personal stories about a time in their life when they were treated unfairly. One student shared how her parents refused to purchase a hoverboard for her but bought a hoverboard for another family member who was older. While I recognized that her experience was not equal to being denied the right to sit on a bus, I

acknowledged her experience and responded by saying, “So, you felt that was unfair because your parents made a difference in who they gave a hoverboard to as a gift. They made that difference because of your age. You are younger than your sibling. Still, I can see how you would feel that way. Imagine how it would feel if someone did not give you something that they gave to someone else because of the color of your skin.”

Next, I gave students time to share their thoughts and ask questions. The students shared that they did not think that discrimination based on skin color was fair. I told them that there were people who lived during that the Civil Rights Movement who did not think it was fair either. Therefore, they decided to participate in civil rights protests to change the way Black people were treated. Moreover, I explained that one of the people who took action was Martin Luther King Jr. and he led civil rights protests and participated in boycotts. I gave students an opportunity to share what they knew about him and civil rights protests or boycotts.

When we finished discussing the vocabulary and historical contexts, I began to read the mentor text. I paused and discussed each page and gave students opportunities to look at the illustrations and ask questions. Before the reading, I told the students that they were going to become protesters for the day and each person would receive a protest sign.

When I started to read and reached the sixth page of the text, I told the students that I needed their help to tell the rest of the story. I said, “When I call your name, I want you to come up to the front and hold your sign. I will read it first and then we will read it together loudly.”

The students responded positively to this opportunity and they were eager to participate. The signs matched the protest signs featured in the mentor text. As I read each page, I called up new students to hold signs. By the ninth page, the protesters in the narrative were hosed down. When I read this part of the text, I asked all the standing protesters to find their seats because they were hosed down.

At the portion of the text that mentioned the old hymn, “We shall overcome,” I sang the chorus with feeling for the students and this seemed to further draw them into the reading. As I moved forward in the reading, I carefully monitored students’ responses to the texts’ language and illustrations. For example, at the beginning of the book, there is an illustration of young Martin being chased by a White policeman. In the text, it read: “...Young Martin was alone, and the policeman ran after him, swinging a club and yelling, “Halt, boy! Halt, boy!” I read this part in a contrived Southern accent and a student said, “What did he say? Halt? What is halt?” I explained that it is another word for stop.

By the twelfth page of the book, two students made comments that I addressed during the lesson. One student said, “White people are bad.” Another student added, “White people can’t be trusted.” Their outbursts spoke volumes to me about how they were internalizing the reading and illustrations. Therefore, I took time to explain that not all White people are bad.

Following the reading, I led a discussion about people who do good things and people who do bad things. Additionally, I spoke about friendship. I said, “During the reading, I heard some of you say ‘White people are bad and can’t be trusted. So, I want

to talk about that and make it clear that the White people in our book were treating Black people badly. But not all White people treated Black people badly. Some marched in the civil rights protests too and treated us kindly.” I explained how there are people who choose to be kind while others choose to be unkind. Then, I said, “But I want you to be kind to people whether they are Black or White because that is what good people do.”

One of the students asked, “Why did they kill Martin?” A second student asked, “Who killed Martin Luther King?” I responded by saying, “Sometimes there are people who are afraid of change and Martin Luther King was changing the way some people treated Black people. He was bringing White people and Black people together and the person who killed Martin Luther King was angry.”

I continued our conversation by sharing with the students that they can be friends with people who look like them and with people who do not look like them because that is what Martin Luther King wanted for his children. I explained that because of what he and others did, they can be friends with people who do not look like them too. The students responded positively to our discussion. Still, I reassured the students by explaining that it is appropriate to be sad that Martin Luther King died because other people were sad too, both Black and White.

Next, I showed the students the five-minute film *The 1963 Detroit Walk to Freedom*. Then, we discussed the images in the film. I pointed to the protest signs and the White and Black people who walked together in the film. The students had a second chance to ask questions and make comments. I took time to listen. Based on the

students' responses, it was clear to me that they understood the significance of the Civil Rights Movement and the role of Martin Luther King and civil rights protesters. They made personal connections to the text.

In addition to the lesson objectives, there were two key concepts that emerged from students' inquiry during the interactive reading and discussions. That is there are different shades of black and both White and Black people make choices to "do good" or to "do bad" things. As a result, there was a heightened sense of self-awareness for the students about black skin and how the color of black skin can vary. Furthermore, students learned that they have to choose how they treat others and consider how they want others to treat them. Culturally relevant texts help students understand who they are. Cummins (2000) points out schools are places where students negotiate identities. Schools can either affirm or deny those identities (Freeman & Freeman, 2004, p. 8).

For me, it was important that the students did not leave feeling like victims of prejudice because some students were sad and upset about what happened to Martin Luther King, and rightfully so. Rather, I wanted them to understand that while prejudice exist, we have specific rights today because of people like Martin Luther King, Jr. Furthermore, I wanted the students to know that they can do something by first choosing how they treat other people. Also, it is appropriate to speak up if someone is treating them wrong. I wanted them to leave feeling empowered.

Research shows positive and accurate learning experiences about human differences and similarities creates a foundation for children to resist incorrect and harmful messages about themselves and others. Teaching students about race can

cultivate students empathy and help them develop ways to deal with the hurt of stereotyping. Reading books that depict children experiencing unfair treatment based on their racial identity can be an effective instructional tool. Furthermore, supporting children as they demonstrate awareness of stereotyping and engaging students in group action where they are given an opportunity to take something that is “unfair” into something “fair” is another effective teaching strategy (Derman-Sparks & Olsen Edwards, 2015). While learning the French language and culture, the language immersion classroom should be a place where students can negotiate their individual, community, national, and global identities. Connecting students’ cultural and community identities to the French language learning content is a culturally responsive instructional approach that is critical to second language learning.

Conclusions and Recommendations for Future Research

What occurred in the French partial language immersion classroom for the kindergarten students who engaged in early foreign language learning suggest that the African-American students were motivated to learn the target language when the content and language instruction employed materials and language that related to their lives. The use of music, oral storytelling, culturally responsive texts, first-language, visual aids and gestures to scaffold foreign language learning were effective in increasing students’ understanding of French word meanings as evidenced by the students’ ability to use French words in the proper context and students’ shared

personal stories in response to readings. The assignment of student leadership roles within the French partial language immersion classroom, where students practiced speaking the target language for lesson transitions, served to further motivate students to speak in the target language. These findings suggest that when the African-American students were held to high expectations and were given foreign language immersion learning opportunities that reflected students authentic experiences, they were more engaged and motivated to learn the target language. Further research is needed to determine the long-term learning outcome for African-American students in early French immersion classrooms. The confluence of parental involvement, teacher's professional development and experience, and student prior knowledge should be considered to more fully understand the link between the French language immersion classroom and students' academic success.

In considering approaches for foreign language instruction in an urban context, the findings suggest that it is important to consider students' racial and cultural identity in planning and using instructional strategies to spur students' content and language learning in the first and second language. Further investigation is needed to determine what the balance between culturally responsive content and language instruction should be to foster the highest level of learning outcomes for African-American students in early French language immersion classrooms.

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Does Psychopathology Related to Stress and Anxiety Affect Academic Achievement

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Abstract

Psychopathologies are heavily influenced by emotions (Davidson, 2012). This paper addresses different emotional styles and how they play a role in psychological disorders related to stress and anxiety. The focus of this paper will be on psychopathologies related to stress and anxiety, their development in childhood, and how they affect an individual's academic achievement. The main psychopathologies that will be examined includes post-traumatic stress disorder (PTSD), panic disorder, anxiety, and subsequent depression for academic incompetence. Panic, PTSD, anxiety and depression can all have negative effects on an individual if consistent rumination persists (Davidson, 2012), however it is not found that academic achievement will be jeopardized if an individual has one of these disorders. In fact, most of the disorders that are mentioned have little effect on academic achievement, with the exception being social anxiety. Social anxiety has the potential to hinder an individual's academic performance in a variety of ways, including the complete avoidance of school and/or fear of communicating with instructor or other classmates because of extreme fears of negative evaluation (Brook, 2014). Studies have shown that individuals with PTSD can still achieve just as well as an individual without the disorder (Vroman & Ness, 2014). Knowing this information can provide encouragement to those who struggle with a psychopathology which should increase the odds for those individuals to still achieve academically. It is also useful information for parents and educators.

Keywords: Psychopathology, emotion, disorder, loving-kindness meditation, PTSD, anxiety, depression, panic

Psychopathology is the study of mental disorders, assessing the physical, biological, and psychosocial aspects of the individual. According to Ossorio (1985), a person is in a psychopathological state or condition when “there is a significant restriction on his (or her) ability (a) to engage in deliberate action and, equivalently, (b) to participate in the social practices of the community, (as cited in Bergner, 1997 p. 158). In other words, a psychological pathology is any specified disorder that can affect an individual’s ability to function correctly under implicit societal norms. Such implications could suggest that an individual is unable to refrain from say, going out to social events because he (or she) is terrified of criticism which could be a sign of social anxiety. Each disorders can range in severity, anywhere from mild or episodic depression to chronic or critically severe depression. (Barlow & Durand, 2009)

If researchers can understand the etiology of personality disorders or psychopathologies related to stress and anxiety, they can be able to manage the effects it may cause. Much research shows that different emotions can play a significant factor in the development of many anxiety-related disorders. According to Davidson (2012), there are six different emotional styles including: resilience, outlook, social intuition, self-awareness, sensitivity to context, and attention. Each emotional style has a range in severity, meaning that one can range on a particular extreme for an emotional style. Take self-awareness for example, one extreme of self-awareness is that individuals with low levels of self-awareness (Self-Opaque) have increases in heart rate, blood pressure, and are prone to heart attacks. In contrast, on the other extreme, individuals

with acute self-awareness are more likely to suffer from personality disorders such as hypochondria and panic disorders. (Davidson, 2003)

Having a disorder can be quite challenging physically, mentally, and emotionally. The question is whether it impacts affected individuals academically. The psychopathologies that will be discussed are Post-Traumatic stress disorder (PTSD), panic disorder, depression, and anxiety. The research will also talk about the onset of these psychological disorders in childhood or early adolescence. It is hypothesized that these disorders can be a potential risk factor for children and adolescents but are not the cause for academic discrepancy.

Emotions as a Factor for Personality Disorders

Emotional styles are important for understanding the nature of psychopathologies related to stress and anxiety and may help to explain why it is believed stress and anxiety related disorders may affect academic achievement. Emotional styles are all unique and serve different purposes in contingent situations that call upon that style. For example, the “*Outlook*” style focuses on whether or not an individual is focused on the positive or negative aspects of life situations (Davidson, 2012). This could be that an individual sees the bright side in any and every situation no matter how delightful or how terrifying. On the other end, an individual could dread everything about life and lose all hope. Individuals who view everything in a more positive light has a positive outlook on life, whereas individuals who view everything as hopeless and dreadful are seen to have a more negative outlook on life. In Davidson’s book, the research suggested that if an individual’s score is too low in this area, they would be viewed as being highly pessimistic which can often lead to depression. However, if this is too high then an

individual runs the risk of not caring about anything because they would have a “don’t worry, be happy” mentality which would mean that motivation for achieving a task would be low. This type of extreme cognitive processing could lead to poor academic performance or quite possibly mood or personality disorders.

Social intuition is the emotional style about how well someone can pick up on other people’s feelings and emotions (Davidson, 2012). A person who is socially intuitive can spot social cues that indicate that the receiver of the conversation is bored or tired and is ready to leave either by yawning or folding his (or her) arms and giving them an un-intrigued look. An individual who is blind to these cues would not know when to stop the conversation. Sensitivity to context is the style in which an individual can judge which behaviors are appropriate in certain situations. People who are high on this spectrum are really in tuned with their social environment. People who are low on the spectrum are considered to be tuned out and are not able to discern what behaviors are important and lack awareness of social cues. These individuals do not know when and when not to make fun of someone or tell a joke. If there is a funeral and the majority of the people at the funeral are in mourning and distress, an individual who is laughing or telling jokes may have low sensitivity to context. Individuals who are consistently self-conscious about their sensitivity to context or attention to social situations could be suffering from panic-disorder or social anxiety.

Self-awareness is the emotional style that lets an individual know what he or she is feeling in order to solicit a behavior, provoke a response, or simply prompt a thought. The attention dimension is being able to tune in or out to a specific thought or aspect of something, whether that’s singling out all other objects around to focus on a single

feature or object or bouncing around from one thought to the next and being easily distracted. What if it was the case that an individual singled out a particular aspect of themselves obsessively that could be viewed as stressful? For example, an individual who is aware that their heart-rate is constantly increasing and they feel anxious because of a bad argument that they had with a friend. The individual is fixed on the thought that “I don’t have any good friends, I’m pathetic, I’m worthless, I’m feeling anxious and worried I will die alone”, what might result from this consistent rumination? According to Davidson (2003), being focused on ruminating thoughts can lead to personality dysfunction or disorders such as PTSD, hypochondria or panic disorder, anxiety, and depression.

PTSD’s Effects on Academic Achievement

As suggested, the emotions that are involved in these stress and anxiety-related psychopathologies may negatively influence the academic success of the individual suffering from these disorders. However, only those individuals suffering from post-traumatic stress disorder appear to show decrements in academic performance. Emotions are one of many aspects that can explain the etiology of a psychological disorder. For example, Thompson and Massat (2005) looked at the effects of PTSD in African American school children and their experience in rural areas where violence and crime rates were high. More specifically, they examined how African American school children have been victimized from witnessing violence or abuse and how this has jeopardized their academic achievement. They also address how children who experience violence or abuse often result in having behavioral problems and, in severe cases, are prone to Post-Traumatic Stress Disorder (PTSD). They also discuss how

they develop behavioral problems which can also hinder their academic performance. The researchers addressed major questions including the frequency of children's exposure to family abuse or violence, the current levels of PTSD in each child assessed, and current status of each child's academic achievement, and how each of them affect the outcome of the child.

Thompson and Massat (2005) argue that severe exposure to violence can lead to post traumatic stress which can have serious ramifications on academic achievement. The study showed that students who were exposed to murder or child abuse, usually either by witnessing it or being victims of the crime, avoided going to school. There are also behavioral problems that can derive from these severe exposures, such as violence and/or aggressive behavior. As a result of these experiences, students may engage in what is called "a post-traumatic acting-out" period (Thompson and Massat, 2005). Teenagers may engage in school truancy, precocious sexual activity, substance abuse, and delinquency. This information can be helpful for those in certain occupations who help kids either legally or in general who suffer from PTSD: people including social workers, advocates, teachers, families, lawyers, etc.

Although PTSD may negatively influence academic achievement, it is not always the case that PTSD predicts low academic success for all individuals. A study by Ness and Vroman (2014), looked at veterans from the military, national guard, and other active service duty occupations and assessed how their traumatic experiences affected their academic abilities. The veterans were recruited from public universities and assessed using a questionnaire from surveymonkey.com. The questionnaire included a variety of questions including demographics, brain traumatic injury (BTI), post-traumatic

stress disorder (PTSD), self-regulated learning, and academic achievement (Ness and Vroman, 2014).

A military version of a Post-Traumatic Stress Disorder Checklist (PCL-M) (Ness and Vroman, 2014) was used to measure the degree and severity of the disorder. The PCL-M is a 17 item scale (Ness and Vroman, 2014) with items consistent with the Diagnostic Statistical Manual of Mental Disorders (DSM-IV). They used The Motivated Strategies for Learning Questionnaire (MSLQ), to measure self-regulated learning and academic achievement. The items on this assessment mostly involved self-efficacy of course work and learning, and GPA. The results showed that service members who had TBI, PTSD, or who were comorbid for both all reported to have significantly lower self-efficacy. However, there was no significant relationship between TBI or PTSD and GPA. The authors argued that a possible reason for this is because academic efficacy is based on environmental strategies, and the degree of effort and persistence can influence academic achievement. An individual can suffer from PTSD but if that individual is determined enough and puts forth the effort, then that individual can succeed academically despite their disorder. However, if an individual's academic self-efficacy is low, PTSD can have a negative effect on their academic achievement. The reason for variability of high or low GPA scores with respect to the participants was dependent upon the degree of academic self-efficacy or the extent to which the individual is determined to succeed despite his or her mental disorder. The results from this study showed a large range in variability of GPA scores, ranging from 2.0 to about a 3.4. This provides further evidence to why psychopathologies related to academic achievement is not a strong predictor of academic discrepancy.

Strengths

Massat and Thompson (2005) addressed major questions about PTSD when conducting the study including the frequency of the children's exposure to family abuse or violence, the current levels of PTSD in each child assessed, and current status of each child's academic achievement, and how each of them affects the outcome of the child. This is good for researchers because by assessing this, we can hone in to what the main problems are and how each item is assessed. This is one of the few pathologies related to stress and anxiety that can have an effect on an individual's academic success. This is good for researchers to know in order to provide insight on what measures to take to ensure that children with PTSD can still have moderate to high academic success. Even though Massat and Thompson's study revealed that PTSD can have a negative impact, Ness and Vroman's study provided a counterclaim to that argument, stating how PTSD does not always result in poor academic achievement. Knowing this information can provide comfort to those who are struggling with this particular disorder. This could encourage individuals suffering from PTSD, especially if they know that individuals with PTSD have just as much chance as anyone else to achieve academically.

Panic Disorder and its Effect on Academic Achievement

Earlier it was mentioned that self-awareness is the emotional style that lets an individual know what he or she is feeling in order to solicit a behavior, provoke a response, or simply prompt a thought. There was also mention of the attention dimension and how an individual is able to tune in or out to a specific thought or aspect of something, whether that's singling out all other objects around to focus on a single

feature or object, or bouncing around from one thought to the next and being easily distracted. These are symptoms that co-exist with panic disorder.

Individuals with panic disorder will single out particular aspects of themselves obsessively that can be stressful, become aware that their heart-rate is constantly increasing and feel anxious. For example, an individual could have a bad argument with a friend and might be fixed on ruminating thoughts such as “I don’t have any good friends, I’m pathetic, I’m worthless, I’m feeling anxious and worried I will die alone”; they could be at risk of developing a panic disorder. According to Davidson (2003), being focused on ruminating thoughts can lead to personality dysfunction or disorders such as hypochondria, panic disorder, anxiety, and depression.

Panic disorder is highly linked with anxiety and is comorbid with major depression and alcohol abuse. Panic attacks are not medically induced problems nor are they a reaction from another mental/biological dysfunction. In order to show symptoms of panic disorder, intense fear or discomfort has to prolong consistently for about a month or more (Szabo, 2013).

Lau, Calamari and Waraczynski (1996) address the issue on panic disorder on a clinical level. They describe the onsets of this disorder in children and treatment for reducing risks of mental or physical harm. Panic disorder was originally thought to only be found in adults, but now evidence found that it actually can occur in children and adolescents as early as 8 years old even. In this case, because they mentioned how panic disorder was always thought to be an “adult malady”, kids and adolescents were excluded from this experience and because of that children and adolescents that actually had the symptoms would have never been diagnosed or treated.

Lau, Calamari Waraczynski (1996) assessed each variable of academic performance in terms of GPA and assessed the correlation coefficient for each measure. The researchers emphasized the importance of panic disorder, specifically the onset of the disorder. Some researchers speculated that children lack the cognitive development to express symptoms of panic and anxiety such as fear of failure or dying. Further research explains that children share the same experiences as adults do like fears of losing control or any other “catastrophic thinking” (Lau et al, 1996) as they phrased it. The study surveyed 125 students at a parent teacher conference to get consent from the parents that their child could participate in the study. All students completed a Panic Attack Questionnaire (PAQ) which is a panic symptomology assessment with an assessment scale ranging from 0-10. The students also had to complete a Childhood Anxiety Sensitivity Index (CASI) which is an anxiety sensitivity assessment to measure anxiety, fear, or any other symptoms that could have harmful effects, and the students’ GPA measured their academic performance (Lau et al, 1996).

The results showed that out of all the participants who took the assessments, 39 percent were classified as actual “panickers” according to the PAQ assessment (Lau et al, 1996). The PAQ assessment was highly correlated with the CASI assessment meaning that panic and anxiety had a high relationship. However, the CASI and the PAQ assessments had little correlation with GPA, meaning that panic and anxiety had little effect on academic performance. Lau et al. (1996) concluded that 39 percent of high school students experienced non-clinical panic attacks, meaning that the experience was not due to any medical condition or clinical history. It is common that panic attacks happen frequently around this age group.

Strengths

Lau, Calamari and Waraczynski (1996) give background about the nature of panic disorder. They addressed how panic disorder was originally thought to only be found in adults, and how evidence found that it actually can occur in children and adolescents as early as 8 years old. This is beneficial because if researchers know a little bit of background about the nature of panic disorders they can look towards finding out what the current literature will present about panic disorders and they can better understand what the research is aiming to uncover. As a researcher, this is a great topic to further expand on. Just as the article stated, there are things researchers are still unaware of and have yet to discover that could affect the longevity of our health and well-being. If researchers can understand the likelihood of psychopathological onsets, then they can attempt to provide more insight on the disorder. Lau, Calamari and Waraczynski (1996) also had reliable measures for measuring panic which is always good for establishing credibility. The results concluded that the correlation between panic disorder and GPA is low which is helpful information, especially for researchers. This information explains why panic disorder and anxiety have little effect on academic performance which can be encouraging information for people who are suffering from panic and anxiety disorder.

Weaknesses

The researchers addressed how they can better improve their methods in the future. They mentioned having more clinically based questions on the panic symptomology assessment to assess cued and un-cued panic. Also they wish to have

more variety in their sample as well as more participants because many students dropped out due to various reasons.

One thing that could have been discussed more heavily is the diversity in the sample assessed in order to establish more external validity.

Depression and its Effect on Academic Achievement

Self-awareness and focus attention are practical attributes to have in theory, however each emotional style has extreme dimensions that can be detrimental for an individual (Davidson, 2012). In other words, too little or too much self-awareness and/or focused attention can lead to psychological impairments such as anxiety or depression. In fact, focused attention on continuous rumination most likely can lead to depression, as explained previously. The question is whether children are aware of this obsessive negative thinking and how does depression affect an individual in the school setting.

Huang (2015) studied the effects of academic achievement on subsequent depression. Huang conducted about 43 longitudinal studies that included thousands of participants in the United States and a few other countries elsewhere. Huang hypothesized that the effects of academic achievement on subsequent depression would have a negative correlation. Huang conducted multiple studies in order to control moderating variables including time waves between academic achievement and depression, the age of the participants, gender, ethnicity, and the birth cohort. Huang also used different measures to try to control for prior depression when measuring academic competence. The researcher hypothesized that children and adolescents are highly vulnerable to depression if incompetence is assessed in more than one domain. Having incompetency in one domain can be compensated with competency in another

domain, however, if children feel incompetent in more than one domain then depression is more likely to occur. The results showed that after multiple studies, age, gender, birth cohort, and time waves had a poor negative correlation on academic achievement and depression, meaning that those moderators had insignificant effects on academic achievement and subsequent depression. The overall correlation between academic achievement and subsequent depression is low and Huang also concluded that it is more effective in children than it is in adults.

Strengths

Huang (2015) assessed and controlled for moderating variables including time waves between academic achievement and depression, the age of the participants, gender, ethnicity, and the birth cohort, just so that results would not be subject to those confounds and that all variables are considered when it comes to academic achievement and subsequent depression. Controlling moderate variables also helps to make sure that there are no extraneous variables jeopardizing the results. Huang conducted 43 longitudinal studies which is important for establishing credibility and accuracy. It also helps in ensuring that the measures are valid. Most of those moderating variables had low significance on the effects of academic achievement and subsequent depression which means that there is not much difference in the effects when birth cohort, age, and gender are factored into the results. Knowing that academic achievement has little effect on subsequent depression can provide insight on the broader aspect of childhood development. This brings to light factors such as what changes could be made in schools, homes, and the environment to ensure a child's

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academic success or what are the chances of a child becoming subject to depression if that child is academically incompetent.

Weaknesses

Huang did mention however that when it comes to race and other ethnicities the results were limited. The study was done primarily in the United States so there are not significant results with moderating variables like race and ethnicity which could be something other researchers could control for in the future. Huang can increase the external validity of the study by cross referencing the results with different countries like Asia or Africa for example. Huang also could have discussed the short-comings or challenges that were presented while conducting all of these studies, whether it be mentioned in the methods and/or results section or the discussion section just so that if this experiment was to be replicated, other researchers could avoid tedious variables.

Social Anxiety and its Effect on Academic Achievement

Academic Achievement is determined by many factors such as study hours, test taking skills, and overall contribution to the school work. The issue is whether or not someone who suffers with a psychological disorder related to anxiety is more or less likely to achieve academically. "Social anxiety is the fear of negative evaluation and distress, and avoidance of new or all social situations which may be especially disadvantageous in the social and evaluative contexts that are integral to the university/college setting" (Brooks, 2015, p.1139).

The matter of avoidance when it comes to socializing is assumed to present a problem when it comes to academic competence. Brooks (2014) wanted to test to see if students in the college/university setting faced challenges with academic achievement if

they had social anxiety. Brooks hypothesized that students having social anxiety will have a significant negative relationship with academic achievement, meaning that the higher the severity for social anxiety, the less likely that individual is at achieving in school. Brooks mentions that students who suffers from social anxiety feel intense pressure when it comes to interaction because they possess such a strong fear of negative evaluation.

Brooks (2014) conducted a longitudinal study. The study involved 942 college/university students excluding students who dropped out or transferred to another school. The Penn State Worry Questionnaire (PSWQ) (Brooks, 2014) was used to assess trait and general anxiety disorders and The Center for Epidemiologic Studies Depression Scale (CES-D) (Brooks, 2014) was used to assess depressive symptoms for each participant. The Student Adaptation to College Questionnaire (SACQ) (Brooks, 2014) was also used to assess social ties each student had to assess if that had any effect on social anxiety and academic achievement. Grades were assessed by accessing to the university's registrar's office to review their transcripts only with permission from the students. 15% of the sample population was diagnosed with social anxiety. The results showed that social anxiety negatively impacted the students' academic achievement. This meant that individuals felt intimidated and anxious towards things that is important for academic achievement, things including: meeting with professors during office hours, going to tutoring, participating in group projects, going to tutoring, and asking questions during class just to name a few. The social ties that participants had was negatively correlated with academic achievement as well. This

meant that social interaction, friendships and relationships were also negatively impacted because of social anxiety.

Pina et al (2014) studied social anxiety in African Americans and they wanted to test if social phobia was the same in African Americans as it is with their Caucasian counterparts. The researchers believed that African Americans have similar symptoms of social anxiety as their Caucasian counterparts, but they believe that inaccurate assessments was done with African Americans because of different moderating variables such as income and social economic status. So, in order to test this accurately they used the Social Phobia and Anxiety Inventory for Children self-rating scale to measure social anxiety in both African American and Caucasian children.

In order to control for moderating variables such as social economic status, race, and gender, they assessed both African Americans and Caucasians in all levels of social economic status (upper, middle, and lower class). The researchers also used a Chi-square model to control type I error, meaning that they do not make the mistake of diagnosing someone with a disorder that they do not actually have. The results showed that African Americans' levels of social anxiety is as expected and was not just a bias. Their levels of anxiety was lower or similar to their Caucasian counterparts. They also briefly mentioned the different symptoms of panic in childhood versus adolescences and that the differences were very small but this is something they also wish to investigate more in the future.

Strengths

Brooks went ahead to answer concerns on a topic that is very ambiguous. These concerns including: how an individual identifies him or herself as being socially anxious, the

physiological changes an individual feel inside them, distinguishing between an intuitive feeling an individual have to have or something that has been conditioned from previous experiences, discerning between having social anxiety or simply being shy or introverted, and how much of personality plays a factor in it. Brooks discerned between the severities of anxiety in each participant, calculated what percentage of each group classified as having anxiety on a clinical level, and which group was still developing. Not only does that establish credibility but it also clarifies important information useful for assessing the data. Pina, et al. (2014) tested for potential confounding or moderating variables. If you are testing a variable or variables without taking into consideration the effects moderators can have on the results like age, race and gender differences, then the results could either be insignificant, unreliable, invalid, or inconclusive. It is very important to factor in all possibilities including cultural differences.

Weaknesses

Unfortunately, the results can be discouraging for individuals suffering from social anxiety disorder. Stress in general is not detrimental to an individual's life (in moderation), however, much with anything else, too much stress can be disadvantageous. In the case with Brooks' (2014) study, students with severe anxiousness towards social situation suffered when it came to social aspects that is necessary for academic achievement such as seeking help from professors or other colleagues.

Conclusion

An Individual who focus on ruminating thoughts run the risk of developing personality disorders such as hypochondria, panic disorder, anxiety, and depression. Also if individuals aren't aware of their ruminating thoughts or feelings of anxiousness, they run the risks of developing more severe clinical psychopathologies. Researchers mentioned that panic disorder and anxiety was only thought to be seen in adults but symptoms can also be found in children as well.

Children that are witnesses to violence and abuse negatively influence their academic performance because they suffer from PTSD and have other behavioral issues. Even though PTSD can contribute to academic discrepancy it is not the leading cause to it. An individual with PTSD has to take into account their academic self-efficacy. If their academic self-efficacy is low academic ability will be negatively impacted. Social anxiety one of the more severe psychopathologies that can have detrimental effects on academic achievement because of intense fear of communicating with others which is a vital part of achievement, not just academically but in all situations. One of the interesting things found was on the assessment measuring academic performance to subsequent depression. That study actually controlled for prior depression and wanted to test if poor academic performance would lead to depression. The research showed that depression could be the result of children who lack in multiple domains. For example, if a child is incompetent in all subjects (Math, Science, English, etc.) however, they are good in gym class or music then depression would be less likely to occur because they compensated the incompetency in standard academic classes for competence in extracurricular classes. This is very good but one shortcoming that I faced was not researching the opposite correlation; how depression effects a child's academic performance.

What I would like to research more in the future is how pathologies like anxiety, panic, PTSD, and depression could effect a child's social life and well-being overall. Yes, most of these pathologies have little to no effect on academic achievement, but that does not mean that social and interpersonal relationships cannot be impacted negatively as well. I also want to find out if an accumulation of each pathology can have

more or less of an effect on academic achievement on a child. Like I stated before, a lot of these pathologies are comorbid for one another such panic disorder comorbid with anxiety, or anxiety comorbid with depression. I would also like to find ways in regulating these pathologies and to find methods for decreasing the effects in children. I would want to research more of the onsets of each disorder to find ways to prevent them. If symptoms are already present, I would want treatments that can reduce the effects such as mindful meditation, cognitive reappraisal, or intervention training.

Discussion

Emotions are what individuals need to prompt an action, emotional styles is the preference of emotions individuals use in certain situations that call for it. Self-Awareness and focus attention can be very harmful to an individual because it can most likely lead to a psychopathology if it is not managed well. Even though many people suffer from personality disorders or psychopathologies some people might let it negatively impact their academic successful, however others can push pass their dispositions and succeed; those individuals who can achieve academically despite their deficiencies are known to be resilient.

Resilience is when an individual is able to recover from challenging events. Take this scenario for example, Tom, an 18-year-old high school teenager who has been suffering from mild depression and post-traumatic stress for a few months ever since the day his mother and younger brother was killed in a car crash. Tom however, always had high hopes of graduating high school in the top of his class and getting accepted to Harvard University. Despite the challenges and deficiencies Tom was facing he was still able to graduate high school with a 4.0 GPA and later found out that he has been

accepted to Harvard. It was because the fact that Tom was able to recover faster than most people that made him resilient. Having high resiliency in this case is seen to be most ideal in achievement and reaching personal goals (graduating and getting into college).

One solution that can reduce the negative effects of excess self-awareness and focused attention that contributes to personality disorders is mindful meditation. The question is, what is mediation, how does it work, and what can it do for an individual? A study by Lutz, Slagter, Dunne, and Davidson (2008) provided the concept of mediation in its simple terms. They categorized it into two forms of mediation based on Buddhist expertise and practice. The first being *focused attention* (FA) which is the ability to look at a single stimulus or objects and it's meant to show an individual how to be aware of your attention. This type of attention can include walking mediation, breathing mediation, or a mantra like *love and kindness* mediation (Handel, 2011). The second form of mediation is *open monitoring* (OM) and that is the ability to monitor things occurring moment after moment for greater emotional tone and intensity. Overall, when meditating, brain activity is being performed all over different parts of the brain. They concluded that expert (FA) meditators have effortless concentration.

Loving-Kindness Meditation

Loving-kindness meditation is an exercise that is designed to teach individuals about love and compassion, benevolence, unconditional friendliness and goodwill (David et al, 2013). With all the different types of mediation listed, loving-kindness meditation has been shown to be one of the most effective types of meditation when it comes to reducing negative extremes associated with self-awareness and focused

attention such as PTSD and depression. In a study by Kearney et al, (2013), the researchers conducted a longitudinal study on veterans who had PTSD and/or severe depression. Some of the veterans were hospitalized because of these severe cases of PTSD and depression. These veterans had multiple cases of failed suicide attempts which caused for the rehabilitation.

Each of the veterans were participants in a 12-week long, loving-kindness meditation class. After a few weeks in being in the program, some of the veterans were released from rehabilitation, however continued with the class because they found it very useful and effective. The researchers used many measures for this study, including the Life Event Scale for recording traumatic events, the PTSD Diagnosis and Symptomology scale to measure the severity and frequency of post-traumatic stress, the Patient-Reported Outcomes Measurement Information System (PROMIS) to measure depression, and multiple other scales such as the Compassionate Love Scale to track the progress of loving-kindness meditation. The results found that there were significantly positive effects on these veterans. Many of them were no longer suicidal and found themselves better than they were before taking the class. They had increased self-compassion and mindfulness skills and symptoms of PTSD and depression also decreased as well.

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Selling Our Mothers for Gold: Prostitution in the Peruvian Amazon Rainforest

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In my essay, I will explore the undisclosed world of prostitution occurring within the rainforests of Peru, specifically focusing on the regions bordering Cusco in the Amazonian department of Madre de Dios. While examining the findings from expert researchers along with my own fieldwork from 2016, I will delve into the reasons as to why this lucrative profession is becoming more common in these regions. My essay will center on environmental and economic factors, namely, communal isolation caused by the jungle's natural enclosure, and the increased activities of illegal gold mining occurring in the heart of the Amazon. I will discuss how the illegal exploitation of gold has attracted women from impoverished rural areas with hopes to work, only to be recruited and coerced into brothels that falsely advertise the promises of domestic work. And finally, I will discuss how the passivity of the government, combined with the presence of the illegal mines have created a dystopian environment filled with corruption and injustice.

This essay is exploratory as much as it is argumentative. It involves my own first-person travel account, thereby providing an ethnographic look into the underground sex- trade economy hidden in the depths of Peru's Amazonian rainforest. I divide this study into two principal parts, where first, I narrate my chance journey to a makeshift bordello community in Tambopata province, to later provide a wider, research-based approach to the exploitation of Peruvians caught in the vortex of poverty, isolation, and societal neglect. It is rare that the outsiders (even Peruvians themselves) ever reach such remote places, including the most ardent and adventurous globetrotters. This is understandable, for access to these hidden enclaves of vice and survival is challenging to say the least, while the destination itself does not offer any traditional sites of tourist interest. Quite the opposite: in today's world, where economic inequality has created wealthy first-world sprawls and vast shanty towns all over Latin America, Tambopata lies at the very bottom of the ladder. While it is disconnected from societal advances (with only the most primitive technologies and infrastructure), its dismal conditions stem from today's greed for resources that place human life and dignity on the back burner.

The trip all started with a friend whom I've acquainted myself with in Peru, when one day she asked me if I wanted to accompany her to meet her relatives in Puerto Maldonado. I wholeheartedly agreed, and the purpose of the trip was simple. I would fly there, take a tour through the Amazon rainforest, take several pictures of exotic animals, and then return to Lima. With a small suitcase in hand, my friend and I exited the plane and eagerly trotted towards the lost paradise awaiting us beyond the doors of the small, underdeveloped airport. From that point on, our travel became pure hell. Outside the airport, we took a taxi that drove us ten minutes into a small town, and from there we

had to take another vehicle called a combi. Once we entered the combi, an old man who was the driver, looked directly at us and asked, “—Where is your stop?” We told him that we needed to go to the Tambopata province. He looked at me, then looked at my Peruvian friend with a blank face, but I could hear the traces of nervousness in his voice, and asked us if we were sure. We said yes, my friend explaining that we were going there to visit her sister. He nodded, then told us it would take around two and a half hours. Two and half bumpy hours later, we had finally reached our stop along vía Interoceánica Sur. We were dropped off onto the side of the road, where we were greeted by a small humble community of restaurants, shops, and bars. From the town, we had to walk an additional fifteen minutes through a path into the jungle, and stopped at what looked like a small clearing with a line of moto taxis parked near a very narrow trail. This trail seemed to lead even deeper into the undergrowth of the rainforest. The vehicles were essentially converted motorcycles, with uncomfortable bench seats in the rear. It didn't look safe, but we were told that it was the only vehicle that was capable of trekking through the rough, dangerous terrain. We drove another long, extremely bumpy ride into the jungle, then at one point we had to take a boat to cross a river, and on the other side awaited another team of moto taxis. The mining community was not far from the river, we only had to drive another additional five to ten minutes. Upon arrival, the first thing to hit me was the unbearable, god awful smell of human feces mixed with the smoke of the mines, and rotting garbage that was scattered everywhere throughout the camp. The village was occupied by old, fragile looking buildings made of scrap metal and rotting wood, but the majority of the structures that took up the space looked like makeshift tents crafted with plastic tarps, with wooden sticks supporting its frame.



Figure 1: My friend, her relatives, and I eating lunch together in her restaurant/home

Flashy images of provocatively dressed women decorated the walls and billboards of the buildings, some labeled with bright neon letters as “Hostal” while others “Disco Bar.” Hoards of flea-ridden dogs ran as packs through the streets, and as we walked through the village, it was eerily quiet. People would quietly peek out through the dirty fabric that acted as doors, or some drunken men would stare us down as we passed by them. For the first time in my life while being in Peru, I felt as though I wasn’t safe. We both quickly made a turn at some point, and thankfully the area we had turned into felt more welcoming. Children were playing in the streets, their audible laughter gave me a sense of security. From there, we had a nice reunion with my friend’s sister. She led us to an old building with a large chalkboard sitting on the front porch. I realized that this woman was a restaurant owner, and after we were fed the most wonderful meal, she asked us about

our trip. While talking to her, her warnings of caution began shattering my hopes of trekking through the beautiful, primitive landscape of the Amazon jungle: “—This restaurant is safe, and the area around this restaurant is safe. During the day it is okay to roam around.” She explained to me. “—But at night, under no circumstance should you go around alone, especially the other side of town.” “—Why? What is that place?” I asked her. With a serious look on her face, she grabbed my hands and looked me dead straight in the eye. “—That part is *barrio chino*. You don’t want to go over there, it’s nothing but trouble.”

The *barrio chino* my friend’s sister was referring to was actually the main chain of brothels that took up most of the town, aligned together to greet and make a profit off tired miners returning home after a long, restless day of working in the mines. I had soon realized that this village existed for the sole reason of providing for the needs of these miners, and even though we stayed in the restaurant, the establishments that surrounded us were mainly brothels. Within the week I was there, I had an intimate glimpse into the lives of the prostitutes who lived in these brothels, and had the wonderful privilege to interact with them. My stay was filled with unforgettable experiences of witnessing the heavy affects informal mining had produced onto the lovely people of Madre de Dios. After the trip, along with some much needed research, I conclude that these mines are a curse, a human manifestation of greed and power that had inescapably given birth to a nihilistic dystopia. The plagues of these mines have taken and ruined many lives, some individuals never even got to see their own families. Compassion is nonexistent and life is not valued, death being quickly forgotten there. The horrible living conditions, the deplorable human rights violations, and the unforgivable acts of violence all run

rampant there, and despite that, the state does little to attempt to solve this human rights crisis.

In this community, I had mainly been exposed to the terrors, the abuse, and the daily subjection that these prostitutes had to face with these unpredictable and violent men. However, what impacted me the most was their marginalization from society. The label of a sinner isolates them, which unfortunately covers the scars of their physiological and psychological trauma. Thus, in my essay, I will explore the undisclosed world of prostitution occurring within the rainforests of Peru, specifically focusing on the regions bordering Cusco in the Amazonian department of Madre de Dios. While examining the findings from expert researchers along with my own fieldwork from 2016, I will delve into the reasons as to why this lucrative profession is becoming more common in these regions. My essay will center on environmental and economic factors, namely, communal isolation caused by the jungle's natural enclosure, and the increased activities of illegal gold mining occurring in the heart of the Amazon. I will discuss how the illegal exploitation of gold has attracted women from impoverished rural areas with hopes to work, only to be recruited and coerced into brothels that falsely advertise the promises of domestic work. And finally, I will discuss how the passivity of the government, combined with the presence of the illegal mines have created a dystopian environment filled with corruption and injustice.

Currently in Peru, there are 130 million people who hold informal jobs deprived of social protection and labor rights ("Trends"). The National Census in 2007 reported that 39.3% of Peruvians live in poverty, while 13.7% live in extreme poverty (Maira, 59). Thus, according to experts of the anti-trafficking community, poverty is one of the main

driving factors of human trafficking (Valdés, 71). The experts also acknowledge that there is a scarcity of resources on the activities of human trafficking and informal mining in Madre de Dios, as the Peruvian government rarely allocates state resources or pays attention to the research on this topic. The little statistics that the government does provide have been deemed unreliable, while, in contrast, the most reliable research has been found in the archives of a few non-profits and non-governmental organizations (Maira, 53). The data recorded in this paper has been provided by researchers who had access to a small sample size of victims, all affected by human trafficking. The researchers acknowledge that their data was not completely sufficient to uncover the entirety of the issues occurring as a consequence of informal mining due to several problematic factors that interfered with their methodology. Namely, geographical difficulties, measures of safety, and the characteristic elusiveness of those participating in the illegal economy. In contrast, the empirical statistics of gold production in Peru were widely available, and Peruvian citizens with whom I've talked, would marvel at the natural bounty that their country provides for the global economy. It's no surprise that they would boast since, globally, Peru was ranked the sixth main distributor of gold behind several large or developed nations such as China, Australia, Russia, and South Africa (Mujica, 19). The total value of gold Peru has produced equaled 357 million soles, the equivalent of 110 million dollars (Mujica, 21). Being one of the main distributors of gold has benefitted Peru's economy greatly, especially when gold profit had soared on Wall Street during the global recession, reaching a high of \$1,900 per ounce. This, in consequence, made gold mining the dominate industry, especially for the large, humble region

of Madre de Dios (Ulmer, 3) where 85% of all the gold in Peru is being produced (Mujica, 20).

This precious mineral became so important that gold revenue had surpassed cocaine by 15% (“Qué pasa,” 84), and the high demand for gold from the global market, along with its consistent value, has attracted a huge wave of migrant workers, precipitating a population growth of 2.54% in Madre de Dios compared to the 1.55% growth in Lima, the capital of Peru (Mujica, 24). This is what leads me to believe that the unequal distribution of wealth in Peru has caused a “gold rush,” thereby producing a feeding frenzy of Peruvian citizens rushing towards the golden opportunity of earning wages considerably higher than the minimum 900 soles per month, roughly equalling over 200 dollars (Mujica, 27). Nevertheless, gold production in Peru has been labeled an illegal export commodity, as it has been reported that only 3% of exported gold was produced from formal, legally running gold mines. The rest of the 97% are informal mines, businesses that have not been approved by the government, nor have the proper legal standing or licensing (Mujica, 22).

These illegal mines do not have any borders or boundaries, as their intensification of mining in prohibited areas has caused an escalated rate of deforestation, and their disregard for the law has made them the unfortunate source of human rights issues, such as human trafficking and illegal prostitution currently transpiring in Madre de Dios (Ulmer, 4-5). In sum, the presence of these illegal mines, and the government’s lack of interest in these isolated areas has given birth to a dystopian society, teeming with illegal businesses and prostitution rings, where rampant criminals are driven by the

need to obtain wealth by inciting violence, and exploiting vulnerable individuals for their own personal gain.

Just as there has not been a lot of research done on the illegal mines, likewise, the cases of the sexual exploitation of women and children in Madre de Dios have been absurdly scarce. One reason for this could be due to the marginalization that victims face from society. The fear of stigmatization instigates hesitation, or worry on the part of the victims to speak out about the abuse they had endured in the hands of their perpetrators. As a result, it is reported for some that the condemnation has been so severe, that many victims who return to their families end up going back to the brothels to avoid ostracism (“La trata,” 40). It has also been reported that parents of victims are reluctant to report their children due to the corruption of media, as local news outlets or online articles would sensationalize stories about parental complicity in trafficking, such as the act of selling their own children (Maira, 60). However, most experts agree that the government’s passivity on the illegal activities of informal mining is connected to the scarcity of data on human trafficking in Madre de Dios, since both of these criminal entities work together as one unit. The miners, after laboring in the insecure environment of the mines for inhumane hours, would go to these ‘*prostibares*’ that employ up to 30 girls (“La trata,” 25), and from there, they would seek the service of prostitutes. Several of these men would most likely ask for a “*jovencita*” (Ulmer, 9) in reference to a child prostitute, as it is believed that younger girls are less likely to carry sexually transmitted diseases (“La trata,” 26). After they binge drinking and satisfying their libido, the cycle continues.

Gordon Ulmer describes this cycle wherein:

“binge drinking and repetitive sexual interactions with prostitutes anesthetize the extractivist’s lifestyle of isolated labor in extreme physical environments, which is “built around a rhythm of hard work alternating with release”. This alternating cadence of excessive work followed by binge consumption fueled by addiction form part of the ‘engine’ of labor that ‘drives’ gold mining in Madre de Dios, and alcohol and female bodies comprise the ‘fuel’ that further motivates extractive labor” (9).

This is the most unfortunate consequence of informal mining, as an estimated 80% of the sexually exploited victims are minors (Maira, 57). The lengths that the perpetrators would go in order to lure vulnerable minors are disheartening, as studies reveal that over half had been coerced through false job advertisements posted in employment agencies, food markets, bus terminals, festivals, plazas, and major streets in popular cities (Maira, 59). Another widespread method consists of sending out recruiters, usually women in their mid 30’s or 40’s, who target and entice young girls that look desperate to leave their state of extreme poverty (“La trata,” 33). Once the targets are captured, the perpetrators would take all important documents and money carried by the victim, and from there the sex-workers-to-be would be sent on a bus on route towards La Pampa, the main region of illegal mining and sex trafficking in the region (Mujica, 30). Based on my own fieldwork, the conditions of these camps are absolutely deplorable. The victims are forced to live in man-made tents built out of plastic material, with flimsy pieces of wood to sustain the frame. There is no running water. The only available water source is the river, which already contains dangerously high levels of mercury. Miners use mercury to extract golden flakes from sedimentary materials, and then the mercury

is disposed of in the river (Ulmer, 7). This careless act of pollution not only affects the environment, it also affects these residents who depend on the river for drinking, cooking, and bathing their utensils. The fish caught from these rivers are dangerous to consume, and studies have shown that each pound of fish had critically toxic levels of mercury (Osore, 39). The lack of running water also creates sanitary issues, as people who bathe in these contaminated rivers, freely relieve themselves in the streets, thereby leaving a conspicuous accumulation of feces and urine throughout the community. These habits undoubtedly spawn higher health risks. There is little electricity, no telecommunication, no presence of law enforcement, and trash is piled up throughout the entire campground, conditions that attract a variety of unwanted animals and insects (“La trata,” 20). The unhygienic conditions of the village create a high susceptibility to serious infections and illnesses, thus it is no surprise that the mortality rate in these villages is extremely high (Mujica, 35).



Figure 2: An example of how the camps would have looked like. Source: <http://acafmira.pcm.gob.pe/2015/07/destruyen-55-campamentos-de-mineros-ilegales-que-operaban-en-la-pampa-en-madre-de-dios/>

Such terrible living conditions notwithstanding, the girls are made to work a minimum of 12 hours a day in bars open 24 hours, seven days a week. Since they are bought by the madams, they are made to work off their debts which include their own

purchase price, their rooms, any make up, and food. This, in turn, makes them prisoners of these bars (“La trata,” 26). The pressure to pay their debts, as a result, prompts competition amongst the girls. One night, two adolescent girls whom I’ve gotten to know, were fighting over a client who looked to be over 40 years old. During the day, they told me they were friends. However, as the sun began to set, the cue of returning miners immediately brought both girls on edge. The night transformed these two adolescent friends into vicious competitors, as both overlooked their friendship to focus solely on winning clients. The girls fought each other by calling each other names, threatening to hit one another, and one even tried to splash alcohol in the other girl’s face. After the dust had settled, the winning girl left with the man while the loser frantically searched for another client. In contrast to their supportive, communal interactions during the day, the ambience during the night was like the hunger games. Every girl worked for herself, and nobody hesitated to encroach on the other’s space. The brothels do not only use debt and competition to control the girls. In order to maintain optimal productivity during peak hours, these bars would close off access to the girls’ room for the whole night, only to reopen it around 7 am, thereby allowing the girls to rest throughout the day and prepare to work again at night. The room is nothing but a large space consisting of thin mats for beds, with plastic tarps covering dirt floors (“La trata,” 26). It has been reported that girls who refuse to drink alcohol with a client while working can be fined up to 200 soles, and are also subject to other fines for being in contact with family members, or with any other suspicious character (“La trata,” 26). Some brothel owners didn’t allow the younger girls to talk to me, even when I offered the madams to teach the girls English for free during their leisure time. An older girl later explained to me that they probably

feared that I was going to corrupt their minds by encouraging them to return to their families, or pursue better goals. The worst part of the job is when clients ask for privacy with a specific girl. They are provided with a cramped room within the inadequate establishment, where then the girl is expected to perform unsafe sex acts (“La trata,” 26). A girl recounted to me her most frightening experience in one of these rooms. She said she was fifteen years old when a drunk, 30 years old client, asked her to perform an act she would rather not do. She refused, and as soon as she did, the man began beating her with whatever object he could find. She told me that he hit her several times over the face with a glass bottle, resulting in several cuts and scars across her forehead. Her madam arrived to usher the drunken man out of the room, then she remembers the madam throwing a couple of wet rags on top of her bruised body, and casually urged her to clean herself up. Not surprisingly, these ungodly working conditions affect the girls’ health. They exhibit signs of post traumatic stress disorder from suffering physical and sexual abuse from their clients and madams on a daily basis. In order to cope with the psychological distress, they turn to alcoholism and substance abuse (Mujica, 56). Even during my time there, it was normal to see young girls either drinking alcohol, inhaling cocaine, or doing both on a daily basis. The majority of them have also been found to have sexually transmitted diseases, and it has also been reported that there were elevated cases of AIDS/HIV in these communities (Mujica, 36). The most heartbreaking consequence arises in the form of unwanted teenage pregnancies, as protection is rarely used in these bars. While I was there, I witnessed how a preadolescent girl, who looked to be around ten or twelve yearly old, discuss with her madam how she wanted to get an abortion. The methods they explored, and the lengths to which the



Figure 3: Typical makeshift brothels in Peruvian jungle. Source:<http://o.canada.com/news/photos-illegal-miners-in-perus-amazon-plagued-by-fear-of-looming-government-crackdown>

young girl was willing to go, were horrifying. The details were so gruesome, that I had to leave the room.

This led me to question what the Peruvian government was exactly doing in order to combat the abominable, human rights violation taking place in the jungles of Madre de Dios. According to research, on March 2012, the government had decreed to implement a strategy called DREM, formally known as the National Strategy and Interdiction of Illegal Mining. This strategy would bestow authority on certain institutions, giving them the prerogative to enforce formalization on informal mines. However with this program, the government focuses more on the eradication of illegal mines, which is little to no use, as the institutions themselves have confessed that they only had the capacity

to control, or guarantee the security of these territories (Mujica, 25). The government is already aware that the institutions do not have the resources, funds, or man power to do this job (Mujica 25). Nonetheless, they are still expected to carry out the objective of the program, which consists of eliminating all means of gold production from these informal mines. This would include developing a series of directed operatives to destroy resources, such as motorized pumps or electrical generators (Mujica, 25). Government-appointed institutes have also confessed that the rough geographical terrain of the Amazon makes it difficult to organize operatives, the jungle making infiltration close to impossible, as there is no formal road that leads to these mines. In addition, the dangers of unstable terrain, caused by swamps and mudslides, make it difficult on a security level for the enforcers to enter the narrow access points to the mines (Mujica, 15).

Despite their claims and efforts, The Center of Legal and Psychological Attention (CALP) has found sufficient evidence of public authority minimizing the crimes of the traffickers (“Trata,” 65). According to the global barometer of corruption, it has been established that the institutions most affected by corruption are ranked in the following order: Judicial powers, political power, the parliament, and lastly public services (“Trata,” 64). There have been reports of judges failing to sentence traffickers for aggravated trafficking in cases involving child victims. Instead of assigning the maximum sentence corresponding to the severity of the crime, the judge would sentence violators for lesser crimes, classifying them as “pimps” since such charge is easier to prosecute (Maira, 62). There have also been evidence of the courts not completing the due process, which again, favors the accused (“Trata,” 66).

Finally, the lack of clarity in the language of the legal system of Peru regarding victims of human trafficking, makes it hard for victims and their families to prosecute criminals (“La trata,” 42). In the case of parliament, politicians have been accused of participating directly with the criminals involved in human and drug trafficking in Madre de Dios (“Trata,” 67). In addition, the Peruvian government does not provide adequate services for trafficking victims, and fails to dedicate funding for their specialized care (Maira, 61). It is evident that the government’s tolerance, or active participation in certain establishments in favor of human trafficking, confirms the practices of corruption in the government (“Trata,” 67). Finally, there have been reports of corruption within the public service sector, where police and investigators would conflate human trafficking incidents, which leads to producing unreliable data (Maira, 62). This is believed to occur due to recorded incidences of police stopping cars occupied by traffickers and victims, only to let them free after receiving a bribe from the criminal. Afterwards, the officers would claim in their reports that there wasn’t enough substantial evidence to detain them (“Trata,” 66). What makes this corruption more serious is that the majority of the victims are minors, vulnerable individuals whom the police should have the most incentive to protect. To ensure safety, officers are required to check all minors’ documentation, as it is illegal in Peru for minors to travel without it. However with the bribe in hand, the police do not question, nor do they check the documentation of any minor present in the vehicle (“Trata,” 66). The greatest disappointment of corruption, however, stems from the Peruvian society’s tendency to minimize the gravity of human trafficking. Due to the shame and the fear of repression from society, many criminals are not prosecuted (“La trata,” 42). The stigmatization of women victims, the sensationalization of media

which blames the victims and their families, and the inclination to dismiss issues of human trafficking by Peruvian communities, all equally contribute to the regular operation of these illegal industries.

The price of gold is high, and its value will continue to stay consistent. The potential investments, or the endless amounts of opportunities this precious mineral can offer for Peru in its development to become a wealthier country, is undeniably good for the nation as a whole. However, to what extent are we willing to go in order to obtain the dream of wealth and prosperity? To what lengths are we willing to allow corruption, the ravishing of our natural resources and our people? Will we continue to turn a blind eye to the destruction of our precious gem, the rainforests, being reduced into mere stumps of sludge and mortar? Even worse, will we continue to look the other way as our mothers, our daughters, our brothers and sisters, are being sold and abused like cattle to an industry permeating with filth and human greed? A Peruvian young lady around my age, a current victim of human trafficking once told me, "My dream is to leave this place, take a car and go to Cusco. From there I will work, and go to Lima. And there I will meet my husband, raise my own family, and be a good mother to my children; something my mother never was for me." After hearing this, I conclude that Peru, or any other nation that permits this atrocity, has committed two sins: The sin of gluttony, and the sin of Judas Iscariot. However, instead of selling Christ, the crime that has been committed is the selling of our own mothers and daughters for gold, resulting in a dystopia built upon human slavery and exploitation.

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Who are my Biological Parents and Siblings? A Study of Children's Understanding of Biological Kinship

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Abstract: The study focuses on investigating 4 and 5 year olds understanding of biological kinship. In contemporary times, many children will experience new individuals coming into their lives because of remarriage. This study investigates children's understanding of biological kinship concerning the entrance of these new individuals into their lives. Results suggest a developmental difference in children's understanding of the biological kinship in sibling relationships.

Background

There has been an ongoing debate in the literature as to whether children recognize that several biological processes are determined by underlying biological processes that take place independently of physical appearances. Several areas in children's understanding of biology have demonstrated that children have an underlying recognition of the impact of biological agents in areas such as contraction of both genetic and contagious illnesses (Raman & Gelman, 2005; Kalish, 1996), inheritance of physical organs (Springer, 1996), skin color (Raman, 2016) and inheritance of height and weight (Raman, in press).

Although several areas in the understanding of biological theories have been studied, one of the areas that has not been extensively studied is children's understanding of kinship relationships. Given the debate of whether children make judgments based on physical appearances or internal attributes, one question to consider, do children recognize that kinship relationships remain constant across time and circumstances? For example, will your mother always be your mother irrespective of time and circumstances? Will older sister always be your older sister irrespective of a new individual moving in or do they think that kinship relationships are based on environmental factors? The following study examines children's and adults' recognition of parent and step sibling relationships.

Hypothesis

The following hypotheses are possible: (a) if children and/or adults demonstrate an autonomous theory of biology, we should not see evidence of environmental factors influencing the assessment of kinship relationship; (b) if children think that environmental factors do influence kinship relationships, we should see evidence of transitory reasoning where kinship relationships changed depending on new living arrangements.

Methods

Participants

The study consisted of 16 preschoolers (ages 4 and 5 years) and 16 college students.

Materials

The questionnaires presented to each participant contained eight vignettes. Four of these vignettes described situations of a parent moving out and a step parent moving in with no children. The other four vignettes presented described situations of a parent moving out and step parents moving in with a child. Each vignette contained control questions to analyze the participant's understanding of biological kinship without the presentation of environmental factors. In addition to the questionnaires, pictures of each character in the vignettes were also presented to the participants. The order that each vignette was presented was randomized.

Sample Vignettes and pictures used:

Parental kinship question sample vignette and picture:

Mr. Smith and Mrs. Smith had a baby. The baby came out of Mrs. Smith's belly. They named the baby Lucy.

1) Who is Lucy's father? Mr. Smith or Mrs. Smith? (Control question)

2) Who is Lucy's mother? Mr. Smith or Mrs. Smith? (Control question)

Soon after Lucy was born, Mrs. Smith moved into a new house. After Mrs. Smith moved, another woman, Mrs. Jones came to live with Mr. Smith and Lucy. Mrs. Jones took good care of Lucy and brushed her hair every night and kissed her good night.

Who is Lucy's mother? Mrs. Smith or Mrs. Jones?



Sibling kinship question sample vignette and picture:

Mr. and Mrs. Anderson had two children, Brandon and Curt. This means that both Brandon and Curt came out of Mrs. Anderson's tummy.

- 1) Who is Brandon's father? Mr. Anderson or Mrs. Anderson? (Control question)
- 2) Who is Brandon's mother? Mr. Anderson or Mrs. Anderson? (control question)
- 3) Who is Curt's father? Mr. Anderson or Mrs. Anderson? (Control question)
- 4) Who is Curt's mother? Mr. Anderson or Mrs. Anderson? (Control question)

Soon after Brandon and Curt were born, Mr. Anderson moved out of the house and Mr. Taylor and his son Anthony came to live with Mrs. Anderson, Brandon, and Curt. Brandon Curt and Anthony watched television together every day. Who is Brandon's brother? Is it Curt or Anthony?



Procedure

Each participant was read the eight vignettes while the experimenter pointed to the pictures as a reference point for each of the participants. Participants were then asked to respond to the questions and the experimenter recorded their answers verbatim.

Results

Coding

If participants answered correctly for control questions were coded as 1. If participants answered incorrectly for control questions were coded as 0. The same was true for the main questions. Participants answering correctly were coded as 1 and those answer incorrectly were answered as 0.

Main Analysis and Interpretations

T tests were conducted comparing preschool student answers for the parental and sibling conditions, finding no statistical significance ($p > .05$) between their answers to parental kinship questions and their answer to the sibling questions. Therefore, research suggests that preschool aged children understand the concept of sibling and parental biological kinship in the same manner. Next, preschool students' and college students' answers were compared for the parental kinship condition. No statistical significant ($p > .05$) difference was found suggesting that children have a similar understanding to college students in their understanding of parental relationships. Lastly, preschool students and college students' answers were compared for the sibling kinship condition. This was the only condition resulting in statistical significant results

($p \geq .05$). This suggests that there are developmental differences between preschool and college students concerning their understanding of sibling relationships. Preschoolers had more difficulty in distinguishing which sibling was biological kin.

Conclusions

Results clearly demonstrate a developmental difference between preschool and college students concerning their understanding of biological kinship in sibling relationships. However, no developmental differences appear between preschool and college students in their understanding concerning biological kinship in parental relations. This could be attributed to the parent/child relationship being the first relationship that children experience; therefore, the parent/child relationship concept may be more solidified in the child's understanding of biological kinship relationships. These results suggest that preschoolers have a solid but rudimentary recognition of the development of kinship relationships.

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The Effects of Acute Stress and Working Memory

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Stress affects multiple areas of the body, including the circulatory and nervous systems, consequently effecting long-term health outcomes (Slavich, 2016; Benham, et al., 2009). Stress also has an affect on memory, in particular, working memory and attentional processes (Qin, et al, 2009). The present study examines the relationship between acute stress (brief stressors) and working memory. Using an EKG to measure heart rates, participants assigned to the experimental condition were asked to perform a mental arithmetic task while receiving negative feedback as a “stressor” before completing a working memory task. For comparison, those participants in the control group were exposed instead to a neutral stimulus and asked to complete a simple working memory task. The results are discussed in relation to theories of visual attention, computation involving the visual-spatial sketchpad and working memory, and effects of brief stressors on cognition (Amso, 2016; Baddeley, 2012).

RESEARCH OBJECTIVES:

The Effects of Acute Stress on Working Memory

The definition of stress has been of debate for the past few decades. Some researchers postulate that stress is a reaction based on solely the outside world or a specific stimulus, while other researchers suggest that stress is a product of our reaction to the ever-changing world around us (Monroe, 2008). Although both definitions have been heavily researched, one aspect of both is for certain, that stress is an integral part of our lives as human beings. In human history, our ancestors' stress reaction might have been required for effective predator and competitor evasion. In contrast, in modern times the stress reaction may not involve physical stressors but for many people, almost certainly involves a variety and diversity of psychological stressors, for example these may include micro-aggression towards minorities, being fired unfairly from a job, or public presentations to large audiences (Slavich, 2016).

Given the consistency of stress in our daily lives, there are numerous health risks involved with chronic life stress. For example, life stress has been known to induce heart attacks, stroke, depression and other anxiety disorders (Slavich, 2016). Stress also affects our immune system (Benham, Nash & Baldwin, 2009). A study done by Benham, Nash & Baldwin (2009) found that with an increase in stress our body reduces the amount of immunoglobulin A, which is an antibody that helps fight off infections. Benham, et al's (2009) research suggests that when we are stressed we are more susceptible to illness. The stress chemicals and hormones that affect the human body originate from the HPA-axis, or the hypothalamus, the pituitary gland and the adrenal gland (Lupien, Maheu, Tu, Fiocco & Schramek, 2007). The two main chemicals that are

produced by the HPA-axis are cortisol and adrenalin, both of which increase heart rate and blood pressure, which increases the body's response to various stimuli (Lupien, et al, 2007). Continual secretion of adrenalin and cortisol into the body damages the body over time by overworking the heart and damaging the arteries because of the increased blood pressure and heart rate (Lupien, et al, 2007).

Another area stress affects our body is in our cognitive ability (Starcke, Wiesen, Trotzke & Brand, 2016). A study done by Starcke, et al, (2016) tested to see whether or not acute stress had an effect on various areas of executive functioning. After putting participants through an acute stressor the researchers had them complete multiple cognitive tasks to examine their cognitive ability following the stressor (Starcke, et al, 2016). Starcke, et al's (2016) results show that those who were stressed had a decreased cognitive ability except for those tests examining their ability to monitor the world around them (ie.. vigilance behavior). An interesting result from the study is that acute stress affected the participant's ability to code information or store it in working memory (Starcke, et al, 2016).

Working memory, or short-term memory, is a process done by the brain that allows us to report back something we just learned moments before (Baddeley, 2012). Evidence to support the claim that stress impairs memory suggests that when participants are exposed to a stressful stimuli (having the participant's arm submerged in an ice bath for a specified time), their memory was weakened, showing an affect that stress has on memory (Janet & Gerald, 2014). Over the course of three different tasks the participants who were exposed to the stressor had lower scores than those who were in the control group (Janet & Gerald, 2014).

In a study examining the relationship between stress and cognitive load (Oei, Everaerd, Elzinga, Van Well, & Berman, 2006), the outcomes suggest that the most negative effect of stress on our working memory is based on the amount of mental effort that is needed to complete a task. Also, they found that when given a higher-load task, those who were stressed took longer to complete each individual task, as opposed to the control group who remained consistent throughout the study (Oei, et al, 2006).

Stress has also been found to have an affect on specific brain structures. For example, a study done by Qin, Hermans, Merle, Luo, & Fernández (2009) found that those who were stressed had decreased activity in their dorsolateral prefrontal cortex, which is the primary location for executive functions in the brain. The results from this study suggest that when we are stressed the brain focuses its energy away from the dorsolateral prefrontal cortex, which leads to detriments in working memory and decision making, to an area that ensures the survival of the person (Qin, et al, 2009). In the task presented by Qin, et al, (2009), the brain opts for a rapid completion of them as opposed to a concentrated, accurate completion of the task. It could also be inferred that long-term allocation of energy away from the dorsolateral prefrontal cortex may lead to detriments in that area, further effecting the persons executive functioning (Qin, et al, 2009).

The present study examined the relationship between acute stress, and working memory with the hypothesis being that acute stress will negatively impact the participant's working memory. The acute stressor will consist of two tasks that are short in length and will not be long-lasting. This study examined the percent correct and average time to complete a problem in a working memory task and looked to see if

stress impacts the participant's ability to perform a working memory task. Also, the participant's heart rate was tracked throughout the study to measure whether or not they were stressed based on an increased heart rate. Furthermore, this study aided in the understanding of how acute stress affects our working memory, our bodies, and our memory in general.

METHOD

Participants

Participants were recruited from the University of Michigan – Dearborn. College students (N = 14) were recruited and consisted of those who are 18 years or older and varied in races, genders and religions. Participants were recruited from the Psychology Participant Recruitment System (SONA). SONA uses prescreening questions to filter out participants who may be excluded from the study. Also, SONA allows participants to pick and choose specific timeslots that fits their schedule. All of information provided to those students in the upper-level research class as well as those recruited through SONA were similar to ensure that the participants get the same information. Those with severe vision problems were not allowed to participate in the study. All participants, however, were required to wear a heart rate monitor. All of the participant's data were anonymous and kept on the primary investigator's secure and encrypted laptop until the completion of the study and will not be revealed to anyone outside of the study.

Mental Arithmetic Task

Participants who are randomly selected for the experimental group was asked to complete a mental arithmetic task. The task consisted of doing mathematical calculations aloud, while the experimenter gave negative feedback, regardless of

whether or not they got the answer correct. The goal of this task was to induce stress in the participant. The experimenter randomly generated a number between 500 and 1,000, as a starting point, and then another number between 7 and 17, as a number to subtract from the starting number. The randomization of the starting number and the subtraction number was to reduce any bias in choosing numbers.

Stress Appraisal Measure

The Stress Appraisal Measure or SAM is 12-question Likert scale that was used to measure the perceived threat, challenge and stress of an upcoming task. The participants answered each question based on a 1-5 Likert scale, with 1 being no effect or “not at all” and 5 being “extremely”. Both groups were asked to complete this measure following the completion of either reading magazines for three minutes or the mental arithmetic task.

Digit Symbol Substitution Task

Both the experimental and control groups will be required to complete the Digit Symbol Substitution Task (DSST). The task required participants to fill in the correct symbol for its corresponding number within a 90-second time limit (Fried, Kronmal, Newman, et al, 1998). Those in the experimental group were told that the task is timed, while those in the control group were not be notified of its time limit. The percent correct on the task as well as the average time it takes to complete each symbol were recorded.

Materials

A computer with the iWorx HK-TA (Human Physiology Testing Kit) and PS-TA (Psychological Physiology Teaching Set, was used to monitor the participant's heart

rate. A stopwatch on an iPhone 6+ was used to time the participants in the mental arithmetic task as well as the DSST. Various magazines were used as a neutral stimulus for those in the control group (*Clean Eating* March 2017, *Hemmings Classic Car* April 2017, *Michigan Gardening* March/April 2017, *People* March 2017, *Trains* February 2017). Data was stored and computed on a MacBook Pro (13-inch, mid 2012), with OSX El Capitan (version 10.11.6).

Procedure

This study was conducted in the Subject Pool lab on the fourth floor of the CASL building on the University of Michigan – Dearborn campus. The study began following the approval from the Institutional Review Board (IRB) and lasted 2 weeks.

The primary investigator began the study by handing the participant a copy of the consent form and then they verbally read them the entire consent form aloud. While reading through the form, the primary investigator repeatedly asked if they have any questions or concerns with anything they have heard or read. At the end of the form, the primary investigator asked again if they have any questions or concerns and if none are present, then the participant was given the option to sign the consent form and participate in the study. Following the signing of the consent form, the participant received their course credit. Each experiment lasted 20 minutes. Each participant was randomly assigned to a group and following randomization was required to fill out a consent form. Following the consent form, both groups were connected to the iWorx EKG and three disposable nodes was placed onto the participant. A node was placed on both of the participant's wrists and one was placed on the inside of the participant's clavicle. The primary investigator placed both nodes onto the participant's wrist, while

the participant placed the node on their clavicle. Following the placement of the nodes, a baseline measure was taken for two minutes. Afterwards, those in the experimental group were randomly assigned a starting number and a subtraction number for the mental arithmetic task.

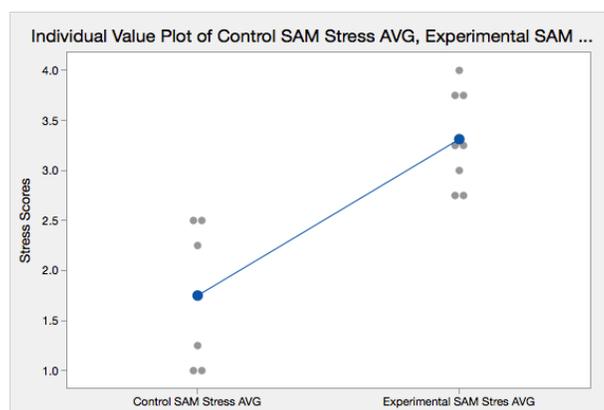
The verbal mental arithmetic task lasted for three minutes, and participants encountered negative feedback regardless of whether or not the participant got the problem correct. The negative feedback consisted of the primary investigator saying, “you are going too slow and need to go faster” or “other participants would have finished by now”. Those in the control group were given a choice of various magazines to look through for three minutes. After the completion of the mental arithmetic task, both groups completed the Stress Appraisal Measure (SAM) to determine whether or not they were stressed. Finally, both groups completed the Digit Symbol Substitution Task (DSST). Those in the experimental group were told that the task is timed to keep their stress levels elevated, while those in the control group were not notified of the time limit in an effort to keep their stress level as low as possible. Both groups were asked to stop working on the task after 90-seconds. Both groups were debriefed once both groups have completed the Digit Symbol Substitution Task and they were disconnected from the iWorx equipment and the used nodes were disposed of accordingly.

RESULTS

The first step in determining whether or not the acute stressor of the mental arithmetic task had an effect on working memory was to compare the results on the task between the two groups. A two-sample T-test comparing the means of the percent correct for both the control and experimental group ($P = 0.4077$) suggested that there

was no difference in scores based on which group each participant was in. Since there was no difference in performance on the DSST, the next step is to examine whether or not there were perceptual differences in stress levels based on the SAM. A one-way ANOVA was used to compare the averages from the experimental and control group and its various levels of the SAM: stressfulness, challenge, and threat appraisals. The ANOVA ($P = 0.001$) suggests that at least one of the SAM levels is statistically significant, which warrants a post-hoc examination. A Tukey test was used to determine specifically which levels on the SAM were significant. The Tukey test found that the control group and the experimental group's stress SAM levels were statistically significant from the rest of the other SAM levels ($P = 0.0089$). Moreover, a two-sample t-test was used to determine whether or not the means of the control and experimental group's stress SAM levels differed. The results from the t-test show that the means of the two levels are statistically different ($P = 0.0004$) and figure 1 shows that the experimental group was perceptually more stressed than the control group.

(Figure 1)

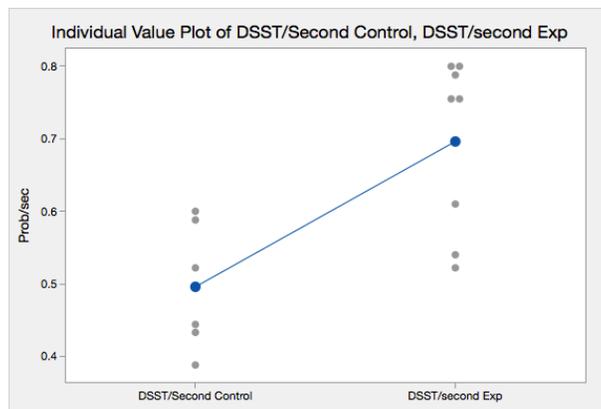


(Figure1: Individual value plot showing that the perceived stress levels for the experimental group were higher than the control group.)

Since perceptual levels of stress differed between groups, the next step was to determine whether or not the participant's heart rate differed between groups. A paired t-test was used to compare the differences in heart rate from the baseline to either the stressor or magazine reading and during the DSST. The results from the paired t-test suggest that those in the experimental group were stressed following the stressor ($P = 0.0075$), but their heart rate normalized during the DSST ($P = 0.0622$). However, the control group's heart rate remained the same during the magazine reading and the DSST ($P = 0.1577$ and $P = 0.8730$ respectively).

Since the perceptual levels of stress differed and for the most part the heart rate differed between the baseline, the stressor and the DSST, but the scores on the DSST were similar, the last step in examining the relationship between acute stress and working memory is to determine if there was a difference in the number of problems completed per second during the DSST. A two-sample t-test was used to compare the means between the two groups and the results suggest a statistically significant difference between the two groups ($P = 0.0046$). Figure 2 suggests that the experimental group completed the DSST faster than those in the control group.

(Figure 2)



(Figure 2: Individual value plot showing that the experimental group's mean was higher than the control group.)

DISCUSSION

The original hypothesis of acute stress having a negative impact on working memory was not supported by the data that was collected. The results were not statistically significant from the t-test comparing the percentage correct for both the control and experimental groups suggesting that both groups performed similarly. A potential reason why the acute stressor may not have been strong enough to elicit a physical response that negatively impacts working memory within the time between the stressor and the working memory task. Study's done by Mohamed (2011) and De Quervain, Roozendaal, & McGaugh (1998) suggest that stress is a time sensitive issue in that the effects of the stressor are more profound over a certain period of time. De Quervain, et al (1998) found increased levels of glucocorticoids 30-minutes after a stressor admitted than levels taken 2-minutes after the stressor and that those after 30-minutes had decreased memory recall. These findings further suggest that the stressor's effects were not fully established on a bodily level.

Examining the results of the SAM stress levels as well as the heart rate suggest that the stressor was effective in inducing stress until a certain point until the heart rate of the experimental group normalizes during the DSST. Similarly to the unexpected performance on the working memory task, a potential reason as to why the heart rate normalizes could be due to the stressor not being strong enough or the stressor may not have had enough time to provide a full physical effect on the body (Mohamed, 2011; de Quervain, et al, 1998).

Finally, the results from the two-sample t-test comparing the average problem completed per second between the control and experimental groups suggest that those

who were stressed had completed the DSST at a faster pace than the control group (figure 2). A study done by Duncko, Johnson, Merikangas, & Grillon (2008) found evidence to support the fact that following an acute stressor participants had increased reaction times, which could be due to the fact that the fight-or-flight response allows for humans to scan the environment and quickly interpret the situation. Duncko, et al's (2008) results suggest that the reason why those in the experimental group performed faster than those in the control group is that their fight-or-flight responses could've been triggered allowing for them to quickly scan the sheet and determine the appropriate answer to the problem on the DSST.

There are multiple ways in which the topic of stress and affects on memory should be investigated in the future to further improve our knowledge. While this study had a limited sample size and population (ie., college students), future studies should aim to increase the diversity of participants' backgrounds to include varied participants of varying ages (from children to seniors), socioeconomic background and education, and mathematical and spatial skill level (indicators of executive function), to more fully represent the human population as a whole. One potential confounding variable could be that college students make use of working memory and memory in general more than the average person, suggesting that the effect of the acute stressor may not have much of an effect on that memory function. Additionally, a variety of different stressors as well as measuring heart rate and working memory performance at various lengths of time are necessary to understand the full effects of acute stress. Finally, this study did not compare sex differences; it is possible that acute stress affects males and females differently in terms of memory function.

CONCLUSION

Overall, the hypothesis of acute stress having a negative impact on working memory was not supported by the data collected in this study, but the stressor itself was effective in inducing stress. However, this study did suggest that during an acute stressor, some of the effects are not on working memory, but rather are on ones ability to scan the environment faster, which allowed for the completion of the Digit Symbol Substitution Task at a faster rate than those who were not exposed to the stressor. Further research is needed to effectively evaluate the effects of acute stress on not only working memory, but on other aspects of the human mind and body.

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**Save Me, Tyler Tijeras:
*Fight Club, Rosario Tijeras, and Social Deterioration***

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Meeting of the Minds XXV

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Though published three years and 4,000 miles apart, novels Rosario Tijeras (Jorge Franco Ramos, 1999, Colombia) and Fight Club (Chuck Palahniuk, 1996, USA) were both born from periods of social unraveling of their respective countries at the end of the 20th century. On first glance, Rosario Tijeras — the cocaine-fueled Colombian tale of a love triangle with a hitwoman in Pablo Escobar's Medellín of the late '80s and early '90s — and Fight Club — a fragmented, violent diatribe about suppressed male aggression in a content, post-Cold War USA — don't have much in common. But upon further examination, they both spring from suffocating atmospheres: subtle and sleepy spiritual death in the U.S., deafening and threatening urban violence in Colombia. Using a reading of the narrative techniques, principal characters and sentiments of both stories, I will propose and back up the similarities of these two literary experiences.

I had the same reaction when I read *Fight Club* (1996, USA) by Chuck Palahniuk and *Rosario Tijeras* (1990, Colombia) by Jorge Franco Ramos: A sense that the author had tried to awaken something within me. I didn't know what that something was, and you could say this essay began with the urge to find an answer to this question. In the attempt, I have discovered that the works not only provoke similar visceral reactions, but that they take place in similar historical periods of their respective countries, times of disintegration of families, of individual lives. The resultant question was this: How do the authors develop these novels in the context of this social deterioration? My thesis is that the extraordinary protagonists of both novels fly off the page, albeit with different results, in order to rescue the narrator and his country from social chaos.

To start with, I will establish that both novels come from a period of social fragmentation. To do this, I'm going to use a part of the Strauss-Howe generational theory, which argues that the history of the United States occurs in cycles of four social moods. Because the academic reception of this concept has been varied, and because to use a holistic theory of U.S. history on Colombia would be a naive proposition, I will use only a component of the Strauss-Howe generational theory: the concept of an unraveling (also referred to in this essay as *disintegration* and *social deterioration*), the third cycle, "a downcast era of strengthening individualism and weakening institutions, when the old civic order decays ..." (Howe and Strauss 3). Or rather, a time when families are weak, public institutions are deteriorating, and the culture is cynical (105). It's also a time of general worry: "Rates of crime and worries about social disorder rise during Awakenings, reach a cyclical peak during Unravelings, and then fall sharply

during Crises” (113). This concept of an unraveling will elucidate how both novels, their different origins notwithstanding, take place during periods of social deterioration.

According to the generational theory, Palahniuk’s *Fight Club* falls squarely within the time frame of the latest American unraveling. It was published in 1996 and takes place in the same time period. According to Howe and Strauss, the latest unraveling started around 1984 and continued during the 1990s (138). Their *The Fourth Turning* begins with an ominous vision of internal decay, an implosion waiting to happen: “America feels like it’s unraveling” (1). Howe and Strauss published this in 1997, when the U.S. was the only superpower left on the world stage. America was “in an era of relative peace and comfort,” but something was wrong; pessimism and social deterioration was eating away at the nation (1). This notion of healthy exterior and toxic interior is reflected by the protagonist in *Fight Club*. He, like the nation, seems like he should be doing just fine. But inside, an identity crisis brews. In this way, and in broader socio-political strokes, the idea of an unraveling is featured in the novel.

Beside Howe and Strauss, another valuable resource to explore the U.S.A. of the 1990s is Susan Faludi’s book *Stiffed: The Betrayal of the American Man*, published in 1999. Faludi focuses her work on the deterioration of institutions and industries which had validated and supported the males of the country since the Great Depression. *Fight Club* deals almost exclusively with this masculinity crisis.

Fight Club is about an insomniac narrator — because of critical convention, let’s call him Jack — who, unsatisfied with his life, starts an organization of underground boxing clubs with Tyler Durden, his overconfident and roguish accomplice. The fight

clubs unite and validate emasculated American men, products of a culture in which the fathers had abandoned their sons, in which the classic, strong American man doesn't exist anymore, nor is he needed. The overall tone of the novel captures the zeitgeist of the era, that of disintegration and despair: "We don't have a great war in our generation, or a great depression, but we do, we have a great war of the spirit," says a member of Project Mayhem, an extremist spinoff of fight club that compensates for professional and personal hopelessness with paramilitaristic destruction. He continues: "We have a great revolution against the culture. The great depression is our lives" (Palahniuk 149). Evidenced in the quote is the men's deep disillusionment with where American society has arrived. Although the quote talks of revolution and war, it refers more to general rebellion; rebellion stands out in *Fight Club*, and rebellion itself presupposes a distrust of the social order. This distrust, and the general mood of depression it breeds and is born from, marks an unraveling.

While a focus on the 1990s suggests that *Fight Club* takes place during a period of social deterioration, transferring this idea to the Colombia of the same era requires a bit more historical examination. Rampant violence shook up Colombia in the 1980s and '90s, and especially the city of Medellín, the setting of *Rosario Tijeras*. In great part, this violence resulted from drug trafficking, a new criminal enterprise which changed the political, economic and social order of Medellín and the country. Ralph Rozema writes that in the Medellín of the 1960s and '70s, "The crime rate was low, and a single murder would appear on the newspapers' front pages. The tranquility of the city changed in the 1980s with the advent of the Medellín drugs cartel. ... Young people, who previously

would have done anything to get a decent job, now go for the quick money of organized crime” (59). This shocking transformation affected the upper class as well as the lower class, although in a less deadly way. The Colombia the upper class had known was now inverted: “For the first time in more than a century of independent nationhood, a new social group established its lifestyle and value system, backed up by an economic power which grew at a speed without precedent” (Cano 215-16). The country’s social strata was rapidly rearranged. The entire nation was affected by drug trafficking in some way.

To Alma Guillermoprieto, who first came to Medellín in 1989, the numbers were surreal (93). In 1990, for example, “more than three hundred police officers were killed, along with some three thousand youths between the ages of fourteen and twenty-five” (93). She wrote that at times it seemed like Medellín would “drown in its own blood” (93). The urban upheaval was even more surprising because it happened in an area of Colombia that just a generation before had been the model citizen of the country. “How is it that the [people of Medellín], the proud vanguard of enterprise and innovation, the architects of Colombia’s industrial future, the most punctual, God-fearing, and family-bound citizens of an otherwise slapdash country, have come to this?” (94). The optimism of a society had been majorly depressed. The faith of a people had started to unravel.

The novel *Rosario Tijeras* is narrated from a hospital waiting room by Antonio, a member of the upper class of Medellín who is secretly in love with Rosario, the eponymous heroine of the novel and a *sicaria* (hitwoman) working for Colombian drug

gangs. After her bullet-ridden body is wheeled off to surgery and disappears, Antonio relives his life with Rosario and his encounters with the poor of Medellín who make it big, if only briefly, by becoming the violent actors of Colombia's cocaine trade. In prose more romantic than Palahniuk but somewhat similar in social context, Franco weaves a scenario in which there is no way out of destitution for the masses except crime.

The contrast between the worlds of rich kid Antonio and slum kid Rosario is striking. Antonio is a mere spectator to the massive societal dilemma that faces people of Rosario's social class: Make some money and die or stay on the straight and narrow, dying a nobody. Her most solid personal connections — Johnefe, her brother, and Ferney, an ex-boyfriend — are also assassins and all she has left of a traditional family. Rosario's mother is out of the picture. She might as well have never had a father. The only reason Rosario has an apartment and car is because they're on loan from her employers, the drug bosses she works for and whom she also serves as a highly-sought-after escort. She's doing well compared to the other people of the *comunas*, the slums which climb the mountains that surround Medellín. Their broken economic dream is on full display in this passage: “[Rosario's] parents, like almost all the people in the neighborhood, had come down from the country looking for what everyone looks for [a better living], and when they didn't find it they settled in the higher part of the city to devote themselves to scavenging” (Franco 14). In other words, Medellín, in the '80s and '90s, experienced the phenomenon of an entire generation of children of poverty coming of age without good work opportunities or a future.

Another aspect that *Rosario Tijeras* shares with the Strauss-Howe definition of disintegration is that families are weak; they barely have any role in the plot. Rosario's mother threw her out of the house when she was still an adolescent and never believed her daughter's claims that one of her mother's boyfriends had raped her. Antonio and Emilio — his longtime friend and Rosario's boyfriend — have almost no contact with their families.

Weak families, an upside-down world for the rich, and a broken economic dream for the poor — and, we can imagine, the resultant distrust of the public institutions which let the people from the slums slip through the cracks — make it clear than *Rosario Tijeras* takes place during an unraveling.

Now that the societal similarities of the two works have been established, we can examine how the authors develop the novels in the context of this social deterioration, of an unraveling. This is best done through an exploration of the most prominent narrative technique of both books: the protagonists.

Rosario Tijeras and Tyler Durden are born of the duality of the plots: The narrator tells the story, but the antithetical protagonist drives it. For example, Jack, the narrator of *Fight Club*, is the mouth of the book; he talks. Yet Tyler Durden is the voice. He is also the primary impetus for the majority of the action. And he is the primary contrast for the narrator, who says, "I love everything about Tyler Durden, his courage and his smarts. His nerve. Tyler is funny and charming and forceful and independent, and men look up to him and expect him to change their world. Tyler is capable and free, and I am

not. I'm not Tyler Durden" (Palahniuk 174). Tyler Durden is the perfect dramatic foil for the narrator.

But why does he exist? What role does he play? First, let's take a look back to the social context of the novel, the American unraveling of the 1990s. "As the nation wobbled toward the millennium, its pulse-takers seemed to agree that a domestic apocalypse was under way: American manhood was under siege" (Faludi 6). *Fight Club* deals almost exclusively with this masculinity crisis, which was one of the most prominent parts of the disintegration of the '90s and represented the deterioration of one of the most fundamental institutions of the nation: the male gender.

Jack is the typical man of his time, a guy who "... feels feminized by his white-collar job and his consumer lifestyle" (Keeseey 17). But Jack doesn't only represent a psychological consequence of the transition from an industrial economy to a service one. He stands for another crucial element of the American unraveling: the general abandonment of the men of the 1990s by their fathers. Jack's dad left the family when the boy was six; he did the same thing to a new family every six years (50). Similarly, Tyler's father was never there (49). Faludi writes that the interviews she had with the men in *Stiffed* continually returned to the topic of a paternal figure: "Behind all the public double crosses, they sensed, lay their fathers' desertion" (596). These weren't insignificant exits. Faludi continues: "Having a father was supposed to mean having an older man show you how the world worked and how to find your place in it" (596). And here's where Mr. Durden comes in.

Tyler is everybody's daddy. He'll teach you how to make homemade explosives and how to lead men, even how to run a soap business out of your kitchen. He creates a secret society in which every member knows what role he plays. He conducts an independent life as an example for his figurative child, Jack. Simply put, Tyler's purpose is to be the father figure for all the directionless, dadless men of the American unraveling.

If that is Tyler Durden's role, what is Rosario's part? The most obvious is that of Antonio's love interest, his most obsessive fascination. Even though Antonio doesn't tell Rosario his feelings until the book's end — and even though there is no romantic relationship between the two except for one night — she is, from the beginning, a radiant solution to Antonio's general boredom with always getting stuck dating the less-attractive friends of Emilio's girlfriends (16). Rosario was a firecracker in the middle of the monotony, where “with her it wasn't a matter of taste, of love, or of luck, with her it was a matter of courage. You had to have plenty of balls to get involved with Rosario Tijeras” (16). Antonio isn't even involved with her, and she wakes up his life.

But there is a deeper meaning to her character, something strongly connected with the social context of Colombia at the time. According to Camila Segura: “... love is presented in *Rosario Tijeras* like the last form of redemption in a world unhinged by violence” (67). It is as if Franco gives us Rosario — the most stunning, spellbinding result possible of the social deterioration of the country — to see if she can cure the wounds of the violence that was rattling the country. Because here you have Rosario, so sexy she'll never want for sponsors and so dangerous she'll never be taken

advantage of again; she's the most representative social product of an unraveling, one who, as Howe and Strauss would say, has "strong survival skills and expectations of personal success" (210), who "[does] what [she] must to get by" (210). Segura tries to make clear that "the idea [of the book] is love" (67). She cites an *El Mundo* interview with Franco: "... I felt like reality was overwhelming me. That's why I searched for something that could be rescued from all that violence. And I found that there was still love, like when a flower sprouts from manure" (Segura 68). Franco says that even in death and horror, love can save you. If a flower can grow in manure, maybe Medellín can be saved.

However, in *Rosario Tijeras*, the shit wins. Because in the end, life beats Rosario by throwing her to her death. And even if she didn't die, there wouldn't be any possibility of a romantic relationship between her and Antonio — They already tried that one night, and it ended with Antonio drowning in tears. Lost is the hope Franco tried to keep alive with Rosario's love.

So, with respect to the protagonists and what the authors try to do through them, *Rosario Tijeras* is a more tragic enterprise. While Tyler Durden isn't perfect — toward the end of *Fight Club* he proves to be a rather destructive solution to the tribulations of the American unraveling — at least thanks to him the narrator learned something, like, for example, his own identity, which is in violent contrast with "what he is not: Tyler" (Keeseey 25). But Antonio, no. He hasn't learned anything. After three years of absence on the part of Rosario, he still loves her, the city is still in turmoil (she was not the only bullet wound to come through the hospital doors that evening), and when she dies,

there's nothing left to say anymore. There's no way to rescue the love. There's no way to save the soul of this broken city. The book even ends with these words, directed from Antonio to the corpse of the still-beautiful *sicaria*: "That's all there is, Rosario Tijeras" (165). Franco's one shot to save Colombia from itself has violently failed. Rosario ends up like so many other victims of the drug crisis: dead.

Through the impressive protagonists of Tyler Durden and Rosario Tijeras, Palahniuk and Franco try to save the narrators and their countries from the social deterioration in which the novels take place. The results differ. *Fight Club*, with Tyler, offers an almost legitimate solution for the emasculation and spiritual stagnation of the United States of the 1990s. On the other hand, *Rosario Tijeras* tries to save Colombia with love. But the violence tragically, clearly, devours everyone.

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Plane Strain Versus Plane Stress in the Mechanical Bidomain Model

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The mechanical bidomain model is a mathematical model that describes the biomechanics of cardiac tissue. The model is represented by an elastic coupling between two solid phases, the intracellular and extracellular spaces. The mechanical bidomain model describes membrane forces that control mechanotransduction and remodeling. Most two-dimensional (x,y) calculations based on mechanical equilibrium assume plane strain, implying that the displacement in the z direction is zero. An alternative assumption, which may be more appropriate for monolayers of cells, is plane stress, implying that the normal and shear stress in the z direction is zero. Our goal is to solve analytically a simple yet fundamental biomechanical problem using the mechanical bidomain model, first assuming plane strain, and then plane stress. The partial differential equations governing the displacement of the tissue were solved analytically for a tissue contracting along the myocardial fibers. Plane strain predicted zero displacement, so mechanotransduction does not occur. Plane stress predicted a boundary layer of mechanotransduction at the edge of the tissue. These different results indicate that researchers must be careful to specify plane stress versus plane strain when modeling the biomechanics of tissue.

Introduction

The mechanical bidomain model is a mathematical model of the biomechanics of tissue, which distinguishes between displacements in the intracellular and extracellular spaces and focuses on forces across the cell membrane (Fig. 1). The mechanical bidomain model can explain the unique characteristics of mechanotransduction and remodeling in cardiac tissue. If the displacements of the intracellular and extracellular spaces are different, forces are predicted to exist across the membrane of the cell. Our hypothesis is that these membrane forces, which act on proteins such as integrins, drive mechanotransduction and result in growth and remodeling of cardiac tissue. The unique feature of the mechanical bidomain model is that it is a macroscopic model that can account for the intracellular and extracellular displacements individually. Since these displacements can be determined, the mechanical bidomain model can predict membrane forces.

In a previous version of the two-dimensional (x,y) mechanical bidomain model (Roth, 2013), plane strain was assumed (no displacements in the z direction). In this paper, we revisit this assumption by assuming plane stress (no stress in the z direction) with the mechanical bidomain model.

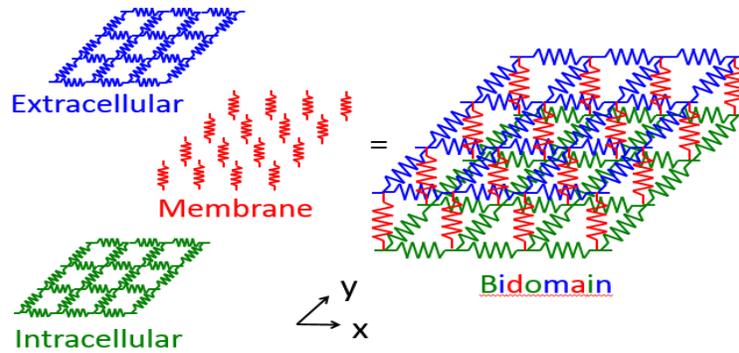


Fig. 1. A schematic diagram of the mechanical bidomain model for a two-dimensional sheet of tissue. The intracellular space is depicted by the lower grid of springs (green), and the extracellular space by the upper grid (blue), and the two spaces are coupled by the membrane (red). When the intracellular and extracellular spaces are displaced by different amounts in the x - y plane, the red springs stretch, causing forces on the membrane and mechanotransduction.

Methods

The mechanical bidomain model represents a mixture of two elastic spaces, the intracellular and extracellular, having intracellular and extracellular displacements \mathbf{u} and \mathbf{w} . The intracellular stress consists of an intracellular pressure p , an intracellular shear modulus ν , and an active tension T . The intracellular stress tensor is written as $\boldsymbol{\tau}_i$, and the intracellular strain tensor as $\boldsymbol{\varepsilon}_i$. The extracellular stress and strain tensors are $\boldsymbol{\tau}_e$, and $\boldsymbol{\varepsilon}_e$. The extracellular space consists of the extracellular pressure q and an extracellular shear modulus μ ; there is no extracellular active tension. A Cartesian coordinate system specifies position in a three-dimensional slab of cardiac tissue (Fig. 2). It is assumed there is no displacements in the y direction. The tissue extends in the x direction from $-L$ to L .

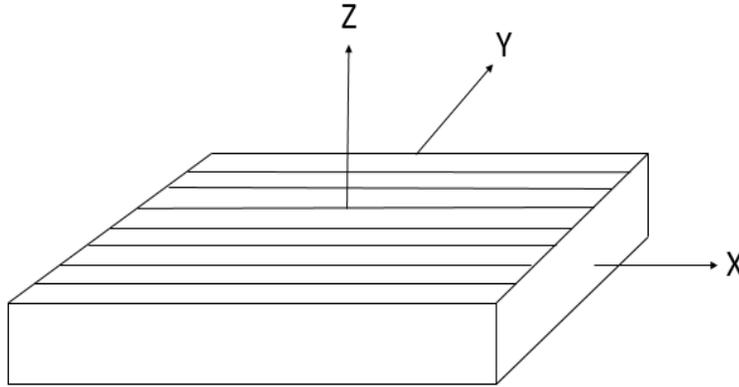


Fig. 2. A diagram depicting a sheet of cardiac tissue.

Results

Plane Strain

Plane strain means that $u_z = w_z = 0$. The intracellular and extracellular strains are

$\varepsilon_{ixx} = \frac{\partial u_x}{\partial x}$ and $\varepsilon_{exx} = \frac{\partial w_x}{\partial x}$, and the stresses are $\tau_{ixx} = -p + 2\nu\varepsilon_{ixx} + T$ and

$\tau_{exx} = -q + 2\mu\varepsilon_{exx}$. The equations of static mechanical equilibrium (Roth 2016) imply

$$K(u_x - w_x) = -\frac{\partial p}{\partial x} + 2\nu\frac{\partial^2 u_x}{\partial x^2}, \quad -K(u_x - w_x) = -\frac{\partial q}{\partial x} + 2\mu\frac{\partial^2 w_x}{\partial x^2}. \quad (1)$$

The parameter K is the spring constant of the coupling between the two spaces, and is associated with the integrin proteins in the membrane (Roth 2016).

Both the intracellular and extracellular spaces are largely water and are incompressible. Therefore both \mathbf{u} and \mathbf{w} are divergenceless, so that $\frac{\partial u_x}{\partial x} = 0$ and $\frac{\partial w_x}{\partial x} = 0$. Finally, at the tissue boundary both the intracellular and extracellular spaces are stress free ($\tau_{ixx} = \tau_{exx} = 0$ at $x = \pm L$).

The only solution given the equations of equilibrium (Eq. 1) and the boundary conditions are $p = T$, $q = 0$, $u_x = 0$, and $w_x = 0$. For plane strain the displacement is zero, so the difference of displacements is zero, and there is no mechanotransduction.

Plane Stress

The intracellular and extracellular stresses in the z direction are $\tau_{izz} = -p + 2\nu\varepsilon_{izz}$ and $\tau_{ezz} = -q + 2\mu\varepsilon_{ezz}$. Plane stress means that the stresses in the z direction are zero, so $p = 2\nu\varepsilon_{izz}$ and $q = 2\mu\varepsilon_{ezz}$. In addition, the incompressibility condition implies that $\varepsilon_{ixx} + \varepsilon_{izz} = 0$ and $\varepsilon_{exx} + \varepsilon_{ezz} = 0$, so that $p = -2\nu\varepsilon_{ixx}$ and $q = -2\mu\varepsilon_{exx}$. Therefore, the stresses in the x direction are $\tau_{ixx} = 4\nu\varepsilon_{ixx} + T$ and $\tau_{exx} = 4\mu\varepsilon_{exx}$. The equations for static equilibrium are therefore

$$K(u_x - w_x) = 4\nu \frac{\partial^2 u_x}{\partial x^2}, \quad -K(u_x - w_x) = 4\mu \frac{\partial^2 w_x}{\partial x^2}. \quad (2)$$

As before, the boundary conditions are zero stress at $x = \pm L$.

Equation 2 does allow an analytical solution. To determine it, an initial guess, $u_x = Ax + B\sinh\left(\frac{x}{\sigma}\right)$ and $w_x = Cx + D\sinh\left(\frac{x}{\sigma}\right)$ was inserted into Eq. 2, where A , B , C , and D are constants to be determined, and σ is a length constant (Roth 2016). The resulting values of the constants are $A = C$, $B = -\frac{\mu}{\nu}D$, and $\sigma = \sqrt{\frac{\nu\mu}{K(\nu+\mu)}}$. The boundary conditions then specified the final expression for the displacements

$$u_x = -\frac{T}{4(\nu+\mu)} \left(x + \sigma \frac{\sinh\left(\frac{x}{\sigma}\right)}{\cosh\left(\frac{L}{\sigma}\right)} \right), \quad w_x = -\frac{T}{4(\nu+\mu)} \left(x - \sigma \frac{\nu \sinh\left(\frac{x}{\sigma}\right)}{\mu \cosh\left(\frac{L}{\sigma}\right)} \right). \quad (3)$$

The first term in the displacement is the monodomain term, which does not contribute to the difference in displacements ($u_x - w_x$) because it is identical in the intracellular and

extracellular spaces. The second term is the bidomain term, which does contribute to the difference in displacements

$$u_x - w_x = -\frac{T}{4\mu} \sigma \frac{\sinh\left(\frac{x}{\sigma}\right)}{\cosh\left(\frac{L}{\sigma}\right)}. \quad (4)$$

The difference is large near the edge of the tissue, and is small in the interior. Figure 3 plots u_x , w_x , and $u_x - w_x$ as a function of position.

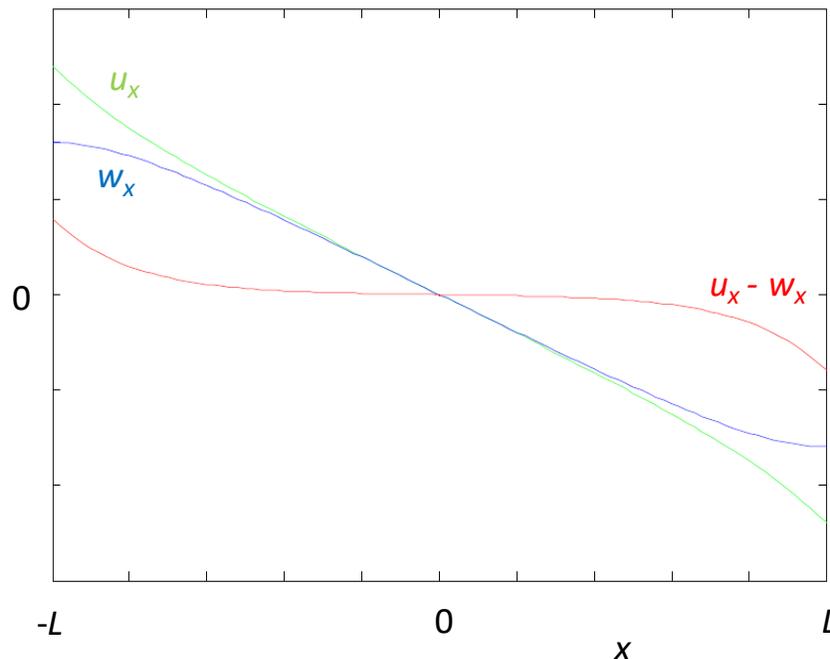


Fig. 3. A plot of the intracellular displacement, u_x (green), extracellular displacement, w_x (blue), and the difference $u_x - w_x$ (red), as functions of x . The tissue is stress free at $x = L$. In this calculation, $\nu = \mu$ and $\sigma = L/10$.

Discussion

For plane stress, the driving force for mechanotransduction, $u_x - w_x$, is located in a boundary layer near the edge of the tissue sheet (Fig. 3, red curve) with length constant

σ . For plane strain, there is no displacement, $u_x - w_x = 0$, and no mechanotransduction. Therefore, the predicted distribution of mechanotransduction is fundamentally different in the cases of plane stress and plane strain.

The appropriateness of plane strain versus plane stress depends on the type of experiment being analyzed. Suppose a thin monolayer of cells is grown between two stiff glass coverslips, separated by a distance of one cell width. In that case, there could be no displacements in the z direction (perpendicular to the glass cover slips) and plane strain would apply. If, however, the monolayer of cells was grown on a substrate with no constraining boundary on the upper surface (as if the cells were exposed to a perfusing bath), plane stress would apply.

Rosowski et al. (2015) grew monolayer colonies of stem cells with a free upper surface and observed that the cells differentiated primarily at the edge of the colony. Auddya and Roth (2017) used the mechanical bidomain model to interpret these results. When they used plane strain they found no mechanotransduction, but when they used plane stress they predicted a layer of mechanotransduction at the colony edge, similar to our prediction.

One way to test this model would be to grow monolayers of stem cells under two conditions: one with a free upper surface like Rosowski et al. (2015), and one with the upper surface constrained by a glass coverslip. The colony with the free upper surface should have cells differentiating at the colony edge, while the colony with the fixed upper surface should not.

Acknowledgments

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This paper would be submitted as - ChadScribnerBradleyRoth.pdf

A New Twist in the Quasar Radio Dichotomy: The Case of the Missing Outflows

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A previous study of mass outflows from growing black holes (“quasars”) observed with the Cosmic Origins Spectrograph onboard the Hubble Space Telescope revealed questions about whether there is a bias with regard to the orientation of the systems, or whether there is something physically different between systems that shine brightly in the radio band (“radio-loud”) and those that don’t (“radio-quiet”). Of the 146 radio-quiet quasars observed, 39 showed the outflow in ultraviolet absorption by the N V ion. Comparatively, of the 19 radio-loud quasars that were observed, none showed N V absorption. We hypothesize that the sample of radio-loud quasars is biased in the orientation such that we do not see the outflows, rather than there being a physical difference, since nearly all of the radio-loud quasars are observed in a particular orientation. To further test this hypothesis, we are observing a sample of 11 radio-loud quasars with a variety of orientations. We present the results of our new Hubble Space Telescope observations thus far, along with the orientations of the objects and a possible solution to this mystery.

1. INTRODUCTION

A quasar is an object in space with a super massive black hole in the center. Super massive black holes are found at the center of every massive galaxy. An accreting disk of hot, luminous gas surrounds the black hole. In addition, we observe highly collimated jets of material driven perpendicular to the disk. These jets can be viewed in the radio, indicating that the material in the jets is ionized and spiraling around magnetic field lines. There are two components to the jets: (1) a core consisting of electrons moving at relativistic speeds; and (2) lobes where the electrons interact with the medium surrounding the quasar's host galaxy. Because the material from the core is travelling at relativistic speeds, the emission is thought to be beamed preferentially in the direction of motion. Hence, we can use the ratio of the core/beamed component to the lobe/unbeamed component to gauge the orientation of the jet, and the disk. Finally, we also sometimes observe a mass outflow, much more massive than the material in the jets, that appears to be driven off the accretion disk. This outflow is observed in the ultraviolet and X-ray in the form of absorption lines, as the gas is silhouetted against the hot, luminous disk.

The focus of this research is the outflow. We look specifically for the detection of N^{4+} (Nv) ions along with H (H_I) atoms. Using the *Hubble Space Telescope* and the *Cosmic Origins Spectrograph* (HST/COS) we detect Nv and H_I in the ultraviolet. We are able to observe the outflow due to the similarities in observed properties. Our intention is to gauge the structure of the quasar outflow and its relationships to the other components and possibly to the physics parameters of the quasar (e.g., black hole mass, accretion

rate) assuming that the objects in our sample all have similar geometries so that differences in the absorption properties can be attributed solely to orientation effects. This assumption is bolstered by the similarity in the both physical parameters as well as other observed parameters of the objects in the sample. This study presents the first observations taken with the *Hubble Space Telescope* by members of the University of Michigan-Flint community.

2. DATA

The following surveys were used in our research to define our sample of objects: (1) *Faint Images of the Radio Sky at Twenty-Centimeters* (FIRST), a survey conducted in the radio band at 1.4 GHz; and (2) the *Sloan Digital Sky Survey* (SDSS), an optical survey using five imaging filters across the optical and near-infrared band and spectroscopic follow-ups. Quasars were selected by SDSS, and then cross-matched with the FIRST catalog as having lobe-dominated radio morphologies. Finally, we also cut the sample down to those that were bright enough to be observable with the *Hubble Space Telescope*. In the table below, we list the resulting sample of objects that had not already been observed by Hubble. Column 1 lists the target name; column 2 and 3 list the right ascension (RA) and declination (DEC); column 4 lists the radio core fraction from this study, and column 5 lists the V-band magnitude. RA and DEC are similar to latitude and longitude, but on the sky instead of on the ground. *NASA/IPAC Extragalactic Database* (NED) was an additional tool used to help survey the literature.

HST Object	RA (2000)	DEC (2000)	Core Fraction	V (mag)
7C-074532.29+451808.00	07 49 6.5000	+45 10 34.00	0.69	17.1
7C-113807.79+463840.00	11 40 47.9000	+46 22 5.00	0.86	16.4
VV2006-J121613.6+524245	12 16 13.6535	+52 42 46.18	0.19	17.79
87GB-110153.6+214051	11 04 36.3390	+21 24 17.87	0.19	17.38
2E-3273	14 27 35.6003	+26 32 14.65	0.76	16
87GB-153746.8+142023	15 40 7.8470	+14 11 37.12	0.46	17.15
6C-092828+554656	09 32 0.0782	+55 33 47.41	0.74	17.57
VV98-J141628.6+124214	14 16 28.6563	+12 42 13.58	0.93	17.54
VV98-J150455.5+564920	15 04 55.5624	+56 49 20.30	0.03	17.2
4C-05.38	09 14 1.7684	+05 07 50.50	0.90	17.54
NPM1G+08.0242	11 07 17.7732	+08 04 38.28	0.36	17.35

Table 1: The 11 objects granted for observation by HST. RA/DEC represent the coordinate system of the location of the object, the (2000) is the year it was recorded.

The radio core fraction is defined as the ratio of the core flux to the total flux (core plus lobes): $R = \frac{\text{Peak flux from core lobe}}{\text{integrated flux total}}$. For a couple of our objects, the emission from the core is directed in a way that we cannot detect it. In these cases, we use a limiting value based on the detection limit of the FIRST survey in place of the actual peak flux. This is merely a statistical upper limit on how large the core fraction could be. We adopt a conservative limit of three times the RMS value in the field of the quasar. A total of 15 objects will be studied over the course of this study (11 from the targeted observations, and an additional four whose observations have already been carried out and archived by Hubble). Of these, nine of the 15 have been observed thus far and their information from FIRST can be found in Table 2 below.

#	SDSS Name	Core	Red Shift (z)	5GHz Peak Flux (mJy)	5GHz Int Flux (mJy)	5GHz Deconv PosAng (deg)
1	091401.75+050750.6	Yes	0.3	53.2	57.48	25.39
3	093200.07+553347.4	Yes	0.27	3.82	3.83	42.23
4	074906.50+451033.8	Yes	0.19	57.18	80.99	46.72
5	154007.84+141137.0	Yes	0.12	14.58	15.17	62.76
7	235156.12-010913.3	Yes	0.17	119.25	318.72	83.45
8	121613.62+524246.2	No	0.27	1.59	2.11	78.79
				1.63	1.72	76.15
10	150455.56+564920.3	No	0.36	7.65	16.32	88.25
				1.66	14.77	88.07
				1.49	2.77	
11	110436.33+212417.8	Yes	0.19	7.93	10.9	78.93
12	114047.89+462204.8	Yes	0.11	55.6	57.52	31

Table 2: The original flux was at 1.4 GHz, but was adjusted to 5GHz for uniformity. The peak flux is the brightest point of the quasar, the integrated flux is the total flux over the object, and RMS is the noise uncertainty. The synthesized beam shows the major and minor axes and the deconvolving beam shows the position angle of the major axis.

As mentioned above, the FIRST survey took radio images at a frequency of 1.4GHz. However, the objects in the sample all reside at different redshifts, or distances from us. Because the Universe is expanding and the speed of light is finite, the Universe will have expanded by a different factor for each object. Consequently, the light emitted by each object is stretched by a different factor. So, an observed frequency of 1.4 GHz corresponds to a different frequency for each of the objects. In order to compensate for this, we must refer each of the observed fluxes to a common *rest-frame* frequency. We choose 5 GHz as that common frequency. We model the spectrum of radio emission from the core and the lobes as power laws. This is illustrated in Figure 1, which shows different frequency scales for how the light is emitted and how it is observed.

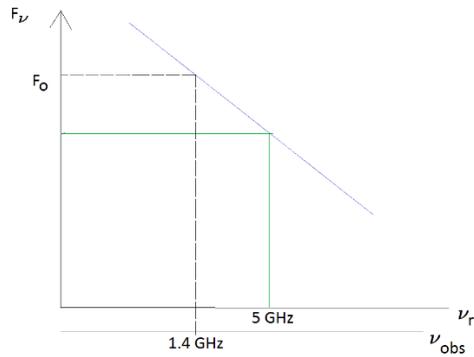


Figure 1: F_o is the observed flux, ν_r is the rest frequency, ν_{obs} is the observed frequency. The 1.4GHz is the frequency at which FIRST observes the objects, to create a more uniform observation we recalculated the observed frequency at 5GHz.

We adopt a power law index of -0.3 for the core, and -0.7 for the lobes, which are typical average values.

3. RESULTS

Figure 2 shows a cartoon sketch for visualization purposes of the angles calculated based on the results from FIRST. While the objects were originally selected as lobe-dominated, this actually resulted in a broad spectrum of viewing angles from edge-on to face-on geometries. In the figure, the outflow is represented as green stream lines and purple clumps. This scenario would predict that we should expect more edge-on orientations to show outflows in absorption. However, the results from HST/COS provide an alternative conclusion. The outflow is spread out more than originally thought. We assumed all quasar observations within that streamline would have the observed Nv and $H\beta$ depicting the silhouette. Interestingly that is not what was determined in the spectra provided by HST. Secondly, the red lines indicate where the spectra showed the outflow and the green lines show where no outflow was observed.

Lastly, the blue lines represent objects that have yet to be observed from HST/COS Spectra or downloaded.

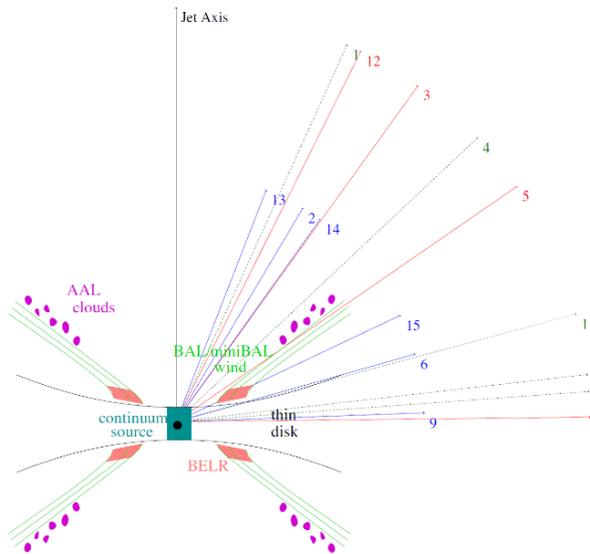


Figure 2: A possible scenario of the structure of a quasar system with various components labelled. In particular, we depict the outflow as green streamlines, and purple clumps. In principle, sightlines that pass through these structures would show the outflow as a silhouette. On top of the schematic, we show the sightlines for the objects in our sample. **Red** indicates objects for which we see outflows. **Green** indicated objects where an outflow is not detected. **Blue** indicated objects that have either to be observed, or we have not yet considered the archived HST/COS spectrum.

To further illustrate our result we overlay the FIRST radio images and the SDSS optical images in Figure 3. In each panel, we also show the spectrum obtained from Hubble. The numbering corresponds to the data in table 2.

From the sketch in figure 2, we see that our original hypothesis does not exactly match our results. We assumed objects 1, 3, 7, 8, 10, 11, and 12 would not show a silhouette because they are not in line with the outflow and clumps hypothesized in figure 2, However, the spectrum of object 12 in figure 3 does show present H_I and N_V absorption. This means that there was a detected silhouette and the outflow is spread out further than hypothesized. Secondly, we hypothesized that spectra 4 and 5 would show absorption lines from the outflow but object 4's spectrum does not, this could indicate that the streaks of outflow are either clumpy. Further research is being conducted to answer these questions.

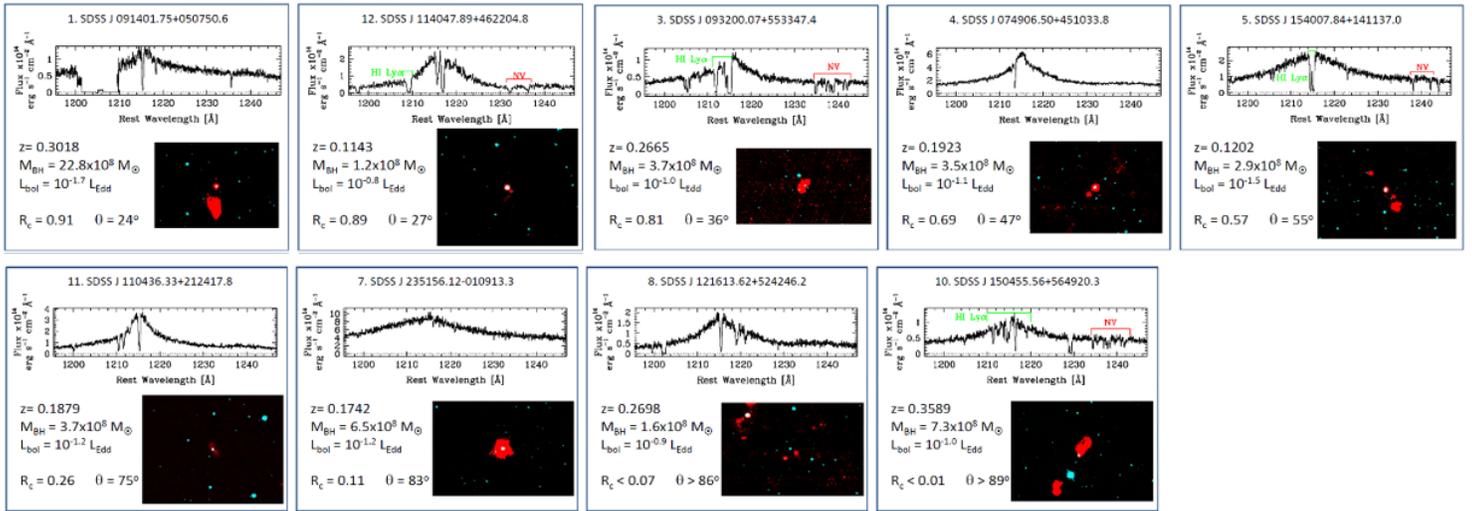


Figure 3: The above panels show the collected spectra to date from HST/COS. Those with H I and N V present indicate that the outflow is present. Those without the absorption indicate no outflow present. The images show the overlay of the visible light (cyan) and the radio (red).

4. CONCLUSION

During this fishing expedition, we have examined nine of the 15 total spectra. From our current collection of data our range of quasar orientation 24° to 89° as represented in figure 2. We have confirmed that of the nine spectra observed 44% of the spectra show outflow. This provides the possibility that after all data is observed upwards of 63% could show outflow or as low as 27% could show outflow. Hence, the outflows take up roughly 40% of the sky surrounding each quasar’s black hole. As stated previously, our results were unexpected. Our hypothesis predicted uniformity in the silhouette surrounding the disk with areas more face-on not showing outflow and those showing outflow more edge-on orientation. The results provide a possible answer that these clouds are clumpier than originally thought as well as more spread out. While there is a possibility that physical parameters could be involved it is unlikely. Further research will provide answers on whether the clumps are significantly more edge-on or face-on opposed to the originally hypothesis that the outflow represented a more edge-on view.

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Shattering the Glass Ceiling: The Impact of STEM Fields on Female Success

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Though gender equality is becoming increasingly normalized in the U.S. education system, STEM (science, technology, engineering, and mathematics) programs are still dominated by male students. This situation is troubling when one considers current trends in the STEM workforce: According to Yonghong Xu (2015), an associate professor at the University of Memphis, "...a growing demand is anticipated for the STEM workforce; in the meantime, National Math and Science Initiatives (2012) predicted a shortage of approximately three-million skilled STEM workers by 2018" (p. 519). The lack of gender equality in STEM majors not only decreases the benefits of diverse perspectives in such programs, but also reinforces conventional gender roles. Yet, researchers have shown that women who pursue careers in these fields are more likely to be financially stable than their non-STEM counterparts and to be leaders within their communities.

Though gender equality is becoming increasingly normalized in the U.S. education system, STEM (science, technology, engineering, and mathematics) programs are still dominated by male students. This situation is troubling when one considers current trends in the STEM workforce: According to Yonghong Xu (2015), an associate professor at the University of Memphis, "...a growing demand is anticipated for the STEM workforce; in the meantime, National Math and Science Initiatives (2012) predicted a shortage of approximately three-million skilled STEM workers by 2018" (p. 519). The lack of gender equality in STEM majors not only decreases the benefits of diverse perspectives in such programs, but also reinforces conventional gender roles. Yet, researchers have shown that women who pursue careers in these fields are more likely to be financially stable than their non-STEM counterparts and to be leaders within their communities.

Women are drastically underrepresented in STEM, particularly in engineering and computer science. Women make up less than 20% of these programs, which are increasingly in demand within the labor force ("Helping Young Women," 2012, p. 7), putting them at a disadvantage when it comes to earning potential. Even when women earn a STEM degree, they are hired into STEM occupations at a much lower rate than men. A 2013 report from the United States Census Bureau states that

Among science and engineering graduates, men are employed in a STEM occupation at twice the rate of women: 31 percent compared with 15 percent. Nearly 1 in 5 female science and engineering graduates are out of the labor force, compared with less than 1 in 10 male science and engineering graduates (Landivar, 2013, p. 2).

This suggests that women are less likely to enter a STEM program due to slim chances of gaining employment, regardless of qualifications.

The gender disparity in STEM employment is further affected by internalized discrimination within employers and institutional policies (Xu, 2015, p. 494) regarding the modern roles of women as both caretakers and breadwinners. The acceptance of women into the labor force includes the possibility that they will take maternity leave at some point in their careers; this reasoning often makes women less likely to be hired, promoted, and paid a salary equal to their male counterparts. This is evidenced by the current wage gap between STEM women and men: “For every dollar earned by a man in STEM, a woman earns 14 cents (or 14 percent) less” (Beede, Julian, Langdon, McKittrick, Kahn & Doms, 2011, p. 4). While not all women fall into the category of working mothers, researchers argue that there is a fundamental lack of understanding within institutions regarding the complexities of balancing work and family obligations. Because few accommodations are made for women with this “dual role,” mothers are punished in a professional setting while fathers are easily accepted (Xu, 2015, p. 513).

As a result of consistently being shown that they are unwelcome in the STEM workplace, women can develop a deep sense of inadequacy that equally undermines their success. Gillian Ryan, an associate professor of Physics at Kettering University, explains a phenomenon called the “imposter syndrome”: “You’re waiting for people to find out that you’re not as good as you say you are...this problem affects a lot of female scientists” (personal communication, December 4, 2015). This mindset often discourages women from asking for raises and promotions, among other rewards that would heighten their position in the workplace.

Although barriers for women in STEM remain in place, STEM employment has been shown to improve female economic status. As of 2011, “women with STEM jobs earned 33 percent more than comparable women in non-STEM jobs” (Beede et al., 2011, p. 1), which is consistent with the high salary of such positions and growing demand for STEM workers in an increasingly technology-oriented world. Interestingly, the difference in wages of female STEM workers versus female non-STEM workers significantly exceeds that of male STEM workers versus male non-STEM workers. Studies completed in 1994, 1997, and 2003 showed that the wage gap between STEM and non-STEM women increased from 3% to 15% within 10 years of college graduation, as opposed to a 5% increase among men (Xu, 2015, p. 499). This data reinforces the idea that women must work harder to overcome gender-based obstacles to success in the workforce, whereas men more frequently receive wages that are proportionate to their qualifications.

In addition to financial success, STEM employment increases female strength within their communities. Women’s self-esteem radically improves as a result of enhanced interpersonal skills and problem-solving abilities, as well as “learning to speak up” for what they want (G. Ryan, personal communication, December 4, 2015). Women in STEM also are able to use their skills and position to enact social, environmental, and economic change: “The National Academy of Sciences, National Academy of Engineering, and the Institute of Medicine describe STEM as ‘high-quality, knowledge-intensive jobs...that lead to discovery and new technology,’ improving the U.S. economy and standard of living” (Landivar, 2013, p. 1). Women in these occupations

have the power to spearhead scientific discovery and improve quality of life in the United States.

Furthermore, gender diversity in STEM allows for a more comprehensive view of societal issues. By including educated female perspectives in decisions that affect the country and its international relations (“Helping Young Women,” 2012, p. 7), women are able to voice their goals and theories on a global scale and decisions reached can impact a wider audience. STEM women also have a lasting impact in that they are able to inspire future generations to pursue STEM careers (Xu, 2015, p. 517). When young women see their mothers and grandmothers as successful scientists and mathematicians in male-dominated fields, they are more likely to view these majors as worthy of pursuit; this, in turn, increases earning potential and community strength within the female population. Simultaneously, this cycle shows young men that women are equally capable professionals, which serves to create a new wave of open-minded individuals.

While sexism remains firmly ingrained into the U.S. labor force, there are a few viable solutions to gender inequality in STEM fields. Firstly, teachers and parents must encourage young girls and women to enter STEM. Female mentors are particularly beneficial as they understand what young women are facing in STEM, both personally and professionally. Gillian Ryan argues that community building is key: She has attended conferences at which undergraduate STEM students can meet successful female scientists, which makes young women and minorities feel “visible” (personal communication, December 4, 2015). This support gives women the confidence to pursue degrees in STEM fields and increases their chances of high achievement

("Helping Young Women," 2012, p. 7). Another method of encouragement is showing women how STEM fields positively impact the world – an aspect that is already evident in the medical and legal fields ("Helping Young Women," 2012, p. 7). If women are able to see the ways in which STEM helps people, whether it be creating computer systems to aid those with disabilities, improving safety features in automobiles, or simply innovating for the sake of progress, they are more likely to choose these career paths.

However, even highly motivated women will continue to face challenges in finding and keeping a job; therefore, policy changes must be enacted within institutions (Xu, 2015, p. 518). These reforms center on promoting "a more accommodative attitude towards the traditional family role of women in the social and professional communities, and [crafting] interventions that help to prevent women's forced withdrawal from the labor force upon becoming caregivers of their immediate family" (Xu, 2015, p. 515). Possible changes include offering sufficient maternity and paternity leave, which levels the playing field in terms of discrimination at hire and the wage gap, as well as places the responsibility of caregiving on both parents. Additionally, alternatives to keeping young children in off-site childcare facilities, which can drain family finances and decrease productivity at work when parents are worried about the well-being of their children, must be offered. Workplaces can provide low-cost on-site childcare services for working parents, which will minimize the struggles of women with family obligations.

Despite the growing number of female students pursuing male-dominated degrees in the United States, there remains a significant gender disparity in STEM fields. This reflects the multiple barriers to female involvement in STEM, including workplace discrimination and backwards institutional policies. However, female STEM

workers are crucial to the health of the global community: When women gain STEM employment, they tend to earn more than women in non-STEM occupations and are able to make a tremendous impact on the national economy, technological advancement, and the social values of future generations. In order to cultivate gender equality in STEM fields, it is important for parents and teachers to foster an interest in STEM within young women as well as for governments and individual institutions to amend workplace policies that actively create professional obstacles for women. When women are encouraged to defy gender stereotypes in education, essential perspectives are introduced into the workplace and all members of the community prosper.

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Deadline in Athens and Greek Corruption: Comparing Fiction and Reality

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Abstract: In the novel Deadline in Athens, author Petros Markaris paints an intriguing picture of 1990s Greece that employs corruption, murder, and ultimately an international crime ring to link an immigrant couple, catty news reporters, a gruff police detective, crooked government ministers, and influential media executives. At first, these elements may seem farfetched, as they are the fictional foundation of a detective novel. However, when examining the novel under a literary microscope in the context of recent Greek history, it is apparent that Markaris' fictional narrative is based on a thorough analysis of 1990s Greece meant to denounce the corruption among the Greek media, police, and government and perhaps even nod to the effect of this corruption on the current state of Greece. This paper compares Markaris' fictional corruption to tangible corruption among these three factions of Greek society and ultimately demonstrates a parallel between fiction and reality. This investigation may raise additional questions and skepticism regarding the role of the media, police, and government and the climate of potential corruption that intertwines this contentious threesome.

The following list of elements may at first appear outlandish and farfetched: an immigrant couple, catty news reporters, a gruff police detective, crooked government ministers, and influential media executives all linked by corruption, murder, and ultimately an international organ transplant and child trafficking crime ring centered in 1990s Athens. This initial reaction is expected, as these elements form the fictional foundation of a detective novel, namely the work *Deadline in Athens* by author Petros Markaris. However, when examining the novel's depiction of Greek corruption under a literary microscope in the context of recent Greek history and its societal roots, it may be uncovered that Markaris' seemingly implausible fiction is actually rooted in truth, and readers may ponder the following question. How does Markaris' fictional portrayal of a corrupt Greek media, police, and government parallel the media climate and relationships between these three groups in actual Greek society?

In order to answer this question, a comparison must be made between the corrupt picture that Markaris paints in his novel *Deadline in Athens* and the reality that existed in 1990s Greece. However, to make an adequate comparison, it is essential to first understand the basic plot of the novel and examine the author's intentions. Once it is noted that the novel does indeed present themes of corruption, the exact definition of corruption as it pertains to the scope of this paper must be presented, and it must be proved that corruption was present during this period of Greek history. With the knowledge that corruption is both depicted in the novel and present in real-life Greece, a comparison can then be made between the fictitious representation of corruption and actual corruption with concern to the Greek media, police, and government. The first step of this comparison will be to note Markaris' fictional media environment and

compare it to the media climate present in 1990s Greece. This step is important, as the media plays a central role in the two relationships to be later examined. Once it is established that Markaris' fictional Greece parallels media trends that were present in actual Greece, a further comparison can be made with regard to the effect of the media climate on both the relationship between the media and the police and the media and the government, as well as the subsequent corruption that the media environment fostered in the relationships depicted in the novel compared to those present in real-life Greece. Overall, by following this roadmap, conclusions can be made regarding the way in which Markaris' novel *Deadline in Athens* parallels a corrupt environment and relationships that existed in actual 1990s Greece.

As previously stated, the first step of this examination is to understand the basic plot of the novel *Deadline in Athens* and explore Markaris' intentions in order to substantiate the claim that the novel entails a plot laced with general themes of corruption. To begin, the novel takes place in Athens during the winter of 1993 and opens with the seemingly trivial murder of a poor Albanian couple and the quick end put to the case by Costas Haritos, the no-nonsense Chief Inspector of the Athens police force. However, a headstrong news reporter named Yanna Karayoryi delves further into the murders and is unexpectedly and grotesquely murdered just before she is to reveal a breakthrough in her investigation on the evening news. Following the news of Yanna's death and insight into her personal investigations, Inspector Haritos is forced to reopen the Albanians' case. Throughout the remainder of the novel, Markaris weaves an intricate web of corruption characterized by Inspector Haritos' juggle of his professional and civic responsibilities, as well as the interference of meddling journalists who report

to a curious and eager public and work for power-hungry executives who have intimate relationships with high-ranking government officials.

When examining Markaris' most immediate surface-level intentions, the novel's plot at first lends to basic central themes concerning immigration, prejudice towards outsiders, and international crime. These themes and subject matter are evident in Markaris' depiction of mainstream Greek attitudes and treatment towards Albanian immigrants, as well as the organ transplant and child trafficking crime ring uncovered by the end of the novel. Markaris discussed his inclination towards these themes in an interview with Achim Engelberg published in the *Journal for Labour and Social Affairs in Eastern Europe*. During the interview, Engelberg described Markaris' detective novels as "social criticism novels," (46) and Markaris explained that he considers himself a "long-time left-wing activist" (47) with "no sympathy for cops" (47). Engelberg also noted Markaris' focus on immigration flows, and Markaris later explained his ideas concerning the danger of "aggressive nationalism" (48) and its effect on immigration, as well as his fear of the effects of illegal business and globalized crime (50). Through the plot of his novel as well as his discussion with Engelberg, it is evident that in the novel *Deadline in Athens*, Markaris prefers and leans toward the aforementioned themes of immigration and international crime. However, when examining the plot on a deeper level and while it appears it was not Markaris' main intention, another underlying but dominating theme prevails throughout the entirety of the novel. This fundamental theme is an atmosphere of corruption at multiple layers of Greek society, depicted through Markaris' representation of the Greek media climate and the media's relationships with the police and government. While Markaris does not comment directly on this corruption, readers,

especially those unfamiliar with Greek culture and history, may note this underlying yet dominating theme and wonder how Markaris' fictional portrayal of Greece compares to Greek society at this time in history.

Before continuing this discussion, it is essential to pause and define corruption as it relates to the scope of this paper, as there are various ways to define corruption, ranging from broad to specific explanations. In a later referenced study, Treisman defines corruption as "the misuse of public office for private gain" (399). This definition is considerably specific when compared to more general dictionary definitions of corruption, such as the Oxford Dictionaries definition that describes corruption as "dishonest or fraudulent conduct by those in power" ("Corruption"). For the sake of this argument, Treisman's definition is too specific, as it focuses solely on individuals in public office. This investigation focuses on the government and police, both of which are positions of public office, as well as the media, which is not a position of public office. Therefore, Treisman's definition of corruption is too narrow for the scope of this argument. On the other hand, the Oxford Dictionaries definition provides a broader explanation, as it makes a blanket statement referring to the conduct of "those in power" ("Corruption"), but it does not mention the motive of the alleged corruption. Therefore, with regard to the scope of this argument, corruption is a combination of the explanations from Treisman and Oxford Dictionaries and is defined as dishonest or fraudulent conduct by those in power for the sake of private gain.

Additionally, before comparing the corruption depicted in Markaris' fictional Greece to that of actual Greece, it must first be proved that corruption did indeed exist in 1990s Greece, and the specific level of corruption must be noted. This background

information will lay a foundational groundwork on which to base the proceeding argument. In one study, Treisman analyzes the causes of corruption and references annual perceived corruption indexes from the organization Transparency International (TI) for the years 1996, 1997, and 1998, as well as a perceived corruption index for the early 1980s from the organization Business International (BI) (400-401). While the cited indexes are not for recent years, they are the ideal indexes to reference because Markaris' novel takes place in the early 1990s. On a scale from zero to ten, with zero being the least corrupt, and ten being the most corrupt, the 1980, 1996, 1997, and 1998 perceived corruption scores for Greece are 3.75, 4.99, 4.65, and 5.1, respectively (Treisman 447). As a point of reference, for the countries listed in the 1996 index, New Zealand scored the lowest with a score of 0.57, while Nigeria scored the highest with a value of 9.31, and the United States scored a value of 2.34 (Treisman 447). By noting these values, it is evident that during the 1990s, tangible corruption existed in Greece, as verified by Greece's perceived corruption scores located about halfway up the corruption scale. Now that corruption is defined with regard to the scope of this argument, and it is established that definite corruption existed in 1990s Greece, the parallel between Markaris' fictional Greece and actual Greece can now be examined.

Before exploring the relationships between the media and police and the media and the government, it is important to first compare the overall media climate that Markaris creates in the novel with the actual media environment that existed in 1990s Greece. This comparison will provide context in which to place the later described media relations. In the novel, three main characteristics are prominent regarding Markaris' fictional Greek media sector. The first characteristic is Markaris'

representation of the typical Greek journalist as a competitive headstrong professional, which is best represented by the character Yanna Karayoryi. Following Yanna's murder, a colleague describes Yanna as "a ruthless little ferret" (Markaris 78) who "poked around everywhere and stopped at nothing" (Markaris 78). This same colleague also admits that it is a reporter's job to be disliked and that Yanna fulfilled that role (Markaris 78). The second notable element of the Greek media industry in Markaris' fiction is the way in which journalists must balance their pursuit of career advancement with their need to please network executives. With the exception of Yanna Karayoryi, who was granted free investigative range due to the assets her investigations and presence provided the network, the journalists in the novel face constant competition and manipulation amongst themselves and the looming fear of unemployment and demotion if they disappoint their executives. This is especially apparent at Hellas Channel where Yanna Karayoryi uses her influence to initiate the demotion of her colleague Martha Kostarakou from crime reporting to medical reports and steal Martha's role (Markaris 80). The third quality that Markaris presents is the media's focus on crime investigations and the way in which they sensationalize the news. This characteristic endures throughout the novel, as the media's fixation on Inspector Haritos' crime investigations is apparent from beginning to end. However, the media's manner of sensationalizing the news is especially apparent towards the end of the investigations when they begin to feature emotionally driven spotlight pieces regarding possible suspects and links to the investigations on their evening news programs. Overall, Markaris' depiction of Greek journalists casts a curious light on their profession, which calls for a comparison of this representation with the media culture present during this time in actual Greece.

In order to understand the Greek media environment during the 1990s and compare it to the media culture presented in the novel, it is necessary to note the Greek media sector's historical roots. Greece was controlled by a military dictatorship from 1967 to 1974, which ultimately impacted the development of Greek broadcasting (Papatheodorou and Machin 36). Around this time, the Greek television service Hellenic Broadcasting Corporation (ERT) was born and later developed by the authoritarian regime, which used the new television service to advance government propaganda (Papatheodorou and Machin 36-37). In the late 1980s, Greek broadcasting experienced vast changes (Papathanassopoulos 509), which aligned with the fall of the dictatorship and the rise of democracy. These changes included the broadcasting environment that once consisted of two public television channels now transitioning into a buzzing market of 160 private television channels, which ultimately led to the commercialization of the broadcasting industry and a new market-led approach to broadcasting (Papathanassopoulos 509). By the 1990s, the government unsuccessfully attempted to regulate the now deregulated and commercialized media sector, while in the meantime, the owners of major television stations increased their power in the broadcasting industry while also maintaining their power in other economic sectors (Papathanassopoulos 509). Ultimately, the small but overcrowded broadcasting market caused television stations to experience extreme financial difficulties, which some analysts claim may call into question the motives of the station owners (Papathanassopoulos 509). Overall, by examining recent Greek history, it is apparent that the 1990s Greek media climate was characterized by a small but competitive and newly commercialized broadcasting market seemingly controlled by powerful

broadcasting station owners.

While it is apparent that the Greek media environment shifted significantly following the government dictatorship, what can be questioned next is the effect of the modernized 1990s media climate on journalism. Additionally, the three journalistic characteristics that Markaris depicts in the novel can now be compared to the actual effect of Greece's historical context on journalism. According to Papathanassopoulos, it is evident that Greek journalism is guided by competition rather than an accepted professional culture, which is ultimately an effect of commercialization (515). This idea was perfectly summarized during an interview conducted by Papathanassopoulos when one Greek journalist admitted, "In this profession, most of the criticism comes from our fellows, we [journalists] are like snakes, who want to bite each other" (515). When looking back at the novel *Deadline in Athens*, Markaris' stereotypically competitive journalists parallel the environment of intense competition among reporters that is seen in actual Greece. Overall, this representation of journalists makes sense, as it aligns with the historical context of the novel as well as Markaris' personal insight following his own research in which he "experienced the friendly terms in which they [journalists] talk to each other and call each other by first names, but they are so jealous that they try to push each other out" (Engelberg 47).

Further, while the extent of commercialization's influence on journalism is debatable, some claim that commercialization increased the professional status of journalists, as some journalists have become public and authoritative figures (Papathanassopoulos 512). With this newfound professional status came the division of Greek journalists into an elite well-compensated class of mainly television journalists,

who could remain independent of politicians and media owners, and a lower class of underpaid and insecure journalists who felt dependent on media owners and unable to freely exercise their professions (Papathanassopoulos 514). When turning attention back to the novel *Deadline in Athens*, this aspect of Greek journalism is similar to the stark differences between celebrity reporter Yanna Karayoryi and her colleagues. In the novel, Markaris depicts Yanna as a member of the elite and authoritative division of television journalists with professional freedom and independence, and he depicts the majority of her colleagues as members of the lower class of worker bee journalists. Overall, this characterization almost perfectly aligns with the social hierarchy of actual 1990s Greek journalism.

Additionally, the deregulation and commercialization of Greek media also caused the format and content of television news to change (Papathanassopoulos 510). These changes included the increased emergence of exclusive and sensationalized stories, mostly due to the desire of directors to achieve high network ratings (Papathanassopoulos 511). Further, news reports were now delivered in a narrative format in which journalists would set the scene, explain the scenario, and end with an interpretation of the occasion, and there was an expectation that all stories would include video images (Papathanassopoulos 511). Again, when referring back to Markaris' fictional media environment, this element of the actual Greek media corresponds directly to Markaris' depiction of sensationalized news focused on police investigations. Overall, when examining the Greek media's historical roots, it is evident that the Greek media sector's transition from a government-controlled entity to a deregulated broadcasting climate fostered journalism's entrance into a newly

commercialized and highly competitive market. Further, it is apparent that Markaris' fictional media climate depicted in *Deadline in Athens* is not at all farfetched, but rather a parallel to Greece's actual media culture.

Now that a connection has been made between the media climate portrayed in the novel and the actual media environment in 1990s Greece, a comparison can now be made regarding the effect of the media climate on the relationships between the media and the police and the media and the government in the novel and in actual Greece. To begin, one of the most prominent and seemingly peculiar relationships in *Deadline in Athens* occurs between the media and police, namely the television news reporters and Inspector Haritos. At the beginning of the novel, the author introduces readers to Inspector Haritos' frequent meetings with the reporters. Through the narration, it is apparent that these encounters are contentious for all parties involved and that the meetings clearly bother Inspector Haritos. This is particularly evident just before the first meeting noted in the novel when Inspector Haritos describes the reporters as "a pack of wolves hungry for a statement, soldiers waiting for their rations" (Markaris 10). This comment is not isolated, as the tension between Inspector Haritos and the television reporters continues throughout the novel and the course of the investigation. However, the more important question is whether or not this contentious but fictitious relationship parallels a trend in actual Greece. According to Wilson et al, the academic community has a heightened interest in the communication between the police and the media (344), but "there has been comparatively little academic theorizing about how murders are investigated, how the conduct of that investigation is communicated by the police through the media to the public, and what role the media plays within a murder

investigation” (344). Due to the general absence of research regarding police and media relations, there is a definite lack of literature regarding this specific relationship in Greece. However, the research conducted by Wilson et al in the United Kingdom should be sufficient to examine this relationship, as the relationship that the team examined between the police and media professionals is based on professional circumstances, rather than cultural. When examining previous literature on the topic, Wilson et al identified “tensions at the heart of the relationship between the media and the police” (344) and recognized a key point of tension concerning the officers’ need to balance the integrity of their investigations with the media’s requirement to publish information (345). Additionally, after conducting interviews with Senior Investigating Officers for high-profile murder investigations, the researchers concluded that a common tactic that officers employ is to “service the needs of the media but keep them at arm’s length,” (Wilson et al. 354) and that the relationship between the media and police is characterized by “suspicion and negotiation” (Wilson et al. 354). Overall, the conclusions of Wilson et al’s research parallel the contentious relationship between Inspector Haritos and the media in the novel and show that Markaris’ depiction of tension and disdain between the two groups is not purely fictional.

While it is established that tension exists in both the fictional and actual relationship between the media and police, Markaris takes the fictional relationship one step further by allowing the tension to lead to corruption. In turn, Markaris’ representation raises the question as to whether this corruption also exists in real-life Greece. While they are definitely contentious, the encounters between Inspector Haritos and the journalists at first appear normal and perhaps even necessary, as the

journalists need a reliable police source, such as a Chief Inspector like Haritos, in order to accurately report news regarding criminal investigations. However, as the regularity, subject matter discussed, and format of these encounters become apparent, the relationship between the reporters and Haritos becomes a little too close for comfort and perhaps even corrupt, as the reporters begin to 'step on the toes' of the police and influence criminal investigations. For example, after a meeting at the beginning of the novel, Yanna Karayoryi stays behind in Inspector Haritos' office and asks if he knows whether the murdered Albanian couple had any children, which Inspector Haritos denies (Markaris 11). However, that evening on the news, Yanna announces, "the police suspect that the couple had a child, who has not yet been found" (Markaris 17). Yanna's flagrantly dishonest announcement is the beginning of her corrupt conduct with regard to the police department, and she then proceeds to continue her own personal investigation concerning the murder of the Albanians and ultimately tries to undermine and influence the course of the police's criminal investigation. Again, the larger question is whether Yanna's corrupt behavior aligns with real-life media and police relations. According to Wilson et al, when a murder investigation gains national attention, the media has access to additional resources and money, which allows journalists to conduct their own investigations and in turn shifts the balance of power with regard to setting the news agenda in favor of the media (353). Additionally, during the previously mentioned interviews of investigation officers, Wilson et al noted a fundamental air of suspicion felt by officers and one officer in particular who articulated that officers saw the media as "trying to trip them up, misquote them or exploit their weaknesses" (353). When referring back to the novel, Yanna's corrupt actions of conducting her own

investigation to undermine the police and misquoting Inspector Haritos align with the research of Wilson et al regarding actual media and police relations. Overall, this shows that the contentious relationship between the media and police can lead to corrupt actions, such as misquoting officers and meddling with investigations, in both fictional and real-life contexts.

Yanna Karayoryi is not the only media professional that engages in corruption in the fictional context of *Deadline in Athens*. Following Yanna's murder, the news editor at Hellas Channel, Nestor Petratos, releases a story suggesting that Petros Kolakoglou, a convicted sex offender and former tax consultant recently released on parole, is responsible for Yanna's murder. The mere suggestion of Kolakoglou's involvement sends both the press and the public into a frantic search for Kolakoglou and detours the course of the investigation. However, Sotiropoulos, another television reporter, reveals to Inspector Haritos that Petratos' job has been in jeopardy and that Petratos is simply "desperate for a big story so as to keep his job" (Markaris 113). With this disclosure as well as additional evidence, Inspector Haritos eventually identifies Petratos' claim as a red herring with no correlation to the case and is able to continue the investigation. As in the previous example of Yanna's corruption, the next step is to examine whether or not Nestor's corrupt actions parallel actual police and media relations. According to Greer and McLaughlin, there exists a concept called 'trial by media,' which is "a dynamic, impact-driven, news media-led process by which individuals—who may or may not be publicly known—are tried and sentenced in the 'court of public opinion'" (27). In other words, it is a phenomenon in which the media sets the crime news agenda and decides which individuals will be placed under the microscope of public scrutiny during an

investigation. Greer and McLaughlin note that this process can include pre-judging the outcome of criminal proceedings (27) and that the climate of 'trial by media' lowers the credibility of officers by forcing them to compete with the media to set the crime news agenda and allocate time towards reacting and responding to the media's claims (28). In light of this information and with regard to the novel, it can be said that Nestor Petratos engages in 'trial by media' and can ultimately be considered corrupt, as he uses his ability to set the media agenda to benefit himself and protect his job, even though his story is incorrect. Overall, the case of Nestor Petratos is another example of a fictitious yet corrupt scenario that parallels the real-life relationship between the Greek police and media.

With regard to relations between the media and police, it is evident that Markaris depicts a contentious relationship that leads to corruption, which it portrayed through journalists Yanna Karayoryi and Nestor Petratos who act with fraudulence and dishonesty in order to sidestep the power and authority of Inspector Haritos and attain private gain. However, the more important point is the way in which Inspector Haritos' and the journalists' actions and feelings align with research regarding the corruption that exists between media professionals and police in actual Greece.

It is now apparent that Markaris' fictional representation of the media and police is rooted in fact and closely parallels the media climate of 1990s Greece that ultimately affected the relationship between these two groups and led to corruption. However, another relationship worth examining is Markaris' corrupt relationship between the Greek media and government. As with the relationship between the media and police, this relationship can be compared to the relationship between these two groups in

actual Greek society, and it can be further investigated as to whether or not the media climate of 1990s Greece led to actual corruption, as depicted in Markaris' fictional Greece. While this relationship is more understated than the relationship between the media and the police, one specific and blatantly corrupt relationship reappears throughout the novel. More importantly, if Markaris' fictional corruption between the media and the government is found to be rooted in truth, the effects may prove to be more alarming and further reaching than the effects of the corrupt relationship between the media and the police.

In Markaris' novel, the media and government relationship is characterized by the relationship that exists between Kyriakos Delopoulos and the government minister. At the beginning of his investigation regarding the murder of Yanna Karayoryi, Inspector Haritos meets with Delopoulos, an executive at Hellas Channel. During this initial meeting, Delopoulos orders Inspector Haritos to keep Hellas Channel exclusively informed as opposed to notifying other channels (Markaris 65) because in his opinion, "Objectivity and impartiality do not apply in this case" (Markaris 65). Furthermore, Delopoulos touts that he has a close friendship with the minister and hints that it would best for Inspector Haritos to comply with his demands (Markaris 65). However, as the investigation progresses, Inspector Haritos eventually finds Nestor Petratos, one of Delopoulos' employees, to be a possible suspect and requests a handwriting sample (Markaris 103). Consequently, an enraged Petratos informs Delopoulos of Inspector Haritos' suspicion. As promised, Delopoulos escalates the issue to his close friend, the minister, and during their next meeting tells Inspector Haritos, "I'm seriously thinking of asking the minister to have you replaced" (Markaris 128). Inspector Haritos, on the other

hand, identifies this threat as a form of blackmail and realizes that Delopoulos is using his apparent connection with the minister to save his company's reputation (Markaris 125). Nonetheless, Delopoulos is indeed friends with the minister, and his threat lands Inspector Haritos a disciplinary meeting with the Inspector, Delopoulos, and Nikolaos Ghikas, the chief of police (Markaris 147). In general, the relationship that Markaris depicts between Delopoulos and the minister can be considered corrupt because Delopoulos takes advantage of his friendship with a government official to blackmail Inspector Haritos and influence the course of a criminal investigation to protect his own company.

As with the relationship between the media and the police, the more critical question is whether or not Markaris' corrupt fictional relationship between media executives and government officials parallels relationships that existed between the media and government in actual Greece. To begin answering this question, it is important to first refer back to the aforementioned history regarding the Greek media sector. As previously mentioned, media owners had a significant amount of power in the 1990s Greek broadcasting industry, but the small and overcrowded market caused many of the owners to face financial difficulties, which some say may have caused media owners to have questionable business motives (Papathanassopoulos 509). Additionally, as Papatheodorou and Machin explain in their article wittily titled "The Umbilical Cord Never Cut," the quick post-dictatorship market-growth and industrialization that occurred in the media sector resulted in a failure to cut the umbilical cord between media organizations and the state, which allowed an intimate relationship to remain (33). Further, Greek broadcasting experienced a lack of

autonomy during Greece's first 15 years of democracy because "the structures and practices inherited from authoritarianism appeared simply to be too useful for any party in government to demolish," (Papatheodorou and Machin 38) and a legacy of state paternalism still existed and continued to play a role in setting the media agenda (Papatheodorou and Machin 52). By pointing to this additional information regarding the development of the Greek media system, it is evident that despite the expansion of democracy and free press, definite relationships still existed between government officials and media owners in 1990s Greece. When referring back to the novel, this historical evidence is similar to the close relationship that exists between Delopoulos and the minister. However, in the novel, it quickly becomes apparent that these close ties are not simply friendly terms but rather a flagrantly corrupt relationship in which Delopoulos uses his government connections to control the police and media agenda. When comparing the relationship between Delopoulos and the minister to the post-dictatorship relationship between the media and the government, a definite parallel is evident, as both relationships involve close associations between the two entities. However, in actual Greece, the cited research points to no directly incriminating evidence that the close ties resulted in direct corruption as blatant as the corruption between Markaris' fictional Delopoulos and minister. Nevertheless, it could be argued that a fine and easily blurred line exists between a friendly relationship and corruption and that there is a possibility that cases of corruption similar to Markaris' fictional scenario may have existed in 1990s Greece. Overall, this example is yet again another element of Greek society that Markaris closely parallels through the relationships between his fictional characters.

At the beginning of this investigation, the following research question was posed. How does Markaris' fictional portrayal of a corrupt Greek media, police, and government parallel the media climate and relationships between these three groups in actual Greek society? Throughout the course of this discussion, a carefully designed roadmap was followed in order to obtain an accurate answer to the proposed question. First, the plot of *Deadline in Athens*, Markaris' intentions, and the level of corruption in 1990s Greece were examined, and a specific definition of corruption was identified. Together, this information proved that elements of corruption do indeed exist in both Markaris' fictional Greece and actual Greece, which provided context in which to place the comparison that would follow. Then, Markaris' fictional media climate and the corrupt relationships it fostered between the Greek media, police and government were compared to the media environment present in 1990s Greece and the effect it had on the relationships between the three previously mentioned entities. This comparison provided sufficient information and analysis to conclude that the corruption in Markaris' novel is not purely fictional, but rather a relatively realistic portrayal of Greek society that is based on Markaris' thorough investigation and is meant to condemn the steep level of corruption that Markaris identifies among the media, police, and government. In general, Markaris' fictional media climate almost perfectly parallels the commercialized and highly competitive media environment of actual Greece and the close relationships it consequently fostered. While Markaris brings his fictional relationships a step further by allowing them to lead to blatant corruption, it is evident that the actual 1990s Greek media maintained close relationships with both the police and government, which in some cases led to actual corruption and in other cases simply opened the door to the possibility of

corruption. Ultimately, while *Deadline in Athens* may at first seem to be a standard detective story meant for pure entertainment, it is evident that Markaris based his novel on a thorough analysis of Greece meant to denounce the corruption he sees in Greek society and perhaps even nod to the role of this corruption in the current Greek crisis. Overall, the novel *Deadline in Athens* and Markaris' analysis may raise additional questions and skepticism regarding the role of the media, police, and government and the climate of potential corruption that intertwines this contentious threesome.

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The Good, the Bad, and the Worst: Mexican Bordello Mamas Through the Lens of Jorge Ibargüengoitia's *Las Muertas*

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Meeting of Minds XXV

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*In his novel, *Las Muertas* (1977) [*The Dead Ones*], Jorge Ibargüengoitia, a Mexican writer and journalist, created a parodical representation of the infamous Poquianchi case of 1963 that involved a prostitution ring led by the Poquianchi sisters who allegedly contributed to a string of homicides. Even though Ibargüengoitia drew from the factual information, his portrayal offers a rather sympathetic and comical view of the case and the accused. This viewpoint exposes the corruption of the state and the society as a whole. To be specific, Ibargüengoitia's character development has created a morality scheme that is counterintuitive where the accused are no different from those that they have supposedly wronged. This essay will explore the author's social commentary on crime, gender, and society in Mexico of the 1960s while demonstrating that his approach brings into question the moral fortitude of the society present in the novel.*

A brothel madam accused of homicide, infanticide, human trafficking, and corruption of minors is no worse than the official who systematically protected her from such charges. This is the claim of Jorge Ibargüengoitia in his novel *Las muertas*, which is based on a real criminal case that shook up Mexico in 1964. Prostitution is attributed to a lack of morals, and, by extension, those involved in prostitution carry the stigma of the society's sinners. However, through humanizing the characters of his novel, Ibargüengoitia destabilizes the dichotomy between the allegedly despicable sex offenders and supposedly upstanding citizens.

Las muertas is a parody of a famous scandal that occurred in Mexico between 1940 and 1964. It was written in reaction to the sensationalist press coverage and people's scorn sparked by the accusation of the sisters Delfina, María de Jesús, and María Luisa González Valenzuela—known by their nickname, the Poquianchis. The Poquianchis acquired two brothels, "México Lindo" and "Guadalajara de Noche", in the early 1940s. They ran these brothels until 1962, when the governor of the state of Guanajuato placed a prohibition on prostitution in the state. In response, the Poquianchis began to live clandestinely with their prostitutes in a closed brothel. In 1964, two escaped prostitutes testified to the police about the Poquianchis' actions. Soon after, the two madams Delfina and María de Jesús were put in prison while the police performed an investigation of the brothels in which they encountered cadavers linked to the Poquianchis (Bailón Vásquez, 409).

Prior to the scandal, there was a period of social cleansing in Mexico City around 1940 in which the government, in order to 'remoralize' society, attempted to control the

three vices of society: alcohol, drugs, and prostitution (Santillán Esqueda, 67). The result was the emergence of an entirely new morality that polarized the society. Upon hearing the Poquianchis case, the Mexican press, specifically the tabloid *Alarma!*, produced sensationalist coverage to capture the attention of the public. According to Alicia Muñoz, “The *Alarma!* articles further exaggerate the incidents, describing the women in a degrading and animalistic manner” (4). The discourse of the magazine singled out the Poquianchis as the scum of Mexican society and reaffirmed that their nation was not to be blamed for the Poquianchi sisters who were an aberration, and not regular (Muñoz, 8). These editions of *Alarma!* made the magazine the most read and popular press of the era because the polarized society ate up its sensationalist accounts. All in all, neither the press nor the society (it supposedly represented) wanted to put up with, or take the blame for, what the Poquianchi sisters allegedly did.

Ibargüengoitia, the author of the novel I will analyze here, was influenced the most by the response of the press and the people to the case. Quoted in an interview, he said that “the story was horrible, the reaction of the people was stupid, what the newspapers said was utterly idiotic” (Muñoz, 8). He was repulsed by their reactions, and, thus wanted to showcase the humanity of the sisters sentenced and rejected by the entire society even before the trials took place. To do this, he read the voluminous court files that never made it to the press coverage. In order to create a distance to his subject matter Ibargüengoitia deliberately mixed true facts with fiction, stating at the beginning of the novel that “[s]ome of the events narrated here are real. All of the

characters are imaginary”¹ (Ibargüengoitia, 7). The truth of the matter is that they were not, all in fact can be traced to real-life characters. Yet, interestingly, he gave the brothel madams the angelic names of Arcángela and Serafina, thereby putting in doubt their infamy.

In the beginning of the novel, Ibargüengoitia presents us with Serafina Baladro, a woman looking for vengeance against a man named Simón Corona. She is accompanied by a group of people who are there to assist her in her quest for revenge. While they hunt for Simón, the group stops to eat, and then to pray. These quotidian actions are important because they humanize the group. At one point, her gang is discussing murder over lunch, and Serafina Baladro prays for success in her venture. After she destroys Simón Corona’s bakery yet purposefully does not hurt him, the novel provides an explanation of what made Serafina want revenge. She met, and fell in love with Simón in her brothel. They began to live together in the bordello, and Serafina provided for Simón without asking for anything in return. Unfortunately for the couple, Simón missed his own town and his job as a baker and, as consequence, he abandoned Serafina three different times. The third time, the couple was on vacation in Acapulco. It felt like their long-awaited honeymoon yet, during a heart-to-heart conversation, Serafina confessed something that did not sit well with him. In response, he cowardly abandoned her in Acapulco, while she was waiting for him outside of a store. This was the ultimate blow to Serafina’s pride and broken-hearted, she swore to take revenge. What is shown in this failed love story is the idea that Serafina is a

¹ All translations are done by me.

passionate woman, a normal human being who finally broke down when she was fooled and rejected the third time around. When Serafina asks rhetorically, “How can I be blamed for being passionate?” (Ibargüengoitia, 132), the readers can connect with her character by evoking their own disappointments in love.

In similar fashion, Ibargüengoitia humanizes Serafina in describing the first time she sought vengeance. She arrived in Simón’s town and walked around asking about him until she met two women who happened to be his former lovers. Although the three hated the mere existence of each other in the past, it is explained that: “They were united by their common condition of abandonment and treachery by a single man: Simón Corona” (Ibargüengoitia, 31). These scorned victims of love make a pact: the two from Simón’s town would notify Serafina as soon as he returns, and Serafina would avenge them all. Ibargüengoitia clarifies that Serafina’s passion is justified in that it is shared with other women. Simón was no good, and in need of a lesson. Furthermore, her shared goal with his former lovers breaks the division between the “brothel madam” and any other woman out there.

Even Serafina’s search for a weapon to do away with Simón bares more of a broken heart than a monster. She decides to buy something large, and her thought process at the time reveals what she desires most from such a weapon. The power that the weapon has, although it might be fatal, is compensated by the certainty that it will stop the wounded from walking towards her to give her a hug (Ibargüengoitia, 34). Serafina fears Simón’s kindness more than she fears the killing power of the weapon.

With this, Ibargüengoitia characterizes Serafina as a vulnerable victim instead of a killer who merely wants to hurt her ex-lover (Muñoz, 11).

Another facet of Serafina's passion, and an example of Ibargüengoitia's humor, is the sexual desire revealed in her relationship with captain Bedoya and Simón. After her abandonment in Acapulco, Serafina enters into a depression that affects her in various ways, including: "this was the only time in her entire life that she remained sexually abstinent for forty- seven days" (Ibargüengoitia, 30). Within this quote is a description of the frequency at which Serafina is usually sexually active, and apparent in this frequency is her passion for sex. Ibargüengoitia humanizes Serafina by giving her sexual desire.

In contrast, Arcángela Baladro, Serafina's older sister, possesses other attributes, one of them being a aptitude for business. In her first testimony given in the court, she illustrates the process of managing a brothel. She explains that every night she makes sure that the girls are clean, and that the guests pay. Afterward, she proclaims that she has never served an incorrect drink; in other words, she has never served a drink to someone that asked for something else. Finally, she illustrates the most important part of her business: "The client and the girl ascend the stairs, they arrive at her room, and there they spend the time that the man has paid for. When they finish they descend the stairs together. This is important, so that the manager of the rooms sees that the client has not mistreated the girl" (Ibargüengoitia, 42). From this testimony, Ibargüengoitia characterizes Arcángela as an apt entrepreneur who works for her success. In this way, Ibargüengoitia demonstrates that Arcángela is no different

than any other business owner. More so, Arcángela is humanized by the care she exhibits towards her prostitutes, shown in the final description that she gives.

Another way that Ibargüengoitia humanizes Arcángela is through the history of her son, Humberto Paredes Baladro. Arcángela, upon giving birth, decides to make a good man of him (Ibargüengoitia, 57). As a result, Arcángela prohibits that her son learn anything about prostitution or her job. When Humberto first goes to school, he learns what his mother's profession is from the other students who humiliate him. In response, Arcángela arranges for Humberto to continue his schooling far away so that people will not know his family name. While he is away, Arcángela sends him letters that are full of advice. These letters are a display of love for her son. In a more intense fashion, she displays love for her son in her reaction to seeing him dead in her brothel. After a bloodied Humberto wandered into the brothel and collapsed, Arcángela entered into a fit of tormented screaming that sounded like nothing anyone had heard before or would ever hear again (Ibargüengoitia, 67). In this sense, Arcángela demonstrates a love for her child that is characteristic of a caring mother. Her affection humanizes her and breaks the division between madam and mother.

In addition, Ibargüengoitia humanizes the prostitutes in the novel, specifically Blanca and Calavera. As for Blanca: she was sold to Arcángela and Serafina by her family so that she could earn money for the family. She was promised a job as a shoe store attendant, and, although her true profession wound up being prostitution, she thrived doing it. She was the most popular prostitute of all who worked for Arcángela and Serafina. In this description, Ibargüengoitia characterizes Blanca as a good girl that

was cheated and is still doing her best. On the other hand, Calavera is a woman who came to Arcángela looking for work so that she could save enough money to buy medicine for her sick child. Arcángela informed her that she would be working as a prostitute, and Calavera accepted. Arcángela gave her an advance for the medicine, but Calavera's son died anyway. Calavera continues to work for Arcángela because it is a good job; she explains that in twelve years in the brothel she has had no difficulty with Arcángela or Serafina. Through this, Calavera is characterized as a caring mother and a good worker.

In contrast to the brothel, Ibarguengoitia's depiction of the authorities (who always happen to be men) as conniving, corrupt, and cowardly. Specifically, he describes captain Bedoya and the lawyer Sanabria as indecent men, and he mentions the large quantity of authorities that receive bribes from the Baladro sisters. First, Captain Bedoya, who is an officer in the military, is the most involved with the Baladro sisters since he is the later boyfriend of Serafina. When Serafina wanted to buy a weapon, he promised to get it for her and to teach her how to use it. After making the deal, Bedoya gropes Serafina. Later, it is explained that Bedoya has a wife and four children when he made the deal with Serafina. More so, it is revealed that Bedoya physically abused his wife because she caught him with another woman. From these fragments, Ibarguengoitia characterizes Bedoya as a chauvinist and an abusive husband.

Second, Ibarguengoitia introduces Sanabria, who is the private secretary to the governor of Plan de Abajo. He appears for the first time at the opening ceremony of the

Baladro sisters' third brothel. During the party following the ceremony, inebriated Sanabria asks another man to dance with him. Once the dance was over, it is described that "he attempted to dance with various men who did not accept his invitation, he understood that he had made a fool of himself, and he forever held an ill will towards everyone that had witnessed his dishonor, especially towards the Baladro sisters, for allowing him to feel tempted" (Ibargüengoitia, 50). Clearly, the brothel madams did nothing to expose his sexual preferences and thus make him a possible target of scorn in this unforgivingly heteronormative society. Afterward, Sanabria reappears when Arcángela tries to open a new business after the start of the prohibition of prostitution in the area. They send a form to the governor asking for permission to open a business, and it returns "with a handwritten note that [says]: 'deny any petition made by the undersigned.' And the signature of the lawyer Sanabria" (Ibargüengoitia, 76). Sanabria blames the Baladro sisters for what happened at the party although he did it on his own. Because of this, he prohibits the Baladro sisters from doing anything to improve their condition. In sum, Ibargüengoitia characterizes Sanabria as a weak man who abuses his power to take revenge for the dishonor that he caused himself.

Finally, Ibargüengoitia mentions the authorities that receive bribes from Arcángela as the brothel madam annotated it meticulously in her notebook. It is said that "the third part of the book is titled Deliveries. It is what Arcángela paid to the authorities in order to be in peace with the municipality. For example, ten pesos daily to the police who were patrolling the block, sixty to the municipal president, sixty to the police inspector, etc" (Ibargüengoitia, 153). With the addition of this part, Ibargüengoitia

wanted to suggest that the crimes of the Baladro sisters should not be seen as isolated from the crimes of the authorities. Also, as Charlotte Lange said: “Many individuals took advantage of the financial benefits generated by the brothels and only condemned the sisters once they had fallen from grace” (462). In this manner, Ibargüengoitia criticizes the society for favoring the authorities. He brings into question the division between the authorities and the sisters, signaling that the authorities should be punished for their crimes as the sisters have been punished for theirs.

In summary, and going back to the real-life criminal case that shocked Mexico, Jorge Ibargüengoitia was appalled by how Mexican society, the press, and the courts treated the Poquianchi case. His novel came as response, dismantling the incorrect and deeply hurtful dichotomy between the supposedly evil brothel and virtuous authorities. He did so by humanizing the people involved with prostitution in *Las muertas*. He also broke the division between prostitution and the outside world by shoring up the corruption and mean spirit of the authorities. He made patent that the authorities had a large role in prostitution; not only did they frequent the brothels on regular basis but they also legally protected them before the fall of the Baladro sisters. In this way, Ibargüengoitia uncovers the hypocrisy of the society that condemns prostitution without properly examining the role that many played in it to begin with.

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Integrin $\alpha 6$ is required for the derivation of human induced pluripotent stem cells

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The general functions of integrins in cell attachment, gene expression, motility, polarity, shape, proliferation, and survival are well known. These critical functions provide reason for their wide expression across cell populations throughout the human body. Integrin $\alpha 6$ (ITGA6), is a particular isoform of the integrin family that is expressed across many stem cell populations, and has been shown to play an integral role in pluripotent stem cell (PSC) self-renewal (Villa-Diaz 2016). Human embryonic stem cells (hESCs) and human induced pluripotent stem cells (hiPSCs) share phenotype and genetic expression, although their origin is different. These similarities prompted us to use hiPSCs as a model to determine the role of ITGA6 in the development and pluripotency of hPSCs.

To address this objective, we performed genetic reprogramming of fibroblasts into iPSCs by the overexpression of the reprogramming factors, Oct4, Sox2, Klf4 and c-Myc (Takahashi & Yamanaka 2006,) in human gingival fibroblasts (hGF) where ITGA6 was knocked down using CRISPR-Cas9. Three CRISPR-Cas9 single-guided (sg) RNAs targeting specific nucleic acid sequences of ITGA6 were used. We utilized cells with CRISPR-Cas9 sgRNA which did not target any specific gene sequence, and wild-type (WT) hGFs as controls. The resulting hiPSC colonies were characterized by analyzing the expression of key PSC markers at RNA and protein levels, colony development, phenotypic colony characteristics, and potential for cell lineage differentiation.

First, we confirmed that parental cells containing the vectors targeting ITGA6 expressed significantly lower levels of ITGA6 mRNA. hiPSC colonies developed in all groups, and these colonies showed ITGA6, Oct4, and Sox2 expression at mRNA and protein levels. This suggests that the CRISPR Cas9 system was not 100% efficient, which allowed the expression of ITGA6 in a subpopulation of cells. However, we did not identify colonies negative for the expression of ITGA6. This indicates that ITGA6 is crucial for the development and maintenance of hiPSCs because no colony developed without the expression of this gene. In the future, we plan to elucidate the mechanism behind colony development involving ITGA6.

Introduction

Stem cells function in tissue homeostasis, repair, and the regeneration of tissues and organs, contributing to the maintenance of living organisms (Singh 2012). These functions have led to a deep interest in the mechanisms that control these roles.

Pluripotent stem cells temporally develop in the inner cell mass (ICM) of the blastocyst stage during embryonic development, and cells from the ICM can be isolated and propagated *in vitro* as pluripotent embryonic stem cells (ESC). The medical uses of ESCs are riddled with ethical and immunological complications due to their origin.

Human induced pluripotent stem cells (hiPSCs) avoid these issues because they are generated from the patient's own cells. The overexpression of transcription factors that include *Klf4*, *C-myc*, *Sox2*, and *Oct3/4* (Takahashi & Yamanaka 2006) in somatic cells leads to the expression of *NANOG*, another transcription factor that completes the pluripotent circuit, allowing parental cells to become reprogrammed into iPSCs.

Although these transcription factors play critical roles in the generation of iPSCs, it is possible that other genes might be as crucial to the derivation and maintenance of iPSCs.

Integrins, in general terms, are heterodimeric transmembrane cell surface receptors that function in signaling cascades associated with attachment, differentiation, gene expression, motility, polarity, proliferation, shape, and survival of cells (Hynes 2002, Watt 2002). These proteins associate with specific extracellular matrix components and function in interactions between neighboring cells and in communication between intercellular and extracellular signals (Hynes 2002, Watt 2002). Integrins are also critical during attachment of stem cells to substrates *in vitro* (Vitillo 2016). Human pluripotent stem cells (hESCs and hiPSCs) require extracellular matrix

proteins, such as fibronectin, laminins, or vitronectin to maintain self-renewal. Extracellular matrix proteins, such as laminin 1 and 5, are ligands of the heterodimer integrin $\alpha 6\beta 1$, which is present throughout many stem cell populations (Dogic et al. 1998, Krebsbach & Villa-Diaz 2017). The crucial role of integrins in general cell maintenance, and in particular the wide expression of ITGA6 across varying stem cell types, has led to the hypothesis that this particular integrin isoform may play a critical role in development, maintenance, self-renewal, and pluripotency of hiPSCs. The genetic reprogramming of somatic cells into iPSCs allowed us to test the above-mentioned hypothesis.

Materials and Methods

Each of the following reprogramming and analytic procedures were performed in triplicates, and statistical analysis was performed from the mean \pm SEM student t-test analysis, setting $p < 0.05$ as significant value.

Cell Culture

Human gingival fibroblasts (hGFs) were grown in fibroblast medium in a 37°C incubator at 5.0% CO₂ and high humidity. The fibroblast medium consisted of alpha-MEM (Gibco, Grand Island, NY) supplemented with 10% fetal bovine serum (Seradigm, Radnor, PA), 1X glutamine (Gibco), 1X non-essential amino acids (Gibco), and 1X antibiotic and antimetabolic (Gibco). The hGFs were expanded in 750mL filtered flasks and media was changed every other day. The media was changed to fibroblast medium without antibiotic and antimetabolic at least two days prior to reprogramming. The cells were treated with fibroblast medium with antibiotic and antimetabolic (Gibco) post-infection. Four days post-infection, fibroblasts were grown in reprogramming medium, which

consisted of human cell conditioned medium (hCCM; GlobalStem, Gaithersburg, MD, <http://www.globalstem.com>) supplemented with 4 ng/ml human recombinant basic fibroblast growth factor (FGF2, GlobalStem), 1X antibiotic and antimetabolic (Gibco), and 10µm/mL rock inhibitor (Y27632; Stem Cell Technologies, Vancouver, Canada).

Reprogramming medium was changed every other day.

Reprogramming of fibroblasts into hiPSCs

Approximately 150,000-250,000 hGFs were transfected with retrovirus containing pMXs constructs for wild type *Oct4*, *Sox2*, *Klf4*, and *c-Myc* (Takahashi & Yamanaka 2006), in fibroblast medium without antibiotic and antimetabolic (Gibco), and supplemented with 10µg/mL Polybrene (Sigma-Aldrich, Milwaukee, WI) to promote retroviral infection. Twelve hours post-infection, the medium was replaced with fibroblast medium with antibiotic and antimetabolic (Gibco). Forty-eight hours post-infection, fibroblasts were detached from the plate of infection utilizing 0.25%-EDTA trypsin (Gibco), which was inactivated with fibroblast medium. Cells were re-plated on Matrigel coated plates (MCPs) of varying size (BD Matrigel hESC-qualified Matrix; BD Biosciences, San Diego, CA, <http://www.bdbiosciences.com>). MCPs were prepared the day prior to passage according to the manufacturer's instructions. The cells were passaged and grown in fibroblast medium with antibiotic and antimetabolic (Gibco) and 10µm/mL rock inhibitor (Stem Cell Technologies) until attachment was obvious, then the media was changed to reprogramming medium to promote iPSC colony formation, maintenance, and self-renewal. Reprogramming efficiency was calculated utilizing the number of viable developed colonies divided by the total number of cells initially plated for reprogramming.

Human Induced Pluripotent Stem Cell Colony Characterization

Undifferentiated colonies were identified with tight and defined borders with the internal cells having a large nucleus and minimal cytoplasm. iPSCs were identified by their expression of *Oct4* and *Sox2* by analysis of their relative mRNA and protein translation by quantitative (q)RT PCR and immunocytochemistry (ICC), respectively. Pluripotency was determined by differentiating colonies utilizing MEF media for 10 days. The differentiated colonies were then fixed and analyzed via ICC for the expression of proteins from each of the germ layers.

CRISPR-Cas9 Knockdown

To study the effect of *ITGA6* expression during the derivation of hiPSCs, hGFs that lacked the ability to express *ITGA6* were generated utilizing the GE Healthcare Dharmacon Edit-R Doxycycline-inducible CRISPR-Cas9 Gene Engineering with Lentiviral Cas9 and sgRNA system (GE, Boston, MA, ge.com). The multiplicity of infection of lentiviral particles was calculated to be 0.3. To perform the infection, 0.67 μ L of Cas9 lentivirus in 500 μ L of DMEM/F12 (Gibco) was utilized. Human gingival fibroblasts (100,000) were cultured pre- and post-infection as indicated above in order to be infected with the lentivirus encoding the Cas9 construct. On the third day post-infection, selection of Cas9 positive cells was initiated with fibroblast medium supplemented with 0.6 μ g/mL blasticidin (InvivoGen, San Diego, CA), since the Cas9 construct contained a blasticidin-resistant cassette. The selection process lasted for 10 days, in which the medium with blasticidin was changed every other day. The cells were expanded until approximately 1.2 million cells were obtained, then cells were re-plated into 4 wells of a 6-well plate to process the infection of 3 independent single guided (sg)

RNA constructs targeting different nucleotide sequences specific for *ITGA6* and one control sg that contained random nucleotides that did not target any gene in particular. The sgRNA constructs targeting *ITGA6* were identified following the last two digits of the ID provided by supplier, as CRISPR-Cas9/10, 14, and 15. The volume of sgRNA utilized was 1 μ L for each sgRNA utilized based on an approximate MOI of 0.3. The 1 μ L of sgRNA lentivirus was added to 500 μ L of DMEM/F12 (Gibco) for each respective *ITGA6* knockdown sgRNA (control, 10, 14, and 15) to create the transduction medium without antibiotics and antimetabolic. The fibroblasts were then infected with the transduction medium and left to incubate for 12 hours. Subsequently, 1mL of MEF media was added. Three days after infection, the media was changed to fibroblast medium with 0.3 μ g/mL blasticidin (InvivoGen), and 0.5 μ g/mL puromycin (Gibco), to select the sgRNA positive cells utilizing a puromycin-resistant cassette. The process of selection lasted 10 days. The cells were then expanded for further experiments and then cultured with fibroblast medium supplemented with 1 μ g/mL doxycycline (Alfa Aesar, Haverhill, MA) to induce the recombination of the CRISPR-Cas9 system targeting *ITGA6*. After 24 hours, 1 μ g/mL of doxycycline was added without media change. The fibroblasts were maintained with 0.3 μ g/mL blasticidin, and 0.25 μ g/mL puromycin, expanded and either used for further experiments or frozen and maintained in liquid nitrogen as a stock. These fibroblasts were then reprogrammed according to the reprogramming method listed above.

RNA Isolation, purification and quantification

For RNA extraction, cells were washed once with PBS, then treated with 700 μ L TRIzol (Invitrogen) and stored at -80°C until further use. RNA was then purified utilizing Direct-zol RNA Miniprep Plus (Zymo Research, Irvine, CA) with slight modifications.

RNA was eluted in 25 μ L DNase/RNase free water. The purified RNA was then quantified utilizing the Nucleic Acid quantification system on a NanoDrop 2000c UV-Vis Spectrophotometer (Thermo Scientific, Waltham, MA).

Amplification of cDNA

Reverse transcription was performed utilizing SuperScript III First Strand cDNA synthesis with random hexamers (Invitrogen, Waltham, MA). For each sample, 500ng of RNA was reverse transcribed into cDNA. The reactions were carried out following the First-Strand cDNA synthesis instructions provided by the manufacturer; the tubes were incubated at 65°C for 5 minutes then placed on ice for 1 minute, a cDNA synthesis mixture was added to each tube, then they were incubated at 25°C for 10 minutes, then 50°C for 50 minutes, then terminated at 85°C for 5 minutes, RNase H was added and then the tubes were incubated at 37°C for 20 minutes (Invitrogen). cDNA was kept at -20°C until use.

Quantitative (q)RT PCR

Quantitative RT PCR was performed utilizing the cDNA prepared utilizing the method listed above which was diluted with 80 μ L of DNase/RNase-free water. The qRT-PCR was performed utilizing 2 μ L of the diluted cDNA with the TaqMan Gene Expression Master Mix (Applied Biosystems, Foster City, California) and TaqMan Gene Expression Assays Probes (Applied Biosystems). The reactions were carried out as follows: 2 minutes at 50°C, 10 minutes at 95°C, then 40 cycles of 15 seconds at 95°C and 1 minute at 60°C. PCR and quantification were performed utilizing a Bio-Rad CFX Connect system (Bio-Rad Laboratories, Berkeley, CA). Relative RNA expression was analyzed with $\Delta\Delta C_q$ method utilizing *GAPDH* as an internal control. Expression levels of

genes were compared to WT control samples and reported as fold changes with a 2-fold change considered statistically significant.

Immunocytochemistry

Cells were fixed in 4% paraformaldehyde for 10 minutes at room temperature (RT). The cells were stored in PBS, sealed with parafilm, and stored at 4°C until ICC was performed. Cells were treated with unmasking, quenching, and permeabilization solution for ten minutes each at RT. Cells were then treated with blocking solution for one hour at RT. The first antibody was incubated at 4°C for 12 hours according to the manufacturer's recommended dilution in 1% normal serum (Table 1). After washing with PBS 3 times for 10 minutes each, the cells were incubated in secondary fluorescent-labeled antibody at RT for 1 hour in dark conditions. The cells were then washed with PBS for 10 minutes in dark conditions. The cells were incubated with DAPI diluted in PBS for 10 minutes to detect the cell's chromatin, and then washed with PBS for 10 minutes in dark conditions. A 1% paraformaldehyde solution was utilized for 5 minutes to fix the antibodies and then stored at 4°C in dark conditions. As a control, the first antibody was omitted. The cells were visualized and captured utilizing a EVOS FL microscope (Life Technologies).

Results

Knockdown of *Integrin α6* prevents hiPSC colony formation

The reprogramming of the CRISPR-Cas9 *ITGA6* knockdown sgRNA cell lines resulted in a significant reduction or elimination of colony development compared to the reprogrammed WT hGFs (Fig. 1). The average reprogramming efficiency in the WT group was approximately $4 \times 10^{-2}\%$, while for the *ITGA6* knockdown groups was

Cas9/10, Cas9/14, and Cas9/15: 0%, $6 \times 10^{-4}\%$, 0%, and 0%, respectively.

Reprogrammed iPSC colonies shows defined borders with high nuclear:cytoplasmic ratio in cells, translation of ITGA6 and nuclear immunolocalization of Oct4 and Sox2 (Fig. 2), while cell populations that did not express *ITGA6* were unable to form colonies with the appropriate classical morphology and also lacked the expression of other key factors, such as Oct4 and Sox2 (data not shown). Along with the reduction in colony development, it was observed a reduction in *ITGA6* mRNA expression, however, the mRNA levels of *Oct4* and *Sox2* were not different than the WT control group (Figure 3).

Initially, reprogramming experiments were performed in the continuous presence of selecting antibiotics. Colonies developed in the WT group, and minimal reprogramming efficiency was observed in the *ITGA6* knockdown cell lines, in which only one recoverable colony developed (Table 2). Characterization of this colony indicated positive translation of *ITGA6* and nuclear expression Oct4 (Fig. 4), as in colonies that developed in WT group. The colony was determined to be viable and fully reprogrammed according to its gene expression and morphology.

To test whether the selecting antibiotic present in the medium affected the reprogramming, a second series of reprogramming cycles were performed without puromycin and blasticidin supplementation. An increased reprogramming efficiency was observed, where the average reprogramming efficiencies for the WT, Cas9 control, Cas9/10, 14, and 15 groups were $1.2 \times 10^{-2}\%$, $6.67 \times 10^{-4}\%$, $4 \times 10^{-3}\%$, $1.3 \times 10^{-3}\%$, and $6.67 \times 10^{-4}\%$, respectively (Table 2). Colonies that developed showed translation of *ITGA6* and Oct4 (Fig. 4). Colonies that did not appear viable for passage due to maturity or improper morphology showed co-expression of Oct4 and Sox2 and

decreased expression of *ITGA6* compared to WT control group (data not shown). Interestingly, in *ITGA6* knockdown cells Oct4 was localized to the cytoplasm, while as expected in fully reprogrammed cells Oct4 was found in the nucleus and *ITGA6* at the cell membrane (Fig. 4). These data suggested that the CRISPR-Cas9 knockdown of *ITGA6* was not 100% effective, and that only cells that retain the expression of *ITGA6* were able to be reprogrammed into iPSCs.

Further characterization of hiPSC colonies from WT and *ITGA6* knockdown after 3 consecutive passages showed similar levels of mRNA expression of *NANOG* and *ITGA6* (Fig. 5). Furthermore, they showed pluripotency after differentiation assays, as demonstrated by detection of β -III tubulin, α -fetoprotein (AFP), and smooth muscle actin (SMA) positive cells, which identify populations of cells from ectoderm, endoderm and mesoderm origin, respectively (Fig. 6). All together, this data indicates that these hiPSC colonies were fully reprogrammed.

Discussion

The knockdown of *ITGA6* prevented reprogramming of somatic cells into iPSCs, indicating a crucial role for this gene in the molecular mechanism involved in the establishment of pluripotency. Our initial experimental set showed a change in morphology and reduced reprogramming efficiency in the *ITGA6* knockdown groups that have supplementation of blasticidin and puromycin in high concentrations, which may have been a more efficient selection process post-infection sustaining the *ITGA6* knockdowns, however we cannot discard a possible toxic effect on cells. However, the knockdown of *ITGA6* was successful in the trials with and without puromycin and blasticidin as observed by decreased expression of relative *ITGA6* mRNA levels.

The Cas9 control did not develop any colonies in the first trial and only one developed in the second and third trials, despite it not targeting any specific nucleotide sequence. We will further investigate the matching of nucleotides between this control construct and possible genes involved in the process of reprogramming somatic cells into iPSCs. However, our second control group, the WT parental fibroblast, developed viable and healthy colonies exhibiting the classical morphology, translated *ITGA6*, Sox2, Nanog, and Oct4, were propagated as cell lines, and showed pluripotency.

The expression of Oct4 in the cytoplasm in *ITGA6* knockdown cells suggests that there may be a mechanism preventing the nuclear importation of Oct4 after its translation and therefore interfering with its function as a transcription factor. This suggests that *ITGA6* may function in post-transcriptional mechanisms regulating the spatiotemporal expression of Oct4 during reprogramming of somatic cells into iPSCs. Future experiments will be performed to understand the mechanism behind the cytoplasmic localization of Oct4 in *ITGA6* knockdown cells. Fully reprogrammed colonies, as expected, showed sustained translation of Oct4, Sox2 and Nanog. Furthermore, these hiPSC colonies translate *ITGA6* and have pluripotent capabilities, while no colonies were identified without the translation of *ITGA6*. Thus, these data support the hypothesis that *ITGA6* is required for the development, self-renewal, and pluripotency of hiPSCs.

Table 1 Antibodies utilized in immunocytochemistry

Antibody	Source	Concentration	Company
Integrin α 6	Mouse	1:100	Santa Cruz
Oct4	Goat	1:400	Millipore
NANOG	Mouse	1:200	Millipore
Sox2	Rabbit	1:500	Millipore
β -III Tubulin	Mouse	1:500	Santa Cruz
Smooth Muscle	Mouse	1:500	Santa Cruz
Actin			
A-fetoprotein	Mouse	1:500	Santa Cruz

Table 2 Average colony development per plate of reprogrammed fibroblasts

Cell line	Trial 1	Trial 2	Trial 3
WT	65	4	32
Cas9 Control	0	1	1
Cas9 10	1	1	5
Cas9 14	0	3	1
Cas9 15	0	1	1

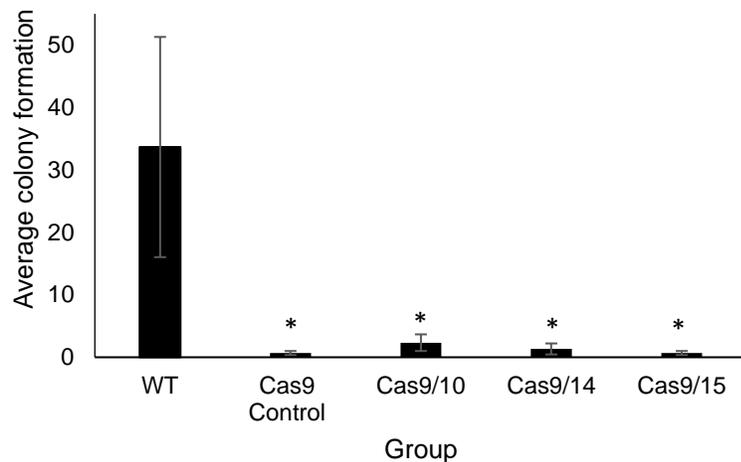


Fig. 1 Knockdown of *ITGA6* reduces reprogramming of somatic cells into induced pluripotent stem cells. Graph showing the average \pm SEM number of colonies formed in each group. WT: parental fibroblasts, Cas9 Control: fibroblasts with construct non-specific, Cas9/10, 14 and 15: fibroblast with CRISPR-Cas9 targeting *ITGA6* knockdown. Asterisks indicate statistical differences ($p < 0.05$) compared to WT control group.

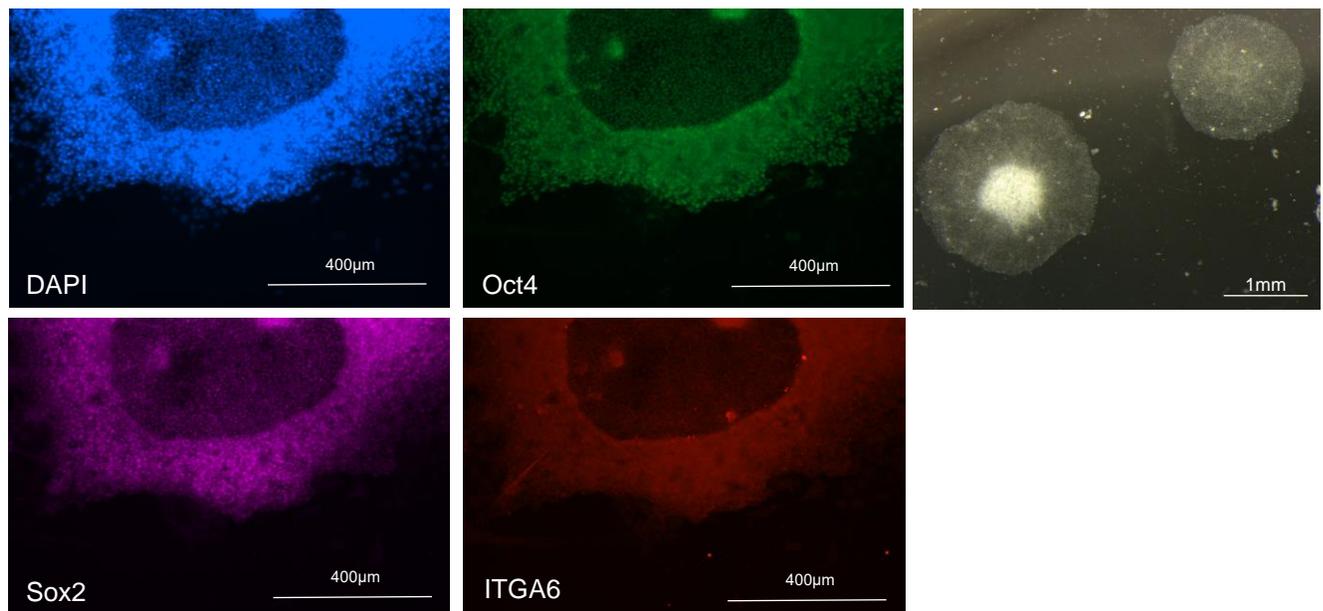


Fig. 2 Phenotypical characterization of human induced pluripotent stem cells derived from WT and *ITGA6* knockdown gingival fibroblasts. Representative micrographs showing immunolocalization of *ITGA6*, Oct4, and Sox2 in iPSCs. Nuclei counterstaining is depicted by DAPI. Phase-contrast micrographs of reprogrammed iPSC colonies showing well defined borders with highly compacted cells with high nuclei:cytoplasm ratio.

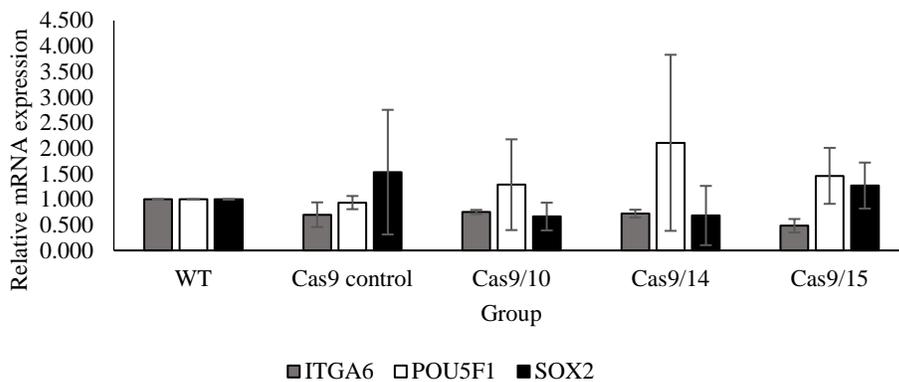


Fig. 3 Knockdown of ITGA6 does not affect Oct4 and Sox2 mRNA expression during reprogramming of somatic cells into induced pluripotent stem cells. Graph showing relative mRNA expression levels of *ITGA6*, *Oct4* (*POU5F1*) and *SOX2*, 72 hours post infection with reprogramming factors in cells from the following groups: WT: parental fibroblasts, Cas9 Control: fibroblasts with construct non-specific, Cas9/10, 14 and 15: fibroblast with CRISPR-Cas9 targeting *ITGA6* knockdown. The data is shown in average \pm SEM fold change calculated from three independent experiments.

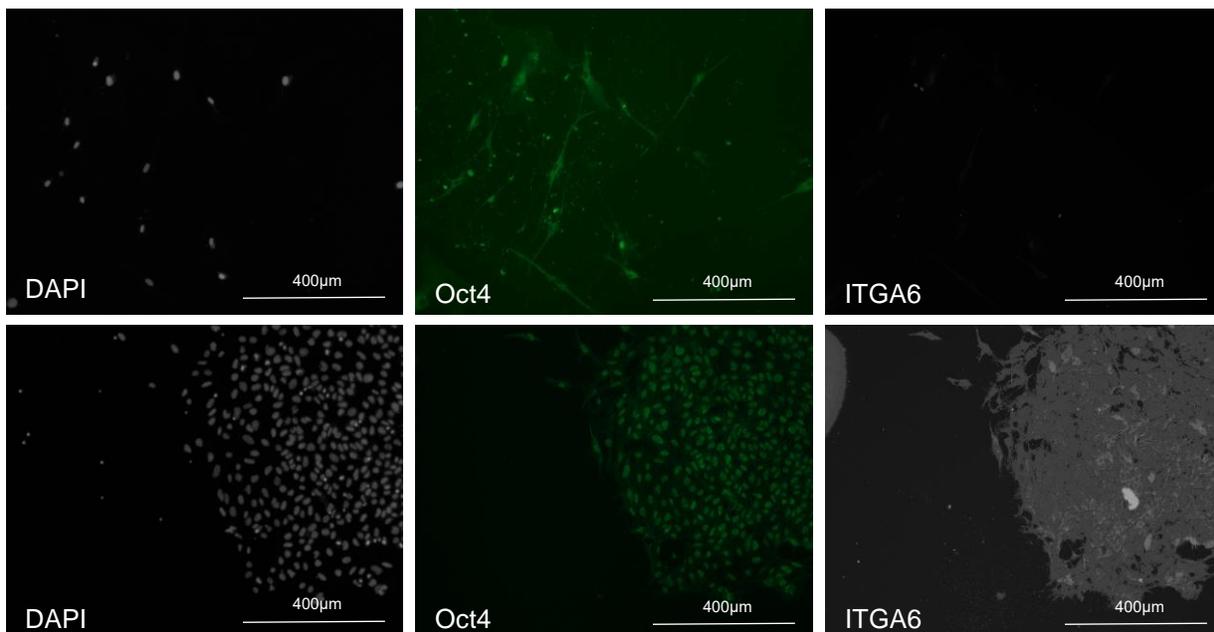


Fig. 4 Knock-down of *ITGA6* affects the immuno-localization of Oct4 during reprogramming of somatic cells into pluripotent stem cells. Colony development was observed in human gingival fibroblasts treated with CRISPR-Cas9 targeting *ITGA6* in which the knock-down was not effective. Top panel showing representative micrographs of *ITGA6*⁻ cells in which Oct4 was localized in the cytoplasm. Bottom panel showing representative micrographs showing nuclear immune-localization of Oct4 in *ITGA6*⁺ cells of reprogrammed colonies

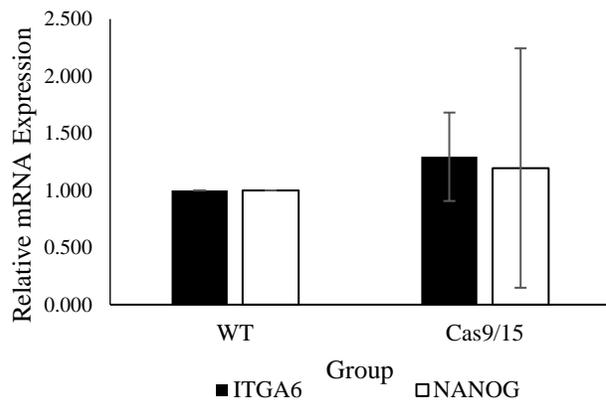


Fig. 5. Autonomous mRNA expression of *Nanog* in reprogrammed hiPSCs. Graph showing relative mRNA expression levels of *ITGA6* and *NANOG* in colonies obtained from WT group and CRISPR-Cas9 targeting *ITGA6* knockdown (Cas9/15) after 3 consecutive passages. Data is shown in average \pm SEM of three independent experiments.

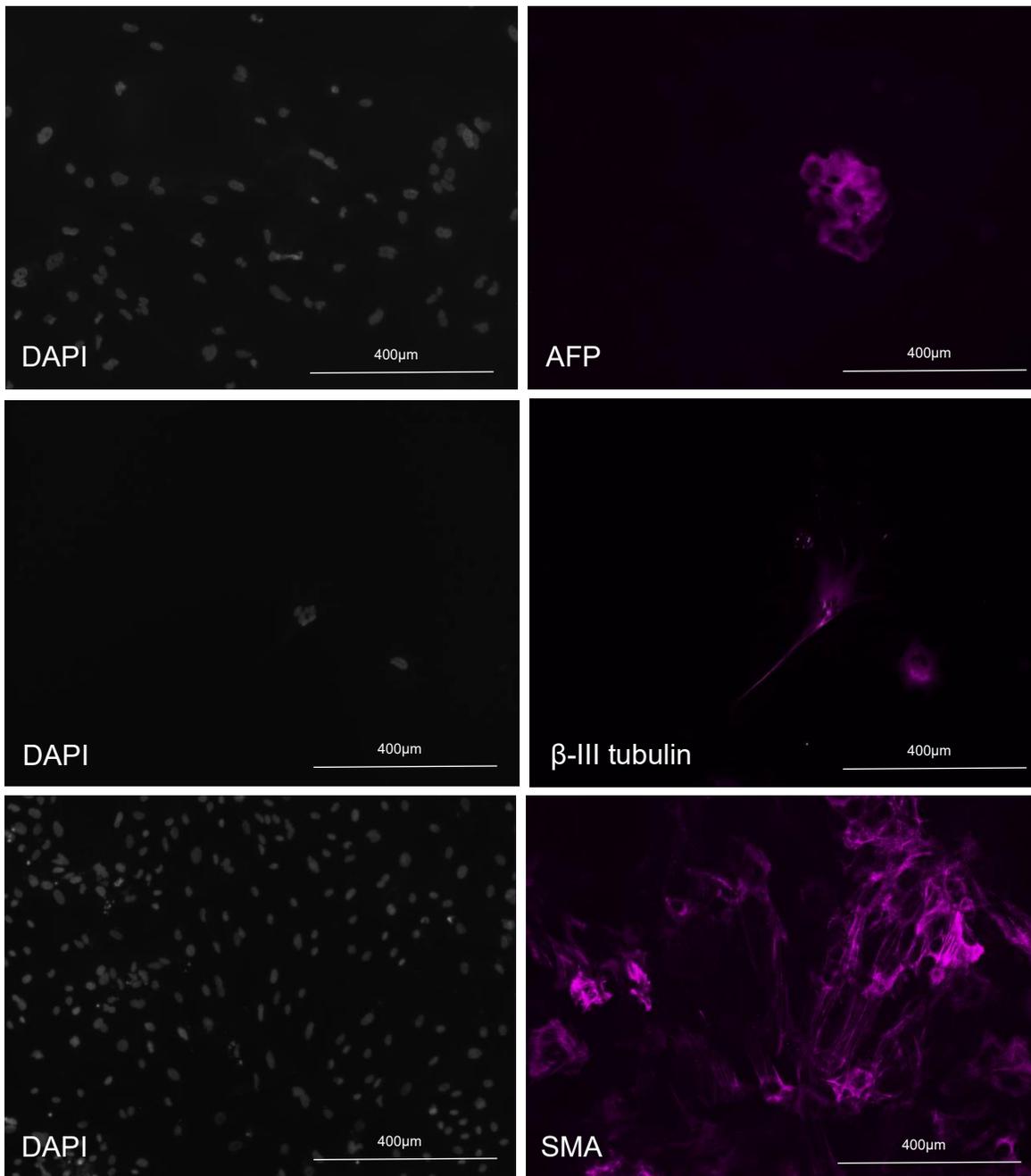


Fig. 6. Pluripotency of fully reprogrammed hiPSCs. Representative micrographs showing protein translation of α -feto protein (AFP), β -III tubulin and smooth muscle actin (SMA) in cells differentiated from hiPSCs derived from parental gingival fibroblasts wild-type and from *ITGA6* knockdown cells where the knockdown was not efficient. Staining with DAPI depicts cell nuclei.

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