UCSB McNair Scholars Research Journal

UCSB McNair Scholars

Research Journal

University of California, Santa Barbara

2018 – Volume 8

Nondiscrimination Policy

The University of California, in accordance with applicable Federal and State law and University policy, does not discriminate on the basis of race, color, national origin, religion, sex, gender, gender expression, gender identity, pregnancy, physical or mental disability, medical condition (cancer-related or genetic characteristics), genetic information (including family medical history), ancestry, marital status, age, sexual orientation, citizenship, status as a protected veteran or service in the uniformed services. The University also prohibits sexual harassment. This nondiscrimination policy covers admission, access, and treatment in University programs and activities. Inquiries regarding the University's nondiscrimination policies may be directed to:

Ricardo A. Alcaíno
Director, Equal Opportunity and Discrimination Prevention Office
3217A Phelps Hall
University of California, Santa Barbara
Santa Barbara, CA 93106-2060
(805) 893-4505

Cover photos:
Tony Mastres, UCSB Photo Services

McNair Program Staff

Program Director	Dr. Beth E. Schneider
Assistant Director	Dr. Yvette Martínez-Vu
Program Coordinator	Gokh Amin Alshaif
Graduate Mentors	Madeline Nolan Cruz Ortiz Jr. Gina Vanegas
Writing Consultant	Dr. Ellen Broidy
Journal Editors	Dr. Beth E. Schneider Dr. Ellen Broidy
Journal Layout/Design	Madeline Nolan

UCSB McNair Scholars

Research Journal

2018 - Volume 8

Table of Contents

Letter from Executive Vice Chancellor, David Marshall

I am very pleased to introduce Volume VIII of the UC Santa Barbara *McNair Scholars Research Journal*. Named after Dr. Ronald E. McNair Jr., physicist and NASA astronaut, the national McNair Scholars Program is a program designed to provide research opportunities for first-generation, low-income, and underrepresented undergraduates with the goal of preparing them for graduate school. Our local UC Santa Barbara McNair Scholars Program supports our campus efforts to advance the diversity and quality of our students, and to prepare them for success beyond their undergraduate experience. By combining undergraduate research with faculty mentoring and academic support services, the McNair Scholars Program provides a path to graduate school for students from families that in the past may not have considered even an undergraduate college education.

UC Santa Barbara is very proud to be an Hispanic Serving Institution. UCSB is the first member of the American Association of Universities (AAU)—an elite group of the 62 top research universities in North America—to receive this designation. As a public research university, UC Santa Barbara strives to support all of its students and to give them the knowledge, understanding, and skills to make future contributions to the State of California.

The *McNair Scholars Research Journal* recognizes the research accomplishments of a select group of undergraduate scholars from a wide range of disciplines who have successfully completed our McNair Scholars Program. Their contributions to this journal represent the hard work and intellectual creativity of students who, we expect, will become leaders in their respective fields. In our program, students develop a strong bond with mentors who offer guidance and serve as role models in order to help the students realize their potential. The journal also reflects the contributions of the faculty mentors who exemplify the dedication of our campus to undergraduate success.

The quality, originality, and creativity of the scholarship published here are very impressive. This research augurs well for the future contributions of these students to scholarship and society. I congratulate the McNair Scholars, applaud their faculty mentors, and extend my appreciation to the staff of the McNair Scholars Program for their dedication and work in helping these students succeed.

David Marshall
Executive Vice Chancellor

Letter from the Interim Dean of Undergraduate Education, Linda Adler-Kassner

Undergraduate research is a "high impact practice," an activity that plays an important role in student development and persistence. Participation in undergraduate research has been demonstrated to foster students' engagement with research on questions and issues important to them; to create meaningful bonds between students and faculty mentors; and to lead to production of research that represents new perspectives.

But undergraduate research makes a difference for the institution, too. It provides important venues for the infusion of new knowledge, perspectives, and ideas into departments and even disciplines. It enables the production of structured opportunities for those meaningful connections between students and faculty. And it often provides venues through which new voices and ideas can circulate in the form of journals like this one, which feature student-authored work.

The eight articles contained in this year's McNair Scholars research journal are a testament to this impact. They come from departments across the university: English, Anthropology, Global Studies, Psychological and Brain Sciences, Environmental Studies, Communication, and Linguistics. This research and these researchers are making a difference – at UCSB, in their home communities and in their scholarly disciplines. Additionally, the McNair program (including Director Dr. Beth Schneider, Assistant Director Dr. Yvette Martinez-Vu, Program Coordinator Gokh Amin Alshaif, Writing Consultant Dr. Ellen Broidy, graduate mentors, and faculty mentors) has made its mark on the UCSB campus, creating an affirming and supportive environment for students like those in the program to make these contributions.

As Interim Dean of Undergraduate Education in the College of Letters and Science and a professor of writing studies, it's my pleasure to introduce readers to the scholars whose work is featured here. I take inspiration from their commitment to the questions,

ideas, and issues explored in this research. I know that their contributions will make important differences to others who engage with these ideas and to the researchers who created them, continuing the cycle of their work as a high impact practice.

Linda Adler-Kassner
Interim Dean, Undergraduate Education
Professor, Writing Studies/UCSB Writing Program

Letter from McNair Program Director, Dr. Beth Schneider

Volume VIII of the UCSB McNair Scholars Program is now in the hands of our students, alumni, faculty mentors, campus allies, and McNair colleagues in California and around the country. As the Director of the McNair Scholars Program since its inception, it is a pleasure to showcase the work of eight seniors. Given the recent award of funding with another five year grant from the US Department of Education, all of us and future cohorts of students, can look forward to many more volumes of the UCSB McNair Scholars Research Journal.

These scholar/authors spent close to two years with the UCSB McNair Scholars Program. Expectations we hold for the UCSB McNair scholars are high, and all these students met them, presenting their faculty-mentored scholarship at one McNair Scholars National Research Conference or at a professional conference in their discipline. They each offered two or three poster sessions in various venues. This current group of authors not only presented their work, but 7 of the 8 applied to graduate school this year, and of the seven, all will be attending graduate school in Fall 2018 (Boston College, University of Michigan, Stanford University, Northwestern University, University of Southern Florida, University of Chicago, UCLA).

The papers published in Volume VIII are the final versions of manuscripts our graduates were willing to see through to publication. They went the extra mile, writing and rewriting their research papers in response to a steady stream of comments from their mentors and the journal editors. As undergraduate research papers, we expect that these publications will be the first of many manuscripts published by these eight students during their graduate training and in their first academic positions.

The eight scholars whose work is featured in this issue displayed perseverance, patience, and diligence that will serve them exceedingly well in their continued professional training. For all first-generation, low income, and underrepresented undergraduates,

the existence of the journal and the labor it represents will hopefully be an inspiration to seek research opportunities, develop successful mentorships, and take seriously a future in which the McNair Scholars Program played and continues to play an important part.

With special thanks to the UCSB McNair Scholars staff, and congratulations to the scholars.

Beth E. Schneider
Professor of Sociology
Director, UCSB McNair Scholars Program

Letter from the Editors,
Drs. Ellen Broidy and Beth E. Schneider

The McNair Scholars Program at UCSB is pleased to bring you the eighth volume of the UCSB McNair Scholars Research Journal. A cooperative effort of faculty mentors, McNair staff, and most especially a dedicated cadre of student scholars, the journal represents months of research, writing, editing and reviewing on the part of all the participants.

For our scholars, preparation of their manuscripts for publication in the Journal begins as a challenging and ends as a rewarding experience. Novices when they start the process, the scholars embark on a year-long adventure in what it takes to produce academic work suitable for publication. With good humor and extraordinary patience and fortitude, they experience both the frustration of being asked to revise and revise again and the feeling of elation that comes with a final acceptance. Through this process, the McNair staff sought to provide scholars with a practical hands-on introduction to the types of writing and revision expected of graduate students and academics.

Submission to the Journal is not a requirement of participation in the UCSB McNair Scholars Program so we are enormously gratified that a number of our students graduating in 2018 volunteered to allow their work to be put under the editorial microscope. While we would have liked 100% participation, previous publication arrangements with faculty mentors meant that some scholars were unable to submit their work. The scholars who did contribute worked diligently on their papers, rethinking, rewriting, reorganizing, and in some instances, reconceptualizing core ideas in response to comments from faculty mentors and the Journal's editors. We applaud them all for their hard work and commitment. We want to say a special thank you to the faculty mentors who worked alongside the students to guide them in the production of such high caliber work.

We trust that you will enjoy reading the work of the UCSB McNair Scholars represented in this eighth volume of the Journal. We look forward to bringing you the voices of new generations of scholars in subsequent volumes and thank you on behalf of the authors, mentors, McNair staff, and editors who made this publication possible

Best,

Ellen Broidy
Writing Consultant, UCSB McNair Scholars Program

Beth E. Schneider
Professor, Department of Sociology
Director, UCSB McNair Scholars Program

Black Middle Class Resistance?: Critical Distancing and the Cognizance of Othering in Andrea Lee's *Sarah Phillips* and Colson Whitehead's *Apex Hides the Hurt*

Francisco Olvera

Mentor: Dr. Felice Blake
Department of English

Abstract

*Following the Civil Rights movements of the 1960's, a cultural, social, and economic transformation took place within the lives of racially oppressed people in the United States. The pathway to a middle-class existence, through desegregation and social justice, seemed cleared. This paper challenges these assumptions of emancipation through an investigation of racial and class intersections; and, examines how Andrea Lee's **Sarah Phillips** and Colson Whitehead's **Apex Hides the Hurt** explore notions of agency and resistance in a post-Civil Rights setting. In this paper, I argue that despite the access to economic mobility, racist structures and constructions of abjection remain steadfast. Furthermore, the authors of these novels depict sentiments of non-belonging through their protagonist's cognizance of their racial othering. These novels thus offer an intimate and personal lens through which we can examine non-traditional forms of resistance whereby resistance takes the form of critical distancing, a methodology against racial fixity.*

"I loved history as a child, until some clear-eyed young Negro pointed out, quite rightly, that there was no place in the American past I could go and be free."
Sherley Anne Williams, *Dessa Rose*

"But there is also an American Negro tradition which teaches one to deflect racial provocation and to master and contain pain. It is a tradition which abhors as obscene any trading on one's own anguish for gain or sympathy; which springs not from a desire to deny the harshness of existence but from a will to deal with it as men at their best have always done. It takes fortitude to be a man and no less to be an artist. Perhaps it takes even more if the black man would be an artist."
Ralph Ellison, *The World and the Jug*

Resistance to racist oppression has long been a pressing issue in the lives of racially marginalized and oppressed groups and individuals living in the United States. In the latter half of the twentieth-century, the Civil Rights, Black Power, and Black Feminist movements produced powerful critiques of and challenges to the institutions of racism and racial segregation that stifled collective and individual freedoms. During this time, black people and other marginalized communities fought for the recognition of their constitutional rights that had previously been denied to them by racist laws, policies and practices. Through the obtainment of these constitutional rights, these communities sought the total transformation of the social order. The triumphs of their collective mobilizations for a shift towards racial equality, economic accessibility, and justice are illustrated by the passing of legislation such as the Civil Rights Act of 1964 and the Voting Rights Act of 1965.

Still, the question remains of whether the rise of the black middle class and the creation of laws on paper were enough to eradicate the corrosive effects of racism. Unfortunately, they were

not. The notion that the U.S. is a "post-racial" society, where discrimination and injustices based on race have disappeared, is both untrue and dishonest. Although those laws, and recently an Obama presidency, signals such a possibility, "post-raciality" is challenged by the present existences of forces that target racial communities, such as, but not limited to, the prison industrial complex and the expanding racial wealth gap (Davis). Institutional racism continues to thrive and stifle freedoms; it does not only depend on governmental and political forces, but also on the long history of racial othering that fixes and signifies blackness as abject (Gates; Spillers). Given the significance of these forces of racism in the lives of black people today, how do we understand a resistance against those forces that is grounded in the intimate and internal psyches of racially oppressed people?

African-American literature offers a space for these interrogations. Meditating on questions of freedom following the era of the Civil Rights, Dr. Bertram D. Ashe examines the artistic framework described as the "post-soul aesthetic," an aesthetic that he and others correlate with the socio-political shift that the movements for Civil Rights brought forth. Ashe argues that the Civil Rights era represents a shift in the paradigm of how black artists understand their relationship to the notion of freedom, and I would therefore argue, resistance (619). One of the archetypes present within the artistic framework of the "post-soul aesthetic" is the cultural mulatto. It is what this archetype enables that is so significant for understanding the intimate and internal realm of resistance to racist oppression: "[the] cultural mulatto…troubles blackness…in ways that depart significantly from previous…preoccupations with *struggling for political freedom*, or with an attempt to establish and sustain a coherent black identity" (614, emphasis added). The "cultural mulatto" understands their struggle to be distinct from that of their ancestors. This different cognition of what "struggle" is marks a departure that is useful for understanding the lives of black individuals whose resistance is rooted in both denying constructions of blackness that see them as

3

abject, but also any additional forces that seek to strip them of autonomy by defining them on terms that they did not set.

The "post-soul aesthetic" is limited to black artists who were not adults during the Civil Rights era (611). Ashe points to a statement made by Dr. Mark Antony Neal that elaborates upon this limitation where he states that those not of adult age in the Civil Rights era, "are in fact divorced from the nostalgia associated with those successes and thus positioned to critically engage the movement's legacy from a state of objectivity that the traditional civil rights leadership is both unwilling and incapable of doing" (Neal 103). For both Ashe and Neal, there is a strong need to situate the "post-soul aesthetic" in a post-Civil Rights setting that is distinct from the consciousness that informed the Civil Rights' Black Power movements. In essence, the Civil Rights era produced a change in how middle and upper middle class African-Americans understood and represented themselves in fiction. This novel understanding was connected to the legislative accomplishments, but the imaginative space of fiction allowed for deeper discourses regarding the internal affects and epistemologies that arise from such a shift in the social order. It is in this space where "traditional" methodologies of resistance to institutionalized racism are "troubled" and provoked.

Andrea Lee's *Sarah Phillips* and Colson Whitehead's *Apex Hides the Hurt* can both be considered post-Civil Rights novels. As such, these texts are invested in interrogating the meanings of transforming and emerging freedoms in the context of the outlawing of racial segregation in the United States. Both novels investigate how the amalgamations of class mobility and racial difference trouble and shape their protagonists' understanding of their racial identity. Lee's novel centers around the experiences of a young African-American woman at the apex of and after the Civil Rights movement. Whitehead's novel focalizes an unnamed, black nomenclature consultant placed in charge of deciding the new name for the fictional town Winthrop. These two texts illustrate how the protagonists' economic privilege does not erase how their racial identities shape their understanding of themselves, and the world

around them. Instead, their economic standing and their racial identity reveal a form of racist oppression that is portrayed as individualized given the ways that the protagonists react to its forces. Analyzing the protagonists' moments of tension, as well as introspection, I argue that resistance to racism can also occur as a solitary and internal act, an act of resistance that takes the form of what I posit as critical distancing that is undertaken in relation to, and through, the character's cognizance of their racial othering. I define critical distancing as an affective methodology against racial fixity, but also an epistemological positionality that is hyperaware of interpellations against the racial self.

Sarah Phillips and "Escaping"

Analyses of *Sarah Phillips* tend to center around Sarah's seeming refusal, or inability, to resist the racism and sexism she encounters. This can make Sarah's seeming passivity in the face of these oppressive forces frustrating at times because readers of African-American literature expect explicit reactions from her as a black woman. Because she does not respond as such, she thwarts our expectations of what resistance *should* look like. For example, in the foreword to the novel, Dr. Valerie Smith notes the discomfort her students feel when reading this novel because it does not "center on a character engaged in a project of political or personal resistance," essentially troubling their expectations as readers of African-American literature (Smith, x). On the surface level, *Sarah Phillips* does not appear as a novel concerned with political resistance. It shies away from the forms of resistance we often associate with the Civil Rights era, where resisting the institution of racism emerges in palpable forms such as sit-ins, protests, and marches.

The resistance *Sarah Phillips* does portray is rooted in the protagonists' tensions between her sense of self and the impositions of her racial identity. This takes the form of a critical distancing that disengages her from a predetermined racial and gendered identity while at the same time keeping her cognizant of her racial othering.

5

When we first meet Sarah living in Paris with a group of young men, one of the first things that she relates is a brief description of who she understands herself to be:

> I had grown up in the hermetic world of the old-fashioned black bourgeoisie—a group largely unknown to other Americans, which has carried on with cautious pomp for years in eastern cities and suburbs, using its considerable funds to attempt poignant imitations of high society, acting with genuine gallantry in the struggle for civil rights, and finally producing a generation of children educated in newly integrated schools and impatient to escape the outworn rituals of their parents (4).

This passage conveys Sarah's cognizance of who she is in relation to the Black middle class. Furthermore, it serves as a self-reflection on Sarah's part that anticipates the remainder of the first chapter where her current setting can in fact be read as her personal "escape" from her parents, and from a country. Although Dr. Adrienne McCormick critiques Sarah as a character marked with the inability to understand how she is shaped by the discourses surrounding her identities of class, race, and gender—an inability that renders her speechless in the face of the racism and sexism she encounters (812). This reading is misguided because there is an inherent understanding within the initial self-reflection that demonstrates Sarah's cognizance of her position. A cognizance that sees how the mixture of her economic standing with her racial identity has rendered her and her family "unknown," given racist notions of not associating blackness with wealth. Furthermore, there is a tone of indifference in this passage that suggests that Sarah has thought about this position more than once. In essence, Sarah's initial reflection shows that she is able to understand how race and class shape her existence.

The real "inability" that Sarah faces is the inability to negotiate the social position she finds herself in where a relatively

sheltered upbringing does little to negate racist constructions of blackness. This is the conundrum of Sarah's present existence, and it is made explicit and tense in the first chapter of the novel, titled "In France." In this chapter, Sarah introduces her "more Frisian [Germanic ethnic group] than French" lover Henri, one of the young men she lives with, by stating that when she first met him, "[he] had just returned from touring Texas, where he had bought a jaunty Confederate cap" (5). She continues by recounting how Henri would call her "*Reine d'Afrique, petite Indienne*" and remarking on his admiration for Richard Nixon and General Lee. In essence, Henri is characterized as a racist. Yet despite the apparent symbols of racial enslavement, and her sexual exoticization and objectification, Sarah does not reveal any visible signs of anger or sadness. The only emotions such racism invokes in Sarah are "boredom" and "annoyance." In the first few pages of the novel, blackness is troubled by a character who refuses to even describe what she experiences as racism. Although this passage does indeed raise questions regarding Sarah's apparent "complicity" in the racism she encounters, it raises an even more critical question regarding the non-visible effects of racism, that attack the affective self, and the strategies employed by a character, like Sarah, who enjoys economic wealth. Negating the effects of racism can be understood as a component of her "escape" that she employs because of her privilege. This passage ultimately reveals that a physical escape can only do so much with respect to escaping the construction of her blackness as abject.

Towards the end of the "In France" chapter, Sarah is at a restaurant with her lover Henri, and their two other housemates Alain and Roger. They exchange vulgar jokes. At one point, Sarah insults Henri and he responds by attacking her race, telling her: "that her mother was an Irishwoman, and her father [a] monkey" (11). He continues, saying "her mother was raped by a jazz musician as big and black as King Kong…" (11). Sarah calls him stupid and leaves for the restroom. Once again, she refuses to confront the explicit racism she experiences from an intimate partner, a refusal which leads one to question if her economic affluence has made her

complacent with privilege to the point where she trivializes whether or not her race matters to her identity. McCormick reads this scene as an act of cowardice on Sarah's part, stating that Sarah "runs away from her accuser and hides in a bathroom" (808). The problem with this reading, however, is that it neglects the preceding moments of racism that Sarah did not "run" or "hide" from.

This lack of uniformity in how Sarah treats the racism she encounters negates characterizations of cowardice on Sarah's part. It is more complicated than simply Sarah fleeing racist attacks. This is ultimately evidenced through how she reflects about not feeling upset or hurt by Henri's racism, that in fact this is how they often joke around with each other. Instead, she states that "his silly tale had done something far more drastic than wound [her]: it had somehow…illuminated for [her] with blinding clarity the hopeless presumption of trying to discard [her] portion of America" (12). For Sarah, the racism she experiences does more than "wound" her because it fixes her blackness as abject. She recognizes her inability to escape her "portion of America," where wealth, and flight cannot erase all of the negative associations with blackness. The fact that her class status cannot protect her from these constructions is crucial to recognizing the flaws of simple economic accessibility. Sarah goes on to say that "she felt furious and betrayed by the intensity of nameless emotion [the racism of Henri] had called forth in [her]" (12). Yes, Sarah "troubles blackness" by refusing to confront racism through direct action, but it is not cowardice. Instead, it is an act of critical distancing, one that allows her to move beyond understanding her race as a defining characteristic. It is one that challenges constructions of her blackness as abject by not acknowledging these forces, but still demonstrating a reaction, one found within spheres of affect and "nameless emotion."

This first chapter, especially the scenes where Sarah is placed in racist confrontations, challenges our conceptions of how resistance looks because of her seeming ambivalence about her racial identity. Despite Sarah's ability to travel to Europe and live her life in economic stability, she cannot escape the constructions of

her racial identity that she lives with and is burdened by this reality. The freedom, mobility and access that her economic standing gives her is thus thwarted and undermined by racist constructions of blackness. In addition to her personal reflection in the bathroom about discarding "her portion of America," Sarah curls up and says "Oh, dear" before returning to her friends—an "oh dear" that perfectly sums up her condition. At the end of this chapter, we are left with a Sarah cognizant of her inability to escape her past and the country of her birth:

> Before that afternoon, how wonderfully simple it had seemed to be ruthless, to cut off ties with the griefs, embarrassments, and constraints of a country, a family; what an awful joke it was to find, as I had found, that nothing could be dissolved or thrown away…It was clear, much as I did not want to know it, that my days in France had a number, that for me the bright, frank, endlessly beckoning horizon of the runaway had been, at some point, transformed into a complicated return. (15)

This liminal space in which Sarah finds herself, is both where she is ruthless on matters concerning her identity as black, but also cognizant of her *need* to return home, and is the embodiment of her critical distancing. Indeed, she is cognizant of her racial othering as abject within the United States imaginary, yet she is willing to return to it because not to do so is to ultimately fail to resist altogether. In the foreword, Valerie Smith argues that "the subsequent stories [of the novel], all of which center on events from Sarah's earlier life, function symbolically as that return home" (xvi). If we accept this as true, then what does it mean for Lee to arrange the novel in such a way that suggests infinite returns home? We know the future that awaits Sarah as soon as she graduates from her alma mater, Harvard, given the text's beginning, a future marked by the actions that lead to the culminating "complicated return."

And yet, paradoxically, the novel ends on a note of optimism (though one must remember that the ending of the novel is only the beginning of Sarah's post-graduate life), with Sarah stating that:

> Although [she] didn't know what direction [she] was heading in, and had only a faint idea yet of what [she] was leaving behind, the sense of being in motion was a thrill that made up for a lot. [She] sat and squeezed [her] eyes tighter and hoped that it would turn out to be enough for [her]. (117)

Lee does not reward us with the luxury of blindness—we know that it was not enough: Sarah *must* return to her past. This "return" can be seen as a representation of the fragmentation Sarah experiences that requires her to return to the country and space that fixes her black identity, a fixed identity that is the product of a white supremacist United States. The suggestion of a cyclical narrative is the medium through which we can understand how historical realities of racial oppression, and racist constructions, shape and trouble racial identity to this day. It is not enough that Sarah is rich, or that she can brush off racism as "annoying"—the steadfastness of the construction of her racial identity as abject remains. At the end, which is also the beginning, this is the force that drives her back to the past. The mystery of what will happen when Sarah returns home is the standing of her agency as a black woman whose very existence is often shaped by constructions that are out of her control. By leaving us in a space of mystery, Sarah denies and rejects constructions of her identity. Her critical distancing, coupled with her cognizance of her othering, prove to be what marks her resistance within a world where such notions of even resisting seem unnecessary.

Apex Hides the Hurt and the Specter of Historical Identity

Similar to *Sarah Phillips*, *Apex Hides the Hurt* is not a particularly "popular" novel, having received relatively little critical attention in its time of publication compared to Whitehead's other

texts. The novel revolves around the re-naming of the fictional town of Winthrop, and the protagonist, a black unnamed nomenclature consultant, is the one in charge of settling the debate on this issue. Whitehead's novel, like *Sarah Phillips*, is invested in the representation of the act of critical distancing in relation to the cognizance of racial othering. In a novel like *Apex*, this appears through the tensions created between the forces of the historical past and the complicated present. Furthermore, the narrative structure corroborates this by "repeatedly [displacing] the ongoing present to revisit the nomenclature consultant's past" (Cohn, 16). The effect that this has is the accumulation of past and present forces embedded into the racial identity of the protagonist. It is within the tensions created by these forces where one sees the negotiation of racial identity the nomenclature consultant experiences in his journey within the town of Winthrop. As a basis for understanding the interplay of these forces, there first needs to be a focus on the class status of the nomenclature consultant.

It is important to note the protagonist's class status given the novel's historical context within the post-Civil Rights era. Indeed, his class identity is the first thing that the novel takes up. Instead of having an identity rooted in his name, the unnamed nomenclature consultant's identity is instead rooted in his job and what that job allows him to access. What he *does* for a living is what we first learn directly from him, "[he] came up with the names" in essence defining him from the first sentence by his job, which is to say by his class and economic status (Whitehead 4). From this beginning we also learn that he has momentarily retired due to an incident he calls "the misfortune," but apart from this, we learn little about him (6). What we do learn about the protagonist, his employment, acts as pathway to understanding the basis of the critical distance employed in this narrative. The nomenclature consultant's ability to access a life of wealth and privilege serves as a form of escape for him. This is not something implied or said at the beginning of the novel, but rather something that is revealed much later, gradually and in fragments throughout the text.

For example, we know that the protagonist is a graduate from the prestigious Ivy League- like Quincy University, a university that gives him access to networks of people that eventually lead him to his current employment as a nomenclature consultant. Reflecting upon this, the nomenclature consultant states that:

> He did not come to appreciate the peculiar magnetism of the Quincy name until he graduated, when its invisible waves sorted the world into categories, repelling lesser alloys, attracting those of kindred ore at job interviews, parties, in bedrooms. There was no secret handshake. The two syllables sufficed. Quincy was a name that was a key, and it opened doors. (70-71)

The protagonist exists as a representation of the professional class of African-Americans. He is the "ideal" product of what the Civil Rights movements sought to accomplish through their emphasis on economic accessibility and self-determination. Indeed, it is even noted that Quincy "believed in diversity" when they reached out to the nomenclature consultant after "he had filled out a form the previous summer at the African-American Leaders of Tomorrow conference…" (70). Of course, Quincy's "diversity" is palliative of inequality. Still, understanding these origins of the nomenclature consultant's wealth is crucial to understanding how he experiences forces of the historical past that come to *literally* trouble him when he is in the town of Winthrop.

One of the forces that come to represent the historical past in the narrative is the existence of working class black folk, and the tension they create through the interactions they have with the nomenclature consultant. While in the town of Winthrop, the protagonist comes to stay at a hotel and while there, something uncanny happens. One morning he wakes up to the chambermaid yelling at him, telling him that she needs to be let inside his room to clean, but he refuses:

"You should be up by now!" The woman thundered, and then all was quiet. Was there something he was supposed to do? [The nomenclature consultant] waited, and soon he heard the woman push her cart up the hall. After a few long minutes, he slipped his hand outside the room and *noosed the doorknob with the DO NOT DISTURB sign*…He noticed thin daggers of paint on the floor that had been knocked down by the assault. (37, emphasis added)

The scene is quite bizarre because of the forceful nature of the chambermaid and also because the protagonist refuses to have his room cleaned. The language employed in this scene is also significant, because through choosing the word "noosed," Whitehead signals vile, not distant, pasts within African-American life. And yet, the nomenclature consultant does not want to be disturbed. Whitehead's use of the word "noose" in relation to the protagonist's actions reflect the protagonist's refusal to acknowledge how historical racist realities shape black identity. The significance of the underlying representation of the chambermaid as a black working class figure is found in her constant reappearance as a force that troubles the narrator. She returns several times later in the novel, insisting on being let inside, but the nomenclature consultant repeatedly tells her that he is okay and does not need his room cleaned, to which she responds "you're not letting me do my job" and also "I'm going to clean this room! Clean it up! Clean it up! Clean it allll up!" (132). The repetition of this conflict occurs enough times to imply that something else is going on beyond a simple interaction between the protagonist and the chambermaid.

In *Sarah Phillips*, we saw Sarah's ambivalence about her racial identity revealed through her reflections, but a novel like *Apex Hides the Hurt* reveals this ambivalence through a completely different method. Given that we understand the "post-soul aesthetic" as an artistic framework that recognizes the tensions between different generations of black identity, the ambivalence of the protagonist is symbolized by his refusal to let the chambermaid

13

inside of his room, metaphorically denying her access to his being. The ongoing antagonism he has with the husband of the chambermaid, the bartender Muttonchops, reinforces this tension. The protagonist is an upper middle class black man, and the chambermaid and her husband, old working class black folk. The tension that repeatedly arises amongst these two distinct bodies of identities marks the struggle the protagonist has with his own historical racial identity as a person that has come to enjoy wealth and privilege. These tensions, however, only represent a portion of what it means for the protagonist to grapple with a racialized historical identity.

As part of his job in deciding what to rename the town of Winthrop, the nomenclature consultant must interact with the different forces, represented by the citizens of the town, attempting to name the town in their own vision. Lucky Aberdeen, CEO of Aberdeen Software, is attempting to re-name the town "New Prospera," as a way of marking it as an innovative site of "new money, new media, new economy" (52). Regina Goode, the black mayor of the city, is attempting to re-name the town to "Freedom," given the history of the town and her ancestor, Abraham Goode, who helped lead former slaves into the area (141). While both of these visions of names represent forces of the past and possible future, the most significant force is that of Albie Winthrop, who is fighting to keep the name of the town as it is: "Winthrop." Albie represents old money, in that his white ancestor's "barbed wire" company cemented the fortune of the town. But even more than this, he is the one who leads the nomenclature consultant into a cognizance of his racial othering by having him read the history of the town as a way to sympathize with his wishes of keeping the name of it as it stands (19).

Ironically, it is through reading and engaging the history of Winthrop that the nomenclature consultant learns about the displacement of the original black settlers, one of whom is Regina's ancestor. This eventually leads him to reach a moment of

cognizance where he negotiates the long history of constructing blackness as abject:

> You call something by a name, you fix it in place. A thing or a person, it didn't matter—the name you gave it allowed you to draw a bead, take aim, shoot. But there was a flip side to calling something by the name you gave it—and that was wanting to be called by the name you gave to yourself. What is the name that will give me the dignity and respect that is my right?.... Before colored, slave. Before slave, free. And always somewhere, nigger. (192)

What the nomenclature consultant had been attempting to escape through his economic status catches up to him, and it does so through the tensions created by the historical past. But as he notes, it is the fixity that follows the naming of something that is the issue. Whitehead's ironic unwillingness to give the nomenclature consultant a name is part of this refusal to fix him. However, what this passage suggests is that fixity can also arise through a long history of racial othering, especially one rooted in an abject construction of blackness.

This epiphany comes to shape the nomenclature consultant's decision regarding the name of the town. While reading the history of the town he comes to the knowledge that the other person who helped lead former slaves into the area, William Field, had come up with a name of his own for what to name the place that they finally settled in: "Struggle." Ultimately, this is what the nomenclature consultant leaves in the envelope as his final decision for the name of the town. It is this decision that marks his resistance, one that acknowledges a history of struggle as people "othered" by racist constructions. As he leaves the Winthrop Hotel, he "[gives] the bartender the finger" signaling his refusal to let the historical past define him (211). Although the nomenclature consultant has reached a point of cognizance regarding his racialized history, his resistance is rooted in envisioning modalities of being that go beyond

predetermined constructions of blackness as abject. Indeed, this is what the novel ultimately accomplishes by focalizing a privileged protagonist that must reconcile with what his racial identity means. What at first started as a job becomes a journey of cognizance for the nomenclature consultant. His economic status provided him with comfort and methodologies through which he created a critical distance from his racial identity. Nevertheless, as the novel demonstrates, these racial constructions cannot be escaped through avenues of wealth, and instead must be confronted.

Where do we go from here?

The protagonists of these two texts inhabit middle class economic status, but nevertheless find themselves burdened by the long and racist history that fixes their black identity as abject. Due to the gains of the Civil Rights movements, they have been given increased access and opportunity to enter the realm of economic wealth not previously available to them, and yet they still find that their entrance into a privileged class of the capitalist system is not enough. Dr. Cedric J. Robinson, in the preface to *Forgeries of Memory and Meaning*, states that "racial regimes are…unstable truth systems…they may 'collapse' under the weight of their own artifices, practices, and apparatuses…" (xii). Indeed, it is this "unstable truth system" of "post-raciality" that these two fictional black subjects experience. The freedom afforded to them through economic class is an unstable one, and it is one that ultimately "collapses" once they become aware of their racial othering. For Sarah Phillips and the unnamed nomenclature consultant, their resistance is not against a white supremacist state or a government that refuses to acknowledge their constitutional rights; rather, it is a resistance against the long history of their racial othering. This resistance is pursuant to Neal and Ashe's limitation of the "post-soul aesthetic," where black artists have no direct connection to the consciousness that informed the Civil Rights movements. Frederic Jameson's insights regarding this specific time period are also significant: "if the ideas of the ruling class were once the dominant (or hegemonic) ideology of bourgeois society, the advanced

capitalist countries today are now a field of stylistic and discursive heterogeneity without a norm" (17). Like Robinson, Jameson also sees the instability our advanced capitalist regime produces, where an existence marked by wealth and privilege can also be marked by racist histories and constructions. In essence, "black culture" can be seen as popular culture within a country built upon racism like the United States. This popularity does not however negate the present existence of racist structures and constructions, such as police brutality, criminalization, and wealth inequality.

In this present moment of civil and political instability, being able to see that wealth produces privilege but does not erase negative constructions of racial identity, is not only crucial, but also necessary. If we are to move beyond these destructive conceptions of race, we must first realize the limitations of our previously perceived notions of resistance and agency. When it comes to the forces of a racial regime such as that of the United States, recognizing the stakes involved is the first step involved in beginning to undo a long history of racial oppression.

References

Ashe, Bertram D. *Theorizing the Post-Soul Aesthetic: An Introduction. African American Review*, Vol. 41, No. 4, Post-Soul Aesthetic (Winter, 2007) pp. 609-623

Cohn, Jesse S. *Old Afflictions: Colson Whitehead's Apex Hides the Hurt and the "Post-Soul Condition." The Journal of the Midwest Modern Language Association*, Vol. 42, No. 1 (Spring 2009), pp. 15-24

Davis, Angela Y. *Are Prisons Obsolete?* Seven Stories Press, 2003. Print.

Ellison, Ralph. *Shadow and Act*. Vintage International, 1995. Print.

Gates Jr., Henry Louis. *The Signifying Monkey: A Theory of African American Literary Criticism*. Oxford University Press, 1988. Print.

Jameson, Frederic. *Postmodernism, or, The Cultural Logic of Late Capitalism*. Duke University Press, 1991. Print.

Lee, Andrea. *Sarah Phillips*. Northeastern University Press, 1993. Print.

McCormick, Adrienne. *Is This Resistance? African-American Postmodernism in "Sarah Phillips." Callaloo*, Vol. 27. No. 3 (summer, 2004), pp. 808-828. The John Hopkins University Press.

Neal, Mark Anthony. *Soul Babies: Black Popular Culture and The Post-Soul Aesthetic*. Routledge, 2002. Print.

Robinson, Cedric J. *Forgeries of Memory and Meaning: Blacks and the Regimes of Race in American Theater and Film*

Before WWII. University of North Carolina Press, Chapel Hill, 2007. Print.

Spillers, Hortense J. *Mama's Baby, Papa's Maybe: An American Grammar Book*. *Diacritics*, Vol. 17. 2, Culture and Countermemory: The "American" Connection (Summer, 1987), pp. 64-8. The John Hopkins University Press.

Whitehead, Colson. *Apex Hides the Hurt.* Doubleday, 2006. Print.

Acknowledgements

Assessing Latinx Adolescents' Mental Health Using a School Wide Screening Tool

Maria De Jesus Garcia Garcia

Mentor: Dr. Erin Dowdy
Department of Counseling, Clinical, & School Psychology

Abstract

Approximately 20 percent of children and adolescents in the United States experience mental health problems. Latinx, the fastest growing population in the U.S. make up 24.7% of public school age children in the K-12 educational system, have significant mental health needs that are not being met compared to the general population (Census.gov). Mental health problems are associated with poorer academic and life outcomes, such as low educational attainment, underemployment, and physical health problems (Campbell & Ewing, 1990). Since adolescents spend a majority of their time in schools, schools are an optimal environment to address the mental health needs of Latinx adolescents. This study seeks to understand how universal screening for complete mental health is useful in identifying Latinx students' mental health functioning. Complete mental health screening is aligned with the two-continua model, which assesses for mental problems or distress and also examines positive mental health (Keyes, 2005). Online surveys were administered to students (N = 1,984) at a high school in central California to screen for complete mental health. Students' total covitality (combination of psychological strengths) sum scores and distress sum scores were standardized. Using standard deviation cutoffs, nine complete mental health categories were created including: Highest Risk, Moderate Risk, Lower Risk, Languishing, Getting By, Moderate Thriving, High Thriving, and two Inconsistent groups. Twenty percent of Latinx students were identified as being at risk for a mental health problem ranging from Languishing to Highest Risk. These results can help school staff become more aware of their students' needs and therefore, work to provide

resources and programs that can positively impact students' mental health and promote students' well-being.

Introduction

Mental health has generally been defined as the absence of mental illness (Antaramian, Huebner, Hills, & Valois, 2010). However, recent studies have defined mental health as existing on a two-continua framework based on two distinct yet related constructs. Mental health is thought of as a complete condition in which people have both an absence of mental illness and the presence of thriving, with a high state of emotional, psychological and social well-being (Keyes, 2005). In addition to symptoms of psychological distress, mental health also includes positive feelings of an individual's life including subjective wellbeing (Keyes, 2005). Therefore, the two-continua framework not only acknowledges the absence of mental illness, but also the presence of positive aspects of mental health, when considering an individual as being mentally healthy (Westerhof & Keyes, 2009). On the other hand, an individual may not display a mental health disorder, but also may not be thriving (Keyes, 2005). Ultimately, it is important to acknowledge both strengths and distress in mental health because the absence of psychopathology does not always indicate the presence of mental health (Keyes, 2005).

Literature Review

Mental Health

Mental health is critical in youth development as it impacts young people's academic success and life outcomes. Studies have shown that mental health is important for students' school performance in addition to their social and emotional growth, particularly as researchers have established a relation between emotional health and school success (Toppelberg, Hollinshead, Collins, & Nieto-Castañon, 2013). Mental health also plays a role in an individual's life trajectory, since untreated mental health problems have been associated with negative consequences (Campbell & Ewing, 1990). Therefore, addressing mental health is of particular importance because 20% of youth experience a mental

health problem at some point in their adolescence (Perou, 2013). Furthermore, mental health problems often go unrecognized, which puts youth on a trajectory for poorer life outcomes such as low educational attainment, under employment, physical health problems, and distress (Campbell & Ewing, 1990). In contrast, another study found that specifically Latinx adolescents compared to Asian American adolescents were more likely to disclose the presence of externalizing problems, like conduct and hyperactivity; these externalizing problems can thus, cause disruption in the school and home context (Bramlett, Murphy, Johnson, Wallingsford, & Hall, J, 2002). As a result, it is critical to address mental health problems in youth in order to deal with current issues as well as prevent future problems.

Latinx Children and Underutilization of Mental Health Services

Latinx are the fastest growing group in the United States population, and comprise 53.3 million of the total United States population (U.S census Bureau, 2012). Consequently, Latinx children make up a large proportion of the youth population (U.S. Census Bureau, 2012). Latinx children are a large majority of the Latinx population, yet they have been found to have significantly lower rates of mental health service utilization (Yeh, McCabe, Hough, Dupuis, & Hazen, 2003), suggesting that they are often underserved. In addition, research indicates that Latinx students may experience certain mental health problems more often than their non-Latinx peers. For example, one study found that Latinx youth indicated increased signs of depression compared to their non-Latinx counterparts (Roberts et al., 2006). Furthermore, studies indicate that Latinx adolescents are classified less frequently as having mental health problems and are less likely to use mental health services than other students (Kataoka et al., 2002; Yeh, McCabe, Hough, Dupuis, & Hazen, 2003). Thus, addressing Latinx adolescents' mental health is especially important to ensure that Latinx students are getting appropriately identified and receiving needed services.

Providing Mental Health Services in Schools

Keeton, Soleimanpour, and Brindis (2012), suggest that schools can provide access to mental health services for Latinx youth by providing school-based mental health services. School-based mental health services offer adolescents access to primary care and mental health professionals within the school. For example, school-based health care can include mental health and primary care and provide services such as immunizations, or assistance with dealing with chronic psychopathology and mental health problems (Keeton, Soleimanpour & Brindis, 2012). In addition, research suggests that school-based mental health services may have the potential to increase access for underprivileged adolescents and lower racial gaps in mental health (Bear et. al, 2014). For example, transportation and insurance have been found to be barriers for Latinx students seeking mental health services; however, these barriers are diminished when services are provided within the schools (Bear et al., 2014). As a result, decreasing barriers increases the likelihood of identifying mental health problems and raises the possibility of help seeking among Latinx (Bear et al., 2014). Other studies have indicated that stigma is also reduced, as receiving mental health services is seen as more acceptable within the school setting (Slade, 2002). By addressing the mental health needs of Latinx youth in schools, early identification and intervention can serve to promote their positive well-being and help them to succeed academically as well (Dowdy, Furlong, Raines, Bovery, Kauffman, Kamphaus, Dever, Price, & Murdock, 2015).

Mental Health Screenings

One way to address and identify mental health needs in schools is through universal screening (Moore, Widales-Benitez, Carnazzo, Kim, Moffa, Dowdy, 2015). Universal screening refers to examining the mental health of a whole school in order to identify students who may be at risk for mental health problems and, therefore, provide early intervention. Universal screening opens up the possibility of early identification of mental health problems for

all students (Dowdy, Kamphaus, Twyford, & Dever, 2014). Assessing for students' strengths and risk factors is important because when screening for mental health, schools have generally focused on a problem-based approach. Screenings in schools have most often focused on identifying mental health symptoms or current illness (Kim, Furlong, Dowdy, Felix, 2014). This approach only identifies about 15% of students who are experiencing some type of mental health problem (Moore et al., 2015). However, assessing for strengths addresses the problem of also identifying whether students have high or low strengths to help them cope with daily life stressors. Moreover, assessing for strengths provides the opportunity to identify students who may not be experiencing current mental health challenges but do not have the adequate strengths to deal with challenges that may arise in the future. In this way, these students will not be overlooked when examining their level of risk for a mental health challenge.

As the understanding of mental health is changing to recognize a two-continua model, screening for mental health in schools is also starting to reflect this model of assessing for both mental health strengths and distress (Furlong, Dowdy, Carnazzo, Bovery, & Kim, 2014). With the two-continua model, four mental health groups are identified: (1) high subjective well-being (SWB) which refers to a positive construct and consists of life satisfaction, positive affect and negative affect (Antaramian et., 2010) and low psychological distress; (2) low SWB and high psychological distress; (3) low SWB and low psychological distress; and (4) high SWB with high psychological distress (Greenspoon & Saklofske, 2001). Those individuals who have high SWB and low psychological distress are classified as having complete mental health.

A benefit to screening for complete mental health is identifying those students who may be at risk but are not experiencing a mental health problem. For example, vulnerable (low SWB, low distress) adolescents can be identified and receive

adequate resources (Suldo & Shaffer, 2008). Thus, complete mental health is aligned with the two continua model and combines SWB and psychological distress when assessing students' mental health (Greenspoon & Saklofske, 2001). In addition, the two continua model displays a broader understanding of mental health because even though students may experience psychological distress they can still have high life satisfaction. This comprehensive evaluation of mental health would not be evident using a solely problem-focused approach.

Support for the use of the two-continua model was evident in another study that found that when assessing only for mental health problems, 80% of youth were identified as mentally healthy, which overlooks those students who may be at risk for mental health problems. On the other hand, using the two-continua model, only 40% would be considered mentally healthy (Keyes, 2006). Thus, assessing for complete mental health aligned with the two-continua model provides the opportunity to identify more students in need of support and help them to receive services. Ultimately, to better understand students' overall mental health functioning, it is important to assess for both strengths and risks as identified by complete mental health screening.

Summary and Remaining Questions

This literature review provided information on the importance of mental health as it relates to later life outcomes and its effect on youth's academic success. Latinx children's underutilization of mental health services was also discussed. Schools were offered as possible agents for addressing students' mental health needs through universal complete mental health screening, instead of the deficit-focused approach when assessing for mental health. As more schools are considering implementing universal complete mental health screening, additional research needs to investigate how universal complete mental health screening can better help assess Latinx adolescents' mental health. To that end, the following research question has been proposed: How can

screening for complete mental health in schools be useful in assessing Latinx adolescents' mental health functioning?

Method

Participants

All students from one high school in central California were invited to participate in a survey that was part of an ongoing partnership between the researchers and the high school to investigate universal screening for complete mental health. A total of 1,984 (52.7% females, 46.2% males, 1.1% other) students took the survey. Of these students who consented to take the survey, 95 students did not answer any or the majority of the questions. Therefore, 70.1% *(N = 1,889)* of the students at the high school completed the survey. Of the students who fully completed the survey, 78% were Latinx ($N = 1,467$). This study concentrated on solely the Latinx students who completed the survey. The Latinx sample was equally distributed across grade levels, with 30.3% 9th grade students, 23.7% 10th grade students, 25.6% 11th grade students, and 20.4% 12th grade students.

Procedure

The researchers obtained permission from the Human Subjects Institutional Review Board and the school district to administer surveys. The high school agreed to administer this survey with the interest of learning more about the mental health needs of its students. Consent forms, in Spanish and English, describing the study and allowing parents the opportunity to remove their child(ren) from participation were sent home two weeks prior to the date of the survey. Ninety-three parents returned forms indicating they did not want their child to participate. All other students were eligible for inclusion in the study. However, students who were absent on the day of the survey were not included in the study.

Two surveys, one measuring psychological strengths, and the other one measuring psychological distress, were available online in both English and Spanish, allowing the students to take the survey in their preferred language. Teachers were provided with a script to read to students on the day of the survey. In addition, the school staff was given a link for the survey which was uploaded on to the school website. A week prior to the screening day, three classrooms piloted the survey to make sure the link and questions were working properly. Then, all students took the survey online using either an iPad or the school's computer lab during the students' second-class period on one day during the Spring of 2016. The two measures of psychological strengths and distress were used in order to assess for students' complete mental health (Westerhof, 2010).

Measures

Social Emotional Health Survey-Secondary (SEHS-S). The Social Emotional Health Survey - Secondary (Furlong, You, Renshaw, Smith, & O'Malley, 2014) is a 36-item measure that assesses for personal strengths. Students respond to questions using a 6-point response scale, ranging from "*Not at all like me"* to *"Very much like me*." The survey has four domains and 12 individual strength subscales. The four domains include Belief in Self, Belief in Others, Emotional Competence and Engaged Living. Each domain has three individual strengths subscales with three items per subscale. The domain of Belief in Self includes the strengths of self-efficacy, self-awareness, and persistence. The domain of Belief in Others includes the strengths of school, family, and peer support. The domain of Emotional Competence includes the strengths of emotional regulation, empathy, and behavioral self-control. Finally, the domain of Engaged Living includes the strengths of gratitude, zest, and optimism. The 12 strengths measured by the four domains all contribute to a higher order trait referred to as covitality, defined as the combination of psychological strengths (Furlong, Dowdy, Carnazzo, Bovery, & Kim, 2014). The overall covitality score was analyzed to determine students' overall levels of strengths. Previous

studies have shown support for the reliability and validity of the SEHS-S scores. For example, one study found the following reliability coefficients: Belief in Self (.76), Belief in Others (.81), Emotional Competence (.78) and Engaged Living (.87) (You, et al., 2014). Validity was demonstrated by confirmatory factor analysis in which item loadings varied from .52 to .90 (You, et al., 2014).

Social Emotional Distress Survey-Secondary (SEDS-S). The Social Emotional Distress Survey – Secondary (Dowdy, Furlong, Nylund-Gibson, Moore & Moffa, 2018) is a 12-item measure, which assesses for symptoms of emotional distress including sadness, anxiety, and stress. Students respond to questions using a 6-point response scale ranging from *Not at all like me* to *Very much like me*. Sample items include "In the past month, I felt sad and down" and "I was easily irritated because things got in the way of what I was doing." An overall distress score was calculated by summing the 12-item responses and this overall score was used in analyses to determine students' overall levels of distress.

Data Analysis

The Statistical Package for Social Science (SPSS) software was used to analyze the survey results. Student responses were standardized using standard deviation cut offs of their total covitality (personal strengths) and distress sum scores to create nine groups. Based on the distress scores, students were categorized into one of the three groups that indicated their level of risk: average, above average and high. In regards to the SEHS-S responses, students were categorized as reporting low strengths ($z < -1$), low average strengths ($-1 < z < 0$) high average strengths ($0 < z < 1$) and high strengths ($z > 1$). Then responses to the SEHS-S and the SEDS-S measures were cross-tabulated. Latinx students were categorized into one of the nine groups: Highest Risk (high distress, low or low average strengths), Moderate Risk (above average distress, low strengths), Lower Risk (above average distress, low average strengths), Languishing (average distress, low strengths), Getting By (average distress, low average strengths), Moderate Thriving

(average distress, high average strengths), High Thriving (average distress, high strengths), and Inconsistent (above average distress or high distress, and high average strengths or high strengths). The results generated the number of students who are at most risk for mental health problems.

Results

The following results of the complete mental health groups are shown below in **Table 1**. Z-scores were calculated on standard deviation cutoffs based on similar methodology in previous studies to classify students into one of the nine categories using their total covitality sum score and distress sum score (Dowdy et., 2015). Distress z-scores greater than 2 and strengths z-scores less than -1 and z-scores between -1 and 0 categorized 63 Latinx students as *Highest Risk*. Distress z-scores between 1 and 2 and strengths z-scores less than -1 classified 44 students in the *Moderate Risk* group. Distress z-scores between 1 and 2 and strengths z-scores between -1 and 0 categorized 58 students in the *Lower Risk* group. Strengths z-scores below -1 and distress z-scores below 1 classified 128 Latinx adolescents as *Languishing*. Strengths z-scores between -1 and 0 and distress z-scores less than 1 identified 414 Latinx youth as *Getting By*. A total of 503 Latinx adolescents were considered to be *Moderate Thriving* with strengths z-scores between 0 and 1 and with distress z-scores of less than 1. The *High Thriving* group included 180 Latinx adolescents with strengths z scores greater than 1 and distress z-scores less than 1. Finally, there were two *Inconsistent* groups. These two groups were considered inconsistent because they report unpredictable results. The first *Inconsistent* group included 62 Latinx students with strengths z-scores between 0 and 1 and z-scores greater than 1, and with distress z-scores between 1 and 2. The second *Inconsistent* group included students with strengths z-scores greater than 2 and Distress z scores between 0 and 1 and also a z score greater than 1.

Table 1 Analysis of Complete Mental Health

	Average distress (z < 1)	**Above Average Distress** (1 < z < 2)	**High Distress** (z > 2)
Low Strengths (z < -1)	Languishing $N = 128$	Moderate Risk $N = 44$	Highest risk $N = 63$
Low Average Strengths (-1 < z < 0)	Getting By $N = 414$	Lower Risk $N = 58$	
High Average Strengths (0 < z < 1)	Moderate Thriving $N = 503$	Inconsistent $N = 62$	Inconsistent $N = 15$
High Strengths z > 1	High Thriving $N = 180$		

Discussion

Universal complete mental health screening assessed with nine complete mental health groups indicated Latinx adolescents' level of mental health functioning. In the *Highest Risk* group, 4.3% of Latinx students reported high distress and low strengths. In the *Moderate Risk* group, 3% of Latinx students reported above average distress and low strengths. The *Lower Risk* group included 4% of Latinx students who indicated above average distress and low average strengths. The *Languishing* group included 8.7% of Latinx students who reported average distress but low strengths. The *Getting By* group accounted for 28.2% of Latinx students who reported average distress and low average strengths. 34.3% of Latinx students who were classified in the *Moderate Thriving* group

reported average distress and high average strengths. The *High Thriving* group comprised of 12.3% of Latinx students who reported average distress and high strengths. The first *Inconsistent* group included 1% of Latinx students who reported above average distress and high average to high strengths whereas the second *Inconsistent* group included 4.2% of Latinx adolescents who reported high distress and high average to high strengths. In addition, complete mental health screening identified the number of Latinx adolescents ($N = 293$; 20%) who may be at risk for a mental health problem which aligns with previous research that 20% of youth face a mental health problem in adolescence (Perou, 2013). The number of students in the four groups (*Languishing, Moderate Risk, Lower Risk, and Highest Risk*) was combined to attain the total number of students described above indicating level of risk for a mental health challenge.

Therefore, 20% percent of Latinx high school students experienced some level of risk, ranging from *Languishing* to being at *Highest Risk*. Of this twenty percent, it is important to highlight two groups, the *Highest Risk* group and the *Languishing* group. The *Highest Risk* group is an important subgroup to target given that they reported high levels of distress yet have low strengths to cope with their mental health symptoms. The *Languishing* group had the highest number of students based on their reported levels of distress and strengths compared to the other three groups at risk. Their distress levels are in the average range; however, the issue is that they also report low levels of strengths. This is critical because if and when these students do experience something challenging in their life, they may not have the necessary strengths to cope with their mental health symptoms. Furthermore, schools can utilize the information found through assessing Latinx students' complete mental health to learn more about Latinx students' needs to implement workshops for teachers and parents to create awareness and educate about the importance of mental health and how to best support Latinx adolescents through times of distress and challenges. Thus, providing available resources for parents and adolescents as

well as creating an environment where students feel comfortable seeking help before the risk for a mental health problem increases is necessary to promote the overall wellbeing and thriving of Latinx students in the educational system.

Conclusion

Screening for complete mental health allowed for an assessment of Latinx students' overall mental health functioning by looking at both levels of distress and strengths. Limitations of the study include the limited generalizability of the findings considering that the survey was administered in one high school. In addition, some students were absent or refused consent and these findings may have differed if all students had participated. Given the nature of the study regarding screening for mental health issues, Latinx parents may have refused to consent because there is still great stigma in regards to mental health and some parents may not want their child to be identified as being at risk for a mental health problem. Future work is needed to determine if there are any systematic barriers to parental or student consent. In addition, future research can evaluate the role of culture as it relates to stigma and the willingness of Latinx to seek mental health services for their children. Moreover, future research can consider how cultural values within the Latinx community may impact Latinx students' mental health. Lastly, studies can identify top strengths of Latinx students and compare their strengths to their non-Latinx peers with the goal of developing culturally sensitive interventions to address risk while also promoting strengths and enhancing Latinx students' wellbeing.

References

Antaramian, S. P. Huebner, E. S., Hills, K. J., & Valois, R. F. (2010). A dual-factor model of mental health: Toward a more comprehensive understanding of youth functioning. *American Journal of Orthopsychiatry*, *80*(4), 462–472.

Bramlett, R. K., Murphy, J. L., Johnson, J., Wallingsford, L., & Hall, J. D. (2002). Contemporary practices in school psychology: A national survey of roles and referral problems. Psychology in the Schools, 39, 327–335.

Campbell, S. B., & Ewing, L. J. (1990). Follow-up of hard-to-manage preschoolers: Adjustment at age 9 and predictors of continuing symptoms. *Child Psychology & Psychiatry & Allied Disciplines, 31*(6), 871-889.

Dowdy, E., Furlong, M., Nylund-Gibson, K., Moore, S., & Moffa, K. (2018). Initial validation of the Social Emotional Distress survey to support complete mental health screening. *Assessment for Effective Intervention*. doi: 10.1177/1534508417749871

Dowdy, E., Furlong, M., Raines, T. C., Bovery, B., Kauffman, B., Kamphaus, R. W., Murdock, J. (2015). Enhancing school-based mental health services with a preventive promotive approach to universal screening for complete mental health. *Journal of Educational & Psychological Consultation*, 25(2-3), 178-197.

Dowdy, E., Kamphaus, R. W., Twyford, J. M., & Dever, B. V. (2014). *Culturally competent behavioral and emotional screening* Springer Science + Business Media, New York, NY.

Furlong, M. J., Dowdy, E., Carnazzo, K., Bovery, B., & Kim, E. (2014). Covitality: Fostering the building blocks of complete mental health. *NASP Communiqué*, *42*, 28-29.

Keeton, V., Soleimanpour, S., & Brindis, C. D. (2012). School-based health centers in an era of health care reform: Building on history. *Current Problems in Pediatric and Adolescent Health Care, 42,* 132– 156.

Keyes, C. L. M. (2005). Mental illness and/or mental health? investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73*(3), 539-548.

Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *American Journal of Orthopsychiatry, 76*(3), 395-402.

Kim, E. K., Furlong, M. J., Dowdy, E., & Felix, E. D. (2014). Exploring the relative contribution of the strength and distress components of dual-factor complete mental health screening. *Canadian Journal of School Psychology, 29,* 127–140.

Moore, S. A., Widales-Benitez, O., Carnazzo, K. W., Kim, E. K., Moffa, K., & Dowdy, E. (2015). Conducting universal complete mental health screening via student self-report. *Contemporary School Psychology, 19*(4), 253-267.

Perou, R., Bitsko, R. H., Blumberg, S. J., Pastor, P., Ghandour, R. M., Gfroerer, J. C., Parks, S. E. (2013). Mental health surveillance among children—United States, 2005

011. *MMWR Surveill Summ, 62 (Suppl 2), 1-35.*

Suldo, S. M., & Shaffer, E. J. (2008). Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review, 37*(1), 52-68.

Toppeberg, C. O., Hollinshead, M. O., Collins, B. A., & Nieto-Castañón, A. (2013). Cross sectional study of unmet mental health need in 5- to 7-year old latino children in the united

states: Do teachers and parents make a difference in service utilization? *School Mental Health, 5*(2), 59-69.

United States Census Bureau. (2012). U.S. Census Bureau projections show a slower growing older, more diverse nation a half century from now (U.S. Census Bureau Publication No. CB12-243). Retrieved from www.census.gov/newsroom/releases/archives/ population/cb12-243.html

Westerhof, G. J., & Keyes, C. L. M. (2010). Mental illness and mental health: The two continua model across the lifespan. *Journal of Adult Development, 17*(2), 110-119.

Yeh, M., McCabe, K., Hough, R. L., Dupuis, D., & Hazen, A. (2003). Racial/ethnic differences in parental endorsement of barriers to mental health services for youth. *Mental Health Services Research, 5*(2), 65-77.

Young, A. S., & Rabiner, D. (2015). Racial/ethnic differences in parent-reported barriers to accessing children's health services. *Psychological Services, 12*(3). https://www.census.gov/newsroom/facts-for-features/2017/hispanic-heritage.html

Acknowledgements

First, I would like to thank my parents for all their sacrifices so that I could have the opportunity to go to college. Without them I would not be where I am today. *Ama y Apa todo lo que hago siempre lo hago con todo mi esfuerzo por ustedes.* I want to thank my siblings for always supporting me unconditionally in every step of my education career. With your guidance, I was able to navigate college, and I was able to learn about the McNair Program.

Dr. Erin Dowdy gave me the opportunity to partake in her research with Latinx children and their families. This experience strengthened my research interests and desire to advocate for the mental health of Latinx communities and underserved populations. I appreciate all the feedback on my writing and research process, and for all her guidance, warmth, and support. I would also like to express my appreciation to Dr. Vanessa Woods on my second research project regarding transfer students' transition to UC Santa Barbara. I was humbled and honored to have worked with an incredible professor and caring individual. Her dedication to first generation and underrepresented students is admirable.

I am extremely grateful to the McNair Scholars Program for introducing me to the world of research and believing in my potential. Thank you for providing the opportunity to develop as a scholar. Special thanks to the McNair Staff who have supported me throughout my time in the program: Monique Limon, Dr. Micaela Morgan, Dr. Yvette Martinez-Vu, Dr. Beth Schneider, and Dr. Ellen Broidy. Last but not least, I would like to thank the graduate mentors including Gina Vanegas, Cruz Ortiz, and Madeline Nolan for providing additional feedback and emotional support during my research and graduate school process. Each and every one of you has contributed to my growth as a scholar, and individual. Gracias!

"I look at people who aren't as fluent and think less of them": Language ideologies of bilingual and English-dominant Latinxs in California

Victoria Melgarejo

Mentor: Dr. Mary Bucholtz
Department of Linguistics

Abstract

The notion that all Latinxs speak Spanish is so widespread that oftentimes the phrase Spanish speakers is used as a synonym for the Latinx community (Zentella 1997, 2007). This raciolinguistic ideology (Rosa & Flores 2017) erases different linguistic repertoires used by Latinxs and condemns English-dominant or monolingual Latinxs (Bustamante Lopez 2008, Urciuoli 2008, Zentella 2015). The ideology stipulates that Spanish is a requirement for Latinx identity, and not speaking Spanish thus leads to marginalization from the Latinx community. This situation is particularly problematic because by the second and third generations, Latinxs are typically English-dominant (Pew Research Center 2015). Therefore, it is imperative to capture the full spectrum of Latinx language use to paint a broader and more inclusive linguistic picture of the Latinx community. Drawing on interview data with Latinx college students from Southern California, I examine the construction of a monolithic language Latinx identity based on the language ideologies of both English-dominant and bilingual Latinxs. The analysis demonstrates that although participants do not explicitly name Spanish as a requirement for cultural identity, those who speak Spanish express pride in their ability and imply that they think less of English-dominant Latinxs. Meanwhile, English-dominant Latinxs report feeling shame for not speaking Spanish, a situation that is further amplified when they become willing to accept bilingual Latinxs' verbal microaggressions about their perceived cultural inauthenticity. The

analysis demonstrates the importance of researching not only the raciolinguistic ideologies of the white listening subject (Rosa & Flores 2017) but also such ideologies within racialized groups.

"We're afraid the others will think we're agringadas because we don't speak Chicano Spanish. We oppress each other trying to out-Chicano each other, vying to be "real" Chicanas, to speak like Chicanos. There is no one Chicano language just as there is no one Chicano experience." Gloria E. Anzaldúa, *Borderlands*

Introduction

In the United States, the Spanish language frequently indexes Latinx identity, and conversely Latinxs are presumed to be Spanish speakers. Yet, language use and language patterns among Latinxs are not all the same. In fact, individual bilingualism across generations is not stable (Valdés 1995). Language shift among immigrant generations is observed as the children of immigrants begin to transition from bilingual repertoires to English dominant repertoires. This leaves a language barrier when the children of immigrants are unable to or have a hard time speaking to their grandparents and even parents. Research in language shift demonstrates that this process is completed within three generations (Fishman 1991), but not all individuals become monolinguals. In fact, some individuals whose primary language is English exhibit stronger skills in comprehending oral and written Spanish language and weaker language production skills (Myers-Scotton 2006).

The Pew Research Center (2013) reports that while Spanish is the main language spoken among foreign-born Latinxs at 60%, 56% of U.S.-born Latinxs report English as their dominant language while only 5% have Spanish as their dominant language. By the second and third generations and higher, Latinas/os are more likely to be English-dominant than bilingual or Spanish-dominant. In fact, by the third generation, only 1% of Latinas/os are Spanish-dominant and 23% are bilingual. Furthermore, Lippi-Green (2012) observes that second and third generation Latinxs are not likely to maintain a Spanish dominant repertoire. She explains that as time

goes by, Latinx communities might undergo the linguistic transition from Spanish-dominant to bilingual to English dominant, while still keeping a strong hold on cultural practices and ideals.

According to the Pew Research Center (2013), 62% of all Latinxs are bilingual at some level, including Spanish or English receptive ability. Being receptive in a language means being able to comprehend oral language production, but unable to produce it. Additionally, the same survey found that 70% of all Latinxs ages 16 to 25 code-switch between Spanish and English, a practice also referred to as *Spanglish*. Code-switching occurs when someone combines two languages or language varieties, for instance, Spanish and English, by combining both languages in sentences or making words that combine Spanish and English morphology. While Spanish is an important element within the Latinx community, 58% of immigrant Latinxs and 87% of U.S. born Latinxs say that speaking Spanish is not necessary to be considered Latinx (Pew Research Center 2015).

The assumption that all Latinas/os speak Spanish, or that all Latinas/os are bilingual, erases the linguistic differences and language shifts that take place in the Latinx community. The language use and language patterns of Latinxs impact the way that speakers identify and/or see themselves. Language is also a factor that contributes to discrimination. According to a study by Hakimzadeh and Cohn (2007), the primary source of discrimination for Spanish speakers is language (48%). Their study found that language was a more significant factor in discrimination than immigration status (23%), income and education (17%), or skin color (12%). In the United States, Spanish has been used as the butt of jokes by many white English speakers. This has been done by utilizing Spanish for humor and often the indirect effect is that this ultimately pokes fun at Latinx language and culture (Hill 1998). In contrast, Zentella (2003) argues that the English of native Spanish speakers is closely monitored by white English native speakers for signs of nonnative accents, non-standard grammar, and pronunciation "misfires." This phenomenon can be seen in media

portrayals where Latinxs are often represented as and ridiculed for having "thick" accents.

A 2010 Pew Hispanic Research Center study found that individuals self-identify their national origin according to language use. Speakers who classified their language use as Spanish-dominant identified themselves by their country of origin. In other words, Spanish-dominant Latinxs were more likely to identify, for example, as Mexican or Puerto Rican. Meanwhile bilingual speakers identified as Latinx and English-dominant speakers mostly identified as American. Zentella posits that Latinxs construct their language identities and their own individualities by how they see culture and language around them. In addition, the language spoken by Latinxs and their patterns of language use are markers of cultural identity. Zentella (2007) reports that Latinxs who speak primarily English are likely to have their cultural authenticity challenged by other Latinxs who speak more Spanish. Latinxs who use mostly English or who are English-dominant are labeled as "whitewashed" within the Latinx community. On the other hand, Latinxs who speak more or better Spanish may claim to be more representatives of their own or their family's culture of national origin. This linguistic ability is often a source of pride among bilingual Latinxs.

Similar to this previous research on language use and language attitudes among Latinxs, the present study compares the language ideologies of bilingual and English dominant Latinxs in a university in Southern California. Socially, Latinx identity is heavily tied to the Spanish language (Zentella 2007); it is thus important to capture linguistic attitudes among both bilingual and English-dominant Latinxs in order to understand the linguistic construction of Latinx identity (Bustamante-Lopez 2008). I analyze the reported language patterns and language attitudes and ideologies of bilingual and English-dominant Latinxs to see how they feel about the widespread ideology of Spanish as a marker of cultural identity. The bilingual speakers compared their language proficiency to that of native speakers in Spanish-speaking countries,

while English-dominant Latinxs compared their Spanish to that of their parents or other bilingual family members and often stated that they felt "less" Latinx or less close to the Latinx community due to their lack of Spanish language skills. English-dominant Latinxs also described feeling insecure and anxious and reported that they often avoided joining Latinx organizations on college campuses because of fear of not being "enough" or speaking "bad Spanish" as some participants described. This finding is similar to Urciuoli's (2008) study of English-dominant Latinx students taking Spanish courses in college campuses and their attempts to "fit in" with Latinx organizations.

Methodology

Surveys

Survey data was collected to gather information on Latinx participants and their language patterns. Fifty-seven participants took the survey that was distributed via an online link. The survey was created on SurveyMonkey and shared through snowball sampling among Latinx organizations on campus, and through a Linguistics/Chican@ course. The survey contained 23 questions that included age, gender, immigrant generation, ethnicity, number of siblings, language parents speak, and language participant feels most confident in. The survey participants were represented as follows: 73% female, 26% male, and for immigrant generation, 70% of the participants were first generation, 24% were second generation, 4% were third generation and 2% of the participants were fifth generation. In addition to these general questions, participants were asked to rate on a scale of 1-7 their knowledge of Spanish in the following categories: listening, speaking, writing and reading. Participants also rated their confidence in common activities in English and Spanish. These activities included flirting, arguing with a friend, writing an academic essay, presenting to a community member, engaging in a casual conversation, texting or social media, watching a television show, and reading a book. Participants also rated how important they saw Spanish for cultural identity. I also included a question that asked how participants

positioned themselves in a scale of 1-7 from English-dominant (1-2) to bilingual (3-5) to Spanish-dominant (6-7), as seen in **Table 1.**

Table 1: Linguistic Self-Positioning

English Dominant			Bilingual			Spanish Dominant
1	2	3	4	5	6	7

The final questions asked the participants about linguistic insecurities in Spanish and their perspective on people who mix Spanish and English in their everyday lives. The purpose of the surveys was to gather factual information on participants and their linguistic patterns. All of the questions on language patterns were created on a scale of 1-7, 1 being the lowest and 7 being the highest. The survey scale format was also used to compare how participants used Spanish and English in their everyday life.

Interviews

After the survey data was collected, the next step was to gather participants that provided their email after taking the online survey. Thirty-two participants were selected for the interviews. **Table 2** shows the participant breakdown.

Table 2: Interview Breakdown

N=32	Females		Males	
	Bilingual	English Dominant	Bilingual	English Dominant
Mexican American	5	5	5	5
Other Latinx	3	3	3	3

The participants reflect 16 females and 16 males that are broken down to 10 bilingual Mexican Americans and 10 Mexican American English-dominants as well as into non-Mexican Latinxs 6 bilingual and 6 English-dominants. The purpose of the interviews was to be personal and gather individualized experiences and perspectives. Each interview consisted of 15 questions but participants were engaged in further conversation. Therefore, the interviews took anywhere from ten minutes to more than an hour. The interviews provided qualitative personal perspectives and linguistic experiences as well as data to contrast the language ideologies and experiences between bilingual and English dominant Latinxs (See Appendix for interview questions).

Focus Groups

After the survey data were collected and the interviews were gathered, focus groups were conducted to obtain specific information that was not collected through the survey and interviews. The focus group is the last portion of the study. For the focus groups, I contacted the interview participants and simply broke them down into bilingual and English dominants. Next, I contacted them to schedule a meeting time. During the focus groups, I showed the participants two short videos. One reflected everyday micro-aggressions and stereotypes that are found within the Latinx community. These stereotypes and aggressions are used to call out people for not fitting into what is considered "Mexican" or "Latinx." In the second video, the participants watch a spoken word poem from an English-dominant Latino as he describes what it is like to be Latinx and not speak Spanish. The purpose of the focus group was to start a group discussion revolving around language and linguistic ideologies. I wanted to have a group discussion of the linguistic stereotypes and experiences that were presented in both videos, and compare them to the experiences of the participants in the groups study.

Discussion

*"You kinda judge them for not knowing it, even when I wouldn't
say Spanish is what makes someone Latino"- Emiliano*

The linguistic expectations for cultural belonging

Bilingual Latinxs in the study expressed pride for knowing Spanish and identified their ability to speak Spanish as an important marker that allowed them to be part of the Latinx culture. From the survey data (N=57), one of the questions that the participants were asked was how important they thought Spanish was for cultural identity. On a scale of 1-7, 7 being the highest, 87.72% of the participants responded with a 5 or higher. In fact, 40.35% of participants identified Spanish as a 7 on the scale. Given the responses from the survey, the study participants identified Spanish as important and crucial for cultural identity. During the personal interviews, the participants were asked more questions about their opinions on Spanish as a marker for cultural identity. The interview data demonstrates that bilingual Latinxs feel pride in their ability to speak the language making a point to state that speaking Spanish allowed them to be immersed in their own culture.

Pride in the Spanish language was not the only linguistic pattern found during the interviews. The interviews indicated that many bilingual Latinxs judged English-dominant Latinxs negatively for their inability to speak Spanish. It was surprising that many conceded that they felt bad for judging English-dominant Latinxs but justified this with the notion that all Latinxs should speak Spanish because it is part of the identity. The transcript below is an example of an interview with a male bilingual whom for this interview wishes to be identified as Emiliano. His response to the question on Spanish exemplifies a back and forth dialogue with this idea of Spanish as an element of the Latinx identity.

> **V**: How important do you think Spanish is to identify
> as Latinx?

47

E: Hmm. It is a very interesting question. Honestly, it depends on the person, 'cause I wouldn't like dock someone for not knowing Spanish. I think that's kinda mean @

V: Yeah…

E: But at the same time like, for me personally, I am really proud that I know some Spanish

V: Hmm…

E: And, like sometimes when I am being mean I think I look at people who aren't as fluent and like I think less of them. So, in some senses like-but at the same time I don't want to be mean and be like "Oh you're not Latino because you don't know Spanish". But, for me personally, it is a sense of pride and when I see umm others use it-not as good as me, like-or just not know it at all- you kinda do get like you kinda-there is a way in which you kinda judge them for it, for not knowing this even though I wouldn't say that's what makes someone Latino. -Which is weird because- It is very fuzzy- like the line between that is very fuzzy because as a language it is very important, without knowing the Spanish language it's hard to know a lot of the Latino things, but at the same time if you want to consider yourself Latino even if you don't know the language because of your background-the-you should be able to, you know? Does that make sense?

V: So, you think you can still identify as Latinx, if you don't know Spanish?

E: Yeah.

V: But you feel like knowing Spanish it's just like-

E: It's an added element, and crucial element to like knowing, being in the know of the Latino culture, yeah.

The interview suggests an internal conflict in which the interviewee, Emiliano, identifies Spanish as an essential part of the Latinx culture to the degree that he looks down on others that do not speak Spanish, lines 14-16. At the same time, Emiliano seems to concede and acknowledge that he feels "mean" line 10, when he judges English-dominant Latinxs for not speaking Spanish and concedes that he will not "dock" someone for not knowing Spanish line 4. There exists almost an unspoken expectation that everyone seems to know that Latinxs should speak Spanish and consequently bilingual Latinxs seem to believe that those who don't speak Spanish are failing at being Latinxs or should speak it if they intend to belong to the culture.

The response to the interview question is a concise example that demonstrates how bilingual Latinxs feel about Spanish as an element for cultural identification. Emiliano acknowledges his own feelings of judgement. He explains that to him, Spanish is a sense of pride. In the complete interview, he describes that speaking Spanish is a sense of pride for him because it allows him to connect to the Latinx culture and his family in a way that he wouldn't be able to if he didn't speak the language. Emiliano describes Spanish as necessary and reflects on his own instances when he viewed someone negatively for their lack of Spanish, even when he himself feels insecure about his Spanish. The pattern from interview data seems to indicate that Spanish is significant, and that as long as the Spanish is still fluent it allows someone to be part of the culture.

Additionally, bilingual Latinxs see Spanish as the bridge that keeps them connected to their parents, grandparents and community. Bilingual interviewee Valerie reflected "…when I am not home, my

grandma doesn't interact much with my brother and sister because they don't speak Spanish very well." An example like this one highlights the intrinsic value that bilingual Latinxs see in their Spanish abilities. Many of the interview participants reported a language shift occurring within siblings. Oftentimes the younger siblings will be more English-dominant than the older siblings that are more Spanish-dominant or bilingual. This was a very common trend in the data, so much so that I began asking my participants specifically about birth order in their families and about the linguistic repertoire of their siblings.

"It's like a blanket of shame every time I mess up my Spanish"-
Amy English-dominant Latina

English-dominant Latinxs and their experience with linguistic expectations

English-dominant Latinxs live with the social expectation that they should know Spanish because otherwise they will miss out on Latinx culture. This social expectation can go from a family accommodating and making language shift work to feeling embarrassed and targeted for not speaking Spanish. The language linguistic burden between a Spanish-dominant parent or grandparent and an English-dominant individual comes with feelings like pain, frustration and shame. This is evident in interviews where English-dominant participants feel unable to communicate with a Spanish-dominant elder and explain that they are afraid of being seen as sounding "dumb" because at an adult age they can't communicate at an adult level.

Additionally, English-dominant Latinxs reported feeling shame and anxiety when they found themselves in group conversations with bilingual Latinxs. English-dominant Latinxs reported feeling inadequate and chose to be quiet and laugh along during group conversations when they didn't understand what was going on. They prefer to be a silent participant and continue fitting-in rather than call attention to themselves by acknowledging that

they don't speak Spanish and be outed. One such example is from Amy an English-dominant Latina who is third generation and speaks very little Spanish, and is mostly Spanish receptive. Amy reflects on how she feels when she mispronounces words, "I immediately felt myself closing in on myself…like a blanket of shame that washes over me every time I mess up my Spanish." English-dominant Latinxs feel that their identities as Latinxs are invalidated constantly and are often told that they are not Latinx enough because they do not speak Spanish. This causes a sense of shame and embarrassment. The data analysis for the interviews demonstrates that Spanish holds an important place in the Latinx community. For English-dominant Latinxs their experience with language and with coming to terms with their language use shapes their language ideologies. For instance, Amy reflected, "I might be third gen, but I'm still Mexican, you'll make references of my culture and I'll understand them… I have to stop running from my identity." It is here that I find that English-dominant Latinxs feel that they can't be silenced within the Latinxs culture and that it really comes down to her claiming her identity instead of letting what others think shape her identity.

Another aspect discussed was that in cases where the interviewee was English-dominant with almost no knowledge of Spanish, they described feeling almost as if he was eavesdropping in a conversation he was part of when bilingual speakers shifted to Spanish. Below is the transcript for this part of the interview.

> **M:** Like we are all hanging out together and suddenly-usually happens if we are drinking or something and they want to have a deep conversation they will switch over to Spanish- And I am like Okay. And I just kinda leave-Like- Like I just don't Understand what they are saying. like I can pick out a few words in there-but then I almost feel like I am eavesdropping I just feel like I am listening in on this conversation. am not supposed to be. But that's just me and my anxiety about it. Like okay. I will. leave.

51

Finally, English-dominant Latinxs demonstrate that when answering the question about how important Spanish is for cultural belonging, they acknowledge that before their college experience they believed that Spanish was a way to authenticate their identity as Latinxs. Nonetheless, now they don't believe that Spanish should be necessary for identifying as Latinx. They acknowledged that Spanish was obviously useful for understanding parts of the culture but Spanish is not what should allow them to be or nor be part of the Latinx culture. As an example of this, Mario describes his perception of Spanish.

> **V:** How important do you think Spanish is for identifying as Latinx?
>
> **M:** Okay. Well when I was growing up I thought it was super Important like I was less Mexican
> **V:** How old were you?
>
> **M:** Hmm, I was at least 13- cause I remember it came up in middle school Cause I remember one of my friends who was Latina And could speak Spanish told me that I wasn't a real Mexican cause I didn't know how to speak Spanish and I think I internalized that
>
> **V:** She was your friend?
>
> **M:** Yeah.
>
> **V:** How did you take that?
>
> **M:** I always told her-yeah but I am still Mexican Like I didn't believe her. I would say, "no, but I am still Mexican it's in my blood -like I don't need to know the language

V: Was it just one time that she told you that?

M: No, she would say it all the time

V: Like. "no you're not a real Mexican? And after a while I did start to believe it I think I internalized it, and I think that's why I took Spanish in eight grade Because I was like, "oh" if I learn then I will be a real Mexican". But now I don't think like that anymore.

English-dominant Latinxs reflected on negative experiences with peers and friends when people have called them "less" or called them white because they don't speak Spanish. This was a common pattern among the participants and a trend that forces English-dominant Latinxs to be cautious about speaking it in fear of saying something wrong and or having everyone make fun of them and as a result be outed from the community. In fact, interview participants described their choice to utilize the language-learning phone application Duolingo in order to learn Spanish in a private space without having someone judge their Spanish.

Conclusion

The survey data indicates that 46.43% of all participants would describe themselves as bilingual, with most participants describing themselves higher on the English-dominant side of the scale. English-dominant Latinxs have been ignored and erased. In the interviews many of the self-identified English-dominant Latinxs were actually fluent in Spanish during my interview but demonstrated high insecurities when they forgot a few words or when recalling a story where they were made fun of or felt less than for their lack of Spanish. During the interviews, I learned that Spanish, or their lack of Spanish, has an enormous role in the way in which the English-dominant Latinxs see themselves, their identity

and their connection to the Latinxs culture. In many instances, it was clear that English-dominant Latinxs allowed Spanish speakers power over their own cultural identity because they felt that their lack of Spanish was a requirement. All of the English-dominant Latinxs interviewed conceded that during their college time they have come to recognize that Spanish shouldn't be the factor that grants them membership into the Latinx identity
.

Survey, interview and focus group participants believe Spanish to be a significant marker for cultural identity. Still, for bilingual participants the use of Spanish was an element that gave them a sense of pride. Bilingual Latinxs feel part of their community because they share a linguistic repertoire. Additionally, bilingual Latinxs believe that their Spanish allows them to be closer to family members and culture.

The lack of Spanish abilities keeps English-dominant Latinxs from "fitting in." The linguistic insecurities seen in English-dominant Latinxs prevent them from speaking Spanish and engaging with Latinx organizations. This is consistent with previous research on language insecurities (Urciuoli 2008). Findings from this study indicate that while Spanish is present in the Latinx community and might be the only language of many family and community members, bilingual and English dominant Latinxs agree that Spanish should not be an indicator that separates someone from the Latinx community, but instead should allow for a deeper understanding of the culture. This research demonstrates a need to shine a light on the linguistic complexity of Latinxs. It is through understanding language shift that the experiences of English-dominant Latinxs become apparent and their linguistic position within the Latinx community is represented.

Appendix

Part I: Survey

Fill-in portion

1. Age	
2. Gender	
3. Immigrant generation	
4. Race or Ethnicity	
5. Number of older siblings	
6. Number of younger siblings	
7. Language your parents/ guardians feel most confident in	
8. Language you feel most confident in	

For the following questions please answer them in a scale of 1 to 7, 1 being the lowest and 7 being the highest

1. Rate your own knowledge of Spanish in the following categories.

Listening   _____
Speaking   _____
Writing   _____
Reading   _____

2. Personally, how important do you think Spanish is for cultural identity?
    1   2   3   4   5   6   7

3. How confident are you in using each of your language/s and varieties for the following activities?

<u>Flirting</u>

Spanish: 1   2   3   4   5 6   7

English: :   1   2   3   4   5 6   7

<u>Arguing with a friend</u>

Spanish: :   1   2   3   4   5 6   7

English: :   1   2   3   4   5 6   7

<u>Writing an academic essay</u>

Spanish: :   1   2   3   4   5 6   7

English: :   1   2   3   4   5 6   7

<u>Presenting to a community member</u>

Spanish: :   1   2   3   4   5 6   7

English: :   1   2   3   4   5 6   7

<u>Casual conversation</u>

Spanish: :   1   2   3   4   5 6   7

English: :   1   2   3   4   5 6   7

<u>Texting or social media</u>

Spanish: :   1   2   3   4   5 6   7

English: :   1   2   3   4   5 6   7

<u>Watching a television show</u>

Spanish: :   1   2   3   4   5 6   7

English: :   1   2   3   4   5 6   7

<u>Reading a book</u>

Spanish: :   1   2   3   4   5 6   7

English: :   1   2   3   4   5 6   7

4.   Do you consider yourself bilingual?

      1   2   3   4   5   6   7

Where would you position yourself in the following scale:

| English Dominant | Bilingual | Spanish Dominant |

5.   Have you ever felt insecure about your knowledge of   Spanish?

      Yes   No   Don't know/I don't have an opinion

6.   Do you mix Spanish and English in your everyday life?

      Yes   No   Don't know/I don't have an opinion

7.   Do you think people should avoid mixing Spanish and English?

      Yes   No   Don't know/I don't have an opinion

Part II: Interview Questions

   1. Describe your language use. What languages do you speak? How
      well do you know these languages? How did you learn them?

   2. Describe the language used in your community growing up. How
      do you think this had an impact or influence on your own language
      use?

   3. For each person in your family, what language do they use or
      prefer to use?

57

4. Have you taken language courses? What was your experience? If you have taken Spanish as a school course, can you describe this experience.

5. Is your pronunciation in Spanish like other speakers in your community?

6. How important do you think knowing Spanish is to identify as?

7. Can you give me an example or tell me a story of a time when someone commented on the way you speak Spanish? How did this make you feel?

8. Can you give me an example or tell me a story of a time you were complimented or criticized on your Spanish?

9. Can you remember a time when you felt left out for not knowing Spanish?

10. Do you usually feel like knowing Spanish makes it easier to be part of the in-group in a conversation with Latinas/os?

11. Should people mix Spanish and English in a conversation? Why?

12. Has someone called you out on not remembering a specific word in Spanish or not knowing how to say something in Spanish?

13. How do you feel conversing in Spanish with parents or community members?

14. Do you feel linguistic insecurities when you find yourself in a conversation with monolingual Spanish speakers?

15. Do you feel prepared and comfortable speaking with monolingual Spanish speaker?

References

Anzaldúa, G. 1987. *Borderlands: The new mestiza = La frontera*. San Francisco: Spinsters/Aunt Lute.

Bustamante-Lopez. I. 2008. Constructing Linguistic Identity in Southern California. In [Nino- Murcia, Mercedes, & Rothman, Jason *eds*], The Netherlands: John Benjamins, 2008, pp. 279-300

Carter, P. Zentella, A. "Building on Strength: Language and Literacy in Latino Families and Communities." *Language in Society* 36, no. 05 (2007). doi:10.1017/s004740450707087x.

Fishman, J. A. 1991. *Reversing language shift: Theoretical and empirical foundations of assistance to threatened languages*. Clevedon: Multilingual Matters.

Gonzalez-Barrera, A. Hugo Lopez, M. (2013, August). Spanish is the most spoken non-English language in U.S. homes, even among non-Hispanics. Pew Research Center. Retrieved from http://www.pewresearch.org/fact-tank/2013/08/13/spanish-is-the-most-spoken-non-english-language-in-u-s-homes-even-among-non-hispanics/

Hakimzadeh, S. Cohn, D. (2007, November). English Usage Among Hispanics in the United States. Pew Research Center. Retrived from http://www.pewhispanic.org/2007/11/29/english-usage-among-hispanics-in-the-united-states/

Hill, J. H. 1993. "Hasta La Vista, Baby: Anglo Spanish in the American Southwest." *Critique of Anthropology* 13, no. 2: 145-76. doi:10.1177/0308275x9301300203.

Hill, Jane H. "Language, Race, and White Public
　　　Space." *American Anthropologist* 100, no. 3 (1998): 680-
　　　89. doi:10.1525/aa.1998.100.3.680.

Johnson, E. Zentella. 2016. Introducing the Language Gap.
　　　International Multilingual Research Journal. 11.
　　　10.1080/19313152.2016.1258184.

Lippi-Green, Rosina. *English with an Accent: Language, Ideology
　　　and Discrimination in the United States*. London:
　　　Routledge, 2012.

Mendoza-Denton, N. 2008 *Homegirls: Language and Cultural
　　　Practice among Latina Youth Gangs*. Malden, MA:
　　　Blackwell Pub.

Myers-Scotton, Carol. (2008). The Sociolinguistics of Identity.
　　　Tope Omoniyi and Goodith White (Eds.). New York:
　　　Continuum, 2006. Pp. 239. $168.92 cloth. Studies in
　　　Second Language Acquisition – STUD SECOND LANG
　　　ACQUIS. 30. 10.1017/S0272263108080637.]

Silverstein, M. Urban, G. *Natural Histories of Discourse*. Chicago:
　　　University of Chicago Press, 1996.

Urciuoli, B. 1996. *Exposing prejudice: Puerto Rican experiences
　　　of language, race, and class.* Boulder: Westview Press.

Urciuoli, B. 2008. Whose Spanish?: The Tension Between
　　　Linguistic Correctness and Cultural Identity. In Nino-
　　　Murcia, Mercedes, & Rothman, Jason *eds*], Amsterdam:
　　　John Benjamins, 2008, pp. 257-278

Valdés, G. 2005, Bilingualism, Heritage Language Learners, and
　　　SLA Research: Opportunities Lost or Seized?. The Modern
　　　Language Journal, 89: 410-426. doi:10.1111/j.1540-
　　　4781.2005.00314.x

Zentella, A.C. *Growing up Bilingual: Puerto Rican Children in New York*. Malden, MA: Blackwell Publishers, 1997.

Zentella. A.C.1987. Language and Female Identity in the Puerto Rican Community. In Penfield, J. Women and language in transition. Albany, N.Y: State University of New York Press.

Acknowledgements

Propane Consumption by Marine Microbial Populations in Seawater
Nancy Torres

Mentor: Dr. David Valentine
Department of Earth Sciences

Abstract

Little is known about the long term effects of catastrophic oil and natural gas release on the marine environment and the bacterial consumption that influences this process. Propane, for example, is a component of natural gas which, if not already consumed by bacteria, eventually gets released into the atmosphere as a greenhouse gas. Finding the true extent of the impact of these abundant hydrocarbon compounds is useful in building a greater understanding of the ability of the ocean to act as a natural microbial filter on hydrocarbon release. To investigate the timing of microbe metabolism in a natural seepage, seawater collected from Goleta, California (34.4° N, 119.8° W) with the natural gas propane. The rates of propane consumption and oxygen respiration rates were quantified to create a clearer picture of these processes and their contribution to the ocean's capacity to degrade harmful compounds.
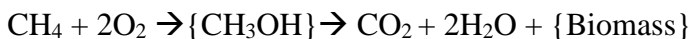
Introduction/Background

In 2010, the Deepwater Horizon Oil Spill occurred in the Gulf of Mexico, resulting in the world's largest accidental marine oil discharge to date. The explosion and sinking of the Deepwater Horizon oil rig went on for 87 days, exposing 210 million gallons along with 1.7×10^{11} g of natural gas to open ocean waters (Reddy et al., 2012). At a depth of 1.5 km, the hydrocarbons underwent microbial consumption for weeks after discharge (Valentine et al., 2010). Following this occurrence, a series of petroleum spills and gas blowouts continued to happen frequently enough to result in the need to understand more fully the repercussions these events have on the ocean's biogeochemistry (Coast Guard, United States, 2013). This project examines the natural state of these processes. The study further seeks to determine propane consumption through microbial activity. The study's overarching research question is: "How rapidly do marine microbial populations respond to the input of the natural gas propane?"

There has been research conducted on both natural seepage and industrial spills in the ocean. The Deepwater Horizon incident, for example, has led to multiple studies concerning the oceanographic processes occurring at natural hydrocarbon oil seeps in order to compare these to unnatural, industrial oil seepage. Researchers have found that natural gases can directly affect the ocean's biogeochemistry, leading to further work aimed at assessing whether the ocean's response to these compounds would be positive or negative. Studies conducted by environmental scientists at UC Santa Barbara such as Professor David Valentine, Dr. Stephanie Mendes and Dr. Frank Kinnaman have shown that the exposure to such unnatural, large amounts of these natural gases has the potential to harm the ocean's capacity to degrade other more harmful compounds, oil being the main and most frequent concern. This biodegradation can be done through several mechanisms, such as nutrient depletion, cometabolism, and microbial population shifts
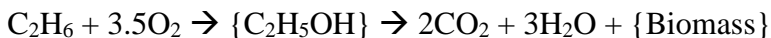
that lead to priming. These findings in marine hydrocarbon seeps, particularly the work of Mendes, were the foundation of this study on propane consumption rates and the factors involved in marine microbial respiration. For this project, PhD candidate Ellie Arrington's new methodology will be employed to track respiration during incubation of sea water with low levels of hydrocarbon. The goal is to use both Arrington's and Kinnaman's methods to test Mendes' findings and quantify the rates of hydrocarbon gas consumption by microbial communities in sea water.

Microbial oxidation prevents the majority of these natural gas inputs from being released into the atmosphere, highlighting the significance of its contribution in the ocean. Marine bacteria oxidize these gases through conversion of the hydrocarbon into its analogous alcohol and water, followed by another conversion to carbon dioxide, biomass and water. This reaction is illustrated with the following equations (Mendes et al., 2015):
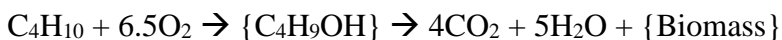
Methane
$$CH_4 + 2O_2 \rightarrow \{CH_3OH\} \rightarrow CO_2 + 2H_2O + \{Biomass\}$$

Ethane
$$C_2H_6 + 3.5O_2 \rightarrow \{C_2H_5OH\} \rightarrow 2CO_2 + 3H_2O + \{Biomass\}$$

Propane
$$C_3H_8 + 5O_2 \rightarrow \{C_3H_7OH\} \rightarrow 3CO_2 + 4H_2O + \{Biomass\}$$

Butane
$$C_4H_{10} + 6.5O_2 \rightarrow \{C_4H_9OH\} \rightarrow 4CO_2 + 5H_2O + \{Biomass\}$$

Marine hydrocarbon seeps are estimated to contribute 20 Tg year[-1] of methane to the atmosphere, with the compound being the most abundant of the hydrocarbon gases. Methane inputs alone account for 5% of the total atmospheric flux (Judd, A.G., 2004). Judd's study also found ethane and propane to release 0.45 Tg year[-1] and 0.09 Tg year[-1], respectively. These hydrocarbons are all

subject to anaerobic oxidation, in addition to the aerobic conversions above, in anoxic sediments and water columns (Reeburgh, W.S., 2007). Due to these processes in ocean sediment and waters, atmospheric fluxes of methane, ethane and propane would be substantially higher if not for this crucial oxidation. This demonstrates the extent of microbial communities' impact on environmental alteration regarding hydrocarbon seeps. This study will focus on the hydrocarbon propane in particular. It would be helpful to know how long these gases are consumed in the ocean in order to build a greater understanding of these driving forces in sea waters.

Although propane and ethane are the primary drivers of microbial respiration and make up 70% of observed oxygen in fresh plumes, methane is the most abundant hydrocarbon found in natural marine oil seeps (Valentine et al., 2010). This fact had led to a range of studies focusing specifically on methane, with studies of the anaerobic oxidation of methane (AOM) beginning in the late 1960s (Hanson, R.S. and Hanson, T.E., 1996). Very little research, however, has actually been centered on ethane, propane and butane consumption; the few studies that have been conducted have presented interesting information that encourages further critical research concerning the longer-chained hydrocarbons. For example, Valentine et al. (2010) found that compared to methane, ethane and propane were consumed more rapidly in the deep ocean in the Gulf of Mexico following the Deepwater Horizon Oil Spill. This leads to the question of how quickly each individual hydrocarbon is consumed by microbial communities.

This study will assess propane to gain greater knowledge of the response of the microbial community itself. Kinnaman et al.'s 2007 study on carbon and hydrogen isotope fractionation associated with aerobic microbial oxidation suggested that ethane, propane and butane were consumed quickly compared to methane in sediment slurries in natural seeps as well. One could further this study by quantifying how much quicker the longer-chained hydrocarbons are

in comparison to methane during both natural and unnatural oil seepage. Mau et al.'s study of compositional variability and air-sea flux of ethane and propane in a plume demonstrated low ratios of ethane:methane and propane:methane down current from Coal Oil Point, a coastal reserve located in Santa Barbara county. This observation brings up the aspect of how, because there are such abundant sources of methane compared to ethane and propane, methane obtains this dominant position due to its comparatively slow consumption. A focus on methane does not deny ethane and propane's contribution to the atmosphere, as their role is crucial in helping to prevent such large amounts from being exposed to the atmosphere.

Most studies on hydrocarbon consumption involve locations near natural seeps to compare processes that react in industrial oil spill incidents. Global estimates have found that 47% of crude oil seepage rates originate from natural marine environments; the other 53% are from industrial sites (Kvenvolden, K.A. and Cooper, C.K., 2003.). Being such a high factor in the ocean's oil seepage makes these locations optimal research areas. These natural seeps are made of multiple vents that are shaped as mm-wide distinct openings from which gas bubbles arise (Mau, S., Heintz, M.B., Kinnaman, F.S. and Valentine, D.L., 2010). In deep subsurface environments, natural gas is widely distributed due to its high mobility and is mined from the subsurface where geologic areas are set up in a way that leads to the accumulation of gas (Kinnaman, F.S., Valentine, D.L. and Tyler, S.C., 2007.). Interestingly, when gas production is from thermal decomposition, ethane, propane, and butane are more abundant and make up 10% minimum of the gas. This introduces new notions that show the complexity of marine hydrocarbons.

In Mau et al.'s 2010 study on the compositional variability and air-sea flux of ethane and propane, authors found that only 0.6% of ethane and 0.5% of propane from a dissolved hydrocarbon plume near Coal Oil Point are lost to the atmosphere in the region. The study also compared air-sea fluxes of both hydrocarbons with

estimates of the direct flux of gases into the atmosphere via bursting bubbles from eight locations in the Coal Oil Point seep field. The air-sea fluxes from a dissolved ethane and propane plume were found to be negligible in comparison. Roughly an equivalent amount of both natural gases entering the atmosphere stay dissolved in the ocean, thus affecting the ocean's biogeochemistry. The ultimate fate of these hydrocarbons is uncertain, but a hypothesis was made that microbial oxidation is a heavy influence (Kvenvolden, K.A. and Cooper, C.K., 2003.).

Redmond et al. based their research on the "identification of novel methane-, ethane-, and propane-oxidizing bacteria at marine hydrocarbon seeps by stable isotope probing." Their findings have shown that ^{13}C propane was consumed by members of a group of unclassified *Gammaproteobacteria* species that have not been previously linked to propane oxidation (Redmond, M.C., Valentine, D.L. and Sessions, A.L., 2010.). These unclassified groups have their closest cultured relatives found in the genera *Marinimicrobium*, *Microbulbifer*, and *Saccharophagus* (16S rRNA genes ~92% similar). These bacteria are known for the degradation of complex polysaccharides (González, G.M, 2007). This study makes clear how little is known about the specifics of these oxidizing bacteria that contribute to the ocean's biogeochemistry.

Focusing on gaseous hydrocarbon consumption in general, there have been many methods developed to track the consumption rates of each hydrocarbon. The ^{13}C-tracer method used in Valentine et al.'s study, measured propane oxidation rates in anoxic sediments of a hydrocarbon seep. This method, however, proved to be relatively insensitive and was limited to the environments that require more sensitive oxidation tracers to effectively quantify oxidation rates. The environment, in general, consists of high ambient gas concentrations and needs a conversion of ^{13}C that is detectable beyond background levels of dissolved inorganic carbon (Mendes et al., 2015). For this study, we will employ PhD candidate Ellie Arrington's new methodology to track respiration during

incubation of sea water with low levels of hydrocarbon. The goal is to use both Arrington's and Kinnaman's methods to test Mendes' findings and quantify the rates of hydrocarbon gas consumption by microbial communities in sea water.

Methods

Sample Preparation

Numerous steps are involved in analyzing propane consumption rates. Thirty samples of 160 mL bottles with oxygen sensor dots incorporated into bottles were used to hold seawater from Goleta Beach Pier in Santa Barbara County (34.4° N, 119.8° W). Water was contracted through use of the oceanographic instrument, CTD. This name is derived from what it measures: conductivity, temperature and depth. All these measurements were considered when *in situ* conditions are recreated for the samples. Connected to a computing device, the CTD collected water from no more than 3 m below the water's surface; this project focuses on seawater processes occurring at surface depths. Before collecting water, the CTD needed to equilibrate to adjust to the sudden disruption of the salinity depths within the ocean. Once all of the niskin bottles were filled with seawater and the CTD was brought back onto Goleta Pier, the sample bottles were immediately filled upon site. When completely filled with this water, all bottles were capped and crimped with chlorobutyl rubber stoppers to prevent contamination. A cooler was used to maintain the cool temperature from which the seawater originated, later calculated to be 18°C.

Back in the lab, the samples were laid on their sides for the majority of the experiment and calculation. On the same day the samples were collected, most of the bottles were injected with 100 µL of propane. This process involved the use of two needles, one to expel any overpressure that had been built up during the capping and crimping process and the other to inject the propane. The chosen propane volume with which to inject was obtained through

stoichiometry in headspace calculations to drive each bottle to zero oxygen. Bottles subjected to the 100 µL injection of propane were labeled as the normal/experimental control group. Three samples, however, did not contain any treatment and were regarded as the blank control group to obtain a baseline for the events that occur during the experiment. Another group of three bottles was injected with 3 mL of poison to record the changes with and without the presence of microbial communities within the seawater. The poison used to inject the samples was the production of a saturated mixture of 380 g of magnesium (Mg) and an estimated 0.75 mL of 6.0 M hydrochloric acid (HCl):

$$Mg(s) + 2HCl(g) \rightarrow MgCl_2 \bullet 6H_2O + H_2(g)$$

The first day of experimentation also included the displacement of 20 mL of seawater with ultrapure N_2 gas to create a headspace for the bottles that were chosen to be analyzed first. The first bottles chosen were the T-0's, or the initial starting points for propane consumption and oxygen respiration. The T-0's included the blank control group along with the first normal bottle triplicate to be sacrificed/harvested for gas concentration samples. This harvesting process was done with the use of two syringe needles, one to insert the N_2 gas and the other to collect the displaced 20 mL seawater. Once displacement was complete, all samples were set to equilibrate for at least 12 hours. Equilibrium is needed so that the propane gas within the water is able to escape into the bottle headspace for analysis the next day. This was achieved through incubation overnight around the 18°C recorded by the CTD.

Gas Chromotography (GC).

The next day involved the beginning of measuring 3 mL of gas samples from the normal triplicate to track the various concentrations of propane throughout its consumption. We used gas chromatography (GC) to measure the gas component concentrations held in each sample, using a Shimadzu GC-14A equipped with a

flame ionization detector (FID). After each injection into the device, N_2 is used as the carrier gas to purge the GC-14A to ensure accurate and separate measurements. The GC device produces a graph with peaks of each compound inserted; this experiment only held one peak in these graphs that represented propane. A list of the compound's areas is produced along with this graph, which were converted into their concentrations in ppm.

Before calculating actual bottled sample data, standards of propane must be measured prior to each trial of triplicates. This is done by inserting 3 mL of each standard into the GC and creating a graph of the area vs. concentration (example shown on **Figure 1**). The standard concentrations used were 42, 1139, and 3429 ppm, respectively. With a slope that should be near 0, the graph would produce the data necessary for the samples chosen to be analyzed the day of their harvesting. The bottled samples were then analyzed through the GC. This process was done through the use of two syringe needles, one purified with N_2 gas and the other with artificial seawater made in the lab. 3 mL of headspace gas is taken into the N_2 gas needle while the seawater is displaced into the sample to avoid vacuum spaces. The GC then analyzed the compounds and gave the areas. The areas that are given by the GC were multiplied by the slope found to find their concentrations. With these final propane concentrations, a time series was documented of the gas
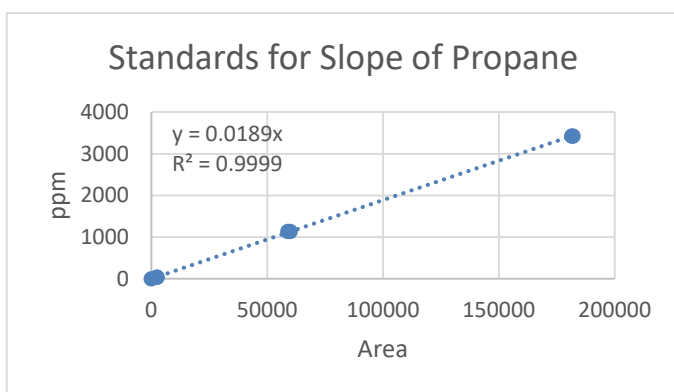
Figure 1 Standard Curve for Propane

samples. Data was calculated as the days go by to measure the correlation of time vs. concentration.

Oxygen Respirometry by Optode

Oxygen sensor measurements are measured in addition to the gas chromatography and nutrient analysis of all samples. This is done every four hours with FireSting and Oxygen Logger software, which both utilize laser technology. The lasers projected from the FireSting device go through the oxygen sensor dots placed on every bottle sample and detect the molarity of oxygen as it is occurring at that place and time in μmol/L. This builds a timeline of oxygen respiration for the samples. The point in time at which oxygen depletes rapidly towards the blank bottles' oxygen levels is the official point from which samples should be harvested and for GC measurements to begin the next day after equilibration. This technique attempts to capture as many data points as possible during the bacterial blooms' propane consumption.

Source of Error

Once all data is collected, measurements will be analyzed along with the calculation of source of error. Sources of error are found through multiple averages of relative standard deviations. An average and a standard deviation are calculated from each of the samples in a triplicate normal group. From the standard deviations and the averages of the samples, the relative standard deviation can then be calculated from the triplicate. The relative standard deviation will pinpoint the accuracy of the data. Correlations will then be made to measure how rapid propane consumption is and analyzed to make connections of how this affects the microbial community response. With the standards, background baselines could be subtracted from the effects recorded with any additional effects made from the microbes.

Results / Discussion

Propane consumption took much longer than initially expected; this is indicated by the oxygen sensor readings (data shown on **Figure 2).** Propane consumption stopped after an estimated 24.6 days. This is a sharp contrast compared to the findings in Mendes et al.'s 2015 study where propane was no longer detectable after 1.5 days. Expected bacterial blooms to occur are identified by the exponential drops shown in both graphs. These exponential drops are the highest peak of consumption activity by microbial activity. This time period was the target of where the most oxygen sensor readings and gas sample analysis/harvesting should have occurred.
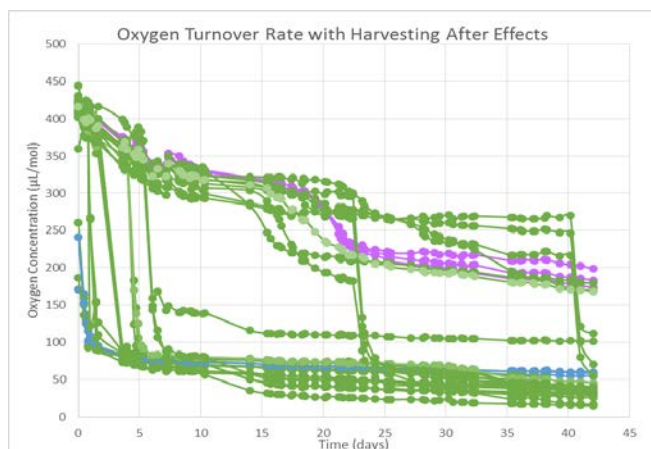
Figure 2 Oxygen Concentration with Harvesting After Effects. Blue is the control group, Green is the normal control group, and Purple is the sterilized control group.

Oxygen Respiration

Oxygen levels were shown to have an overall gradual depletion for the duration of the experiment until the bacterial blooms appeared. After each time point recorded and the following bottle's harvesting, the oxygen concentration in the harvested bottle is shown to decrease sharply (**Figure 2).** Even after the harvesting process for the bottles, the oxygen sensor readings were still recorded to ensure steady results. The repeating rises and falls

73

shown in **Figures 3 and 4** could be indicative of the fluctuations in incubation temperature. The incubator used may have had fluctuations $> 1°C$, which is known to cause error in oxygen quantification (Pyro-science, 2018). Spot measurements of temperature indicated it was steady around $19°C$. The small rises and falls of the oxygen data could also be the results of the FireSting software's inherent error as well considering the concentration of oxygen is never truly stable.

      Figure 3 holds the oxygen data without the harvesting air after effects. This edited version allows for distinction between the exponential drops caused by the bacterial blooms with the drops caused primarily due to harvesting. The sterilized control group (colored purple) was expected to not have a decrease in oxygen relative to normal bottled samples (colored green) based on the theory that toxicity kills all microbial activity. These samples would then show the maximum propane and oxygen concentrations the sampled seawater filled bottles could have without microbes. This general baseline could be referred to when comparing ultimate results to determine the significant an impact microbes holds and contributes in propane consumption. There is a possibility that the poison used, $MgCl_2 \bullet 6H_2O$, was not fully saturated with magnesium as the compound settled in the mixture for enough time to be deemed saturated, but would fully dissolve once again the next day. It proved to be effective as all samples included in the sterilized control group are above the normal group samples. The small difference in spacing between the sterilized control group and the normal group may indicate that killing microorganisms is unrelated to the propane consumption.

      The timing of the bacterial blooms in this graph are unexpected as they were anticipated to occur within a week, with these predictions being based on previous studies done around the Gulf of Mexico concerning methane, ethane, and propane. Instead, it is shown to have been around a month. Bacterial blooms would

indicate the propane degraders appearing, increasing rapidly, and eating the remains of the propane still held within the bottle.
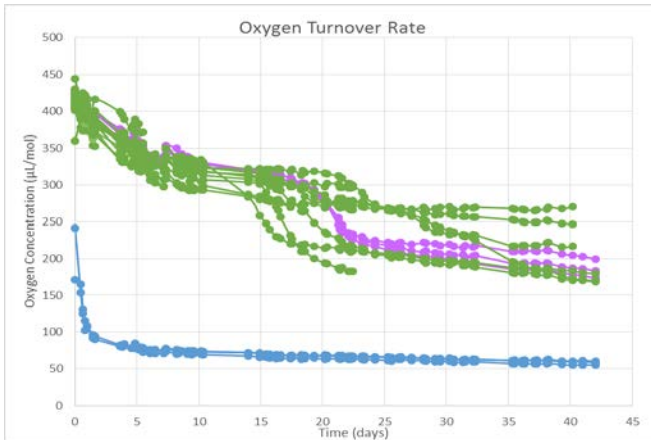

Figure 3 Oxygen Concentration Turnover Rate. Blue is the control group, Green is the normal control group, and Purple is the sterilized control group.

Propane Consumption

Because it was hypothesized that bacterial blooms would be recorded within a week, multiple groups of triplicates were sacrificed throughout the whole first week. There was a gradual decrease that occurred in the propane in the beginning time points (pictured in **Figure 4**), but then the samples showed propane consumption to start to happen at different rates. This result made it difficult to find the usual rate as the samples behaved much differently. Because the consumption of propane took longer than initially expected, bottles were harvested with greater time intervals after three time points (**Figure 4**). This was set for the purpose of capturing the bacterial blooms with the oxygen respiration data. The point where an exponential drop begins in the oxygen respiration indicates when a sample's headspace gas should be analyzed for its propane concentration. This point occurred after the majority of bottles were sacrificed and thus could not create a clear picture of

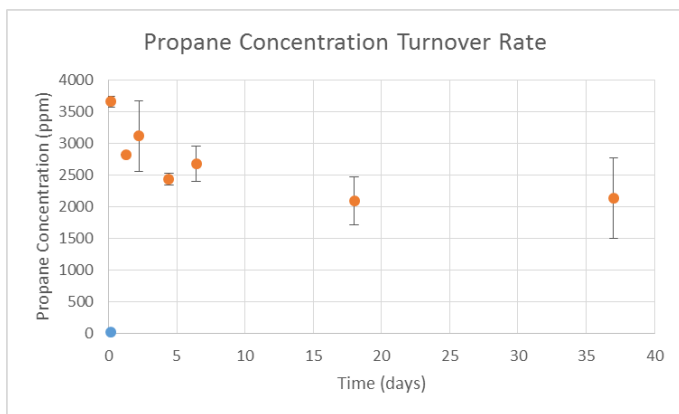the propane depletion during the exponential drops shown in the oxygen data

Figure 4 Propane Consumption Turnover Rate

In **Figure 5**, there is a trend shown between oxygen loss and propane loss where the more oxygen is lost, the more propane is lost. According to the stoichiometry equations mentioned in the introduction, the ratio is expected to be 5:1, or having 5 oxygen molecules for every one of propane. Instead, there is an estimated trend of 15:1. This indicates that there could be other forms of respiration at work besides propane, such as microbial heterotrophy.
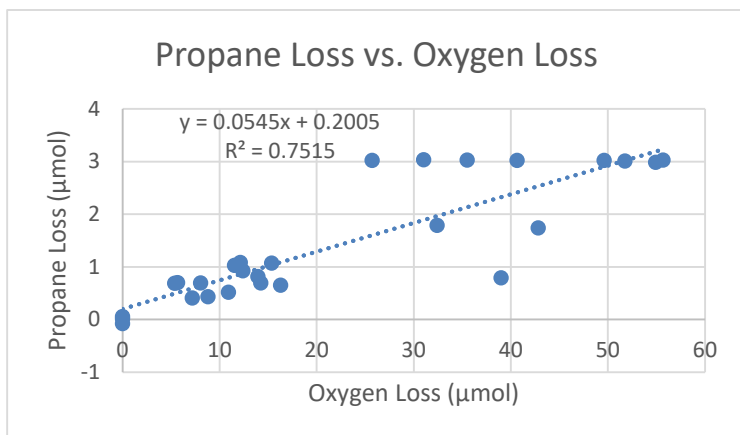

Figure 5 Propane Loss vs. Oxygen Loss

Conclusions

Rather than propane consumption occurring within the week as hypothesized, the rate at which propane was consumed took around a month. This difference could be due to the differences between samples from Coal Oil Point in Santa Barbara and the data collected in the Gulf of Mexico. There could potentially be a difference with the regional influence of natural seep priming. The bacterial blooms that were eventually shown in the drawdown of oxygen and propane graphs ultimately pinpoint how rapidly these marine microbial populations respond to propane: an estimated 24.6 days (**Figure 3**). Whether the temperature is a major factor in this process is still unknown. The data analysis is ongoing, thus rendering the findings inconclusive at this time.

Once this experiment is optimized and finished, we similar experiments focusing on the full series of hydrocarbons could be the next direction. If methane, ethane and propane are targeted next, there would be an interesting comparison between the compounds that could reveal which one is the most affected by microbial consumption. This information will hopefully lead to a better understanding of the sinks to natural gases released to the ocean. These findings could then potentially lead to more awareness and action in the future to guard against these events.

References

Coast Guard, United States, 2013. Oil pollution act liability limits in 2013, Washington, D.C. 1-28. [Available at: http://www.uscg.mil/npfc/docs/PDFs/Reports/Liability_Limits_Report2013.pdf./]

González, J.M., Mayer, F., Moran, M.A., Hodson, R.E. and Whitman, W.B., 1997. Microbulbifer hydrolyticus gen. nov., sp. nov., and Marinobacterium georgiense gen. nov., sp. nov., two marine bacteria from a lignin-rich pulp mill waste enrichment community. International Journal of Systematic and Evolutionary Microbiology, 47(2): 369-376.

Hanson, R.S. and Hanson, T.E., 1996. Methanotrophic bacteria. Microbiological reviews, 60(2): 439-471.

Judd, A.G., 2004. Natural seabed gas seeps as sources of atmospheric methane. Environmental Geology, 46(8): 988-996.

Kinnaman, F.S., Valentine, D.L. and Tyler, S.C., 2007. Carbon and hydrogen isotope fractionation associated with the aerobic microbial oxidation of methane, ethane, propane and butane. Geochimica et Cosmochimica acta, 71(2): 271-283.

Kvenvolden, K.A. and Cooper, C.K., 2003. Natural seepage of crude oil into the marine environment. Geo-Marine Letters, 23(3-4): 140-146.

MacDonald, I.R., Garcia-Pineda, O., Beet, A., Daneshgar Asl, S., Feng, L., Graettinger, G., French-McCay, D., Holmes, J., Hu, C., Huffer, F. and Leifer, I., 2015. Natural and unnatural oil slicks in the Gulf of Mexico. Journal of Geophysical Research: Oceans, 120(12): 8364-8380.

Mau, S., Heintz, M.B., Kinnaman, F.S. and Valentine, D.L., 2010. Compositional variability and air-sea flux of ethane and propane in the plume of a large, marine seep field near Coal Oil Point, CA. Geo-Marine Letters, 30(3-4): 367-378.

Mendes, S.D., et al., 2015. Marine microbes rapidly adapt adapt to consume ethane, propane, and butane within the dissolved hydrocarbon plume of a natural seep, J. Geophys. Res. Oceans, 120(10): 1937-1953.

Pyro-science. (2018). FireSting O2 Fiber Optic Oxygen Meter. Retrieved from Pyro-science: Sensor Technology: http://www.pyro-science.com/optical_oxygen_meter_firesting_O2.html

Reddy, C.M. et al., 2012. Composition and fate of gas and oil released to the water column during the Deepwater Horizon oil spill. Proceedings of the National Academy of Sciences of the United States of America, 109(50): 20229-20234.

Redmond, M.C., Valentine, D.L. and Sessions, A.L., 2010. Identification of novel methane-, ethane-, and propane-oxidizing bacteria at marine hydrocarbon seeps by stable isotope probing. Applied and environmental microbiology, 76(19): 6412-6422.

Reeburgh, W.S., 2007. Oceanic methane biogeochemistry. Chemical Reviews, 107(2): 486-513.

Valentine, D.L. et al., 2010. Propane Respiration Jump-Starts Microbial Response to a Deep Oil Spill. Science, 330(6001): 208-211.

Acknowledgements

Is readability an open invitation to rejection, or solution?: The effects of self-esteem on self-disclosure when feeling readable

Sirenia Sanchez, Dr. Nancy Collins, & Lauren Winczewski

Mentor: Dr. Nancy Collins
Department of Psychological and Brain Sciences

Abstract

Low self-esteem individuals (LSEs) receive different kinds of social support from those close to them, but little is known about the ways self-esteem affects support-seeking behavior. Participants (N = 162) were asked to write an email to their romantic partner about a current personal problem. We measured how readable (the transparency of one's feelings and thoughts) they felt their note was to their partner, and a team of objective coders rated the degree of positive outlook and anxiety disclosed in the notes. Results revealed that when LSEs felt more readable, they disclosed their problems by expressing their fear and anxieties. When individuals of high self-esteem (HSEs) felt more readable, they sought support that conveyed a greater positive outlook about their personal problem. The findings illustrate how support seeking is affected by the interplay of personality and situational factors, and not necessarily the problem itself.

Introduction

This study investigated how individuals with high self-esteem (HSE) and low self-esteem (LSE) vary in the degree and quality of their self-disclosure when they feel their thoughts and feelings are obvious to their partner. To test these ideas, I recruited undergraduate students currently involved in committed, romantic relationships, and asked them to write a note to their partner in which they disclosed a current personal stressor. I then measured perceived readability *(the transparency of one's feelings and thoughts)* and a team of objective observers coded for the degree of positive and negative construal of the stressor. I expect that when HSEs feel more readable (i.e., that their thoughts and feelings are obvious to their partner), they will express a more positive outlook on their situation. I also predict that feeling readable will present a threat to LSEs, such that these feelings will prompt LSEs to express more fears and anxieties relative to their HSE counterparts.

Literature Review

The process of seeking and providing help during stressful situations is critical to close relationships, and the way couples manage one another's distress shapes the quality of the relationship (Marigold, Cavallo, Holmes, & Wood, 2014). The first step in managing stressful situations is *self-disclosure*, which refers to revealing personal information to another. Laying the groundwork by sharing distress allows the partner to listen and provide support accordingly. Self-disclosure is an essential component of increasing intimacy (Reis & Shaver, 1988), but when it comes to social support, the support provider's good intentions are not always enough to ensure effective support (Burleson, 2003). For support to be effective, what seems to matter more is that the support is appropriate to what the support seeker needs (Burleson, 2009). Effective support is a two-way street, wherein two individuals have to work together to approach the solution.

Whereas most of the literature on social support is about

features of support-providers that contribute to support provision, there is some evidence that *support-seekers* themselves may disclose their needs in such a way that undermines the quality of support they receive. For example, Barbee's and Cunningham's (1995) study found that support seekers were not always clear in expressing the nature of their problems, nor were they direct in conveying the kinds of responses they wanted from their romantic partners. This study suggests that support providers may not be solely responsible if they provide ineffective support, because the support seeker should be responsible for conveying the specific kind of support they need. However, support-seekers may differ in their ability and motivation to communicate their needs.

Although being clear and direct might help avoid conflict and misunderstandings, it is not necessarily easy for an individual to seek support clearly and directly. There are numerous factors of the support seeker's personality and of the situation that influence the quality of self-disclosure and the types of support people receive. When it comes to receiving support, some evidence suggests that people support low self-esteem (LSE) and high self-esteem (HSE) individuals in different ways (e.g., Marigold, Cavallo, Holmes, & Wood, 2014). Although LSEs and HSEs are equally likely to receive support that *positively reframes* their experience (i.e., helps the support-seeker see the "silver lining" or positive side of a negative experience), it is LSE support-seekers who are less receptive to this type of support. LSEs register this support as significantly less self-verifying and responsive, which leads both support-seekers and support-providers to feel worse about themselves and their relationship (Marigold et al., 2014). Meanwhile, HSEs are more likely to receive support that validates their negative experience and allows for emotional distress. If support-seekers' self-esteem shapes the types of support they *receive*, it is possible their self-esteem influences the ways they *disclose* their distress in the first place.

Individuals with high self-esteem may be more comfortable revealing their vulnerabilities or distress in a direct way, to the extent they are relatively unconcerned about rejection when they

disclose intimate information. Consistent with this idea, Gaucher, et al. (2012) found that individuals with high self-esteem express themselves more freely with friends and family than do individuals with low self-esteem. Self-disclosure may be an adaptive form of coping that enhances (e.g., Cameron, Holmes, & Voraeur, 2009). HSEs have the freedom to look at anticipate threats to social acceptance. Thus, I posit that HSEs like closeness and perceptions of support when disclosing a personal failure the brighter side of a negative situation, since they do not have to optimistic individuals, will rely on self-disclosure as an adaptive form of coping (Carver, Scheier, & Weintraub, 1989). In turn, HSEs' self-disclosure about stressful situations should be characterized by a more positive outlook on their future.

On the contrary, I hypothesize that LSEs have unfavorable and pessimistic expectations about the future implications of their current distress, which would influence their focus on emotional distress and/or disengagement with the situation altogether (Carver, Scheier, & Weintraub, 1989). LSEs tend to express more negativity in general (Forest, Wood, & Hallink, 2015), and their self-disclosure is characterized by more negative emotions and a greater focus on negative experiences relative to HSEs disclosures (Wood & Forest, 2016). This emotional distress and negativity may stem from their fear of rejection. Fearing rejection would then motivate LSEs to limit their self-disclosure, thus presenting a paradox for LSEs: intimacy is built upon sharing personal information (Reis & Shaver, 1988), but LSEs may view this sharing as a vulnerability and invitation to be rejected. The anticipation of rejection should then lead LSEs to self-protectively distance themselves from their partner, thereby reducing intimacy (Murray, Holmes, & Collins, 2006). However, if they decide to increase intimacy and self-disclose a personal stressor or problem, it is possible that they will perceive the support they receive as inadequate. Cameron and Vorauer (2008) found that when partners of individuals with low self-esteem don't provide the kind of support that is desired or expected, LSE support-seekers help may end up feeling devalued and hurt. These negative feelings would further motivate LSEs to

keep some information to themselves. Indeed, supporting individuals with low self-esteem is challenging for both their partner and for the support seeker (Marigold et al., 2014).

The literature reviewed suggests that in addition to self-esteem, the amount and quality of self-disclosure of HSEs versus LSEs may also depend on the degree to which they feel their deepest thoughts and feelings are readable, or clearly visible to their partner. Since social support exchanges present support-seekers with the opportunity to make their inner feelings known, it is possible that feeling readable during intimate self-disclosures may be experienced quite differently by LSE and HSE individuals. Self-esteem should modulate whether an individual construes seeking support as a frightening and uncomfortable experience or a positive opportunity to seek comfort and reach a solution, thereby amplifying the positive or negative effects of feeling more readable. These possibilities are consistent with traditions that define self-esteem as a *sociometer* from which people gauge the likelihood they will be accepted or rejected by others (Leary & Baumeister, 2000). According to the *sociometer,* individuals who are chronically low in self-esteem are more sensitive to rejection than people with chronic levels of high self-esteem. People with low self-esteem think that by conveying their flaws, they anticipate rejection and ultimately feel devalued and unloved (Cameron, Holmes, & Vorauer, 2009). Thus, feeling especially readable should affect whether and how people will self-disclose in romantic relationships. After all, the extent or quality of self-disclosure may reflect the idea that in close relationships, people find themselves needing to make consistent and implicit choices between self-protection and relationship promotion (Murray, Holmes, & Collins, 2006). Self-esteem and the desired level of dependence on close others should influence whether feeling readable is seen as a positive opportunity to create intimacy or a gateway for inviting rejection by a close other.

In research on readability, Cameron and Vorauer (2008) concluded that there will be times when feeling transparent can lead to feeling pleased and there will be times when feeling transparent

leads to feeling distressed for certain individuals (e.g., those with high versus low self-esteem). When experiencing negative affect, individuals with high self-esteem attempt to counteract these feelings by bringing to mind personal strengths and positive thoughts when disclosing to a close other (Dodgson & Wood, 1998; Smith & Petty, 1995). I predict that individuals with high self-esteem will experience perceived readability as a pleasant feeling. They should not mind that their feelings about a stressful situation are obvious, as this transparency opens up possibilities for more positive discussion. Since HSEs do not have to tailor their behavior in anticipation of rejection, they should be more likely to share intimate information with others in a way that expresses positive views and motivation to actively find solutions. Thus, feeling readable should show positive outlooks on self-disclosure when support-seekers are high in self-esteem.

Low self-esteem individuals who feel readable may have a very different reaction to feeling readable than do their HSE counterparts. Individuals with low self-esteem may limit the amount of self-disclosure in order to protect themselves. They fear that if they open and self-disclose they will be vulnerable to rejection. These fears may undermine their ability to properly seek support and resolve their stressful moments. If being open and authentic elicits negative emotion, then feeling that those thoughts and emotions are transparent or obvious to others would make them feel even more vulnerable to rejection. If they do disclose their feelings, they may experience anxiety about being negatively evaluated by those with whom they are sharing. To this end, low self-esteem individuals are especially likely to believe that they do not meet their partners' standards (Cameron, Holmes, & Vorauer, 2009) and experience anxiety about whether significant others value them (Leary, Tambor, Terdal, & Downs, 1995). These feelings that come from self-disclosure would increase their perceived likelihood of being rejected, and these feelings of anxiety may be expressed in their self-disclosures.

Methods

Participants

One hundred sixty-two participants (99 females, 61 males, 2 not specified) were recruited from the University of California, Santa Barbara undergraduate participant pool. Participants' mean age was 19.26 (*SD*=1.32). Participants were required to be in a romantic relationship for at least 3 months. The average relationship length was 22.17 months (*SD*= 18.5). Nine percent of participants are cohabiting and 11% are in same-sex relationships. Participants self-identified as White (36%), Hispanic (34%), Asian/Pacific Islander (20%), African American (2%), American Indian (1%), and "other" (5%). Participants either earned partial course credit for their introductory psychology course or ten dollars.

Procedure

Participants were recruited for a study about communication using various media. Roughly one week before participating in the laboratory session, each participant completed an online questionnaire assessing a number of personality and relationship variables. For the present study, we focused on self-esteem to determine its influence on self-disclosure.

Participants arrived at the laboratory and were informed that they would be completing a number of tasks designed to examine how people communicate to their romantic partner. The experimenter informed them that the researchers were interested in the use of different forms of media such texting, emailing, or writing a letter. The participants were then told that they had been randomly assigned to write an email to their partner. Although the participants were told that their partner would receive their email after the study was over, this was not actually the case, for the purpose of ensuring genuine responses from the participants. Participants were asked to provide the name of their partner and think of a personal stressor that is unrelated to their partner[1]. The participants then wrote an email about the stressful event. After writing the email, the

participants answered a number of questions about the message they wrote to their romantic partner. Upon completion, participants were carefully debriefed and thanked for their time.

Predictor Variables

Self-esteem. Self-esteem was assessed using the 10-item Rosenberg (1965) Self-Esteem Scale ($\alpha = .84$). Participants rated the degree to which they agreed with statements such as "I do not have much to be proud of" (reversed), "I take a positive attitude toward myself," and "I certainly feel useless at times" (reversed). Items were rated on a 5-point scale (1 = strongly disagree, 5 = strongly agree).

Perceptions of readability. After writing the email, participants' perceptions of readability, the belief that one's personal thoughts and feelings are visible and obvious to others, were measured by the 9-item Berkeley Expressivity Questionnaire (Gross & John, 1997, $\alpha = .89$). Participants were asked to think back to their email and endorse statements such as "in my email, my feelings were obvious." and "when my partner reads my email, he/she will be able to tell exactly what I was feeling." Items were rated on a 7-point scale (1 = strongly disagree to 7 = strongly agree).

Dependent Variables

Fear and Anxieties. Objective coders (3 female, 1 male) assessed the degree to which participants expressed fears and anxieties about their stressor (ICC = .88). Coders rated the degree to which the participants expressed "a real or perceived inability to solve one's own problems" and "despair over a real or perceived helplessness." Items were rated on a 7-point scale (1, not at all to 7, a great deal).

Positive Outlook. Objective coders (3 female, 1 male) assessed the degree to which participants expressed a positive outlook about their stressor (ICC = .89). Coders rated the degree to which participants "offered suggestions for how to improve one's

own situation" and "positively reframed current circumstances."
Items were rated on a 7-point scale (1 = not at all to 7 = a great deal).

Results

Preliminary analyses

The variables in the study were correlated. Fear/anxiety was strongly correlated with readability ($r = 0.22$, $p = 0.01$). The correlation between fear and anxiety, and readability suggests that notes with more fear/anxiety were generally perceived to be more readable. The correlation between positive outlook and readability ($r = 0.06$, $p = 0.43$) showed a null association implying that perceived readability in the notes did not elicit more positive outlook in the notes. The study showed no gender differences in any of the study variables (all p's > .05).

Table 1 Bivariate Correlations between all Study Variables

	1	2	3	4	5
1. Gender (1= female, 2= male)	-				
2. Self-esteem	.22	-			
3. Readability	.32	.13	-		
4. Positive outlook disclosure	-.53	.11	.06	-	
5. Fear/anxiety disclosure	.25	-.14†	-.22*	-.60**	-
Mean	1.38	3.70	5.54	3.00	4.78
SD	.49	.71	.89	1.54	1.25

Primary analyses

To examine the effects of self-esteem and readability on positive outlook and fear and anxieties, I conducted two multiple regression analyses. For each analysis, I tested for main effects of self-esteem and feelings of readability (mean centered) at Step 1, as well as their interaction at Step 2.

Positive self-disclosure. There were no main effects of self-esteem (β = .10, p = 0.19) or feeling readable (β = 0.7 p = .39) on positive self-disclosure. There was a marginally significant interaction (β = .15, p = 0.6).

To explore the nature of this interaction, we computed the simple slope of readability predicting positive outlook at 1 standard deviation above and below the mean of self-esteem (see **Figure 1**). As predicted, HSEs' self-disclosure contained a marginally more positive outlook when they felt more readable, compared to HSEs who felt less readable (β = .37, p = .05) and compared to LSEs who felt more readable (β = .53, p = .03). When participants felt less readable, there was no difference between HSEs' and LSEs' positive outlook (β = .12, p = .64). HSEs who disclosed a more positive outlook felt their notes were significantly more readable than did HSEs who disclosed less. There was no link between readability and positive self-disclosure among LSEs (β = -.16, p = .44).
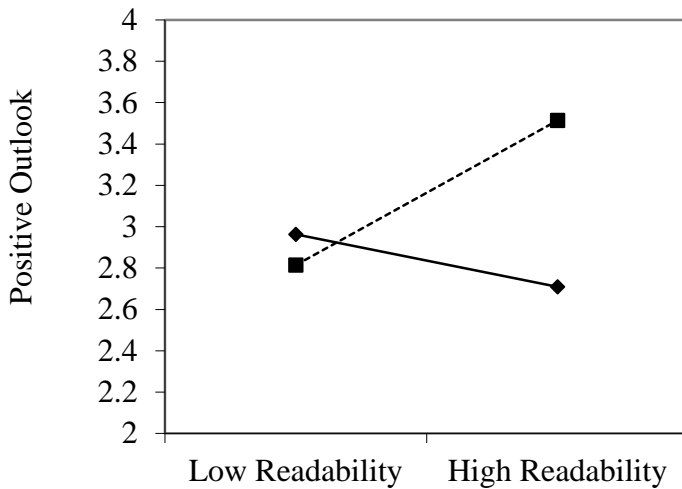
Figure 1. Simple slopes of readability predicting positive self- disclosure among high and low (+/-1 SD) self-esteem individuals. The dotted line is High Self-esteem and the solid line is low Self-esteem.

Fear and anxiety. There was a significant main effect of readability on self-disclosure of fear and anxiety ($\beta = .22$ $p = 0.01$). Averaging across self-esteem, participants disclosed significantly more fears and anxieties when they felt highly readable. In other words, readability was positively associated with disclosure about fears and anxiety across all levels of self-esteem. This finding suggests that support seekers felt their fears and anxieties were more readable, regardless of their level of self-esteem.

For self-esteem, there was a marginally significant main effect for low self-esteem individuals ($\beta = .16$, $p = 0.04$). Averaging across levels of felt readability, LSEs were marginally disclosing more fears and anxieties compared to HSEs. Regardless of how readable the individuals felt to their partner, LSEs disclosed more fears and anxieties than did HSEs. This supports the general notion that LSEs express more negative emotion and see the world through a more pessimistic or fearful lens.

91

There was a significant interaction effect of readability and self-esteem (β = .17, p = 0.03). Once again, we plotted the simple slope of readability at 1 standard deviation above and below the mean of self-esteem (see **Figure 2**). In line with predictions, LSEs who felt readable disclosed more fear and anxieties in their emails to their partner relative to other LSEs who felt less readable (β = .58, p < .001) and relative to HSEs who also felt readable (β = -.56, p < .001). This interaction suggests that when individuals feel more readable, there is a clear difference in who discloses the most fear; in particular, LSEs disclose significantly more fears and anxieties than individuals of high self-esteem, but especially so when they feel readable. There was no link between readability and self-disclosure of fear among HSEs (β = .09, p = .54), and there was no difference between LSEs and HSEs in self-disclosure at low readability (β = .03, p = .87).
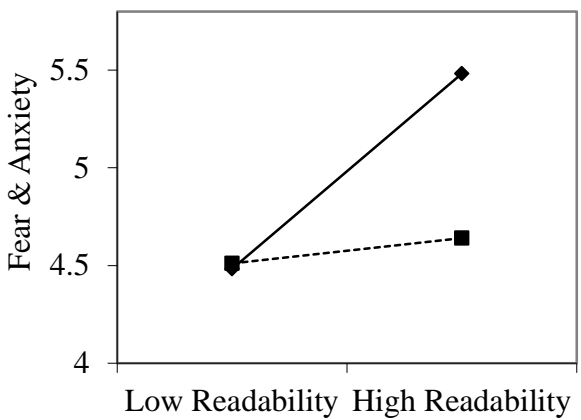
Figure 2. Simple slopes of readability predicting self-disclosure of fears and anxieties among high and low (+/- 1 SD) self-esteem individuals. The dotted line is High Self-esteem and the solid line is low Self-esteem

Discussion

In line with our predictions, we found that when HSEs felt that their email was more readable to their partner, the more positive the outlooks they disclosed. High self-esteem individuals typically have more motivations to seek help and immediately resolve the issues of distress they are facing. HSEs are more active in seeking effective support. The support seeker interprets effective social support as a form of solution or improved mood (Carver, Scheier, & Weintraub, 1989). High self-esteem individuals strive for solution and display improved moods through positive outlooks in their emails. Having positive outlook on a stressful situation creates a clear direction toward the solution to the problem they are disclosing.

The same cannot be said for low self-esteem individuals. Our results confirm that LSEs displayed discomfort when sharing a personally stressful event to their partner. They displayed this discomfort by sharing fears and anxieties of the situation described in their emails. When they felt more readable in their emails, they indeed shared significantly more fears and anxieties than HSEs. HSEs as they felt more readable did share more fears and anxieties than when they were low on readability. This implies that regardless of self-esteem levels the feeling of readability can be experienced as vulnerability and elicit these negative feelings.

Particularly low self-esteem individuals experience the most cost of feeling readable to another. There was a significant difference in fears and anxieties when feeling readable in comparison to HSEs. This difference can be attributed to their fears of rejection. They may believe that self-disclosure is primarily a way for others to judge and reject them. This is often a very unpleasant and unsettling feeling which can lead to anxieties and fears, as demonstrated in the results of the study. If self-disclosing alone is a difficult task for some individuals, perceiving that their self-disclosure is highly readable, transparent, or obvious to others will enhance this negative understanding. Thus, self-disclosure is not

only a way to seek help, but can be perceived as a way to expose one's flaws and invite others to judge and reject them.

The methodology of the study offers the possibility of more than one interpretation. The feeling of readability may enhance or worsen the act of self-disclosure depending on the individual's personality type or self-esteem level; however, the feeling of readability was only measured, not manipulated. Manipulating the feeling of readability or manipulating the state of being readable on the participants when writing the email would allow for a causal effect. The feeling of readability was only measured through a questionnaire, and hence, only correlational claims can be made. The idea of readability was not introduced until after the task therefore there is no causal affect that feeling readable in fact does enhance or impair the type of content of the self-disclosure. The new interpretation introduces reporting the feeling of readability as a form of self-verification for the participants. The self-verification theory proposes that people act to maintain their views of themselves even if those are unfavorable (Kwang & Swann, 2010). LSEs generally have negative views of themselves. Regardless of the positive or engaging support they receive, they will not always agree that the positive kind of support they receive is effective or useful because positivity does not align with their views of themselves. The new interpretation explains that when they evaluated the readability of their notes, they may have answered it in a way that would align with their interpretations of themselves. Self-verification theory argues that individuals want others to see them the way they see themselves (Kwang & Swann, 2010). When asked how readable they felt, they may have kept in mind what they wanted others to perceive as readable to confirm their own beliefs about themselves. Individuals with high self-esteem do not view readability negatively and to confirm these views they may have reported high readability to shore up this self-created belief. Measuring the feeling of readable only takes into consideration a subjective rather than an objective view of their notes if they were manipulated into feeling or being readable at the time of writing the email.

Future Research

We suspect that creating a manipulation that would make individuals actually be readable or feel readable during the writing task would help determine a causal affect. Turning this correlational study into an experimental study would help determine whether being readable when writing a note to a spouse or partner will, in fact, produce a more positive outlook for individuals with high self-esteem and will elicit more fears and anxieties for low self-esteem individuals. If being readable at the moment is manipulated, individuals of low self-esteem would be expected to feel vulnerable and express fear and anxieties as a result. Future research might also assess the support-provider's ability to understand the note and whether they felt their partner made their needs clear and obvious. This additional assessment of readability could help create a more reliable measure of support-seekers' readability.

Another future direction is to incorporate the spouse or partner's email response to the support seeker's email. By including the perspective of the support provider we can determine whether they offered the appropriate support the support seeker asked for. This would help determine what kinds of support work best for low self-esteem individuals and high self-esteem individuals. Specifically, low self-esteem individuals do not perceive looking at the bright side of the situation, otherwise termed as positive reframing, as good social support, the same way that high self-esteem individuals do (Marigold et al., 2014). We see that effective social support is a subjective matter and should be evaluated by the individual who sought help initially. In particular, having the support seeker review the support provider's feedback would differentiate between how individuals of high and low self-esteem see similar expressions of support.

Conclusion

The current research aims to highlight how the way support is sought shapes the kind of support that will be received. It is

important to understand accurately the backgrounds and foundations of the support seekers to determine the best and most suitable support. The present findings illustrate variations in personality traits, specifically self-esteem, does play a role in how certain individuals will express their stressful experiences to their close partners. Certain circumstances, such as readability, will enhance or impair an individual's particular views on their situations, whether that would be being more positive when feeling readable or feeling more fearful and anxious when feeling readable. Moreover, understanding your partner and noting what self-disclosure means to them may pave the way toward better and more effective social support interactions.

[1]*Note:* Before writing the email, half of the participants received an experimental manipulation designed to increase perceptions of readability. Participants in the experimental condition were asked to imagine themselves through their partner's perspective (adapted from Vorauer & Sucharyna, 2013). Statistical analysis showed that the experimental manipulation had no effect on any of the dependent variable in this investigation; therefore we collapsed across condition when analyzing the data.

References

Barbee, A.P, & Cunningham, M.R. (1995). An Experimental Approach to Social Support Communications: Interactive Coping in Close Relationships. *Communication Yearbook, 18,* 381-413.

Burleson, B. R. (2003a). Emotional support skills. In J. O. Greene & B. R. Burleson (Eds.), *Handbook of communication and social interaction skills* (pp. 551–594). Mahwah, NJ: Erlbaum.

Burleson, B. R. (2009). Understanding the outcomes of supportive communication: A dual-process approach. *Journal of Social and Personal Relationships, 26,* 21–38. doi:10.1177/0265407509105519

Cameron, J.J., Holmes, J.G., & Vorauer, J.D. (2009). When self-disclosure goes awry: Negative consequences of revealing personal failures for low self-esteem individuals. *Journal of Experimental Social Psychology, 45(1),* 217-222.

Cameron, J. J., & Vorauer, J.D. (2008). Feeling Transparent: On Metaperceptions and Miscommunications. *Social and Personality Psychology Compass,* 1093-1108.

Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing Coping Strategies: A Theoretically Based Approach. *Journal of Personality and Social Psychology, 56(2),* 267-283.

Dodgson, P. G., & Wood, J. V. (1998). Self-esteem and the cognitive accessibility of strengths and weaknesses after failure. *Journal of Personality and Social Psychology, 75,*

178–197.

Forest, A. L., Wood, J. V., & Hallink, M. W. (2015). Self-esteem differences in positive and negative expressivity in response to controlled lab experiences. Unpublished raw data.

Gaucher, D., Wood, J. V., Stinson, D. A., Forest, A. L., Holmes, J. G., & Logel, C. (2012). Perceived regard explains self-esteem differences in expressivity. *Personality and Social Psychology Bulletin*, *38*, 1144–1156.

Leary, M. R., & Baumeister, R. F. (2000). The nature and function of self-esteem: Sociometer theory. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 32, pp. 2–51). San Diego, CA: Academic Press.

Leary, M. R., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology, 68,* 518–530.

Marigold, D. C., Cavallo J.V., Holmes, J.G., & Wood, J.V. (2014). You Can't Always Give What You Want: Challenge of Providing Social Support to Low Self-Esteem Individuals. *Journal of Personality and Social Psychology, 107(1),* 56-80.

Murray, S. L., Holmes, J. G., & Collins, N. L. (2006). Optimizing assurance: The risk regulation system in relationship. *Psychological Bulletin*, 132, 641–666.

Reis, H.T. & Shaver, P. (1988). Intimacy as an interpersonal process. In S.W. (Ed.), *Handbook of Personal Relationshops* (pp. 367-389). New York, NY: Wiley.

Smith, S. M., & Petty, R. E. (1995). Personality moderators of mood congruency effects on cognition: The role of self-esteem and negative mood regulation. *Journal of Personality and Social Psychology, 68,* 1092–1107. doi:10.1037/0022-3514.68.6.1092

Wood, J.V., & Forest, A.L. (2016). Self-Protective yet Self-Defeating: The Paradox of Low Self-Esteem People's Self Disclosures. *Advances in Experimental Social Psychology, 53,* 131-188.

Acknowledgements

Cross-Cultural Analysis of Common Markers for PTSD

Christopher Turner

Mentor: Dr. Michael Gurven
Department of Anthropology

Abstract

Post-Traumatic Stress Disorder has become the focus of many studies in recent years, as the US is coming close to two decades of combat in the Middle East and South Asia. While veterans of these conflicts have experienced significant distress caused by Post Traumatic Stress Disorder (PTSD), the condition is not synonymous only with war. Understanding the extent to which PTSD is found cross-culturally is an important avenue for better understanding the condition. However, the identification and definition of the complex disorder is relatively new and has not been incorporated into ethnographic accounts. In this paper, six major markers known to cause PTSD are evaluated for their presence in the Standard Cross-Cultural Sample (SCCS). These six markers are commonly found in most industrialized cultures: rape, homicide, aggression, domestic violence, warfare, and slavery. For this project, each of these conditions is cross-culturally referenced with the SCCS, establishing the frequency of each condition in a range of cultures, and demonstrating the signs and symptoms of PTSD in cultures for which no such data could have been or currently exists. Four cultures (Trukese, Chukchee, Kaska and Papago) were found to have affinities to the six markers of PTSD.

Introduction

On February 3, 2015 President Barack Obama signed a bipartisan bill that passed the Senate 99-0 (Leonard 2015). House Resolution bill 203 addressed an epidemic that is taking the lives of over 8000 Americans a year. These individuals had risked life and limb for the United States only to return and succumb to death in the sanctity of their own homes. The cause of death was not cancer or a disease contracted in some far off land but something just as deadly, something that Obama identified as happening to people [who] endured "physical injuries that healed, and suffered invisible wounds that stayed" (Leonard, 2015). The killer is Post-Traumatic Stress Disorder, commonly called PTSD, a condition that is experienced by approximately 15-24% of adults in the US exposed to trauma, with women at greater risk (Breslau et al., 1998).

Trauma is a significant cause of death in the United Sates, with accidental injuries related to trauma responsible for almost 36 % of the fatalities within the US in 2000 (Mokdad, Marks, Stroup, & Gerberding, 2004). For everyone who dies from trauma, there are many more who are burdened by the emotional anguish of such devastation, either through witnessing the events or the burden of losing a loved one; for every fatality from trauma there are many more that survive similar trauma. These cause a psychological response, from the manageable to the debilitating. Children and adolescents who experience sexual trauma can suffer from Dissociative Identity Disorders (DID), once called multiple personalities (Lemos-Miller & Kearney, 2006). Chris Cantor, a renowned psychologist, develops this idea further pointing out how common phobias are in our population and how ridiculous they appear; often fears about such things as spiders and heights are irrational (Cantor, 2005). Cantor describes phobias as "acquired through traumatic conditioning, sometimes the result of only one exposure to some object or phenomenon." Thus, one might speculate that PTSD is a type of phobia. Cantor further explains that PTSD is a phenomenon that is unpredictable, and has more life

changing events than that of a phobia. PTSD's unpredictability and possible over-reaction by a person experiencing it has become easy pickings in pop-culture, often depicted in film and media as the crazy veteran who has seen too much. This image fosters the illusion that it is a psychosis found predominantly in industrialized cultures and begs the question of whether PTSD is found cross-culturally.

Literature Review

To analyze the literature surrounding PTSD it is first important to lay the groundwork for what the condition is. Through the years terms such as "War Shock," later called shell shock, a common phrase in the period following World War One and "railway spine" used to describe reactions to railway accidents, were used to define what we now know as PTSD. As the railroads expanded across the US in the early 1900's, so did documentation of the disorder (Shephard, 2000). As Shepard points out in "War of Nerves," railway spine was thought to be a sign of weakness, an affliction of the feeble minded. The studies of the neurologist Sigmund Freud did little to dampen those interpretations. Ernest Jones, a leading psychologist and Freud's longtime friend, presented a paper to the Royal Society of Medicine in the United Kingdom in 1890 where he highlighted the effects of what was to be known as "war neurosis." He described how soldiers needed to be screened for weakness before being placed in a position which would affect their mental wellbeing (Jones, 1918; Shephard, 2000). These signs of emotional weakness quickly filtered into mainstream media when the conservative British magazine "Spectator" in 1894 identified a change in definition of the word "nerve" from describing a person who was strong to someone who was inherently weak (Shephard, 2000). This change, the Spectator concluded, represented a shift in the character of the men of the era.

These notions may seem trivial ideas of a bygone era that hold little bearing for today's lives. Yet, in those early years of psychology this way of thinking spread, and those ideas have

become ingrained in our culture. Western European culture of the time had deemed that only the weak-minded could not handle the stress of witnessing the darker sides of life. This idea of weakness was so ingrained that it wasn't until the 1980's that the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III) acknowledged a condition affecting the mind after witnessing or experiencing a traumatic event (Cantor, 2005). Even then, the American Psychiatric Association (APA) did not view PTSD as significant. As Chris Cantor notes, "the acceptance of PTSD in DSM-III was more about political lobbying than the wisdom of the profession" (Cantor, 2005). Through political lobbyists protecting the interests of Vietnam veterans, the condition PTSD was recognized by the American Psychiatric Association (Cantor, 2005; Shephard, 2000).

The inclusion of PTSD in the DSM III had less to do with medicine and more with political positioning. Many social scientists argue that PTSD is nothing more than a social construct, a condition that has been created by a changing social environment unfamiliar to *Homo sapiens* (Hinton & Lewis-Fernández, 2011; Mollica, Richard F.; Caspi-Yavin, Yael; Bollini, Paola; Truong, Toan, Tor, Svang; Lavelle, 2013; Shalev, 1997). As catastrophes such as war, plane crashes, and common motor vehicle accidents become more devastating, we cannot process the information. We have become removed from a society that cares for one another; we have become alone in a sea of people. Tony Walter takes the argument a step further by identifying PTSD as part of complicated grief, placing it as a phase in the grief process, which Walter divided into four subsections: uncomplicated, complicated, depressive and PTSD (Walter, 2005). While he does submit that many of the components of grief, especially PTSD, are biological, he holds firm to the idea that it is also a social construct generated by the ways culture governs emotional response. Sebastian Junger continues this argument by highlighting his hypothesis that the cause of chronic PTSD, often referred to as complex PTSD, was a lack of acceptance in one's kin group. As a result PTSD is seldom reported in hunter

gatherer societies since these groups are better able to integrate people back into their groups after a traumatic event (Junger, 2010, 2016). Junger was referring to the signs and symptoms that are often presented in those suffering from the relatively newly defined condition of PTSD.

Yet, there is strong evidence that PTSD is found throughout the world, if not on isolated individual levels, such as solitary acts of violence, but certainly in mass incidents involving traumatic events effecting whole communities. The symptoms of PTSD (hypervigilance, reckless behavior, startle reflex, sleep disturbance and problems concentrating) are apparent after many events affecting large groups (American Psychiatric Association., 2013). In 1989, people of Kuwait witnessed the effects of the Iraqi invasion which included rape, murder of children, and disappearance of parents (Weisaeth, 1997). In the aftermath of liberation from Iraq, the population was markedly changed. Children feared schools as schools had been used as places to torture families during the Iraqi occupation. Children lost focus and exhibited reckless, if not self-destructive tendencies. These results are not unique to Kuwait; Cambodians exposed to the Khmer Rouge atrocities under the reign of Pol Pot experienced flashbacks indicative of PTSD (Hinton & Lewis-Fernández, 2011).

It is not just war that has resulted in reports of PTSD. A study of Indochinese refugees displaced from their country of origin to other areas of the region was very telling. The research demonstrated that many of the people had experienced trauma from the perception of immediate danger through torture. Thus, there does not need to be physical violence but only the perception of a risk to one's self or family to cause such ideations; individuals exposed to torture, although not necessarily tortured themselves, can manifest signs of PTSD. These symptoms mirrored those found in Western cultures, though far removed from the social norms of industrialized societies (Mollica, Caspi-Yavin, Bollini, Truong, Tor, Lavelle, 2013).

While the term PTSD is constructed by the psychiatric community in the US and other Western industrialized countries, there are still inherent psychobiological components making the condition significant throughout the world. The question is to what degree? Chris Cantor's strategy for approaching this conundrum is insightful. He approaches the problem by focusing on the roots; his theory is based in the fundamentals of evolutionary psychology. He seeks to understand the triggers that could have shaped the signs and symptoms of PTSD. His thinking follows the theories developed by Richard Dawkins in his book "The Selfish Gene." Dawkins argues that "we, and all other animals, are machines created by our genes. Like successful Chicago gangsters, our genes have survived, in some cases for millions of years, in a highly competitive world" (Dawkins, 2016). Dawkins points out that genes are the driving force behind the evolution of all living organisms on the planet. Cantor builds on this argument, outlining the possible pressures that might lead to PTSD.

For those who have studied PTSD or have known someone who suffers from the condition, it seems hard to understand what possible benefits can be obtained from such an often-disabling condition. Yet, Cantor's argument is compelling, as he analyzes predator avoidance and its connection to PTSD. Utilizing the theories of how animals avoid predators, he relates this to the condition using two well supported hypotheses regarding prey avoidance. The first, proposed by Harry Green, relates to reptiles that utilize seven different strategies to mitigate the threats of predators: camouflage, where the animal blends in with its surroundings; escape by means of fleeing; bluffs and threats, such as puffing oneself up; diversions, such as the lizard who detaches its tail to allow escape; removal of cues, hiding one's eyes so the predator does not associate the animal as prey; startle reflex, which confuses the predator and gives prey time to act; and finally, offense as a form of defense (Greene, 1988). While most seem relatable to

us, it is hard to imagine a human equivalent of losing a tail for the predator to eat; after all, our digits do not grow back.

The other hypothesis, adopted from Geerat Vermeij's work, appears more compatible to *Homo sapiens*. Four points to predator mitigation are established: avoidance, detection, escape, and resistance (Vermeij, 1982). Cantor took the core of Vermeij's findings and related it to PTSD. For avoidance, he demonstrated how patients suffering from the condition become agoraphobic. Detection manifests in the form of startle reflex. When someone becomes startled they freeze to survey their surroundings detecting a potential predator. Escape is exhibited by the tendency of those suffering from PTSD to flee a crowded area due to feeling threatened. PTSD is synonymous with displays of anger and these displays demonstrate how a PTSD patient exhibits hostile intents which Cantor equates to resistance, the fourth of Vermeij's observations (Cantor, 2005). While many of the studies Cantor relies on are animal-based, he does build a compelling argument. Someone who dies at the hands of a predator before having offspring has their genes removed from the gene pool, while the veteran of emotional trauma who avoids predators has a better opportunity to procreate.

With the US now having been at war in South Asia, including Korea and Vietnam, and regions of the Middle East for more than half a century, incidence of PTSD has risen significantly. However, the notion that PTSD is only found in combat veterans is a mindset that needs to shift. In the US population in general, it is estimated that 15-24% suffer from PTSD (Breslau et al., 1998). Still, the stigma that it is a weakness forces many to ignore the need for assistance until it has become an unbearable stress often leading to threats on one's own life.

Methods

The research that I have undertaken does not directly answer the question of whether PTSD is found cross-culturally but rather seeks to determine if the causes of PTSD are found cross-culturally. It is impractical to travel throughout the world surveying multiple cultures to identify the presence of PTSD. Thus, I employed a more cost effective and expedient method, utilizing published ethnographic analyses of cultures throughout the world. There are still problems with this approach which I will highlight in discussion section.

There are two significant data sets needed to determine if PTSD is or could be found cross-culturally. It was essential to gain quantitative data, but the question remained about whether there is sufficient data to suggest that PTSD should be found in a wide spectrum of cultures. Establishing if cultures had the markers of PTSD, while important, does not determine if PTSD is present; to establish this, qualitative data must be extrapolated regarding these markers to determine if these cultures have incidents to support the presence of PTSD.

To establish good quantitative data, I extrapolated information from the Standard Cross-Cultural Sample (SCCS). SCCS is a database created by cultural anthropologists Douglas White and Peter Murdock who wanted to gather significant data on a wide variety of cultures throughout the world. The SCCS used the Ethnographic Atlas, a database created in 1969, from well documented cultures. There are a total of 186 cultures represented in the SCCS, each coded to allow concise extrapolation of the information. Accessing the database was the first step; knowing our markers for PTSD was the second. As outlined in the DSM-V, six markers are present in criteria A (this defines the potential causes of PTSD): rape, murder, war, aggression, domestic violence, and torture connected with prisoners of war (POW) (American Psychiatric Association., 2013). By analyzing the SCCS, six closely

related codes were utilized in this study: rape (SCCS code 173), homicide (SCCS code 1665), warfare (SCCS 679), assault (SCCS code 1666), wife beating (SCCS code 754), slavery (SCCS 274). A seventh marker, male toughness (SCCS code 664), was included based on the hypothesis that it influences PTSD in industrialized cultures. Many ethnographies describe how prisoners of war are often sold as slaves. Not all prisoners of war are treated as slaves; however, the loss of freedom at the hands of the oppressor may give rise to potential fears of enslavement. Each of the seven markers was checked for frequency against the 186 cultures in the SCCS.

Once the frequencies were established, relationship correlations between the frequencies were tested using The Statistical Package for the Social Sciences (SPSS) to determine the number of cultures with numerous presenting markers. All data interpretation, including graphs, was constructed using SPSS. All charts were constructed using Microsoft Excel. The tests were run as follows:

Test 1: related around male dominance and/or aggression.
Obtaining a frequency count of the following parameters
(Appendix A lists the specific cultures and their locations).

        a. Slavery 274 – present
        b. Assault 1666 – present
        c. Male Toughness 664 – present
        d. Wife Beating 754 – present

Slavery and assault were both recoded to give more useable frequency data. In these two frequencies, however, the data was so broad that it became meaningless to the results.

Test 2: was a competency test to ensure accurate data. The test was run in reverse order, with the same results as Test 1.

Test 3: highlighted premature mortality through violent means. Obtaining a frequency count of the following parameters (Appendix A lists the specific cultures and their locations)

        a. Homicide 1665 – present
        b. Warfare 679 – present
        c. Male Toughness - present

Both homicide and warfare were recoded, again using SPSS, to meet the needs of the study.

Test 4: utilized all seven markers

        a. Slavery 274 – present
        b. Assault 1666 – present
        c. Male Toughness 664 – present
        d. Wife Beating 754 – present
        e. Rape 173 – present
        f. Warfare 679 – present
        g. Homicide 1665 – present

      Once the quantitative data were established and correlation frequencies run, we needed to establish qualitative data. Knowing how the cultures reacted to these markers could determine if there was a connection to PTSD since having the markers alone is not significant enough to establish a connection between cultures and PTSD. Thus, we utilized the Human Relations Area Files (eHRAF) to extrapolate data regarding the cultures. The eHRAF is a database built on the Yale University campus but is independent from the university. This database has no connection to the SCCS even though one of the founding members was Douglas White (Murdock & White, 1969). The eHRAF is a continually coded and updated database of ethnographies. It was originally based on the 186 cultures found in the SCCS. As of today, more than 2,000 cultures are extensively coded. However, determining data in the eHRAF for all tests was both excessive and redundant. There was a

tremendous overlap between cultures and we gained little novel insight into the dilemma of cross-cultural connections with PTSD. Once the final frequency test was run, those cultures and frequencies were cross referenced in eHRAF. The intention was to extrapolate meaningful data that would have some bearing on the signs and symptoms of PTSD: agoraphobia, angry outbursts, self-destructive behavior, hypervigilance, startle response, and sleep disturbance, all criteria in the diagnosis of PTSD.

Results

Each frequency was scrutinized for its reliability in the research. In many cases the data collection was too broad. The fields were narrowed to aid in the precise acquisition of data. This gave us results that were pertinent to our study. For example, the frequency of rape is not a significant concern for this study; whether or not it is accepted is of greater interest to our findings. It was paramount to establish a meaningful data analysis of our frequencies. This aided the study in the long run by setting useable parameters. The seven frequencies broke down as follows:

Rape
Table 1 outlines the frequency rates of the cultures found within the SCCS. It is important to note that much of the data is missing; almost 80% is not present. However, within the 21% of data represented almost 55% show that rape is accepted within the culture. **Figure 1** highlights how close these two frequencies are. It can be argued that such a close connection to these two frequencies within the marker of rape outlines how significant it is. Rape is an accepted part of these cultures. It is important to note that the missing data does not represent cultures who do not accept rape, but cultures with no recorded information in the ethnographies.

Table 1 Frequency of Rape Acceptance

Rape Acceptance				
		Frequency rate	**Percentage**	**Valid percentage**
Valid Data	Accepted	21	11.3	53.8
	Not Accepted	18	9.7	46.2
	Total	39	21.0	100.0
Invalid Data	Missing data	147	79.0	
Total		186	100.0	
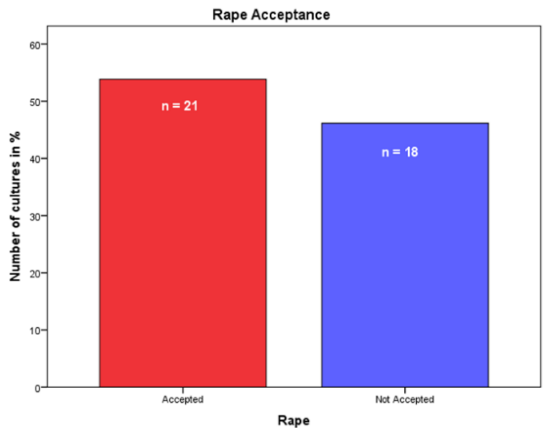
Figure 1 Percent of Culture that Accept Rape

Homicide

Homicide is represented on three levels: low, moderate, and high. When running the frequencies of the markers for homicide, it was not considered statistically pertinent to divide these into the three levels. Having homicide present was significant enough to determine its prevalence within a culture. Understanding that there is a risk of a marker is enough to warrant fear of that marker. **Table 2** highlights the frequency rates and percentages of homicide within the SCCS. There are 65 cultures missing from the 186 found within the SCCS. This constitutes almost 35%. With the cultures that had data, the amount of cultures with low levels of homicide was two thirds larger than the high level of homicide. The moderate level of

homicide fell in the middle, with a third having more than high levels and a third less than low levels of homicide. This is all detailed in **Figure 2**.

Table 2 Frequency of Recorded Homicides

		Frequency rate	Percentage	Valid percentage
		Homicides Recorded		
Valid Data	Low	63	33.9	52.1
	Moderate	33	17.7	27.3
	High	25	13.4	20.7
	Total	121	65.1	100.0
Invalid Data	Missing data	65	34.9	
Total		186	100.0	
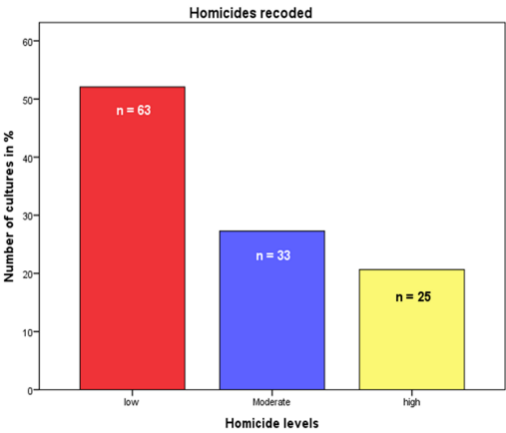
Figure 2 Percentage of Cultures with Recorded Homicides

Warfare

Less than 29% of the data was missing from this marker. This represented one of the strongest frequencies studied in this research project. A total of 133 cultures out of 186 were represented. The findings themselves were quite staggering, with 92 cultures having warfare either frequent or endemic. It is important to note that there was no guarantee that the other 41 cultures had no warfare merely that it was absent (no warfare noted). These levels of warfare are also problematic especially since the clustering as occasional or periodic was absent. How many of these 41 cultures are truly warfare free? **Table 3** outlines the statistical pertinence of the data. The drastic contrast between the two frequencies is highlighted in **Figure 3**. It is easy to identify how significant warfare is in the data. Outlining such a correlation potentially details a connection to PTSD. However, without qualitative data, this connection is either weak or circumstantial.

Table 3 The Frequency of Warfare

Warfare		Frequency rate	Percentage	Valid percentage
Valid Data	Absent/ Occasional/ Periodical	41	22.0	30.8
	Frequent/ Endemic	92	49.5	69.2
	Total	133	71.5	100.0
Invalid Data	Missing data	53	28.5	
Total		186	100.0	
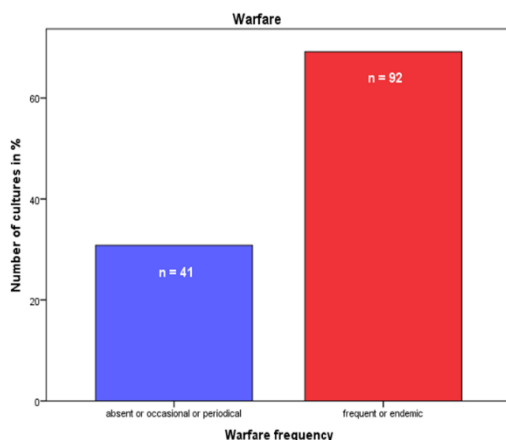
Figure 3 The Percentage of Cultures where
Warfare is Present

Assault

Assault follows similar patterns to homicide in its frequency, and is also measured on three levels; low, medium and high. Assault is categorized as in-group violence between mostly individuals; although it has also been identified as small group aggression against a single individual with the group (Murdock & White, 1969). It is important to note that awareness of in-group violence is enough to serve as a risk for PTSD, as outlined in the DSM-V. Assault has data relating to it in 113 of the 186 cultures, accounting for almost 61% in the population of the sample. Yet there is still data missing from more than a third of the cultures in the SCCS. The available data shows that assault or in-group violence appears to be more frequent than homicide. With over 40% of the valid data showing assault at a moderate frequency, both low and high frequencies have similar percentages, 31.9% and 27.4% respectively.

Table 4 Frequency of Assault Rates

Assault Rates				
		Frequency rate	**Percentage**	**Valid percentage**
Valid Data	Low	36	19.4	31.9
	Moderate	46	24.7	40.7
	High	31	16.7	27.4
	Total	113	60.8	100.0
Invalid Data	Missing data	73	39.2	
Total		186	100.0	
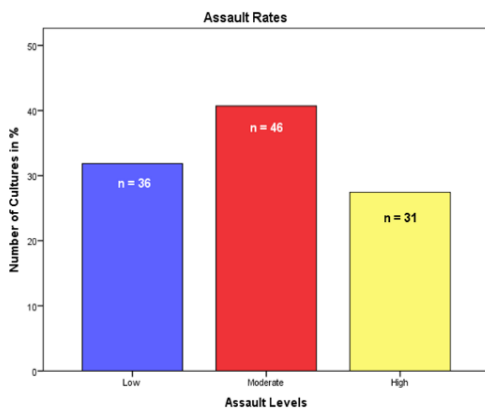
Figure 4 Percentage of Cultures with Low,
Moderate, and High levels of Assault

Domestic Violence

While the focus was domestic violence, the coding in the SCCS labeled the code as wife beating. This is what White and Murdock assessed in their creation of the data file. Over 62% of the cultures had no recorded data on wife-beating; only rape had a higher percentage of missing data at 79%. Out of the 70 cultures with data to report only 14 cultures had wife-beating as not present resulting in a staggering 80% of cultures with recorded information having domestic violence represented. The disparity between the two fields is the largest out of all the data sampled.

Table 5 Frequency of Domestic Violence (Wife-Beating)

Wife Beating (Domestic Violence)				
		Frequency rate	**Percentage**	**Valid percentage**
Valid Data	**Absent**	14	7.5	20.0
	Present	56	30.1	80.0
	Total	70	37.6	100.0
Invalid Data	**Missing data**	116	62.4	
Total		186	100.0	
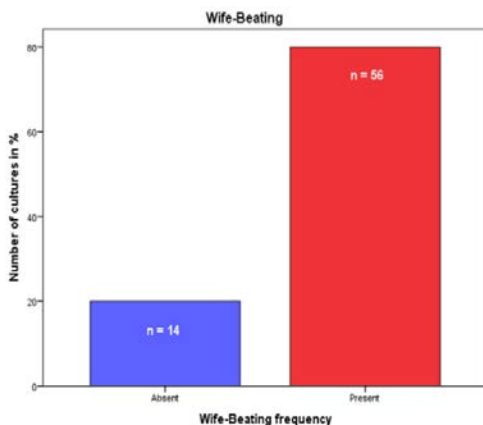
Figure 5 Percentage of Cultures where Domestic Violence (Wife-Beating) is Present and Absent

Slavery

Slavery is by far the most represented marker evaluated by this study found in the SCCS. There are a total of 180 cultures, or 97%, with data, in which slavery has some form of connection to the culture. Within that 97% there were more cultures with slavery absent or near absent than cultures with slavery significantly present. However, the divide was close with just over 10% of the valid data dividing the two frequencies. **Table 6** and **Figure 6** demonstrate the similarities in the frequencies. It is important to note that 80 cultures out of 186 show significant involvement in slavery which illustrates the staggering connection *Homo sapiens* have with slavery. There are multiple accounts of slavery in the written

117

histories of industrialized cultures; consequently, it is not surprising that we see similar trends in non-industrialized societies.

Table 6 The Frequency of Slavery

Slavery				
		Frequency rate	Percentage	Valid percentage
Valid Data	Absent/ nearly absent	100	53.8	55.6
	significantly Present	80	43.0	44.4
	Total	180	96.8	100.0
Invalid Data	Missing data	6	3.2	
Total		186	100.0	
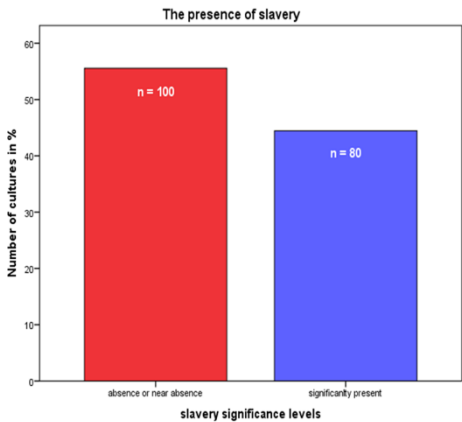
Figure 6 The Percentage of Cultures where Slavery
is either Present or Absent

Male Toughness

Male toughness was seen in a high proportion of cultures, with 108 of the 186 cultures having information regarding the ideology of male toughness. It is significantly present in the cultures found within the SCCS; those cultures with valid data demonstrate that over 80% have male toughness as a part of their ideology. Male toughness potentially has several implications for the study. Males

exhibiting tough and/or aggressive behavior may actively engage in activities known to cause symptoms of PTSD, such as in-group and out-group violence, victims of rape and homicide. This ideology may also lead to those individuals refusing to acknowledge the signs and symptoms of PTSD. As a result, this could lead to a higher propensity for the condition to become chronic.

Table 7 Frequency of Male Toughness Ideology

Ideology of Male Toughness		Frequency rate	Percentage	Valid percentage
Valid Data	Absent	21	11.3	19.4
	Present	87	46.8	80.6
	Total	108	58.1	100.0
Invalid Data	Missing data	78	41.9	
Total		186	100.0	
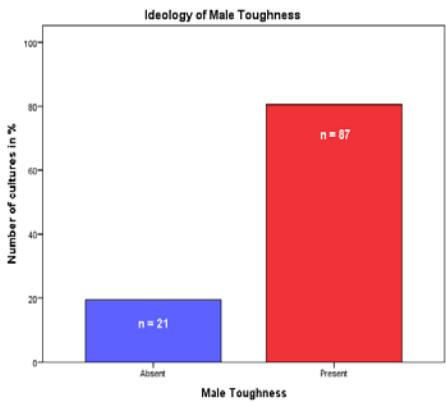
Figure 7 Percentage of Cultures were
Male Toughness is Idealized

Qualitative Data

Each filter we ran for the seven markers of generated varying numbers of cultures from an extensive array of locations. **Test 1** generated a total of 24 cultures (seen in **Appendix A**). **Test 2** had the same results as **Test 1** as the filter was run in reverse order from the first filter. This was to ensure accuracy of the filter and ensure competency with the statistical program. As predicted, precisely the same cultures were created.

Test 3 generated a total of 59 cultures from varying locations throughout the world. There appears to be no relationship in social structure among the groups either through stratification or subsistence strategies. There were egalitarian tribes and others with hierarchical stratification, hunter/ gatherers, pastoralists and agriculturalists. The only common thread was an affinity for aggressive and traumatic events perpetuated in acts of violence.

Test 4 included all the seven markers (rape, homicide, warfare, assault, domestic violence, slavery and male toughness) which generated four cultures: *Trukese* from Micronesia, *Chukchee* from North East Russia, *Kaska* from the Yukon region of Canada, and *Papago* from Arizona and northern Mexico.

Trukese

The Trukese population was 35,000 according to a 1988 census (Goodenough & Skoggard, 1999). This is an egalitarian culture, with no hierarchically defined leadership, based predominantly on fishing and agriculture. This culture has connections with all six of the markers. Rape, while not tolerated, is a significant part of the culture. Women are raped while they sleep by potential suitors. If the woman fights her assailant, then the man is mocked for being unattractive (Gladwin & Sarason, 1953). Women quickly become considered property of men and while beating one's property is not considered wise, it is also not

discouraged in this culture. Rape and wife-beating became illegal after European colonization. However, the Trukese see domestic violence as a way of disciplining their wives. Women should not be beaten on the abdomen or breasts unless the husband is significantly angry (Fischer, 1950; Gladwin & Sarason, 1953). While slavery is not present, women are often considered to be slaves to their husbands (Marshall & Marshall, 1990). Both domestic violence and murder, while present, are not prevalent in these cultures according to the ethnographic record in the eHRAF. The Trukese are more prone to alcohol related incidents (Marshall & Marshall, 1990). Trade with the Europeans colonizing the area also stimulated war. The battles were often large skirmishes with loss of life (Goodenough, 1949).

Chukchee

The Chukchee are a herd pastoralist culture that lives off the products of their animals. They are found in the North East of Russia by the sea of Okhotsk. The population was documented as 15,184 as of 1989 (Zhornitskaya & Wanner, 1996). Both rape and domestic violence are present in this culture. Rape is committed by people in authority such as local shamans (Bogoraz-Tan Waldemar, n.d.). Slavery is a significant part of their culture and is often used as a means of trade (Shrenk & Nagler, 1881). Aggression both with in-groups and outgroups is high. Warfare is reported and often neighboring villages were destroyed (Bogoraz-Tan Waldemar, n.d.)

Kaska

The Kaska are located predominantly in Canada's Yukon Territory. This is an egalitarian culture, where there is no real control held by the leadership. A headman is responsible for guiding a small group but has no true control. As of the 1990 Canadian census, there were an estimated 900 remaining Kaskas (Honigmann & Abate, 2012). Violence and rape against women are a large part

of this culture. Young women are supposed to fight against young men's sexual advances. These may lead to overpowering of a teenage girl by a group of teenage boys (Honigmann & Bennett, 1949). Many ethnographers question whether these acts should be considered rape as it appears to be part of a game played by both sexes, claiming that these acts are to demonstrate that neither individual has given power to the other freely (Honigmann & Bennett, 1949). Infidelity often leads to the beating of the wife, with few repercussions for the husband. Suspicion of infidelity is a constant as men are away from home for extended periods. Suspicion of adultery can lead to a beating of the wife due to often-harmless actions. For example, a woman has access to grease and her husband becomes convinced that she was receiving grease from her adulterous lover (Honigmann, 1954). Murder and assault are both present in the culture with assault significantly higher especially when considering violence against women perpetuated through the male's fear of infidelity.

Papago (Tohono O'odham)

The Papago are located in Arizona and Sonora Mexico. There are approximately 25,000 people of this culture located throughout the United States as of the 2000 US census (Bahr, 2011). This is an egalitarian society, with a headman controlling small groups. They subsist on fishing, hunting and gathering. Rape is not as prevalent in this culture as in the previously mentioned cultures. However, there is nothing wrong with the act as far as the culture is concerned, although it does become an issue when another man's wife is raped as this is seen as an infringement on his property (Underhill, 1939). Slavery was a concern for this culture group especially after contact with Europeans. There are documented cases where Papago were captured and sold to colonial slave traders (Ragsdale, 2005). Murder and assault were not considered crimes by the culture specifically and were managed by the families of the victims (Underhill, 1939). Warfare after colonial arrival became a

significant issue for the Papago who were forced to defend their lands from colonial forces (Fontana, 1983).

Discussion

This qualitative examination provides a snapshot of the constraints and pressures placed on the individuals from a small sample of cultures after they have been cross-referenced against the markers considered to be catalysts for PTSD. However, while there is extensive data generated from this study, there are also inherent problems with the data. Any large scale cross-cultural analyses present numerous challenges. Often the data drawn is from ethnographies done by people focusing on their own study questions and pursuing their own hypothesis that are often completely unrelated to study foci of other researchers.

The age of many of the studies is also a significant problem, with some of the studies being over 100 years old. Due to the dispersal of some of these cultures, the Papago for example, there is no way to recreate the study from a modern perspective. Most of the studies are quantitative with little concern for how an individual dealt with these markers. We can ascertain that the markers are there, yet we do not know how this affected the cultures in question.

Many of the frequencies were missing significant amounts of data; when the data was present it was often open to interpretation, both by the ethnographers and the coders entering the data into the SCCS. The ethnographer's bias was often easily identifiable, as many of the ethnographies were conducted at a time when ethnocentrism was seen as supporting progress. This can be seen in many of the passages found in the SCCS and the eHRAF. Patricia Rozee-Kohler identifies many of these biases in her article studying the SCCS codes for rape. She indicates that many instances of rape were not included in the SCCS because they happened in marriage. Many ethnographers either ignored these instances or referred to them as pseudo or quasi-rape (Rozee-Koker,

1987).   Rape is often only coded when considering men against women; there is little discussion about rape of men or boys, especially when considering ritualistic rape. Domestic violence is also another marker for which data is particularly difficult to interpret. It is referred to as wife-beating alluding to the suggestion that only women are victims of violence in the home. It is not clear if violence of husbands or children were evaluated and found nowhere in any of the 2000 cultures or if it was just not addressed, possibly ignored by the ethnographer due to their own misgivings. This has been a significant problem when examining early ethnographic data due to the narrow demographic pool studying cultures at that time. Most ethnographers were European males coming from affluent families in the service of one Crown or another.

Missing data for whatever reason had a negative effect on the value of the results. While the frequencies are well identified in the valid data this sometimes only constitutes a fifth of the sample size. There are numerous challenges with this study, including the reliance on out of date ethnographies; thus, there are steps needed to advance this study. This is particularly true with respect to how data is presented. All too often the information gathered is that of what causes A, what causes B with little concern for the effect. The effect, however, is the focus of this study. It is concerned with the presentations of people after a partuclar event has occurred in their lives. Little data is stored in the two databases used for this study regarding these conundrums.

Conclusion

In this study many of the 186 cultures had no information regarding the 7 markers for PTSD. This may have been because the ethnographers studying the cultures were not studying these areas and thus did not ask about these issues, possibly due to the age of the studies; PTSD is a relatively new concept developed form our understanding of the effects of trauma on the brain. This may also

be because these markers are not present and as a result not documented, and as such the claim cannot be ascertained either way. Using the data identified in the SCCS and the eHRAF I have taken this study to a point where we can make the assertion that the markers of PTSD are extensively found in other cultures. The information tells us that there is no data set that lacks a specific marker.

Yet this does not tell us if the people have PTSD. To obtain this data we must specifically ask anthropologists in the field to establish if the signs and symptoms are present within different culture groups. Understanding if PTSD is found cross-culturally is a huge step toward understanding the evolutionary selection pressures of PTSD and discovering whether there are any evolutionary benefits to some of the signs and symptoms.

Appendix A

This is a list of the cultures extrapolated from the test filters ran while researching the connection between different markers.

Test 1 & Test 2 – generated 24 results

These generated the same result. The same exact filters were entered into the program, only the data was entered in reverse order for test 2. This had two applications, ensuring user competency and ensuring output operated as expected.

	Culture	Location
1	Bambara	Mali, Africa
2	Azande	South Sudan, Africa
3	Otoro Nuba	Sudan, Africa
4	Somali	Somali, Africa
5	Amhara	Ethiopia, Africa
6	Rwala Bedouin	Syria, Middle East
7	Turks	Turkey, Middle East
8	Gheg Albanians	Albania, Europe
9	Kurd	Iraq, Middle East
10	Punjabi (West)	Pakistan, Asia
11	Kazak	Kyrgyzstan, Asia
12	Kwoma	Papua New Guinea
13	Manus	Papua New Guinea
14	New Ireland	Papua New Guinea
15	Trukese	Udot, Micronesia
16	Chukchee	N.E. Russia, Asia
17	Kaska	N.W. Canada, N. America
18	Papago	Arizona, U.S.A.
19	Quiche	Guatemala, C. America
20	Goajiro	Columbia, S. America
21	Yanomamo	Venezuela, S. America
22	Aymara	Bolivia, S. America

| 23 | Tupinamba | Brazil, S. America |
| 24 | Mapuche | Chile. S. America |

Test 3- 59 cultures were generated

	Culture	Location
1	Kung Bushmen	Namibia, Africa
2	Lozi	Zambia, Africa
3	Mbundu	Angola, Africa
4	Suku	D.R.Congo, Africa
5	Nyakyusa	Tanzania, Africa
6	Kikuyu	Kenya, Africa
7	Ganda	Uganda, Africa
8	Mbuti	D.R. Congo, Africa
9	Tiv	Nigeria, Africa
10	Bambara	Mali, Africa
11	Azande	South Sudan, Africa
12	Otoro Nuba	Sudan, Africa
13	Shilluk	Somali, Africa
14	Somali	Ethiopia, Africa
15	Amhara	Syria, Middle East
16	Tuareg	Turkey, Middle East
17	Riffians	Albania, Europe
18	Egyptians	Mali, Africa
19	Rwala Bedouin	South Sudan, Africa
20	Turks	Sudan, Africa
21	Gheg Albanians	Somali, Africa
22	Abkhaz	Georgia, Europe
23	Kazak	Kyrgyzstan, Asia
24	Orokaiva	Papa New Guinea
25	Kapauku	Indonesia
26	Kwoma	Papa New Guinea
27	Manus	Papua New Guinea
28	New Ireland	Papua New Guinea
29	Siuai	Solomon Islands
30	Mbau Fijians	Fiji

31	Maori	New Zealand
32	Marshallese	Marshall Islands
33	Trukese	Udot, Micronesia
34	Yapese	Micronesia
35	Atayal	Taiwan, Asia
36	Manchu	China. Asia
37	Japanese	Japan, Asia
38	Gilyak	Russia, Asia
39	Chukchee	N.E. Russia, Asia
40	Aleut	Alaska, U.S.A.
41	Micmac	Prince Edward Island, Canada
42	Slave	N.W. Territory, Canada
43	Kaska	Yukon, Canada
44	Paiute (North.)	Oregon, U.S.A.
45	Klamath	Oregon, U.S.A.
46	Hidatsa	N. Dakota, U.S.A.
47	Pawnee	Nebraska, U.S.A.
48	Omaha	Nebraska, U.S.A.
49	Huron	Ontario, Canada
50	Creek	Alabama, U.S.A.
51	Comanche	Texas, U.S.A.
52	Papago	Arizona, U.S.A.
53	Aztec	Mexico, N. America
54	Goajiro	Columbia, S. America
55	Yanomamo	Venezuela, S. America
56	Aymara	Bolivia, S. America
57	Tupinamba	Brazil, S. America
58	Abipon	Argentina, S. America
59	Mapuche	Chile, S.America

Test 4 – generated 4 results

	Culture	Location
1	Trukese	Udot, Micronesia
2	Chukchee	N.E. Russia, Asia
3	Kaska	N.W. Canada, N. America
4	Papago	Arizona, U.S.A.

References

American Psychiatric Association. (2013). *Diagnostic and Statistical manual of mental disorders* (5th ed.). Washington, DC.

Bahr, D. M. (2011). Culture Summary: O'Odham. New Haven, Conn.: Human Relations Area Files. Retrieved from http://ehrafworldcultures.yale.edu/document?id=nu79-000

Bogoraz-Tan Waldemar), V. G. (Bogoras. (n.d.). Chukchee: Material Culture [Part 1], Religion [Part 2], Social Organization [Part 3] BT - Memoirs (Vol. XI, p. xvii, 733, 35 plates [HRAF pagination-incomplet). Leiden: E. J. Brill, Ltd. ; G. E. Stechert and Co. Retrieved from http://ehrafworldcultures.yale.edu/document?id=ry02-001

Breslau, N., Kessler, R. C., Chilcoat, H. D., Schultz, L. R., Davis, G. C., & Andreski, P. (1998). Trauma and Posttraumatic Stress Disorder in the Community. *Archives of General Psychiatry*, *55*(7), 626. https://doi.org/10.1001/archpsyc.55.7.626

Cantor, C. (2005). *Evolution and Post Traumatic Stress Dissorders Vigilance and Defence*. New York: Routledge.

Dawkins, R. (2016). *The Selfish Gene* (40th Anniv). Oxford: Oxford University Press.

Fischer, A. M. (1950). Role Of Trukese Mother And Its Effect On Child Training BT - Scientific Investigation Of Micronesia (p. 148). Washington, D.C.: Pacific Science Board. Retrieved from http://ehrafworldcultures.yale.edu/document?id=or19-027

Fontana, B. L. (1983). History Of The Papago BT - Handbook Of

North American Indians. Southwest (Vol. v. 10, pp. 137–148). Washington, D. C.: Smithsonian Institution : For sale by the Supt. of Docs., U.S. G.P.O. Retrieved from http://ehrafworldcultures.yale.edu/document?id=nu79-019

Gladwin, T., & Sarason, S. B. (1953). Truk: Man In Paradise BT - Viking Fund Publications In Anthropology (p. 655). New York: Wenner-Gren Foundation for Anthropological Research. Retrieved from http://ehrafworldcultures.yale.edu/document?id=or19-002

Goodenough, W. H. (1949). Premarital Freedom On Truk: Theory And Practice. *American Anthropologist*, *Vol. 51*, 615–620. Retrieved fromhttp://ehrafworldcultures.yale.edu/document?id=or19-021

Goodenough, W. H., & Skoggard, I. A. (1999). Culture Summary: Chuuk. New Haven, Conn.: HRAF. Retrieved from http://ehrafworldcultures.yale.edu/document?id=or19-000

Greene, H. W. (1988). Antipredator mechanisms in reptiles. *Biology of the Reptilia*, *16*(1), 1–152.

Hinton, D. E., & Lewis-Fernández, R. (2011). The cross-cultural validity of posttraumatic stress disorder: implications for DSM-5. *Depression and Anxiety*, *28*(9), 783–801. https://doi.org/10.1002/da.20753

Honigmann, J. J. (1954). Kaska Indians: An Ethnographic Reconstruction BT - Yale University Publications In Anthropology (p. 162). New Haven, Conn.: Yale University Press. Retrieved from http://ehrafworldcultures.yale.edu/document?id=nd12-006

Honigmann, J. J., & Abate, T. (2012). Culture Summary: Kaska.

New Haven, Conn.: Human Relations area Files. Retrieved from http://ehrafworldcultures.yale.edu/document?id=nd12-000

Honigmann, J. J., & Bennett, W. C. (1949). Culture And Ethos Of Kaska Society BT - Yale University Publications In Anthropology (p. 366, 12 plates). New Haven, Conn.: Yale University Press. Retrieved from http://ehrafworldcultures.yale.edu/document?id=nd12-001

Jones, E. (1918). War shock and Freud's theory of the neuroses. *Proceedings of the Royal Society of Medicine*, (1921), 1–9. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/pmc2066212/

Junger, S. (2010). *War*. London: Fourth Estate.

Junger, S. (2016). *Tribe: On Homecoming and Belonging*. S.I.: Grand Central Publishing.

Lemos-Miller, A., & Kearney, C. A. (2006). Depression and Ethnicity as Intermediary Variables Among Dissociation, Trauma-Related Cognitions, and PTSD Symptomatology in Youths. *The Journal of Nervous and Mental Disease*, *194*(8), 584–590. https://doi.org/10.1097/01.nmd.0000230407.12687.ba

Leonard, K. (2015). Obama Signs Veterans Suicide Prevention Bill | Politics | US News. Retrieved August 21, 2017, from https://www.usnews.com/news/articles/2015/02/12/obama-signs-veterans-suicide-prevention-bill

Marshall, M., & Marshall, L. B. (1990). Silent Voices Speak: Women And Prohibition In Truk BT - Wasdworth Modern Anthropology Library (p. xiii, 190). Belmont, Calif.: Wadsworth Pub. Co. Retrieved from http://ehrafworldcultures.yale.edu/document?id=or19-035

Mokdad, A. H., Marks, J. S., Stroup, D. F., & Gerberding, J. L. (2004). Actual Causes of Death in the United States, 2000. *JAMA*, *291*(10), 1238. https://doi.org/10.1001/jama.291.10.1238

Mollica, Richard F.; Caspi-Yavin, Yael; Bollini, Paola; Truong, Toan, Tor, Svang; Lavelle, J. (2013). The Harvard Trauma Questionnaire: Validating a Cross-Cultural Instrument for Measuring Torture, Trauma, and Posttraumatic Stress Disorder in Indochinese Refugees. *Journal of Nervous & Mental Disease*, *180*(2), 111–116. Retrieved from https://www.researchgate.net/profile/Yael_Caspi2/publication/21417761_The_Harvard_Trauma_Questionnaire/links/02e7e520f7c04e319e000000/The-Harvard-Trauma-Questionnaire.pdf

Murdock, G. P., & White, D. R. (1969). Standard Cross-Cultural Sample. *Source: Ethnology*, *8*(4), 329–369. Retrieved from http://www.jstor.org/stable/3772907

Ragsdale, J. W. (2005). Chiricahua Apaches And The Assimilation Movement, 1865-1886: A Historical Examination. *American Indian Law Review*, *Vol. 30*(2), 291–363. Retrieved from http://ehrafworldcultures.yale.edu/document?id=nt08-007

Rozee-Koker, P. D. (1987). Cross-cultural codes on seven types of rape. *Behavior Science Research*, *21*(1–4), 101–117. https://doi.org/10.1177/106939718702100104

Shalev, A. Y. (1997). Acute to chronic: Etiology and pathophysiology of PTSD—A biopsychosocial approach. *Posttraumatic Stress Disorder: Acute and Long-Term Responses to Trauma and Disaster*, (51), 209–240.

Shephard, B. (2000). *A war of Nerves: soldiers and psychiatrists*

1914-1994. Cambridge: Harvard University Press.

Shrenk, L. I., & Nagler, A. (1881). Peoples Of The Amur Region BT - Reisen Und Forschungen Im Amur-Lande In Den Jahren 1854-1856 (Vol. Vol. 3, p. iv, x, 1-310, plates I-IX maps, iv, xx, 311). St. Petersburg: Kaiserliche Akademie der Wissenschaften. Retrieved from http://ehrafworldcultures.yale.edu/document?id=rx02-002

Underhill, R. (1939). Social Organization Of The Papago Indians BT - Contributions To Anthropology (p. xii, 280). New York: Columbia University Press. Retrieved from http://ehrafworldcultures.yale.edu/document?id=nu79-002

Vermeij, G. J. (1982). Unsuccessful Predation and Evolution. *Am. Nat*, *120*(120), 701–720. Retrieved from http://www.jstor.org/stable/pdf/2461168.pdf?refreqid=excelsior%3Ac02b1f005cdd366cdb6ef8ba54795ea0

Walter, T. (2005). What is Complicated Grief? A Social Constructionist Perspective. *OMEGA*, *52*(1), 71–79. Retrieved from http://journals.sagepub.com/doi/pdf/10.2190/3LX7-C0CL-MNWR-JKKQ

Weisaeth, L. (1997). War-related psychopathology in Kuwait: An assessment of war-related mental health problems. Progress in Psychiatry-Washington-, *51*, 91–122.

Zhornitskaya, M., & Wanner, V. (1996). Culture Summary: Chukchee. New Haven, Conn.: HRAF. Retrieved from http://ehrafworldcultures.yale.edu/document?id=ry02-000

Acknowledgements

Regime Type and Territorial Claims Management

Jorge Moran

Mentor: Dr. Paul Hensel
Department of Political Science, University of North Texas

Abstract

Many international relations scholars have pointed out that throughout history territorial claims are one of the main precursors to conflict. However, no study has examined how domestic constraints in different types of authoritarian regimes affect the likelihood that some authoritarian regimes will be more likely than others to settle territorial claims. I argue that personalist regimes are less likely to agree on territorial settlements than single party and military regimes. Personalist regimes have lower levels of domestic constraints which enable them to pursue costlier decisions than their non-democratic counterparts because they do not fear incurring high audience costs. To examine my hypotheses, I used the Issue Correlates of War Project (ICOW) and Jessica Week's disaggregation of regime type. ICOW is a research project that collects information on issues faced by countries including territorial claims. On the other hand, Jessica Weeks dataset is a typology of classifying different types of regimes according to their specific authoritarian characteristics. Using a set of logistic regression analyses, I find that single party regimes are statistically significant. The findings suggest that scholars analyzing territorial claims must pay attention to the effects of domestic level variables when discussing territorial claims management.

Introduction

It is well known in the International Relations community that territorial disputes are one of the leading causes of conflict. Scholars have long sought to understand the causes and mechanisms that add to the likelihood of conflict between states. However, insight into international conflict has relied heavily on the interstate causes of conflict rather than looking into how states manage issues to sustain peace. This paper analyzes whether certain non-democracies with domestic constraints are more effective in managing territorial claims than unconstrained non-democracies. Domestic constraints can be in the form of governmental procedures that create checks and balances where party or military elite form coalitions to reign in a political leader. Audience costs are whether domestic actors have the ability to punish a leader for making poor policy decisions. Moreover, audience costs are a form of a check and balance where there are negative consequences for the failure to follow through on a threat or to honor a commitment (Frieden, J. A., Lake, D. A., & Schultz, K. A., 2016).

Territorial claims encompass specific issues of tangible and intangible importance to various states. Not only do degrees of salience matter when looking at specific territorial claims, but so to do their corresponding intangible and tangible features. Breaking down tangible and intangible salience, Hensel (2017:12) finds *tangible salience* to be based on the presence of a permanent population, natural resources, and strategic value of a territory, while *intangible salience* reflects the existence of territory that is considered homeland rather than a colony or dependency, identity ties to the territory and its residents, and historical sovereignty over the territory.

Each state has given its reasons for why it should claim sovereignty based on various cases of international law, historical events, and cultural ties to a specific territory. In addition, some claims have been based on strategic access to natural resources and military advantages. Scholars such as Hensel (2001, 2017) and

Vasquez (2001), have analyzed how territorial issues are being managed by focusing on variables such as relative material power capabilities of dyads, issue salience, and international agreements. For instance, Vasquez finds that disputes are most apt to result in war when minor-minor dyads are involved in two-party (as opposed to multiparty) disputes. Hensel (2017) suggests that policymakers welcome the involvement of nonbinding third-party assistance in disputes when a claimed territory has more economic or historical value to a country (or has more salience to a country). However, less is known about how domestic political systems affect claim management, as most research has simply distinguished between democratic and non-democratic systems.

This study suggests that our understanding of territorial claims management can be better understood by disaggregating non-democratic institutions into single-party, personalist and military regimes. Scholars can gain further insight into how audience costs affect territorial claims management. Jessica Weeks (2008) has shown the importance of disaggregating regimes for understanding how audience costs and institutional constraints may affect armed conflict. This project suggests, similarly, that disaggregating non-democratic regimes can improve our understanding of how states manage their territorial claims, with certain types of authoritarian regimes managing issues as well as democratic regimes.

Issue Management Approach

"Conflict" is a broad concept that highlights a process with multiple stages, including the maintenance of peace, the onset of struggle, the duration of the contention, and finally the resolution of the issue. According to Kenneth Thomas (1992:265), conflict occurs when one party perceives that another has frustrated, or is about to frustrate some issue; more generally, the beginning of a process whereby other social processes (e.g. decision making, discussion) switch over into conflict. Most scholarship on conflict has examined the impact of factors such as capabilities or democracy on the onset and militarization of conflict. These scholars have acknowledged

that relative military and material capabilities can indicate the strategic preferences for different states and that democratic states tend to resolve conflict more effectively than autocratic regime types. For instance, Huth and Alle (2002:15) find that when comparing democratic and non-democratic states, the initiation and escalation of military conflict is generally driven by the more aggressive policies of non-democratic states. In another case, Johann Park and Patrick James (2015) find that democracy produces a pacifying affect for both territorial dyads (interactions between two or more states on territory) and non-territorial ones in spite of the imperatives towards militarization caused by territorial conflict. The approach used in this study looks at how resolving a territorial conflict may be traced to disagreements between states over specific issues.

Instead of focusing on triggers of conflict or its escalation, this project studies how specific issues engage certain actors and traces their subsequent actions on an issue. Proponents of this approach argue that world politics involves contention over many different issues, with a range of implications for foreign policy decisions and interactions, and that an adequate understanding of interstate conflict and cooperation requires a focus on issues (Hensel 2001:82). This scope allows scholars to look at the specific interactions of actors over an issue (such as territorial claims, issue salience, and effective dispute management) which could affect the process by which states and heads of state communicate and exchange proposals in an attempt to agree about the dimensions of conflict termination and their future relationship (Becovitch:60).

Issue Salience

Instead of focusing on generalized notions of war and conflict escalation, Paul Hensel (2001; Hensel et al., 2008) utilizes an issue paradigm approach which stresses issues as the subject of a conflict or controversy rather than the condition that lead to the choice of military force as a means. Thus, an issue can be broken down into several components such as a specific territory's

importance to a state's resources or historically cultural significance to a society. Therefore, salience is a matter that becomes an issue because different groups place a value upon the subject, with more salient issues being more likely to produce both military action and peaceful settlement attempts (Hensel 2017).

Specific territorial claims can then be analyzed as individual issues according to how a territory's importance affects the frequency of individual disputes and subsequent failure to settle. Hensel (2001) notes that understanding the salience of territories and past issue interactions is an effective way to examine how this phenomenon systematically impacts states' action over territorial claims. The significance of salience and past interactions are illustrated by various dimensions. For instance, these dimensions can take the form of whether more valuable territory is at stake, the interaction has occurred in the aftermath of a militarized conflict, and whether recent peaceful settlement attempts have failed to resolve the territorial dispute. Salience may account for likelihood of approaching mechanisms that can facilitate peace. For instance, Hensel (2001, 2005) finds that more salient claims are more likely than less salient claims to lead to bilateral negotiations or the initiation of militarized action. There is greater support for the avoidance of binding settlements over highly salient issues and somewhat less support for the outbreak of militarized conflict or for compliance with third party settlements.

With respect to the causes of war or conflict, the issue management approach looks at conditions, such as salience, that may heighten the frequency over specific dispute types or their subsequent failure to resolve. According to Senese (1996:133), the principle of contention between adversaries over territorial disagreements is how the degree of salience applied to each individual dispute can affect the stimulation of militarized entanglements between states. Salience can then provide greater insight into why certain tactics recur when states engage specific territorial claims. Huth (2002) suggests that different elements of territorial salience can have different effects on claim management.

For example, when a territory contains economically valuable resources, the challenger would be less likely to use diplomatic coercion or military pressure and more likely to pursue compromise or conciliation (Hensel 2017). In contrast, claims that have a strategic location or have residents who share an ethnic identity with the challenger state will likely result in the challenger state using diplomatic or military pressures (as cited in Hensel, 2017:13). Therefore, the intangible and tangible components of salience provide another layer to understanding how certain territorial claims are managed and why settlement continues to so elusive.

Interstate Factors

Interstate factors such as relative power and international institutions have also been analyzed in conflict management. However, literature on relative power tends to focus on the probability of conflict when looking at the relationship of relative power and territorial disputes. For instance, John Vasquez (2001) looks at how relative power structures of states do not account for the likelihood of going to war in multiparty disputes. Other approaches to conflict and territorial issues consider the probability of war through the interstate variables rather than the specific issues of territorial claims. Vasquez (2001:31) examines what factors most likely affect the probability of war, finding that 53 of the 97 wars in his study (54.6%) are associated with territorial disputes, 32% (31/97) are associated with policy disputes, and only 9.3 (9/97) are associated with regime disputes; he examines territorial, policy, and regime disputes to understand the probability of war. In an earlier study that also accounts for interstate factors, Vasquez analyzes major-major dyads, major-minor dyads, and minor–minor dyads to test whether or not these independent variables affect the probability of going to war. Vasquez finds that, "regime disputes are most apt to go to war when minor-minor dyads are involved in two-party (as opposed to multiparty) disputes… [but] are more apt to go to war in the pre-1945 period" (Vasquez, 1992:135-136). Although these approaches are conducive to understanding how certain factors may lead to increased probability of conflict, they do not fully explain

the effects of domestic variables that may provide more comprehensive understandings of the intricacies of territorial issue management.

With regard to international institutional management of disputes, Mitchell and Hensel (2007) have examined bargaining between states over contentious issues and the role that international institutions play in helping to resolve such issues. This type of approach looks at institutions, such as the International Court of Justice (ICJ) or the International Tribunal for the Law of the Sea (ITLOS), and how these institutions have been playing a bigger role in world politics in the past few decades. The significance of the approach lies in how effective these institutions are in managing disputes and subsequent settlements. For example, territorial claims that have been made by states are more likely to comply with agreement over issues when international institutions have been involved (i.e. International Court of Justice and its predecessor the Permanent Court of Justice) and when the claimants share a stronger web of regional/global institutions that promote conflict resolution (2007). These interstate-based arguments focus on the effectiveness of compliance with agreements. Other authors have also looked into the implications of EEZ (exclusive economic zones) and international agreements such as UNCLOS (United Nations Convention on the Law of the Sea) as instruments that may prevent conflict. For instance, according to Nemeth, Mitchell, Nyman, and Hensel (2014:711), EEZs can help states reach settlements over maritime conflicts in bilateral negotiations, while membership in UNCLOS can help prevent the outbreak of new maritime claims. While this approach helps to explain the prevention of conflict and how to manage it through third parties and agreements, it does not consider how regimes may impact the effectiveness of management of conflict. Although it is important to look at interstate variables, it is also important to look at the role of domestic constraints and their impact on managing territorial claims.

Democratic v. Non-Democracies

Some scholars explore the issue of whether democratic states produce pacifying effects on territorial dyads (Gibler 2007, Hensel 2001) and how democracies have an advantage in maintaining agreements because of their institutional transparency (Downes and Sescher 2012). One main argument is whether democratic states are more adept in producing pacifying effects when engaged in instances of disputes and conflict (Hensel 2001). For instance, the democratic credibility hypothesis argues that democracies are better able to prevail in crises without having to resort to divisive force (Partel 1997:459). These arguments base their claims on both democratic norms of peaceful conflict resolution and the constraining effects of democratic structures (Hensel 2001). The arguments also assume that non-democracies do not have the same abilities or constraints as democracies thus making it less likely that they can manage their disputes with other regimes peacefully. These definitions illustrate a generalization about non-democracies having limited instances of managing disputes. However, when examining MID (Militarized Interstate Dispute) and ICB (International Behavior Crisis Project) datasets, Peter Partel (1997) finds that most of the data that showed successful threats by democracies were not solely based on coercive diplomacy as what was indicated. Instead, Partel found that these indicators in the datasets were poor predictors of successful coercive threats (threats that avoid the outbreak of conflict) because they do not differentiate crisis victories achieved by brute force from those achieved via coercive diplomacy.

Leaders in democracies are much more vulnerable to domestic punishment than those in non–democracies due to the existence of self-reinforcing institutions specifically designed to hold leaders accountable (Weeks 2008, 2009). There have been studies on the relationship between regime types and how it may ameliorate the security dilemma due to a target state perceiving that a leader with more audience costs could face domestic sanctioning and would therefore make credible foreign policy decisions. Logically, this would alleviate tension between two states if they view each other's actions as credible when attempting to settle territorial claims. Fearon and Hensel discuss the importance of

examining how domestic political audiences impact the credibility of regimes involved in interstate conflict and their constraints in approaching particular issues. According to Fearon (1994:578), stronger domestic audiences may make democracies better able to signal intentions and appear more credible when committing to a course of action in foreign policy than non-democracies, thus providing features than might help ameliorate" the security dilemma" between democratic states. This has led to a generalization that almost all non-democracies lack credibility when signaling their intentions because of their lack of transparency within their process. It assumes that they are more likely to renege on their intentions and agreements because non-democracies do not share the same transparent democratic processes of elections, formal leadership turnover, and political accountability to their domestic public. However, other authors have critically examined the generalizations of the democratic credibility theory and the democratic advantage hypothesis when looking at democracies and non-democracies (Partell 1997, Downes and Sescher 2012, Weeks 2008, 2009). These scholars look at the lack of solid quantitative evidence on the democratic credibility process and the weak evidence of democracies having more credibility in signaling their threats. For instance, Partel (1997) finds weaknesses in the democratic credibility hypothesis based on gaps in the misrepresentation of data from MID and ICB data sets which have misrepresented coercive threats. Moreover, Barbara Geddes and Jennifer Weeks have made a similar call when scrutinizing arguments that generalize the differences between democracies and non-democracies without accounting for variation across non-democratic types.

Theory: The Effectiveness of Constrained Non-Democratic Regimes on Territorial Claims Management

My theory approaches the issue of territory by looking at it as a form of conflict management. I view this form of conflict management as a social process whose acceptance and outcomes are dependent, or contingent on, aspects of the structure and process of

143

the conflict (Bercovitch 2001:65). Specifically, this approach allows an analysis of effective territorial management by looking at how negotiations over a territorial claims settlement can significantly be affected by the types of regimes engaged in the process. This means that the challenging disputant of a claim will take into account the impact of its decisions on its domestic audiences (public, party/military elites, etc.). The reason why regime types are affected differently is because each regime type has different political constraints that can prescribe audience costs on a leader in the form of party/military elites (domestic audiences) and punish a leader for making bad policy decisions on territorial claims. In contrast, certain non-democracies lack domestic audience costs because a leader maintains significant control over military and political apparatuses of government that make it more difficult for domestic punishment to occur over bad policy decisions. I suggest that democracies and certain non-democracies should be more effective in managing territorial claims than personalist and monarchy types because significant audience costs increase the likelihood of attempted settlements leading to a successful settlement. I argue that this is due to constrained non-democracies (military and single party regimes) having similar audience costs as democracies, thus making them similarly effective in managing territorial claims with other regimes. Thus, non-democracies can be categorized as constrained and unconstrained (Weeks 2008, 2009).

Non-democracies can be broken down into single-party, personalist, monarchial, and military regimes. Single-party regimes are those in which one party has influence over policy, control over access to political power and government jobs, and has functioning local level organizations. Examples of single-party regimes are China after Mao and the Soviet Union after Stalin (Weeks 2009:45-46). Personalist regimes, such as North Korea, are where authoritarian elites (Supreme People's Assembly) are unable to control the leader and the leader survives in power despite pursuing policies that harm the interests of the elite (Kosterina 2017:168). Monarchies can be broken down into dynastic and non-dynastic. In dynastic monarchies the family forms the ruling institution where

they share a common interest in maintaining the continued health of the dynasty and cooperating to keep the leader in check (Weeks 2009:48). In contrast, non-dynastic monarchies encompass expectations that a family member will one day inherit the throne, but where the monarch promotes loyal followers to positions of power where they typically have solid control of the state and its coercive apparatuses (Weeks:48). Contemporary Thailand serves as an example of a military regime which is governed by an officer, or retired officer, with the support of the military establishment in which other high-level officers could influence policy choice and appointments (Weeks:46).

Findings

My theory suggests that more constrained non-democracies such as military and single-party regimes are more effective in managing territorial disputes because they are conditioned to be more selective in pursuing policies that will incur the least audience costs. I also hypothesized that single-party and military regimes are more likely to have attempted to settle territorial claims than personalist regimes. Thus, I assumed regime types and their corresponding domestic constraints are significant in affecting the likelihood of an attempted agreement being concluded. Each model illustrates the disaggregation of non-democracies (personal, military, single-party) and their corresponding results of agreed settlements. In addition, all results are reported using significance tests and robust standard errors.

Table 1 shows four models. **Model 1** presents the disaggregation of non-democracies and finds that the coefficients of personalist regimes (-0.0852), single-party (-0.124), and military regimes (-0.294) had no level of significance. **Model 1** includes the logistic regression analysis of all three non-democracies and whether or not an attempted settlement led to an agreement by the claimants. However, I had moderately significant findings when testing for whether the challenger state was in a formal alliance (p>.02) with the target state and the military capabilities (p>.013) of

145

the challenger states. These results indicate that a formal alliance negatively affects the likelihood of settlements being reached by non-democratic regimes, but that greater capabilities of the challenger state increase the likelihood of settlement.

Table 1 Agreed Settlement Rate by Regime Type of Challenger.

VARIABLES	Model I	Model II	Model III	Model IV
Personalist	-0.0852			
	(0.241)			
Single Party	-0.124			
	(0.276)			
Military Regime	-0.294			
	(0.427)			
Alliance	-0.206**	0.258**	0.213**	
	(0.0886)	(0.110)	(0.0936)	
Challenger Capabilities	6.154	6.331**	6.355***	
	(2.488)	(2.798)	(-2.211)	
Polity		-0.00755		
		(0.0122)		
Executive Constraints			0.0348	
			(0.0621)	
Competitive Participation			0.0495	
			(0.0619)	
Territory Salience (Target)				0.0389
				0.0767
Recurrence of Failed Attempts				-0.142***
(Past 5 years)				(0.0349)
Constant	0.42	0.293	0.337	0.139
	(0.268)	(0.388)	(0.261)	(0.345)
Observations	787	505	788	1,967

Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

With respect to testing whether or not settlements are agreed to by claimants, there is a statistically significant difference between regime types, but only when there have been failed attempts in the last five years and the target's salience over a claim is not considered (**Model IV**). When these controls not accounted for (**Model IV**), single party regimes hold significance, suggesting that single-party regimes are statistically significant and least effective in agreeing to settlement claims. When looking at M**odel IV**, each regime holds negligible p values along with the salience value of a challenger state's claim over a territory (p>0.864). In contrast, unsuccessful attempts at settlement within the last five years holds great significance at -0.124 (p>0.00).

Model II indicates that polity levels (p>0.537) show no levels of significance while capabilities (p>0.024) and formal alliances (p>0.258) reaffirm findings in **Model I.** Arguably, these results in POLITY suggest that a non-democratic regime type does not necessarily have to be more autocratic or democratic to be effective in territorial claims. Available measures for POLITY may be imperfect. They may suggest that although the POLITY spectrum is convenient for mapping authoritarian and democratic levels on one unified spectrum, it may also mask various DEMOC (democracy levels) and AUTOC (autocratic levels) scores with the same polity score because of some regime types lying in the middle of the spectrum (Marshall 2017). Equally, this ties into Week's (2009) finding that controlling for POLITY scores does not eliminate the differences between constrained and unconstrained non-democracies. Instead, what may be of more significance is breaking down POLITY into its components of executive constraints and party competition (EXONST, PARCOMP) to look at how varying audience costs could explain different non-democracies being more effective in agreeing over settlement attempts.

However, **Model III** takes in to account POLITY's components for executive constraints (EXCONST) and competitiveness for competition (PARCOMP) and is tested for

147

individually. My analysis finds negligible levels of significance for both types. Additionally, alliance and capabilities are further shown to provide high levels of significance in **Model II.** This suggests that the increased limitations accountability groups impose, in this case the ruling party of a one-party state, do not affect the likelihood of a non-democratic state successfully settling a claim. Evidently, this indicates that audience costs (institutionalized constraints of party individual or collectivities) may not increase the likelihood of agreed settlement when a non-democratic state has more constraints placed on an executive. An interpretation of these findings suggests that regime types may play a smaller role in how attempted settlements are likely to lead to an agreement between claimants, and rather supports interstate variables that held more significance. These results reject both hypotheses that military and single party regimes are more likely than personalist regimes to have attempted settlements that lead to an agreement by claimants.

Conclusion

Although results do not support the hypotheses, I found that single party regimes are less likely to agree to settle territorial claims (without the additional control accounted for). This supports my general approach which sees the possibility of domestic factors having a role in the territorial claims management rather than motivation for the maximization of power and survival. I have argued that audience costs play a significant role in whether different regimes have the ability to be more selective about their foreign policy decisions. Future research could expand on this notion by looking at the role of territorial salience influencing how states manage more valuable territory than others. Additionally, an investigation into recently failed claim management attempts may provide further insight into how the number of recent unsuccessful attempts and escalation of militarization, forces states to reconsider their policy decisions. Including additional variables adds layers to the analysis, accounting for systematic differences between claims. Territorial claims and their relationships are not identical across

regimes and these variables will provide important clues to these differences.

These findings suggest that regime types in a country-year level analysis may not provide the best insight into how territorial claims are managed. This implies that testing for a dyad -year analysis may reveal more because it would test for both types of regimes and their interactions, rather than the outcomes of one country regime type. It would be effective to also use my findings and change my unit of analysis into dyad-year rather than state year. Accounting for this change will allow me to look at both states involved within a dispute rather than just one. This assumes that not all types of states act uniformly with other types of states. Equally, it takes multiple steps to manage territorial claims and although states may agree on a settlement, additional factors such as whether agreements are being followed continuously by both states add further analysis into more of a settlement claim.

References

Bercovitch, J., & Jackson, R. (2001). Negotiation or Mediation?:
    An Exploration of Factors Affecting the Choice of Conflict
    Management in International Conflict. *Negotiation
    Journal,17*(1), 59-77. doi:10.1111/j.1571-
    9979.2001.tb00227.x

Downes, A. B., & Sechser, T. S. (2012). The Illusion of
    Democratic Credibility. *International Organization,66*(03),
    457-489. doi:10.1017/s0020818312000161

Fearon, J. D. (1994). Domestic Political Audiences and the
    Escalation of International Disputes. *American Political
    Science Review,88*(03), 577-592. doi:10.2307/2944796

Frieden, J. A., Lake, D. A., & Schultz, K. A. (2016). *World
    politics: interests, interactions, institutions.* New York:
    W.W Norton & Company

Gibler, D. M. (2007). Bordering on Peace: Democracy, Territorial
    Issues, and Conflict. *International Studies Quarterly,51*(3),
    509-532. doi:10.1111/j.1468-2478.2007.00462.x

Hensel, P. R., Mitchell, S. M., Sowers, T. E., & Thyne, C. L.
    (2008). Bones of Contention: Comparing Territorial,
    Maritime, and River Issues. *Journal of Conflict
    Resolution,52*(1), 117-143.
    doi:10.1177/0022002707310425

Hensel, P. (2001). Contentious Issues and World Politics: The
    Management of Territorial Claims in the Americas, 1816-
    1992. *International Studies Quarterly, 45*(1), 81-109.
    Retrieved from http://www.jstor.org/stable/3096102

Huth, P. K., & Allee, T. L. (n.d.). What have we learned about the
    democratic peace? *The democratic peace and territorial*

*conflict in the twentieth century,*277-297.
doi:10.1017/cbo9780511491405.010

Kosterina, S. (2017). Ambition, personalist regimes, and control of
authoritarian leaders. *Journal of Theoretical Politics,29*(2),
167-190. doi:10.1177/0951629816630434

Marshall, M. G., Gurr, T. R., & Jaggers, K. (2017). POLITY™ IV
PROJECT Political Regime Characteristics and
Transitions, 1800-2015 Dataset Users' Manual.
doi:10.18411/a-2017-023

Miller, R. A. (2017, June 08). Audience Costs, News Media, and
Foreign Policy. Retrieved June 29, 2017, from
http://politics.oxfordre.com/view/10.1093/acrefore/978019
0228637.001.0001/acrefore-9780190228637-e-59

Mitchell, S. M., & Hensel, P. R. (2007). International Institutions
and Compliance with Agreements. *American Journal of
Political Science,51*(4), 721-737. doi:10.1111/j.1540-
5907.2007.00277.x

Nemeth, S. C., Mitchell, S. M., Nyman, E. A., & Hensel, P. R.
(2014). Ruling the Sea: Managing Maritime Conflicts
through UNCLOS and Exclusive Economic
Zones. *International Interactions,40*(5), 711-736.
doi:10.1080/03050629.2014.897233

Park, J., & James, P. (2015). Democracy, territory, and armed
conflict, 1919–1995. *Foreign Policy Analysis*, *11*(1), 85-
107.

Partell, P. J. (1997). Executive Constraints and Success in
International Crises. *Political Research Quarterly,50*(3),
503. doi:10.2307/448915

Senese, P. D. (1996). Geographical Proximity and Issue Salience:
Their Effects on the Escalation of Militarized Interstate

Conflict. *Conflict Management and Peace Science,15*(2),
133-161. doi:10.1177/073889429601500202

Thomas, K. (1992). Conflict and Conflict Management:
Reflections and Update. *Journal of Organizational
Behavior, 13*(3), 265-274. Retrieved from
http://www.jstor.org/stable/2488472

Vasquez, J., & Henehan, M. T. (2001). Territorial Disputes and the
Probability of War, 1816-1992. *Journal of Peace
Research,38*(2), 123-138.
doi:10.1177/0022343301038002001

Thomas, K. W. (1992). Conflict and conflict management:
Reflections and update. *Journal of Organizational
Behavior,13*(3), 265-274. doi:10.1002/job.4030130307

Weeks, J. L. (2008). Autocratic Audience Costs: Regime Type and
Signaling Resolve. *International Organization,62*(01).
doi:10.1017/s0020818308080028

Weeks, J. L. P., & Schultz, Kenneth. (2009). *Leaders,
accountability, and foreign policy in non-democracies*.

Acknowledgements

My current career path would not have developed without the guidance from my friends, family, and mentors. I am grateful to the many hours Dr. Bridget Coggins took to explain her experiences and incredible knowledge in Political Science. Thank you, Dr. Paul Hensel for continuing to stay in touch from Texas in order to provide me with crucial advice about the graduate school process and my research. I would like to also acknowledge the McNair Scholars Program for their unwavering support in my training as a political scientist as I explored answers to questions that I never imagined, and as I became acquainted with the graduate application process. I would like to acknowledge Dr. Beth Schneider, Dr. Yvette Martinez-Vu, and Dr. Ellen Broidy for their advice and answers to my many questions. I am humbled by the amount of sheer sacrifice each has taken in strengthening myself as a professional and scholar. Additionally, in times where I sought role models, I was able to find them through the graduate mentors at McNair. Gina Vanegas, Maddie Nolan, and Cruz Ortiz, thank you for providing me with firsthand, invaluable advice about navigating the graduate school process. Lastly, I would like to thank my family and friends for their untiring encouragement that has helped me both mentally and emotionally. I would not be able to have thrived at UCSB and taken advantage of these opportunities without the backing of my friends and family.

Promoting Parent-Child Interaction Therapy: The Impact of Language and Messenger

Natalie A. Bernal

Mentor: Dr. Miya Barnett
Department of Counseling, Clinical, and School Psychology

Abstract

Parent-Child Interaction Therapy (PCIT) is an effective therapy to reduce behavioral problems in children between the ages of 2 to 7 years. Past research has shown Latina/o parents and children benefit from PCIT and have an expressed need for these services. However, disparities in access to evidence-based treatments (EBTs), such as PCIT, still exist for Latina/o families. This study sought to apply advertising strategies to increase access to PCIT with direct to consumer marketing for PCIT. In advertisements developed for the study, we manipulated the role of an actor to see if participant perceptions about PCIT varied based on whether the advertisement included a testimony about PCIT that was delivered by an expert (e.g. therapist) or peer (e.g. parent). The participants in the study were parents with a child between 2 and 12 years of age, recruited through Amazon Mturk to participate in the study in Spanish or English. Participants were 47% females, 35% Latina/o, and 22% viewed the Spanish speaking advertisement. Multiple regression analyses were conducted to identify the role of actor and language on perceptions of PCIT. Contrary to our hypotheses, participants that viewed the video in Spanish perceived more benefits of PCIT. Female participants and individuals with positive perceptions of professional help seeking perceived more benefits of PCIT. These findings are promising for direct-to-consumer advertising strategies that may help recruit more Spanish-speaking families into PCIT, which could help address disparities in access to mental health services. Overall, our findings also suggest that female caregivers perceive more benefits of PCIT, suggesting more efforts may need to be made to recruit fathers into care.

Introduction

In this study, we explored a new approach to promote Parent-Child Interaction Therapy (PCIT), an evidence-based therapy (EBT) focused on reducing behavior problems in children between the ages of 2 to 7. PCIT is based on a two-stage model, which first focuses on improving the parent-child relationship and then teaches parents effective limit setting and discipline skills. As opposed to other parent training programs, PCIT uses *in vivo* feedback (i.e., coaching) to help change parent behaviors as they practice the skills they are learning with their child (Borrego & Urquiza, 1998). Over 40 years of research on this therapy support its effectiveness in significantly reducing problematic behaviors in children and improving parenting skills (Brestan, Jacobs, Rayfield, & Eyberg, 2000). More recent research supports the effectiveness of EBTs such as PCIT when adapted for families of ethnic minority backgrounds, but challenges remain in providing these treatments in the communities where these families are served (Miranda et al., 2005). One obstacle to making PCIT more widely available and utilized is that many families might not know about the treatment and therefore do no seek it out (Jackson, Macphee, Hunter, Herschell, & Carter, 2017). In this study, we sought to identify a strategy to increase awareness of PCIT through the development of direct-to-consumer advertising (DTC advertising) about the treatment.

PCIT is based on the theoretical foundation of attachment theory and social learning theory and is effective in a variety of settings (Hershell, 2002). Until recently, the effectiveness of PCIT could not be generalized to a large portion of the population because of the lack of diversity among the participants in its initial trials (Gallagher, 2003; Lieneman, Brabson, Highlander, Wallace, and McNeil, 2017). Research on PCIT has since shifted its focus to studying the effectiveness of the therapy on families of different cultures. McCabe (2005) and colleagues tackled the question of PCIT's effectiveness with ethnic minority families by adapting the

therapy for Latino families. In an effort to increase access to care, services were provided in either Spanish or English, depending on the participant's preference. Findings from this trial indicated that PCIT was effective for Mexican American children and parents (McCabe & Yeh, 2009). Another study focused on Puerto Rican families and its findings also suggest that it is effective in reducing problematic behaviors in children of this background (Matos, Torres, Santiago, Jurado, & Rodriguez, 2006). PCIT has also been adapted to families of other ethnic backgrounds, such as families from Asian backgrounds (Leung, Tsang, Heung, Yiu, 2009).

Overall, studies measuring the effectiveness of PCIT on ethnic minority families suggest that with minor adjustments, PCIT is as effective with ethnic minority families as with those of Caucasian heritage. More recent studies have focused on resolving the disparities in engagement in PCIT for ethnic minority families (Niec et al., 2014). Qualitative data suggest that ethnic minority parents express a need for a program with the same qualities as PCIT, but access remains a challenge (Barnett et al., 2016; Niec et al., 2014). Considering the vast number of studies supporting PCIT, and the expressed need for it in ethnic minority communities, researchers should now begin to study effective ways to promote the therapy.

Currently, there are no studies on how to effectively recruit families into PCIT. Researchers can start by studying web-based, direct-to-consumer advertising (DTC advertising)- such as those used in the marketing of pharmaceutical drugs to the public via the internet (Mogull & Balzhiser, 2015). According to Ventola (2011), while there are significant criticisms about DTC advertising when applied to prescription drugs, DTC advertising which focused on evidence-based services that do not have the same inherent risks or profits associated with the pharmaceutical companies could help improve access to care for children and families.

Nichifor (2014) notes that advertising is a tool an organization can use to communicate their product to the general public. In this study, the UCSB PADRES lab created four short advertisements to promote PCIT. Advertising is defined as "a form of structured and impersonal communication, composed from information, usually persuasive in nature, regarding the products, in the broad sense, paid by an identifiable sponsor and transmitted through various media" (Arens, 2002). The video advertisement used in this study is a form of communication consisting of information about PCIT intended to leave the viewer with a positive perception of the therapy. These advertisements were developed to reflect the types of videos that community mental health agencies might use to promote the availability of PCIT. We hoped to identify what features of videos were most appealing to potential PCIT consumers (i.e., the messenger delivering the advertisement), to reflect what content mental health agencies might want to use in their advertising campaigns, which could include videos on their websites, posted through social media, or television advertisements.

In this study, the researchers were interested in exploring a better way of promoting PCIT to the Latino/a population. Specifically, we wanted to observe the impact that DTC advertising has on the viewers' perception of PCIT depending on the viewer's language of preference. We also aimed to identify whether parents perceive PCIT more positively when they view a video advertisement presented by a peer (parent) or an expert (PCIT therapist). Turner & Liew (2010) studied Hispanic, non-Hispanic, and Caucasian middle-class families. They found that non-Hispanic and Caucasian families showed higher levels of health-seeking intentions when compared to Hispanics. Based on these findings we predicted that the participants that take the survey in Spanish would have a significantly worse perception of PCIT overall as compared to the participants who took the survey in English. Furthermore, although they would have a worse perception of PCIT, we predicted that they would have a more positive perception of PCIT if they viewed the peer (parent) advertisement. The results will be used to

inform PCIT therapist and researchers about how to advertise the therapy effectively to a variety of families from different cultural backgrounds.

Methods

Design

A between subject's experimental design was used to investigate the impact that a messenger in a video advertisement has on the viewers' perception of PCIT. The independent variable in the study was the messenger that delivered the PCIT advertisement. Participants were randomly assigned to one of the two video advertisement conditions: PCIT therapist (expert) or a parent that previously participated in PCIT (peer). The dependent variable in the study was participants' perception of PCIT (positive vs. negative) and was measured after watching one of the two PCIT video advertisements. Additionally, language was included as a moderator (English vs. Spanish).

Procedures and Sample

Participants were recruited through advertisements posted on the website Amazon MTurk, a crowdsourcing market used by academic researchers. The participants on MTurk are considered workers because they are paid for the completion of small tasks referred to as human intelligence tasks (HIT) which are posted by the creator of the task (requester). MTurk Workers are U.S. citizens and are over the age of 18. MTurk workers vary in age, income, ethnicity, and education. The eligible workers (parents of children ages 2-12 years that accepted the consent form) were: (1) directed to a short demographic questionnaire; (2) presented with one of two PCIT advertisements (expert or peer); and (3) asked to complete a questionnaire regarding their knowledge of and interest in PCIT, as well as, their perception of the actor in the video after viewing the video. At the end of the study participants were thanked for their

participation, provided with the PCIT International website link, and compensated $1 for their participation.

Two hundred fifty-seven Mturk workers (135 fathers, 122 mothers) were recruited from the Amazon Mturk website and participated in the study. The average age of the participants was 32 years. This study had a diverse pool of participants (Caucasian: 126, Latino/Hispanic: 90, and other ethnic minorities: 41). The majority of participants selected English as their preferred language, resulting in 200 being placed in the English video advertisement conditions and 57 in the Spanish video advertisement conditions.

Materials/Measures

Since research on DTC advertising strategies for PCIT had not been conducted previously, few measures existed to measure perceptions of PCIT. Consequently, the researchers created their own measures. To get accurate ideas of the kinds of measures needed for this study, the researchers consulted McColl's 2001 work on how to best develop a questionnaire. The researchers also utilized Fischer & Farina's (1995) 10-item Attitudes toward Seeking Professional Psychological Help scale reported in Jang's (2009) study. We utilized this scale as a guide in forming our questions on attitude towards seeking PCIT services.

The research team created a questionnaire to gather participants' demographic information (gender, ethnicity, place of birth) and then related these to their opinions about an actor in a PCIT video advertisement, PCIT, and therapy in general. The questionnaire following the video measured participants' perceived benefits of PCIT, perceptions of therapy in general, as well as the participants' perceived believability of speaker. All of the measures in the study were ranked on a seven-point Likert scale ranging from strongly disagree (1) to strongly agree (7). Additionally, some questions in the measure were worded negatively in an attempt to cross-check participants answer validity. Understanding the

relationships between the participants' demographics and their opinions can help create effective advertisements that may increase participation.

Language preference. The participants' language of preference was determined at the beginning of the study. Prior to reading the consent form participants were asked to select their language of preference (i.e., Spanish or English). The language participants selected was the language that the survey and experiment was presented in.

Screener Question. After reading the consent form and consenting to the study participants were asked a screener question to determine their eligibility for the study. The research team was interested in recruiting parents of children between the ages of 2 years of age to 12 years of age because PCIT is normally conducted on families with young children. If those trying to participate where not a parent or were but not to a child between the ages of 2 and 12 years, they were thanked for their interest in the study and told that they did not qualify but were provided with a link to the PCIT website.

*Demographics Questionnaire***.** After the screener questions, parents completed a participant information form designed to collect demographic information. The variables were age, education, income, and place of birth. If the participant was not born in the US, they were asked to report on the length of time they have been living in the US.

Opinions of professional help. Three questions measured the participants' opinion of professional therapists: (1) "I feel comfortable seeking out professional help for the needs of myself and my family;" (2) "Therapists understand me and my culture;" and (3) "I would not seek professional help for me and my family." The final item was worded negatively to cross-check participants answer validity. The participants' responses to these three items were added

together for a total score that reflected participants' opinion of professional help in general.

     Perceptions of PCIT. Three questions were used to measure the degree to which the participant found PCIT beneficial: (1) "I would not recommend PCIT to a friend whose child has behavior problems;" (2) "I understand why someone would utilize PCIT;" and (3) "PCIT would benefit my family." These, too, were on a seven-point Likert scale ranging from strongly disagree (1) to strongly agree (7). The first item was worded negatively to cross-check participants answer validity. Participants' responses to the three items were added together for a total score that represented participants' perceptions of PCIT.

     Speaker trustworthiness. The following question was created to measure the participants' perception of the actor in the video and was reverse coded, "The speaker of the video was not trustworthy." Similar to other questions on the questionnaire, it was framed negatively in an attempt to make sure participants where actually reading and rating the statements.

Data analysis

     The Statistical Package for Social Science (SPSS; Version 24) software was used to identify significant predictors of perceived benefits of PCIT. Descriptive statistics were analyzed to calculate participants' ethnicity, gender, and distribution among conditions. Multiple Regression was used to identify what factors predicted a more positive perception of PCIT. Main predictors include the role of the language of the video and the role of the actor, controlling for ethnicity, gender, opinions of professional help, and believability of the speaker.

Results

Participants who had more positive perceptions of professional help ($B = .60$, $t = 12.28$, $p < .001$), found the speaker more believable ($B = .16$, $t = 3.27$, $p = .001$), and were female ($B = .10$, $t = 2.08$, $p < .05$) had better perceptions of PCIT. Latina/o ethnicity was not significantly related to perceptions of PCIT ($B = .08$, $t = 1.85$, $p = .065$); however, language use was. Contrary to our hypotheses, participants that viewed the video in Spanish perceived more benefits of PCIT ($B = -.15$, $t = -3.35$, $p = .001$). The role of the actor did not significantly relate to attitudes ($B = .07$, $t = .07$, $p = .941$).

Discussion

Our results show that participants who viewed the Spanish advertisements had more positive perceptions of PCIT compared to those who viewed the English advertisements.   These findings are promising for DTC marketing strategies that may help recruit more Spanish-speaking families into PCIT. If it turns out that DTC advertising could help increase the number of ethnic minority families who seek EBTs, such as PCIT, it might help address disparities in mental health treatment. Although the Spanish speaking participants had a more positive perception of PCIT, Latina/o/x ethnicity was not significantly related to perceptions of PCIT. This could imply that participants level of acculturation to the American culture, rather than simply their ethnicity influences a viewer's perception of a therapy. One way to observe this in future research is by incorporating an acculturation scale that measures how frequently participants speak their native language. In this case, it is not ethnicity itself which determines what influences viewers' perceptions but rather the extent to which they relate to the American culture.

When looking into what might predict a positive perception of PCIT, three factors were identified. First, analyses suggest that

female caregivers have a significantly higher positive perception of PCIT compared to males. This indicates that recruiting fathers for PCIT may be more difficult than recruiting mothers; therefore, more efforts need to be made to recruit fathers. Parents more likely to seek professional help in general were also more likely to see benefits of PCIT. This predictor suggests that the recruitment of these types of parents for PCIT may prove an easier task than recruiting parents that are less likely to seek professional help. Finally, participants who found the presenter in the video to be trustworthy perceived more benefits of PCIT. Though the role of the actor did not significantly impact perceived benefits of PCIT, the influence that the personality, appearance, and communication style of the presenter in the PCIT advertisement clearly can have an impact on the viewer's perception of the therapy. More effort should be made towards tailoring PCIT advertisements towards fathers and individuals who question seeking therapy. Highlighting the trustworthiness of the actor in the advertisement might be one path to help promote this treatment, suggesting that it might be helpful to include testimonies from fathers or male therapists, who are perceived to be more similar to these viewers.

This study was an initial attempt at incorporating DTC advertising in the promotion of an EBT for children with disruptive behavior disorders, PCIT. The results are promising and suggest that DTC advertising may be a way to leave a viewer with a positive perception which may lead to an increase in participation in therapy. DTC advertising in this study had a more positive influence on participants that took the survey in Spanish. This was the opposite of what we had predicted at the beginning of our study. Our prediction was that the Spanish speaking participants who took the survey in Spanish would have an overall worse perception of PCIT compared to English speaking participants that took the survey in English. We based our prediction on the results of Gonzales et al. (2005) study which suggest that non-Hispanic Caucasians have more positive attitudes towards professional help. We also predicted that although Spanish speaking participants would have an overall

less positive perception of PCIT, their perception would increase if they viewed the video where the presenter introduced him or herself as a parent rather than a therapist. From our findings, we see that this second prediction is also wrong. The results suggest that the role of the actor did not impact English or Spanish speaking participants' perception of PCIT. However, based on the first finding, it may be possible that DTC advertising in general may be more appealing to Spanish speaking parents and may lead to an increase in participation of Latino/a families in PCIT. Future research and efforts should continue to observe how marketing strategies help to impact consumer demand for access to ᴘCIT and other evidence-based therapies. Additionally,

Limitations and Future Directions

One limitation of our study was that fewer Spanish-speaking parents participated in the study than English-speaking participants, limiting the ability to detect differences between these groups. The lower percentage of participation in the Spanish survey could be due to the survey logic behind the language question. While the Spanish advertisement was listed in Spanish participants were able to choose between taking the study in English or Spanish. This resulted in a low turnout of Spanish-speaking participants. One way to increase participation is to limit the study to Spanish speakers. To do this the researchers should only provide those that view the Spanish advertisement with the Spanish survey instead of giving them the option of taking the survey in English or Spanish.

A third limitation in our study is the content in and delivery of the video advertisements. The results suggested that neither the expert or peer condition had a significant effect on the participants' positive perception of PCIT. This can indicate one of two things: either the role of the actor really does not affect the perception of PCIT or there might be another video condition that may be more effective (Haack, 2012). The videos used a monologue, which means that there was no verbal interaction between the parent and

therapist. This may have influenced the viewer's perception of PCIT. Future research should create a video condition that includes both a parent and a PCIT therapist talking about PCIT. This video should allow actors to interact with each other and to talk about the therapy and how it works. Designing the videos using a peer and expert interaction could help the viewer relate more to the service because of the empowerment that the participant has during the interaction (Lober & Flowers, 2011). If the actor in the video portraying the parent is asking questions important to the viewer and reacting in a positive way to the feedback by the expert than that can influence the viewer as well.

This study can benefit from incorporating advertising theories that focus on the influence that the advertisement has on the viewer. This study only used one sub-aspect of Source Credibility Theory, trustworthiness, without addressing the three main aspects of the theory which are initial credibility, transactional credibility, and terminal credibility (Pornpitakpan, 2004). The questionnaire that was submitted in the IRB application and approved by the IRB only included a question that measured trustworthiness. For this reason, it is the only characteristic of source credibility that could be accounted for. The sub-measures for each level of credibility (e.g., credibility, attractiveness, and trustworthiness) are used to assess the viewers' overall perception of the product being advertised. Including this theory can result in a more accurate depiction of the influence that an advertisement has on a viewer.

Additionally, there is the question of reliability. Was the viewers' positive perception of PCIT a result of the video advertisement? Future research should control for other variables that can influence the viewer's perception of PCIT. One way would be to add questions about participants' perception of professional help in general prior to watching the video advertisement. In this study, we placed these measures after the video advertisement. In the future, placing the measures prior to the video will allow the

researchers to control for this variable when determining the viewer positive perception of PCIT.

Due to a lack of measures on parents' perception of PCIT, measures were developed for this study. However, using non-validated measures poses a potential limitation to these findings. In the future, similar research on DTC may want to use measures such as the Parental Attitudes towards Psychological Services Inventory (PATPSI) (Turner, 2012), which measures parental attitudes towards professional help-seeking. Similarly, the Mental Help-Seeking Attitudes Scale (MHSAS) by Hammer et al., (in press), would be another appropriate measure to understand the participants' attitudes towards seeking professional help. This scale demonstrates strong measurement equivalence/invariance (ME/I) across genders, past help-seeking experience, and psychological distress.

Studying the impact of DTC advertising strategies on the recruitment of parents for PCIT can lead to the identification of effective strategies to increase participation of ethnic minority families. To reach this goal, researchers must first focus on a variety of advertising strategies that make PCIT more appealing to families of minority ethnic backgrounds. Second, researchers should test the effectiveness of the strategies by rerunning the studies numerous times to check for consistency. Finally, the effective strategies can then be utilized to tailor future PCIT advertisements to populations of interest in a way that makes the therapy more appealing to the viewer, in turn, raising their likelihood of seeking the therapy.

Conclusion

In order to better understand the impact that DTC advertising has on viewers perceptions of PCIT or other EBTs it is necessary to conduct studies that more closely measure the influence that advertisements have on viewers. Some ideas include, manipulating other aspects in advertisements, providing the advertisements in

different forms (e.g., newspaper ad or radio ad) and adding different scales that measure perception. Furthermore, researchers should continue to study how DTC impacts different racial and ethnic groups. Doing this will provide a better idea of how DTC advertising influences perceptions of different ethnic groups in the United States. This can be done by translating the survey into different languages. Collecting a large amount of data from different studies that are designed to observe a specific ethnic group allows us to look at the variations of effective advertising strategies not only between different ethnic groups but also within an ethnic group. One way to do this is by measuring participants from a specific ethnic group's level of acculturation and analyzing whether there is a relationship between level of acculturation and participants' perception of PCIT in future studies. In sum, this study provides an important first step in applying DTC to therapies to try to improve outreach to a range of families.

References

Abrahamse, M. E., Junger, M., Chavannes, E. L., Coelman, F. J., Boer, F., & Lindauer, R. J. (2012). Parent–child interaction therapy for preschool children with disruptive behaviour problems in the Netherlands. *Child and adolescent psychiatry and mental health*, 6(1), 24.

Barnett, M. L., Davis, E. M., Callejas, L. M., White, J. V., Acevedo-Polakovich, I. D., Niec, L. N., & Jent, J. F. (2016). The development and evaluation of a natural helpers training program to increase the engagement of urban, Latina/o families in parent-child interaction therapy. *Children and Youth Services Review,65*, 17-25.

Borrego Jr, J., & Urquiza, A. J. (1998). Importance of therapist use of social reinforcement with parents as a model for parent-child relationships: An example with Parent-Child Interaction Therapy. *Child & Family Behavior Therapy*, *20*(4), 27-54.

Brestan, E. V., Jacobs, J. R., Rayfield, A. D., & Eyberg, S. M. (2000). A consumer satisfaction measure for parent-child treatments and its relation to measures of child behavior change. *Behavior Therapy*, *30*(1), 17-30.

Fischer, E., and Farina, A. 1995. Attitudes toward seeking psychological professional help: A shortened form and considerations for research. *Journal of College Student Development*, 36, 368-373.

Gallagher, N. (2003). Effects of PCIT on young children with disruptive behavior disorders. *Bridges*, 1(4), 1-17.

Gonzales, J. M., Alegria, M., & Prihoda, T. J. (2005). How do attitudes toward health treatment vary by age, gender, and

ethnicity/race in young adults? Journal of Community Psychology, 33(5), 611–629

Haack, L. M., Gerdes, A. C., Cruz, B., & Schneider, B. W. (2012). Culturally-Modified Recruitment Strategies for Latino Families in Clinical Child Research: A Critical First Step. *Journal of Child and Family Studies*, 21, 2, 177-183.

Hammer, J. H., Parent, M. C., & Spiker, D. A. (in press). Mental Help Seeking Attitudes Scale (MHSAS): Development, reliability,validity, and comparison with the ATSSPH-SF and IASMHS-PO. *Journal of Counseling Psychology*.

Herschell, A. D., Calzada, E. J., Eyberg, S. M., & McNeil, C. B. (2002). Parent-child interaction therapy: New directions in research. *Cognitive and Behavioral Practice*, 9(1), 9-15.

Jackson, C. B. & Macphee, F. L. & Hunter, L. J. & Herschell, A. D. & Carter, M. J. (2017). Enrolling Family Participants in a Statewide Implementation Trial of an Evidence-Based Treatment. *Progress in Community Health Partnerships: Research, Education, and Action*11(3), 233-241.

Jang, Y., Chiriboga, D. A., & Okazaki, S. (2009). Attitudes toward mental health services: Age-group differences in Korean American adults. *Aging and Mental Health*, 13(1), 127-134.

Leung C, Tsang S, Heung K, Yiu I: Effectiveness of parent–child interaction therapy (PCIT) among Chinese families. *Res Soc Work Pract*. 2009, 19: 304-313.

Lieneman, C. C., Brabson, L. A., Highlander, A., Wallace, N. M., & McNeil, C. B. (2017). Parent–Child Interaction Therapy:

current perspectives. *Psychology Research and Behavior Management*, *10*, 239–256.

Lober, W. B., & Flowers, J. L. (2011, August). Consumer empowerment in health care amid the internet and social media. *In Seminars in Oncology Nursing* (Vol. 27, No. 3, pp. 169-182).

Matos, M., Torres, R., Santiago, R., Jurado, M., & Rodriguez, I. (2006). Adaptation of PCIT for Puerto Rican Families: A Preliminary Study. *Family Process*, 45(2), 205-222.

McCabe, K., Yeh, M., Garland, A., Lau, A., & Chavez, G. (2005). The GANA Program: A Tailoring Approach to Adapting Parent Child Interaction Therapy for Mexican Americans. *Education and Treatment of Children, 28*(2), 111-129.

Mccabe, K., & Yeh, M. (2009). Parent–child interaction therapy for mexican americans: a randomized clinical trial. *Journal of Clinical Child & Adolescent Psychology*, 38(5), 753-759.

McColl, E., & National Co-ordinating Centre for HTA (Great Britain). (2001). Design and use of questionnaires: A review of best practice applicable to surveys of health service staff and patients. Alton: Core Research.

Miranda, J., Bernal, G., Lau, A., Kohn, L., Hwang, W. C., & LaFromboise, T. (2005). State of the science on psychosocial interventions for ethnic minorities. *Annu. Rev. Clin. Psychol.*, *1*, 113-142.

Mogull, S. A., & Balzhiser, D. (2015). Pharmaceutical companies are writing the script for health consumerism. *Communication Design Quarterly Review,3*(4), 35-49.

Nichifor, B. (2014). Theoretical Framework Of Advertising-Some Insights. *Studies and Scientific Researches*. Economics Edition, (19).

Niec, L. N., Acevedo-Polakovich, I. D., Abbenante-Honold, E., Christian, A. S., Barnett, M. L., Aguilar, G., & Peer, S. O. (2014). Working together to solve disparities: latina/o parents' contributions to the adaptation of a preventive intervention for childhood conduct problems. *Psychological Services*, 11(4), 410–420.

Pornpitakpan, C. (2004). The persuasiveness of source credibility: A critical review of five decades' evidence. *Journal of applied social psychology*, 34(2), 243-281.

Turner, E. A. (2012). The parental attitudes toward psychological services inventory: Adaptation and development of an attitude scale. *Community mental health journal*, *48*(4), 436-449.

Turner, E. A., & Liew, J. (2010). Children's adjustment and child mental health service use: The role of parents' attitudes and personal service use in an upper middle class sample. *Community Mental Health Journal, 46*(3), 231-240.

Ventola, C. L. (2011). Direct-to-Consumer Pharmaceutical Advertising: Therapeutic or Toxic? *Pharmacy and Therapeutics*, *36*(10), 669–684.

Acknowledgements

Thanks to the McNair Scholars Program and its spectacular staff. This program provided me with the opportunity and resources to conduct and present my own research. Thank you, Dr. Beth Schneider and Dr. Ellen Broidy, for the helpful feedback on papers. A big thank you to Dr. Yvette Martinez-Vu, for all of the academic advice, direction, and support. Special thanks to graduate mentors Gina Vanegas and Maddie Nolan. They were always welcoming and ready to answer any questions. Both were always open to review my work and provide me with detailed comments. This program exposed me to the area of academic research; because of this experience I have a clear idea of my career goal and how to reach it.

Next, I would like to express my deepest appreciation for my exemplary mentor, Dr. Miya Barnett. From the start, she was interested in my research ideas as well as my academic and career goals. She helped me prepare for presentations and perfect my papers. I truly appreciate her thorough feedback, support, and encouragement through the entirety of this research. I would also like to thank the members in her PADRES Lab, Courtney Carlson, Jenna Mazurkiewicz and Taylor Flynn for their assistance throughout the filming and editing process of the videos that I used in my study. Her lab has presented me with many other great opportunities that have taught me how to be an ethical and professional researcher.

Lastly, I would like to thank my family- my parents, Vostok & Adriana Bernal, my brother, Vostok Bernal, and my life partner, Mark Wood for their unconditional encouragement and support throughout the course of this research experience. They lifted my spirit when I had moments of doubt and shared my excitement during times of success. They are the driving force behind all of my accomplishments and ambitions. *¡Gracias por siempre creer en mí! Son unas personas excepcionales con las cuales siempre podré contar. Estoy tan agradecida de tenerlos en mi vida. Los amo con toda mi alma.*

Volume VIII Contributors

Natalie Bernal is a transfer student from Santa Barbara City College. She graduated from the University of California, Santa Barbara in June 2018 with a Bachelor of Arts in Psychology and a minor in Applied Psychology. Under the guidance of Dr. Miya Barnett, she focused her research on finding a better way to promote an evidence-based therapy, known as Parent-Child Interaction Therapy, to the Hispanic/Latina/o/x population by applying various kinds of advertising strategies. She will start Boston College in August of 2018 to pursue her Master of Arts in Mental Health Counseling. Her goal after her master's is to pursue a Ph.D. in Counseling Psychology and conduct research on higher education access with a focus on first-generation students and their families. Direct correspondence to: bernalanatalie@gmail.com

Maria Jesus Garcia Garcia transferred to the University of California, Santa Barbara from San Francisco State University. She will graduate with a degree in Psychology, with minors in Applied Psychology and Education by June 2018. Her primary research interests include Latinx mental health, parent-child relationships, creating access and resources for underrepresented communities to cope with transitions, and early intervention techniques. She is committed to continue to advocate for the mental health needs of Latinx and underrepresented communities in order to help reduce the stigma of mental health and create healthier communities. Maria De Jesus is currently studying abroad in Italy and Spain. In Fall of 2018, she will begin a Masters in Social Work. Direct correspondence to: garciamg613@gmail.com

Victoria Melgarejo Vieyra graduated from the University of California, Santa Barbara in June 2018, with a double major in Linguistics and Spanish and a minor in Education. Her main research interests include linguistic identity, bilingualism, sociocultural linguistics, Latinx linguistic representation and language attitudes and ideologies. During her time at UCSB she worked under the mentorship of Profesor Mary Bucholtz in the Linguistcs Department where she researched the linguistic ideologies of bilingual and English-dominant Latinxs and the linguistic representation of Latinxs in media. In the fall of 2018 she will begin her Race, Inequality, and Language in Education doctoral program at the Stanford Graduate School of Education. Direct correspondance to: victoriamelgarejo@rocketmail.com

Jorge Moran graduated with Honors Distinction from the University of California Santa Barbara in 2018 with a Bachelor of Arts in Global & International Studies with an emphasis in East Asia. During the course of his career at UC Santa Barbara, both UCSB's Dr. Bridget Coggins and the University of Texas' Dr. Paul Hensel served as his mentors in the Departments of Political Science. He has also conducted undergraduate research in China through the Education Abroad Program and in Texas through an undergraduate fellowship with the National Science Foundation. His primary research interests lie in international relations and comparative politics, specifically how domestic and international factors intersect with East Asian security politics. In fall 2018, he will begin the Political Science doctoral program at UCLA. His goal is to mentor underrepresented students during the course of his academic career in order to combat systemic problems with Latino educational attainment. Direct correspondence to: jorgemoran1509@yahoo.com

Francisco Olvera graduated from the University of California, Santa Barbara in June 2018 with a Bachelor of Arts in English. His primary field of research interest is Twentieth-Century Multi-Ethnic American Literature, particularly the novel. In fall 2018, Francisco will begin a Ph.D. in English Language and Literature at The University of Chicago. Direct correspondence to: franciscoolvera@uchicago.edu.

Sirenia Sanchez double-majored, receiving her B.A. in Psychology and in Communication from the University of California, Santa Barbara in June 2018. During her undergraduate career, she worked in the Close Relationships Lab with her mentor Dr. Nancy Collins, of the Psychological and Brain Sciences Departments, and in the Media Physiology Lab with Dr. Dana Mastro, of the Communication Department. These research experiences helped refine her interests in self-esteem and stereotype research. She will continue these studies as a graduate student at Northwestern University's PhD program in Social Psychology. Direct correspondence: sireniasanchezv@gmail.com

Nancy Torres will graduate from the University of California, Santa Barbara in June 2018 with a Bachelor's of Science degree in Environmental Studies. During her academic career at UCSB, Prof. David Valentine served as her mentor in the Department of Earth Science. Her research interests explore physical oceanography, the effects of climate change on marine life, marine biology, and water quality. In summer 2018, Nancy will begin the University of Oregon's Institute of Marine Biology Research Experience for Undergraduates (REU) where she will be working on a project involving surfzone hydrodynamics. She plans to apply to Master's programs in the fall. Through building her research experience, network, and technical skills, she aims to become an environmental scientist helping to resolve and reduce environmental issues, by scientific contribution and spreading awareness of the topics. Direct correspondence to: nancytorres.lba@gmail.com

Chris Turner was born and raised in Scotland and emigrated to the United States at the age of 19, he worked at a summer camp for disabled children in Connecticut. At the age of 26 he joined the military as a US Army Medic and Paratrooper and deployed twice to Iraq and once to Afghanistan. On his first deployment to Iraq he was awarded the Purple Heart and Army Commendation medal with Valor after the vehicle he was in was ambushed. After spending 10 years in the Army he went back to school and found anthropology at Antelope Valley Community College. In 2016 he transferred to UCSB where he continued his work in anthropology studying PTSD and its evolutionary roots. However, it was his connection with the military and his desire to uphold the oath he took when he joined the military to never leave a fallen comrade behind that led him to focus on Forensic Anthropology. Upon the completion of his degree at UCSB in biological anthropology he will attend the University of Southern Florida for a Master's in Applied Anthropology focusing on Forensic Anthropology. He intends to continue this goal leading to a PhD in this field. He has been awarded a three-year fellowship with the National Science Foundation to continue his studies in Anthropology. This will allow him to build towards his final goal of repatriating fallen service members in foreign wars. He and his wife are expecting the birth of their 2nd child, another son, in August. Direct correspondence chris.turner1976@gmail.com

Ronald E. McNair was born on October 12, 1950, in Lake City, South Carolina. Son of an auto mechanic and a high school teacher, McNair attended the local high school, graduating as class valedictorian. He went on to earn a bachelor's degree, magna cum laude, in Physics, from North Carolina A & T University in 1971 where he was named a Ford Foundation Fellow and a Presidential Scholar. McNair met a goal that he had set in high school to complete his PhD within 10 years. Five years after graduating from college, he received his doctorate in Physics from M.I.T.

Nationally recognized for his work in laser physics and the recipient of numerous fellowships, honorary degrees, and commendations, Dr. McNair was also a sixth degree black belt in karate and an accomplished saxophonist. In 1978, while working at the Hughes Research Laboratory, he was selected for the NASA space program. He was the second African American to fly in space. On January 28, 1986, Dr. McNair, along with 6 other astronauts, died when the space shuttle Challenger crashed exploded and crashed into the ocean moments after lift-off.

After his untimely death, Congress provided funding to start the Ronald E. McNair Post-Baccalaureate Achievement Program. UCSB's McNair Scholars Program is dedicated to helping promising scholars follow Dr. Ronald E. McNair's path of scholarship and service.

UCSB is privileged to be the steward of some of the most beautiful and fragile environments in California. One that stands out is the Campus Lagoon, a 94 acre natural wonder protected by its status as an Ecologically Sensitive Habit. Managed by UCSB's Cheadle Center for Biodiversity and Ecological Restoration (CCBER), the Lagoon hosts an ever-changing array of flora and fauna, a world apart but within easy reach of all who visit the UCSB campus. The Lagoon is home to water birds such as grebes, American coots, and ducks (divers and dabblers), migrating shore birds like sandpipers and killdeer who visit in the fall and winter, and wading and fishing birds such as the Great Blue Heron featured in the cover photo of this volume of the McNair Scholars Research Journal. With its elegant crown feathers and tall stature, the Great Blue Heron stands out among the many beautiful creatures that make this special place their permanent or temporary home.