

Psi Chi
Journal of
**Psychological
Research**

SPECIAL ISSUE | VOLUME 24 | ISSUE 2

**Education, Research, and Practice
for a Diverse World**

ISSN: 2325-7342

Published by Psi Chi,
The International Honor
Society in Psychology



EDITOR

DEBI BRANNAN, PhD
Western Oregon University
Telephone: (503) 751-4200
E-mail: debi.brannan@psichi.org

ASSOCIATE EDITORS

MARY BETH AHLUM, PhD
Nebraska Wesleyan University

ERIN AYALA, PhD
St. Mary's University of Minnesota

JENNIFER L. HUGHES, PhD
Agnes Scott College

TAMMY LOWERY ZACCHILLI, PhD
Saint Leo University

STEVEN V. ROUSE, PhD
Pepperdine University

EDITOR EMERITUS

MELANIE M. DOMENECH RODRIGUEZ, PhD
Utah State University

MANAGING EDITOR

BRADLEY CANNON

DESIGNER

LAUREN SURMANN

EDITORIAL ASSISTANT

REBECCA STEMPEL

ADVISORY EDITORIAL BOARD

GLENA ANDREWS, PhD
George Fox University

RUTH L. AULT, PhD
DePaul University

AZENETT A. GARZA CABALLERO, PhD
Weber State University

MARTIN DOWNING, PhD
NDRI

ALLEN H. KENISTON, PhD
University of Wisconsin–Eau Claire

MARIANNE E. LLOYD, PhD
Seton Hall University

DONELLE C. POSEY, PhD
Washington State University

PAUL SMITH, PhD
Alverno College

ROBERT R. WRIGHT, PhD
Brigham Young University-Idaho

DEDICATION STATEMENT

This issue is dedicated to Melanie M. Domenech Rodríguez, PhD, Psi Chi President, *Psi Chi Journal* Editor Emeritus. Through her leadership and commitment to diversity, she has made the Journal and Psi Chi an even better organization. Following her lead, *Psi Chi Journal* has implemented a diversity statement and is committed to supporting this statement and standards. Dr. Domenech Rodríguez has left a long lasting impact on Psi Chi—one that we can all be proud of.

ABOUT PSI CHI

Psi Chi is the International Honor Society in Psychology, founded in 1929. Its mission: "recognizing and promoting excellence in the science and application of psychology." (Note. Our new mission statement is available at <http://www.psichi.org/?page=purpose>) Membership is open to undergraduates, graduate students, faculty, and alumni making the study of psychology one of their major interests and who meet Psi Chi's minimum qualifications. Psi Chi is a member of the Association of College Honor Societies (ACHS), and is an affiliate of the American Psychological Association (APA) and the Association for Psychological Science (APS). Psi Chi's sister honor society is Psi Beta, the national honor society in psychology for community and junior colleges.

Psi Chi functions as a federation of chapters located at over 1,150 senior colleges and universities around the world. The Psi Chi Central Office is located in Chattanooga, Tennessee. A Board of Directors, composed of psychology faculty who are Psi Chi members and who are elected by the chapters, guides the affairs of the Organization and sets policy with the approval of the chapters.

Psi Chi membership provides two major opportunities. The first of these is academic recognition to all inductees by the mere fact of membership. The second is the opportunity of each of the Society's local chapters to nourish and stimulate the professional growth of all members through fellowship and activities designed to augment and enhance the regular curriculum. In addition, the Organization provides programs to help achieve these goals including conventions, research awards and grants competitions, and publication opportunities.

JOURNAL PURPOSE STATEMENT

The twofold purpose of the *Psi Chi Journal of Psychological Research* is to foster and reward the scholarly efforts of Psi Chi members, whether students or faculty, as well as to provide them with a valuable learning experience. The articles published in the *Journal* represent the work of undergraduates, graduate students, and faculty; the *Journal* is dedicated to increasing its scope and relevance by accepting and involving diverse people of varied racial, ethnic, gender identity, sexual orientation, religious, and social class backgrounds, among many others. To further support authors and enhance *Journal* visibility, articles are now available in the PsycINFO®, EBSCO®, Crossref®, and Google Scholar databases. In 2016, the *Journal* also became open access (i.e., free online to all readers and authors) to broaden the dissemination of research across the psychological science community.

JOURNAL INFORMATION

The *Psi Chi Journal of Psychological Research* (ISSN 2325-7342) is published quarterly in one volume per year by Psi Chi, Inc., The International Honor Society in Psychology.

For more information, contact Psi Chi Central Office, Publication and Subscriptions, P.O. Box 709, Chattanooga, TN 37401-0709, (423) 756-2044. www.psichi.org; psichijournal@psichi.org.

Statements of fact or opinion are the responsibility of the authors alone and do not imply an opinion on the part of the officers or members of Psi Chi.

Advertisements that appear in *Psi Chi Journal* do not represent endorsement by Psi Chi of the advertiser or the product. Psi Chi neither endorses nor is responsible for the content of third-party promotions. Learn about advertising with Psi Chi at <http://www.psichi.org/?page=Advertise>

Permission must be obtained from Psi Chi to reprint or adapt a table or figure; to reprint quotations exceeding the limits of fair use from one source, and/or to reprint any portion of poetry, prose, or song lyrics. All persons wishing to utilize any of the above materials must write to the publisher to request nonexclusive world rights in all languages to use copyrighted material in the present article and in future print and nonprint editions. All persons wishing to utilize any of the above materials are responsible for obtaining proper permission from copyright owners and are liable for any and all licensing fees required. All persons wishing to utilize any of the above materials must include copies of all permissions and credit lines with the article submission.

Psi Chi
Journal of
**Psychological
Research**

DIVERSITY ISSUE | VOLUME 24 | ISSUE 2

- 74 **Introduction to the Special Issue on Education, Research, and Practice for a Diverse World**
Debi Brannan , Editor, *Psi Chi Journal of Psychological Research*
- 77 **Checking Progress Toward a More Diverse, Just, and Sustainable Psychology**
Jon Grahe , Pacific Lutheran University
- 84 **Psychology's *Hidden Figures*: Undergraduate Psychology Majors' (In)Ability to Recognize Our Diverse Pioneers**
Leslie D. Cramblet Alvarez* , Adams State University; K. Nicole Jones*, Colorado Mesa University; Chelsea Walljasper-Schuyler, Marissa Trujillo, Mikayla A. Weiser, Jerome L. Rodriguez, Rachael L. Ringler, and Jonah L. Leach, Adams State University
- 97 **Effects of Group Status and Implicit Theories of Personality on Bystander Responses to Antigay Bullying**
Jennifer Katz*  and Sydney Klainberg
SUNY Geneseo
- 106 **Diversity Training Methods, Opinions of Political Correctness, and Perceptions of Microaggressions**
Nicole L. Smith  and Elise J. Percy*
North Central College
- 113 **Scholar Identity Development: A Book Writing Journey and Tips for Undergraduate Mentors**
Jorge Cabrera, Jennifer E. Gilmour, and Jennifer L. Lovell*
California State University, Monterey Bay
- 127 **Microaggression Detection Measurement Impact on White College Students' Colorblindness**
Christina A. Patterson, University of New Mexico;
Melanie M. Domenech Rodríguez , Utah State University

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

Introduction to the Special Issue on Education, Research, and Practice for a Diverse World

Debi Brannan , Editor, *Psi Chi Journal of Psychological Research*

As an organization, Psi Chi has always attempted to have its eye on the future. We recognize the need to promote diversity and to give voice to everyone. Having diverse experiences allows people the opportunity to build trust and respect as well as increases empathy and understanding. One way of promoting this mission is to support diverse collaborations between faculty and students, and encourage research that focuses on diversity. To advance this initiative, the editorial team for the *Psi Chi Journal of Psychological Research* decided to have a special issue about diversity, and more specifically about evaluating the effects of diversity and inclusion efforts within classrooms, educational materials, and technology.

Psi Chi's Focus on Diversity

For an organization like Psi Chi to support diversity, resources must be committed to such an undertaking. With this in mind, Psi Chi has a dedicated Diversity Director, Dr. Susanna Gallor, who has made many contributions to the organization. She and the Diversity Advisory Committee work closely with the Psi Chi Board of Directors and the Journal to ensure that we are doing everything we can to be as inclusive as possible.

This group supports a Diversity Article Award (<https://www.psichi.org/page/diversityinfo>), which is a way to promote and acknowledge the best articles published by Psi Chi. They give away two \$600 awards annually; one for a *Psi Chi Journal* article and one for an *Eye on Psi Chi* magazine article. The *Psi Chi Journal* submits all diversity focused articles every year to this award in order to make sure that all possible authors have a chance of receiving one of these awards.

Psi Chi also provides Mamie Phipps Clark Research grants in order to highlight student and faculty research on diverse populations and issues. The number of named Mamie Phipps Clark Grants is dependent upon the number of eligible applications.

Additionally, Psi Chi offers ways for Psi Chi chapters, from all around the world, to connect and collaborate on projects together. As Psi Chi Executive Director Dr. Martha S. Zlokovich explains, "When Psi Chi chapters voted to become an international rather than national honor society 10 years ago, that change introduced a whole new aspect of diversity to Psi Chi membership. The Board realized that the influence of international chapters on existing chapters would be a two-way street, and welcomed the unfolding of that influence in the future." An example of how these two-way influences have unfolded is the formation of the Network for International Collaborative Exchange (NICE), a unique opportunity for Psi Chi members to connect with collaborators around the world. The initial seed for NICE grew directly out of contacts between Dr. Zlokovich and Psi Chi faculty advisors in New Zealand and Malaysia. Additionally, NICE offers the opportunity to engage in crowdsourcing as a means to work collaboratively on specific research questions, protocols, create appropriate hypotheses, measurement selection, and many other opportunities.

Another way that Psi Chi is supporting the mission of diversity is to offer resources for instructors and professors to engage students in diversity-focused classroom activities and diversity-focused events. For example, Psi Chi's Diversity Matters online resource (www.psichi.org/RES_DiversityMatters) offers many brilliant ideas that focus on activities about disability awareness, how to host diversity gatherings such as a "Night to End Stigma," and activities from Awareness Harmony Acceptance Advocates.

As I previously mentioned, in order to truly embrace diversity, an organization must be willing to put resources behind this goal. Psi Chi has done this with enthusiasm and full support. More specifically, Dr. Melanie M. Domenech Rodríguez, Psi Chi President (2018–19), has embraced the topic of diversity since the beginning of her tenure. She has many important thoughts on diversity:

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

When we speak of diversity we are making reference to a reality that the world, and its many nooks and crannies, are inhabited by people of different thoughtways and lifeways. We use labels to identify aspects of diversity such as ethnicity, gender identity, socioeconomic status, religion, sexual orientation, among many others. These labels are proxies for addressing much deeper concepts that reflect different aspects of cultural context (e.g., values, beliefs, worldviews, rules for interpersonal interactions). Where there is diversity of lifeways and thoughtways, there are both opportunities and challenges. Inclusion is the ability to successfully integrate people with different values, beliefs, and behavioral repertoires so that everyone can participate, contribute, and benefit from a particular context. This requires a deep commitment to making space for all voices to be heard, for diverse skills to be celebrated and potentiated, and for difficulties and conflicts to be addressed proactively and skillfully. In scientific publications, diversity is evident in the authors who submit and in many places in manuscripts, for example, in the theories, methods, and topics that are covered, and in the authors who are cited within manuscripts. Scientists who advance diversity and inclusion target diverse samples, collect rich demographic data, and ask questions that help advance understanding across myriad populations and contexts.

Psi Chi Journal's Focus on Diversity

Psi Chi Journal of Psychological Research is committed to supporting diversity in education, practice, and research. The Journal's previous Editor and current *Psi Chi* President, Dr. Melanie M. Domenech Rodríguez, has kept her focus on diversity. Specifically, the theme of her presidency was on "Leveraging Technology to Advance Diversity and Inclusion." This mission is one that the editorial board of the *Psi Chi Journal* felt that we could get behind. Every person on the board feels that supporting and educating people to diverse ideas, beliefs, and values is more important than ever in our ever-changing world.

During the past 24 years, the *Psi Chi Journal*

has published more than 300 diversity-focused articles. Thanks to recent efforts this spring, these articles can each be accessed online through *Psi Chi's* Publication Search tool (visit www.psichi.org/Publications_Search, select "Search Journal Articles by Category," and then choose "Diversity Articles"). We have also added diversity to the journal's purpose statement in order to let potential authors know that we are highly supportive of diverse points of view.

JOURNAL PURPOSE STATEMENT The twofold purpose of the *Psi Chi Journal of Psychological Research* is to foster and reward the scholarly efforts of psychology students as well as to provide them with a valuable learning experience. The articles published in the *Journal* represent the work of undergraduates, graduate students, and faculty; *the Journal is dedicated to increasing its scope and relevance by accepting and involving diverse people of varied racial, ethnic, gender identity, sexual orientation, religious, and social class backgrounds, among many others.* To further support authors and enhance *Journal* visibility, articles are now available in the PsycINFO, EBSCO, Crossref, and Google Scholar databases. In 2016, the *Journal* also became open access (i.e., free online to all readers and authors) to broaden the dissemination of research across the psychological science community.

As indicated in the final sentence of the purpose statement above, all *Psi Chi Journal* articles became available for free online in 2016. Efforts like this to "open up" access to articles, as well as our encouragement for authors to host their study materials and data on the free Open Science Framework website, are also strategies that support diversity. Many people of diverse backgrounds such as first-generation college students, international students, and students of various racial and ethnic backgrounds may be less likely to have the same funding and other resources necessary to afford all of the many expensive articles for conducting research; providing our authors' research, materials, and data openly and freely allows access to all—not just traditionally WEIRD (White, Educated, Industrialized, Rich, and Democratic) researchers and others interested in the research. This topic has been discussed previously at the 2017 American Psychological Association Convention in

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

a session called “Open Science Initiatives Promote Diverse, Just, and Sustainable Research Practices” by Drs. Jon Grahe (chair), Simine Vazire, Rich Lucas, and Bradford J. Wiggins, and then further at the 2018 Association for Psychological Science Convention by Drs. Jon Grahe (chair), myself, Dana Leighton, and Kelly Cuccolo.

The Special Issue

When the Journal Editorial Team found out that Dr. Melanie M. Domenech Rodríguez wanted to focus on diversity during her presidential term, we were excited to support that mission. We quickly decided to have another Special Issue with an emphasis on diversity, so I immediately put a call out for abstracts for this issue. We received 11 abstracts, five of which were ultimately accepted for this issue. Additionally, we had unanimous support from the associate editors and reviewers for this issue.

In sum, we are proud of this Special Issue

that focuses on the important topic of diversity and more specifically on the effectiveness of some of the countless practices and tools used to encourage diversity. We are pleased by the support of our Psi Chi members and authors, and we look forward to keeping this topic in our line of sight. Understanding and promoting diversity is everchanging. The *Psi Chi Journal of Psychological Research* is dedicated to continuing to exemplify a vocal, freely accessed, and state-of-the-art conduit with which our members and countless others can explore education, research, and practice for a diverse world.

Author Note. Debi Brannan,  <https://orcid.org/0000-0001-8636-7097>, Psychology Department, Behavioral Sciences Division at Western Oregon University, Editor for the Psi Chi Journal of Psychological Research.

Correspondence concerning this article should be addressed to Debi Brannan, Assistant Professor, Psychological Sciences Division, Western Oregon University, 345 N. Monmouth Ave. Monmouth, OR 97361.
E-mail: brannand@wou.edu

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

Checking Progress Toward a More Diverse, Just, and Sustainable Psychology

Jon Grahe 
Pacific Lutheran University

ABSTRACT. I introduce this special issue, “Education, Research, and Practice for a Diverse World,” by sharing a perspective regarding evaluating research and/or institutions through the consideration of diversity, justice, and sustainability (DJS). As part of this process, I employ a series of metaphors that help conceptualize each construct individually, but also how they relate to each other. Finally, by situating this special issue among other similar attempts, I highlight the important work that these authors are attempting while celebrating the *Psi Chi Journal’s* foray into this challenging and critical research areas in a timely manner.

Keywords: Diversity, Justice, Sustainability, DJS, Social Justice

I introduce this special issue, “Education, Research, and Practice for a Diverse World,” by sharing a perspective regarding evaluating research and/or institutions through the consideration of diversity, justice, and sustainability (DJS). Before considering the present articles, general definitions of these concepts will help introduce the extended consideration of these concepts and how they relate to each other. In this context, diversity reflects all the kinds of differences people experience across the domains of humanity. Justice reflects the concern that all members of the population have equal opportunities to contribute and receive benefits of those contributions. Sustainability references the various concerns about continuing the systems and individuals. A focus on sustainability invites concern with the use and availability of resources for ongoing system management. By interpreting the articles in this special issue through this perspective, I offer a loose framework for others to apply the DJS lens to their own research, the research of others, and the institutions in which they are situated. My perspective emerged through engagement in an institutional long-term planning process (PLU2020, 2012) that spurred a personal journey with goals to better serve students and to better understand the human experience. The details of that scholarly

journey are better described elsewhere, but along the way I became convinced that open science and DJS could benefit each other. During my Psi Chi Presidency (2016–17), I organized a symposium at the American Psychological Association about how “Open Science Initiatives Promote Diverse, Just, and Sustainable Research.” A subsequent APS symposia with the same title but different speakers inspired a student to expand on the topic for part of her PhD qualifying exams (Cuccolo, 2019), a manuscript under review (Grahe, Cuccolo, Leighton, & Alvarez, 2019), and other conversations that indirectly led to this special issue.

In offering this framework, I presuppose that the reader hopes for a better society and endorses the notion that a society that values diversity, applies justices equitably, and maintains personal and environmental sustainability is inherently better than one that does not. Grahe et al. (2019) discussed reasons that the field of psychology already demonstrates the importance of diversity, social justice, and sustainability, and how existing open science initiatives promote them. However, advancing social progress is rarely simple, and resolving any problem or system while simultaneously advancing DJS is inherently complex. Although this interaction is complex, I assert that becoming better familiarized with the individual concepts and their interactions

SPECIAL ISSUE
PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

through the usage of a metaphor can help the reader navigate this complexity. I hope the process of framing one DJS lens will help readers discover and develop their own DJS lenses.

Any individual, as a proponent of DJS, must have an idealistic perspective for the future. People writing and reading the articles in this special issue likely have their own perspective on what that ideal society would look like, how to best advance education or research or a diverse society. However, even individuals who share similar visions experience disagreements about the exact nature of that ideal future. To highlight the complexity of the problem and to help define diversity, justice, and sustainability for the purposes of a DJS lens, I invite the reader to take a moment and consider for a society, what is the ideal mix of personal, cultural, institutional, and national identities for individuals? Consider all the various cultural identities that shape an individual from family, ethnicity, religious institutions, educational experiences, work experiences, interpersonal experiences, and intergroup experiences. The development of these identities, and individuals who experience distinct demographics, results in the complex relationship between ethnic/racial identity and outcomes, where strong identity sometimes provides a buffer against discrimination, but also is associated with negative personal and interpersonal outcomes (Lewis & Vandyke, 2018; Yip, 2018). However, individuals living with devalued identities might suffer mental/psychological health consequences (Lewis & Vandyke, 2018; Yip, 2018), stereotype threat (Appel, Weber, & Kronberger, 2015; Nguyen & Ryan, 2008), microaggressions (Lillienfeld, 2017; Sue et al., 2007), and face racism throughout their life cycle (Salter, Adams, & Perez, 2018). This remarkably incomplete list of negative outcomes from stigmatization of personal identity demonstrates some examples of why it is important to discuss personal identities.

Ideally Integrating Cultures Under a National Identity: A Metaphorical Example

With a goal of achieving an equitable society, consider the metaphor of “the United States as a melting pot” (Hirschman, 1983). The melting pot invokes an image where people from all ethnic and cultural backgrounds become Americans with a single shared identity through an intensive enculturation process that strips the uniqueness away. This is a problematic vision that assumes a collective unified cultural standard with consensual

agreement that this standard should replace various multicultural experiences. Decades ago, as a college student, I remember discussions regarding the flawed nature of approaching society from this metaphorical perspective. My instructor offered an alternative metaphor of “the United States as a salad bowl” (Mio & Morris, 1990). The salad bowl invokes a contrary image where cultural flavors are retained rather than blanched from the person through overheating. From a multiculturalism standpoint, this is preferred because individuals are not expected or required to sacrifice a part of their identity to succeed in the society. As a psychology student in college, I argued that the loss of the common identity in the salad bowl metaphor is problematic because it would yield a disconnected culture. I thought a third metaphor provided a better vision: “the United States as a stewpot.” In contrast to the melting pot, where all contents are melted into a single flavor, the various contents of a stewpot maintain their uniqueness while taking on a common flavor from the collective (e.g., a carrot still tastes like a carrot, but also inflects all the other flavors too). Moreover, items that are particularly flavorful or hold unique textures are more influential on the overall eating experience (e.g., hot peppers differ little from their primary taste even in a stew). What I liked so much about this metaphor was that it allowed for a common cultural identity and yet facilitated the maintenance of unique ethnic and historical experiences, much like the optimal distinctiveness theory recognizes drives for both collective and individual identities (Brewer, 1991).

As my career progressed, I never tried to share the Stewpot Metaphor professionally because I never achieved sufficient expertise to justify my position empirically, although others still discuss the merits and challenges of these perspectives. In a Google Scholar search, the exact phrase, “United States as a melting pot,” returned 522 entries, whereas the phrase, “United States as a salad bowl,” returned 24. In contrast “United States as Stewpot” yielded none, so apparently my conversation arguments in favor of this position are the only that ever existed. Today, I would no longer assert that the stewpot represents a superior metaphor to the salad bowl. Rather, I would argue that the stewpot, salad bowl, even the melting pot metaphors represent three distinct viewpoints on the ideal combination of the many and varied cultures that exist within and come to the United States. To continue with the metaphor a bit further, imagine

an entire menu of meals that combine ingredients rather than three meals. There are many different ways that one might ideally integrate various idiographic and demographic identities for a larger society, particularly if considering a broader array of political systems. Therefore, the plethora of cooks approaches those meals from distinct individual and cultural backgrounds. Clearly, there is not any one superior metaphor to describe the ideal way to integrate people's various identities together into a common society. Many different cooks will see different combinations of ingredients to prepare their preferred meal to their personal taste.

This consideration of various perspectives deriving the perfect blend of personal and cultural identities reflects diversity of a DJS lens. Before considering justice or sustainability, note that the ingredients reflect characteristics of people (personal, demographic, and cognitive diversity), whereas the cooks reflect people creating an ideal combination that values those characteristics (researchers, parents, teachers, students, anyone). This distinction is important because questions are only as good as those who ask and psychology has been criticized for not being as diverse as it should be, both demographically (Henrich, Heine, & Norenzayan, 2010; Syed, Santos, Yoo, & Juang, 2018) and ideologically (Jussim, Crawford, Anglin, & Stevens, 2015). Jones and Dovidio (2018) offered a *diversity approach* for psychology as a method to consider prior research and novel research questions. This approach invites people to recognize that "Diversity plays a central role in both the challenges posed and the opportunities provided by key elements of the contemporary social environment" (Jones & Dovidio, 2018, p. 10). This diversity approach provides an ideal model to consider the breadth of diversity when researching the topic because it recognizes various sources of diversity and methods for improved interpersonal interactions as well as conditions that continue to hamper improved race relations. However, to develop the DJS lens, I will refocus the metaphor on how the meal is prepared and consumed.

To the degree that ingredients and cooks reflect the people and perceivers of diversity, who decides how the meal is prepared and distributed and who eats which meals reflect social justice. Historically in the United States there are many instances of people being forcibly separated from their identity whether that be through keeping slaves illiterate or sending indigenous children to schools designed to erase their culture. Deciding

on which types of identity are valued and which should be kept hidden or ignored requires power. As with the examples of what types of meals are included and which ingredients are selected, there are many ways to decide who gets to be a cook and who is invited to a table to share the meal. Some of these decisions would value more diversity than others. As Psi Chi Diversity Director, Gallor (2017) proffered a social-justice approach for psychology, which provides a useful framework for this editorial. By reminding readers that social justice concerns everyone not just the privileged or the disadvantaged, she effectively integrated diversity and social justice. There are similarities between the diversity approach and this social justice approach because they both offer valuations that highlight the importance of demographic diversity as being critical in a social justice context. However, in both cases, there is an absence of considering sustainability.

Considering sustainability in the meal metaphors, the questions reflect the long-term availability of the resources necessary to make the meals and the contributions of the meals to the long-term health and well-being of those making and consuming the meals. Although sustainability often is considered within the context of environmental concerns (i.e., reduce, reuse, recycle), questions about sustainability should also address how an individual views and responds to those environmental concerns. From broader sustainability perspectives, one must also address questions about whether the outcome will be beneficial to the long-term health and well-being of the individual(s) making the decision as well as the long-term viability of an organization. Yet, without healthy locations to live and work, individual and organization sustainability are also at risk. Seghezzo (2009) detailed a broad approach such as this to consider economic and developmental sustainability through three categories of concerns: persons, places, and permanence. Connections between sustainability and justice or diversity include concerns about who creates the most waste and pollution and who suffers the greatest consequences (Swim & Bloodhart, 2018).

Understanding Interactions Between Diversity, Justice, and Sustainability

When I asked my students to consider basic or applied questions while also considering DJS, they often offer responses that assume adoption or valuation of all three. A hypothetical and simplified description of some program to address an applied

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

program, “We will make sure that everyone is welcome, everyone is treated fairly, and use recycled paper or computers to eliminate waste.” However, these situations are complex, and I expand the “identity as meals metaphors” to demonstrate this. At one extreme, in a world with vast resources where individuals have complete power over their own decisions and their decisions have no consequences on others, any and all meals would be welcome. For example, that would mean that everyone compiles their unique self and collective identity from any combination of individual or group sources. However, that world does not exist, and it is not likely that it ever will. Instead, people all make sacrifices, some more extreme than others. In a world with limited resources where control over decisions is made by some rather than all, there will be variations on those meals, what constitutes the right recipe, how the meals are prepared, how the ingredients are sourced and treated. In Table 1, I present a 2 (Diversity: Yes, No) x 2 (Justice: Yes, No) x 2 (Sustainability: Yes, No) factorial design to consider this metaphor with variations of the presence of D, J, or S. When considering this table, it is useful to consider this metaphor from the perspective of constituting the perfect society by combining the various identities for the ideal

citizen. Questions related to how this happens are important for psychology. The debate between the melting pot and salad bowl approaches reflects differing valuing of personal and collective selves as they relate to an identity (Phinney, Chavira, & Williams, 1992). This debate extends beyond the United States because there is much migration and relocation around the world. Whether nomadic or sedentary, people navigate their personal and cultural backgrounds as part of their shared national identity, and the various governments and cultures encourage different combinations.

When considering national identity from a worldwide perspective, understanding how governments or cultures within a society value DJS is not possible without understanding the interactions between these values. Further, as presented earlier, D, J, and S are multiplicative, not singular constructs. Besides the multiple constructs included within each of these three, it is naïve to argue that someone values these constructs in a Yes/No dichotomy. Thus, rather than a simple three-way interaction, one might argue that it is better represented in a simple Regression Equation as:

$$Y' = \beta_{\text{diversity}(d)} + \beta_{\text{justice}(j)} + \beta_{\text{sustainability}(s)} + \beta_{dj} + \beta_{js} + \beta_{ds} + \beta_{djs} + \text{error}$$

TABLE 1
Diversity, Justice, and Sustainability as a Factorial Structure

Sustainability	YES	YES	NO	NO
	Justice Yes	Justice No	Justice Yes	Justice No
Diversity Yes	All meals made; anyone can make them; cooks and consumers are assigned using equitable systems; meals are healthy for cook and consumer and the ingredients are used wisely	All meals made, but they are assigned to cook and consumer using an arbitrary system developed without consent of the cooks or consumers; meals are healthy for cook and consumer and the ingredients are used wisely	All meals made, anyone can make them; cooks and consumers are assigned using equitable systems; there is no consideration for the nutritional value of the meals or the working conditions for the cooks; ingredients are used without consideration for long-term impact	All meals made, but they are assigned to cook and consumer using an arbitrary system developed without consent of the cooks or the consumers; there is no consideration for the nutritional value of the meals or the working conditions for the cooks; ingredients are used without consideration for long-term impact
Diversity No	Limited meals made, and only certain recipes are available; cooks and consumers are assigned using equitable systems; meals are healthy for cook and consumer and the ingredients are used wisely	Limited meals made, and only certain recipes are available; they are assigned to cook and consumer using an arbitrary system developed without consent of cooks or consumers; meals are healthy for cook and consumer and the ingredients are used wisely	Limited meals made, and only certain recipes are available; cooks and consumers are assigned using equitable systems; there is no consideration for the nutritional value of the meals or the working conditions for the cooks; ingredients are used without consideration for long-term impact	Limited meals made, and only certain recipes are available, and they are assigned to cook and consumer using an arbitrary system developed without consent of the cooks or the consumers; there is no consideration for the nutritional value of the meals or the working conditions for the cooks; ingredients are used without consideration for long-term impact

Note. Readers can use this table as a format to consider DJS in other circumstances. Another simple example could be to consider how people would approach school playgrounds and describe the characteristics in each of these conditions.

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

When considering the multiplicative nature of these constructs, a better representation would include various aspects of diversity (identity, demographic, cognitive), justice (procedural, distributive), or sustainability (person, organization, environmental). The factorial structure or regression equation to represent all these conditions together becomes overly complex very quickly. Further, when considering continuous variables, interaction terms tend to be very small except in cases of very extreme variability (Cohen, Cohen, Aiken, & West, 2003). To resolve this DJS complexity, individuals and organizations should clarify what aspects of D, J, or S are most important to the present query.

Applying a DJS Lens to This Special Issue

Although evaluating the contributions of various open science initiatives toward advancing DJS for students, we recently constructed a brief set of questions to guide our evaluations (Grahe et al., 2019). These questions are presented online (<https://osf.io/qv8nt/>) and provide a framework by which to examine research efforts of individuals or groups. In the present case, I will apply the DJS lens questions collectively to the research presented in this special issue. These manuscripts collectively represent research aimed at identifying conditions that people recognize as diverse contributions to the field (Cramblet Alvarez et al., 2019), measuring the impact of diversity training on microaggressions (Smith & Percy, 2019), examining the general perception of microaggressions (Patterson & Domenech-Rodríguez, 2019), explaining responses to antigay bullying (Katz & Klainberg, 2019), and advancing the diverse development of a researchers' identity (Cabrera, Hatch, & Lovell, 2019). This process should reveal the degree to which the corpus of papers in this issue adequately addresses the breadth and depth of DJS.

Beginning with the diversity questions, the articles in this special issue addressed distinct questions related to identity/demographic diversity (d1) and across distinct categories (race/ethnicity, gender, sexual preference). Each manuscript also addressed cognitive diversity (d2) with questions about how taking courses changed knowledge (Cramblet Alvarez et al., 2019; Patterson & Domenech-Rodríguez, 2019; Smith & Percy, 2019) or processes underpinning biased perceptions (Katz & Klainberg, 2019), and even the unique experiences which encourage professional identities for students of color (Cabrera et al.,

2019). The research on cognitive diversity in this issue overwhelmingly measure White students in these studies due to local population which is limiting. These studies encourage the uplifting of voice (d3) by recommending the improvement of the introductory texts used in classes (Cramblet Alvarez et al., 2019), ways to better communicate the problems caused by microaggressions (Patterson & Domenech-Rodríguez, 2019; Smith & Percy, 2019), or strategies to improve professional identities of students of color (Cabrera et al., 2019).

Continuing with the justice questions, the nature of the research included here was less likely to focus on questions of procedural justice (j1). With the exception of considering how actors involved in writing a book progressed, these studies were not trying to address procedures such as why women and/or persons of color were absent from textbooks or how macroaggressions or anti-gay attitudes developed. In contrast, these studies were concerned with distributive justice (j2) and why certain groups are underrepresented or victims of prejudice and discrimination. Authorship in this special issue was available to any Psi Chi member with a related question that survived the review process, which means the research system was limited in accessibility (j3) to certain qualified individuals. However, the *Psi Chi Journal* is open access by freely offering access to the findings to any interested reader. Recognizing the limits or reach of justice highlights that not all systems are intended to be equal, and that is not necessarily bad.

Accompanying this limitation in justice, there are a number of areas where sustainability issues are not sufficiently addressed in this special issue. None of the manuscripts present research or strategies to improve conservation for human or material resources (s1). The research questions did not have this focus and therefore the authors never attempted to make that connection. This is not easily resolved because no single study can address all areas simultaneously. Further, the field generally is only beginning to recognize that issues relative to environmental issues are related to diversity and justice (Swim & Bloodhart, 2017) and so this dearth is not surprising. Other areas of sustainability fair better when evaluated. Studies with large sample sizes, employing reliable and valid measures provide research conclusions that have a longer lasting impact (s2). Although qualitative conclusions are limited in their generalizability and longevity, the researchers designed studies to test hypotheses with strong inference, suggesting

findings more likely to replicate. For researchers seeking to conduct replications, these studies provide materials that make them reproducible (s3). Although data sharing is less common in these articles (only two shared data), other researchers are able to adequately develop close replications of the work here using exact materials. Special issues are static by nature after they are published, so these articles do not have adaptive capacity (s4), but the research paradigms described within them could be adapted to respond to better knowledge or new insight.

Expanding the DJS Lens to Other Psychological Research and Beyond

Although there were areas of DJS that were not fully examined in this special issue, the journal is on par with many other journals trying to integrate these complex topics. This Psi Chi Special Issue could use more diversity as the topics were relatively broad, but the samples somewhat restricted. This issue did not address questions about procedural justice as it could have. And finally, there was no research included that addressed questions related to how human and environmental sustainability questions intersect with diversity and justice concerns. Rather than focus on what is absent from the special issue, this evaluation invites readers to integrate these findings into broader questions and approaches. The ideal mix of DJS is elusive, and I invite the reader to examine three other recent special issues in psychology which presented research that included more than one DJS construct. The *Current Directions in Psychological Science*, “Special Issue on Racism” (volume 27, num 3, 2018) presents a collection across the domain of racism and prejudice to create a more just society (Richeson, 2018), but fails to connect to issues of environmental sustainability. The *Group Processes and Intergroup Relationships* special issue, “Climate Change and Interpersonal Relations (volume 31, num 3, 2018) directly addresses the intersection of social justice and sustainability (Pearson & Schuldt, 2018) by considering the social facets of environmental issues. With varying degrees, each of these manuscripts explicitly connect DJS together by discussing how diverse voices or experiences contribute to the policies, problems, and solutions related to climate change. Finally, a very recent special issue, from *Perspectives on Psychological Science* titled, “How Can Psychological Science Cultivate a Healthier, Happier, and More Sustainable World?” (volume 14, num 1, 2019) highlights various intersections

between DJS by considering the challenges and consequences researchers experienced while conducting work to improve the world (Gruber, Saxbe, Bushman, McNamara, & Rhodes, 2019). The theme is about social justice broadly (improving the world) with the assumption that a more sustainable world is better highlighted in the title. The connections to diversity come from some manuscripts specifically focused on the topic of identity or demographic diversity, but also the cognitive diversity of the questions and the research approaches. Collectively, these three special issues admirably complement each other and suggest a research approach for someone concerned with DJS questions. The *Psi Chi Journal* is engaging our field similarly to these other prestigious outlets and together, these four special issues could be useful for any researcher trying to further explore the intersections of DJS topics.

Looking Forward

The extended discussion metaphorically connecting DJS to the “identity as a meal” metaphor presented the distinction between diversity, justice, and sustainability as constructs and highlighted how different perspectives could yield wildly different perceptions of what makes an ideal national identity. That metaphor has real-world implications, but it is limited to only one aspect of being human. Readers will approach their own research from a diverse set of interests resolving unique problems and concerns. Considering their own research using a similar metaphor or the DJS lens, questions should assist in clarifying a personal lens or approach.

From my own personal perspective looking at the field, I would like to see more concern for environmental sustainability. This is an inherently social justice question about diverse populations because the wealthy and privileged who create the most pollution and waste are the least likely to suffer the negative consequences (Swim & Bloodhart, 2018), and climate change affects everyone on all parts of the globe. We need to ask questions about how to engage and uplift more people from various identity and demographic diversity groups to actively discuss and resolve the human and resource challenges of living on an ever-shrinking planet. From the same idealist who offered the Stewpot as an alternative to a melting pot or salad bowl approach to national identity, I offer DJS as an interactionist approach to improving interpersonal interactions and worldwide health. Hopefully, readers will find that using a DJS lens to examine their

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

own research or institutional commitments to social progress provides insight and benefits.

References

- Appel, M., Weber, S., & Kronberger, N. (2015). The influence of stereotype threat on immigrants: Review and meta-analysis. *Frontiers in Psychology, 6*, 900–900. <https://doi.org/10.3389/fpsyg.2015.00900>
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin, 17*, 475–482. <https://doi.org/10.1177/0146167291175001>
- Cabrera, J., Hatch, J. E., & Lovell, J. L. (2019). Scholar identity: A book writing journey. *Psi Chi Journal of Psychological Research, 24*, 113–126. <https://doi.org/10.24839/2325-7342.JN24.2.113>
- Cohen, P., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*. 3rd Edition New York, NY: Psychology Press.
- Cramblet Alvarez, L. D., Jones, K. N., Walljasper-Schuyler, C., Trujillo, M., Weiser, M. A., Rodriguez, J. L., . . . Leach, J. L. (2019). Psychology's hidden figures: Undergraduate psychology majors' (in)ability to recognize our diverse pioneers. *Psi Chi Journal of Psychological Research, 24*, 84–96. <https://doi.org/10.24839/2325-7342.JN24.2.84>
- Cuccolo, K. (2019, March 12). Comprehensive Exam 2 paper. Retrieved from <https://osf.io/d2zxe>
- Gallor, S. (2017). A social justice approach to undergraduate psychology education: Building cultural diversity, inclusion, and sensitivity into teaching, research, and service. *Psi Chi Journal of Psychological Research, 22*, 254–257. <https://doi.org/10.24839/2325-7342.JN22.4.254>
- Grahe, J. E., Cuccolo, K., Leighton, D., & Cramblet Alvarez, L. (2019). Inviting students into open science promotes diverse, just, and sustainable research and educational outcomes. Manuscript under review.
- Gruber, J., Saxbe, D., Bushman, B. J., McNamara, T., & Rhodes, M. (2019). How can psychological science contribute to a healthier, happier, and more sustainable world? *Perspectives on Psychological Science, 14*, 3–6. <https://doi.org/10.1177/1745691618821624>
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences, 33*(2–3), 61–83. <https://doi.org/10.1017/S0140525X0999152X>
- Hirschman, C. (1983). America's melting pot reconsidered. *Annual Review of Sociology, 9*(1), 397–423. <https://doi.org/10.1146/annurev.so.09.080183.002145>
- Jones, J. M., & Dovidio, J. F. (2018). Change, challenge, and prospects for a diversity paradigm in social psychology. *Social Issues and Policy Review, 12*, 7–56. <https://doi.org/10.1111/sipr.12039>
- Jussim, L., Crawford, J. T., Anglin, S. M., & Stevens, S. T. (2015). Ideological bias in social psychological research. *Social Psychology and Politics, 9*, 91–109.
- Katz, J., & Klainberg, S. (2019). Effects of group status and implicit theories of personality on bystander responses to anti-gay bullying. *Psi Chi Journal of Psychological Research, 24*, 97–105. <https://doi.org/10.24839/2325-7342.JN24.2.97>
- Lewis, T. T., & Van Dyke, M. E. (2018). Discrimination and the health of African Americans: The potential importance of intersectionalities. *Current Directions in Psychological Science, 27*, 176–182. <https://doi.org/10.1177/0963721418770442>
- Lillienfeld, S. O. (2017). Microaggressions: Strong claims, inadequate evidence. *Perspectives on Psychological Science, 12*, 138–169. <https://doi.org/10.1177/1745691616659391>
- Mio, J. S., & Morris, D. R. (1990). Cross-cultural issues in psychology training programs: An invitation for discussion. *Professional Psychology: Research and Practice, 21*, 434–441. <http://dx.doi.org/10.1037/0735-7028.21.6.434>
- Nguyen, H. H. D., & Ryan, A. M. (2008). Does stereotype threat affect test performance of minorities and women? A meta-analysis of experimental evidence. *Journal of Applied Psychology, 93*, 1314–1334. <http://dx.doi.org/10.1037/a0012702>
- Patterson, C. A., & Domenech-Rodríguez, M. M. (2019). Microaggression detection measurement impact on white college students' colorblindness. *Psi Chi Journal of Psychological Research, 24*, 127–138. <https://doi.org/10.24839/2325-7342.JN24.2.127>
- Pearson, A. R., & Schuldt, J. P. (2018). Climate change and intergroup relations: Psychological insights, synergies, and future prospects. *Group Processes and Intergroup Relations, 21*, 373–388. <https://doi.org/10.1177/1368430217747750>
- Phinney, J. S., Chavira, V., & Williamson, L. (1992). Acculturation attitudes and self-esteem among high school and college students. *Youth and Society, 23*, 299–312. <http://dx.doi.org/10.1177/0044118X92023003002>
- PLU2020 Steering Committee (2012). PLU2020: Affirming our commitments: Shaping our future. Retrieved from <https://www.plu.edu/president/wp-content/uploads/sites/39/2014/08/plu-2020.pdf>
- Richeson, J. A. (2018). The psychology of racism: An introduction to the special issue. *Current Directions in Psychological Science, 27*, 148–149. <https://doi.org/10.1177/0963721418781318>
- Salter, P. S., Adams, G., & Perez, M. J. (2018). Racism in the structure of everyday worlds: A cultural-psychological perspective. *Current Directions in Psychological Science, 27*, 150–155. <https://doi.org/10.1177/0963721417724239>
- Seghezze, L. (2009). The five dimensions of sustainability. *Environmental Politics, 18*, 539–556. <https://doi.org/10.1080/09644010903063669>
- Smith, N. L., & Percy, E. J. (2019). Diversity training methods, opinions of political correctness, and perceptions of microaggressions. *Psi Chi Journal of Psychological Research, 24*, 106–112. <https://doi.org/10.24839/2325-7342.JN24.2.106>
- Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A. M. B., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist, 62*, 271–286. <http://dx.doi.org/10.1037/0003-066X.62.4.271>
- Swim, J. K., & Bloodhart, B. (2018). The intergroup foundations of climate change justice. *Group Processes and Intergroup Relations, 21*, 472–496. <https://doi.org/10.1177/1368430217745366>
- Syed, M., Santos, C., Yoo, H. C., & Juang, L. P. (2018). Invisibility of racial/ethnic minorities in developmental science: Implications for research and institutional practices. *American Psychologist, 73*, 812–826. <http://dx.doi.org/10.1037/amp0000294>
- Yip, T. (2018). Ethnic/racial identity—A double-edged sword? Associations with discrimination and psychological outcomes. *Current Directions in Psychological Science, 27*, 170–175. <https://doi.org/10.1177/0963721417739348>

Author Note. Jon Grahe, <https://orcid.org/0000-0001-6970-0863>, Department of Psychology, Pacific Lutheran University.

This article was inspired by the efforts of the Pacific Lutheran University to value Diversity, Justice, and Sustainability as part of the PLU2020 Strategic Plan.

Because I am a former President of Psi Chi, the International Honor Society in Psychology, who has completed my tenure, I see no conflict of interests with the publication of this manuscript.

Correspondence concerning this article should be addressed to Jon Grahe, Department of Psychology, Pacific Lutheran University, Tacoma, WA, 98447.

E-mail: graheje@plu.edu

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

Psychology's *Hidden Figures*: Undergraduate Psychology Majors' (In)Ability to Recognize Our Diverse Pioneers

Leslie D. Cramblet Alvarez* , Adams State University; K. Nicole Jones*, Colorado Mesa University; Chelsea Walljasper-Schuyler, Marissa Trujillo, Mikayla A. Weiser, Jerome L. Rodriguez, Rachael L. Ringler, and Jonah L. Leach, Adams State University

ABSTRACT. Psychology as a science professes a dedication to diversity in many forms including celebrating diverse perspectives and people. Nevertheless, women and people of color, both historically and currently, face barriers to their advancement in the field. Illustrative of one of the challenges that women and psychologists of color face, undergraduate students know very little about psychology's diverse historical roots including eminent pioneers who are women and people of color. Junior and senior psychology majors completed a name recognition task which included 42 pioneers in psychology, 21 of who were women, and 9 who were people of color. Participants recognized eminent women and people of color at significantly lower rates as compared to White, male pioneers ($z = -12.95$, $p < .001$, $r = -.82$; $z = -10.62$, $p < .001$, $r = -.68$, respectively). Having completed a History of Psychology course increased participants' ability to recognize pioneers ($U = 738.00$, $z = -3.79$, $p < .001$, $r = -.38$) but primarily benefited White, male pioneers. Because psychology majors, professionals, and practitioners are an increasingly diverse group, implications for the psychology curriculum and minoritized students are discussed.

Keywords: History of Psychology, Gender, Diversity, Psychology Curriculum



Open Data, Open Materials, and Preregistration badges earned for transparent research practices. Data and materials are available at <https://osf.io/sy6ue/> and <https://osf.io/uf36h/>, respectively. The three Preregistered hypotheses are available at <https://osf.io/9chk7/>.

For psychologists, recognizing and honoring diversity is a core value. This value is evident in national and regional organizations' diversity statements, ethical guidelines, handbooks, convening of diversity councils, and through the learning outcomes for undergraduate psychology majors (APA, 2013; APA, 2017a, 2017b). Recently, Psi Chi adopted a diversity statement including language that calls for action, "supporting and

encouraging people of varied racial, ethnic, gender identity, sexual orientation, and social class backgrounds to both participate in conducting psychological research, education, practice, training, and service, and to recognize and value diverse people within these contexts" (Mission and purpose, 2018). These developments are encouraging in light of psychology's well-documented racist (e.g., Guthrie, 2003; Winston,

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

2004) and sexist past (Tiefer, 1991). The discipline of psychology has come a long way in meeting the lofty goals set by Psi Chi's written commitments to diversity, which is particularly important because educational literature has suggested that exposure to stories about successful individuals who possess a shared identity to minoritized students has positive educational outcomes such as increasing interest in their chosen field (Rosenthal, Levy, London, Lobel, & Bazile, 2013). And, evidence has suggested that exposure to diverse faculty members has positive outcomes on students' experiences (CGC2; Committee on Women in Psychology, 2017).

Despite these benefits, there are limitations in psychology students' knowledge of and exposure to diverse psychologists. Further, there are still significant barriers faced by women and people of color in achieving educational and occupational equity. In this article, we explore what psychology majors know about our diverse history, in particular their ability to recognize pioneers of psychology who are female and people of color, which illuminates the historical and contemporary barriers that continue to prevent women and people of color from attaining the eminence enjoyed by their White, male counterparts.

Historical Barriers

In the field of psychology, contributions of women and people of color have been greatly underappreciated. This is evidenced even in the early history of the American Psychological Association (APA), which began in 1892 as a men's only organization. Despite the significant contributions women were already making to the field, they were prohibited from joining (Furumoto & Scarborough, 1986). Not only were women absent, but also people of color; all of the original members of the APA were White men (Guzman, Schiavo, & Puente, 1992). Although gender and racial inequity within psychology continued, many women and people of color pursued advanced degrees. Initially, these pioneers faced barriers in obtaining doctoral degrees, and universities would deny them their degree based solely on race and/or gender (Russo & O'Connell, 1980). Many women of the 19th century were being denied entry into graduate programs explicitly due to their gender, and being denied PhDs despite completing the requirements. Women like Mary Whiton Calkins in 1895 (who studied at Harvard), Christine Ladd-Franklin in 1882 (Johns Hopkins), and Lillian Martin (Göttingen, under Muller) were all denied

their PhDs after completing their studies (Russo & O'Connell, 1980).

For women who were able to obtain a doctoral degree, an additional barrier arose with regard to finding employment in major university settings: nepotism policies. Antinepotism policies prevented women from gaining employment in the same institutions where their husbands worked (Russo & O'Connell, 1980); a prime example of this is Mary Cover Jones. In 1929, she was working as a research associate at the University of California, Berkeley. However, due to her husband's affiliation with the university, she was denied the status of full professor and did not achieve this promotion until 1959 at age 63, 30 years later. By the year 1976, one in every four universities still had an antinepotism policy in place. This prevented many women from securing paid positions in academia and research (Furumoto & Scarborough, 1986). Although women and people of color faced significant challenges entering and staying in the academic and research fields of psychology, many began to find jobs in applied psychology, developmental psychology, and educational psychology. Women were often encouraged in this direction because these fields were seen as more fitting for "female skills" such as care taking and child rearing (Rutherford, 2015). However, many women would continue writing and conducting research with their husbands.

Although publishing with a spouse is a creative method to stay in the field, it might have contributed to a lack of recognition these women received for the research they conducted (Russo & O'Connell, 1980). For example, Mamie Phipps Clark conducted research with her husband, Kenneth Clark, that served as evidence in *Brown v. Board of Education*, the Supreme Court case which desegregated American schools. Although some people are aware of this research, it is almost always in reference to Kenneth Clark; very few people attribute it to Mamie, who was the primary researcher (Aldridge & Christensen, 2013).

Minoritized women experience all of these barriers (educational, occupational, gender discrimination) with the added effect of racial discrimination. In 1863, the first African American individuals earned their college degrees, but the first PhD in psychology earned by an African American woman named Inez Beverly Prosser was not until 1933. In 1977, 44 years later, 6.7% of psychology doctorates were awarded to people of color, and only 2.7% went to women of color (Russo & O'Connell, 1980). Being at the complicated

SPECIAL ISSUE

**PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH**

junction of two historically oppressed groups, in this case, being both female and a person of color, is known as *intersectionality*. First described by Crenshaw (1989), intersectionality refers to the compounded marginalization experienced by someone who identifies with more than one minoritized or oppressed group. Although the term had not yet been coined, Mamie Phipps Clark (1983) was keenly aware of this when she noted,

although my husband had earlier secured a teaching position at the City College of New York, following my graduation it soon became apparent to me that a Black female with a PhD in psychology was an unwanted anomaly in New York City in the early 1940s. (p. 271)

For the amount of work that she accomplished in her lifetime, she had to persist through a number of barriers before reaching eminence and success. Yet, her name is still not as recognized as that of her husband's, even within psychology.

Contemporary Barriers

Since the time of these pioneering women, it would seem that the discipline is approaching gender and racial equity. However, contemporary movements including worldwide Women's Marches and organizations like 500 Women Scientists suggest that the fight for equity is nuanced and lengthy. Although psychology's foremothers have paved important pathways, women continue to experience "modern misogyny" in the era of "postfeminism" (Anderson, 2017). According to Anderson (2017), modern misogyny primarily stems from the belief that the goals of the feminist movement have been achieved as evidenced by antidiscrimination laws and changing norms regarding women in the workforce. Contemporary women who point out inequity and oppression are met with disbelief. Calls for modern feminist movements are at times viewed as attempts to gain more rights than men or implicate that women are superior to men instead of trying to eradicate oppression that still exists. Although less overt, contemporary barriers to women's participation in the academy, and thus recognition as "eminent," abound.

In 1995, The APA introduced a report that indicated women were beginning to outnumber men in graduate enrollment and obtaining terminal degrees. This report, and the follow up, the Changing Gender Composition (CGC2; Committee on Women in Psychology, 2017), demonstrated

steady increases in women's degree attainment compared to men and increases in degree completion by women of color. However, these numerical improvements have not necessarily resulted in better outcomes for women. The Committee on Women in Psychology (2017) concluded, "debt levels have risen and . . . women students, particularly older and minority women, emerge from their training programs with considerably higher debt than do their male, White, younger counterparts" (p. 46) and that "the salaries of women lag behind men's salaries in psychology more than in any other field" (p. 73). Thus, although more women are entering the field, it is with more debt and lower salaries.

As the CGC2 illustrates, as time has passed, the gender and ethnic composition of psychology has changed dramatically, yet women and people of color still experience disadvantages in the profession. For example, women made up 59.3% of doctorate recipients between 1975–2007, but as of 2007, only 49% of tenure-track psychology professors were women (Cundiff, 2012). It is important to point out that tenure is a lengthy process and not all female PhD recipients choose a career in academia. Meanwhile, those who do must also contend with the "leaky pipeline" in which women are less represented at higher levels of the academic career (González Ramos, Navarrete Cortés, & Cabrera Moreno, 2015). This phenomenon, primarily examined in science, technology, engineering, and mathematics fields including psychology, begins as early as high school and undergraduate programs, with women "leaking" at higher rates than men (Blickenstaff, 2005). Moreover, in the academy, women are less represented in administration, engage in more institutional "housekeeping" (committee work), and receive inequitable teaching distributions, which detracts from research productivity and ultimately, tenure (Gasser & Shaffer, 2014). Thus, although there have been strides toward equitable representation in the higher education, including experimental research indicating that hypothetical female applicants are preferred at a 2:1 ratio over male applicants (Williams & Ceci, 2015), the road to equity is a long one.

For women of color, representation is even more concerning because only 14% of tenure-track psychology professors were women of color in 2007 (Turner, 2013). Pipeline trends also apply to researchers who are people of color as a whole; the proportion of doctoral recipients who

identified as a racial-ethnic minority between the years 1975 and 2007 was only 12.3% (APA Center for Workforce Studies, 2010). Minoritized women have found that attaining tenure-track positions does not necessarily grant them access to the world of feminist support their female, White peers may experience. Furthermore, women of color are expected to take on a myriad of other duties including advising students of color, representing a minoritized group as a committee member, and being a general support system for students of color. These responsibilities are on top of the course load and other duties already assigned to them, taking time away from scholarly productivity (Turner, González, & Lau, 2011). Although these faculty are overburdened with such responsibilities, research has emphasized the need for faculty of color to be a model for minoritized students. In fact, minoritized students report feeling more supported and satisfaction overall when mentored by individuals with a similar identity (CGC2; Committee on Women in Psychology, 2017). Additional workload, pressure to be a representative of one's identity, and lack of support exemplify systemic barriers, often referred to as institutional sexism (or racism, as the case may be), which combine to create a seemingly inescapable system of inequity not just between women and men, but between White women and women of color.

Taken together, it is clear both historically and in modern times that women and people of color face significant obstacles to entry and acceptance in the academy. It is here where contributions to the field in the form of scholarly productivity are most likely to occur. And, it is worth remembering that an extended program of research is considered one of the features that makes one "eminent" as a psychologist (Sternberg, 2016). Thus, obstacles to entry into the academy and scholarly productivity while there may account for the contributions of women and people of color being underappreciated historically. This may also explain why undergraduate psychology students are consistently less able to recognize and name accomplishments of psychologists who are women and people of color (Woody, Viney, & Johns, 2002).

The Current Study

Regardless of the fact that many of these eminent researchers conducted seminal studies such as Mamie Phipps Clark, many students are unaware of psychology's diverse roots. This suggests that the accomplishments of women and people of color

within the field may be underrepresented in psychology coursework. Woody et al. (2002) asserted that students will better understand the applications of psychology if they are first taught the history of psychology. In addition, if undergraduate majors are not familiar with the significance of psychologists who are women and people of color, they will not be able to thoroughly grasp the importance of psychology's diverse historical context.

In an ever-changing multicultural climate, it is important that psychology majors possess this foundational knowledge. Moreover, we have an explicit commitment to "Ethical and Social Responsibility in a Diverse World" as a one of the five goals outlined in the APA (2013) Guidelines for the Undergraduate Psychology Major. The authors of which further suggested, "diversity issues need to be recognized as an essential feature and commitment of each of the five domains" (2013, p.12). Therefore, we believe it is important to explore undergraduate students' knowledge of pioneers of psychology, particularly women and people of color.

Hypotheses

Based on the review of relevant literature, three preregistered hypotheses (<https://osf.io/9chk7/>) were tested in this study. The first was that female pioneers of psychology would be recognized at lower rates (have an overall lower recognition score) than male pioneers of psychology. Our second hypothesis was that pioneers of psychology who are people of color would be recognized at lower rates (have an overall lower recognition score) compared to pioneers of psychology who are White. Lastly, our third hypothesis is that psychology students who have had a history of psychology course would recognize pioneers of psychology at higher rates (higher recognition scores) compared to students who have not had a history of psychology course when controlling for GPA.

Method

Participants

Junior and senior psychology majors were recruited from eight colleges and universities across the United States. A total of 397 participants accessed the survey. Upon data clean-up, the sample became much smaller, with 26 respondents removed from the sample for not completing the survey; six participants were removed who identified as majors other than psychology; five graduate students were removed; 112 first-year students and sophomores

SPECIAL ISSUE

**PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH**

were removed; 56 participants were removed for not providing demographic information; and upon exploratory data analysis, one outlier was removed due to response bias. Our final sample consisted of 247 participants (197 women, 49 men, 1 indicated “other”, median age = 22, age range: 19–60) who predominantly identified as White/Non-Hispanic (71.3%). Other ethnic groups represented were Hispanic/Latin American (13.8%), Black/African American (6.9%), Asian American (4%), and Other (4%). The class standings of participants consisted of undergraduate juniors and seniors (90 juniors, 157 seniors).

Measures

We created a survey to measure junior and senior psychology majors’ ability to recognize eminent

male and female pioneers in the field. Our survey was modeled after the name recognition task developed by Woody et al. (2002), being that it was the only previous survey of its kind. Their measure featured the names of 51 eminent psychologists, but only eight of them were women. Our final survey retained 20 of the 51 psychologists included in their task. We attempted to address the gender gap by asking students to rate their recognition of 21 male pioneers and 21 female pioneers (all pioneers are listed in Table 1 and <https://osf.io/uf36h/>). A total of nine pioneers included in the final measure were people of color including five women of color (Phipps Clark, Prosser, Bernal, Whitehurst) and four men of color (Clark, White, Williams II, Sumner).

To generate names, a general Google search for

TABLE 1

Median and Mean Recognition Scores for Each Pioneer

Women	Median Recognition Rating	Mean Recognition Rating (SD)	Men	Median Recognition Rating	Mean Recognition Rating (SD)
Karen Horney	0.00	1.02 (1.19)	Sigmund Freud	3.00	2.90 (0.39)
Mary Ainsworth	0.00	0.97 (1.02)	B.F. Skinner	3.00	2.68 (0.62)
Elizabeth Loftus	0.00	0.68 (0.98)	Ivan Pavlov	3.00	2.72 (0.66)
Carol Gilligan	0.00	0.40 (0.71)	Jean Piaget	3.00	2.49 (0.80)
Anna Freud	2.00	1.46 (1.07)	Carl Rogers	2.00	1.87 (1.13)
Mary Whiton Calkins	0.00	0.49 (0.79)	Carl Jung	2.00	1.96 (1.14)
Margaret Floy Washburn	0.00	0.52 (0.76)	Abraham Maslow	3.00	2.40 (0.89)
Ann Johnson	0.00	0.26 (0.62)	Wilhelm Wundt	2.00	1.96 (1.12)
Eleanor Maccoby	0.00	0.29 (0.58)	Erik Erikson	3.00	2.36 (0.90)
Melanie Klein	0.00	0.26 (0.58)	John B. Watson	3.00	2.17 (1.02)
Mamie Phipps Clark*	0.00	0.39 (0.75)	Albert Bandura	3.00	2.12 (1.14)
Leta Stetter Hollingworth	0.00	0.26 (0.59)	Kenneth Bancroft Clark*	0.00	0.40 (0.74)
Sandra Bem	0.00	0.15 (0.44)	Joseph L. White*	0.00	0.26 (0.56)
Inez Beverly Prosser*	0.00	0.19 (0.49)	Robert Lee Williams II*	0.00	0.40 (0.71)
Martha Bernal*	0.00	0.18 (0.46)	Francis Cecil Sumner*	0.00	0.32 (0.63)
Ruth Howard*	0.00	0.26 (0.56)	Gordon Allport	0.00	0.62 (1.02)
Dorothea Lynde Dix	0.00	0.68 (0.97)	Alfred Binet	1.00	1.49 (1.12)
Florence Goodenough	0.00	0.19 (0.47)	Edward Lee Thorndike	1.00	1.43 (1.16)
Mary Cover Jones	0.00	0.26 (0.59)	Paul Broca	1.00	1.36 (1.18)
Keturah Elizabeth Whitehurst*	0.00	0.32 (0.62)	William James	1.00	1.15 (1.19)
Christine Ladd Franklin	0.00	0.17 (0.42)	James McKeen Cattell	0.00	0.72 (1.07)

Note. A score of 0 indicates “never heard of this person,” 1 = “heard of the name, but cannot name one thing the person did,” 2 = “know of the person’s name and a minimal number of their contributions,” and 3 = “can recall the person and the majority of their accomplishments easily.”
*Indicates psychologists of color.

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

“famous psychologists” yielded 51 people including seven women (Horney, Ainsworth, Loftus, Gilligan, A. Freud, Calkins, and Washburn). All seven women were included in the task. The top 11 men on the same list were included (S. Freud, Skinner, Pavlov, Piaget, Rogers, Jung, Maslow, Wundt, Erikson, Watson, and Bandura). Other online sources including the Association for Psychological Science (Isanski, 2011) and the Complete University Guide (n.d.) were used to add Johnson, Maccoby, and Klein. Many of the same names were yielded with a search for “most famous female psychologists.” Between this search, the pioneers profiled in the APA Women’s Program Office’s “I am Psyched!” pop-up museum (APA Women’s Program Office, n.d.), and women featured in Woody et al. (2002), Phipps Clark, Prosser, Howard, Hollingworth, Bem, Bernal, Dix, Goodenough, Jones, Ladd-Franklin, and Whitehurst were added to the list of women. A separate search for men of color in psychology yielded Clark, White, Williams II, and Sumner (Wallace, 2015). To ensure gender balance, an additional six men were selected from the task used by Woody et al. (2002; Allport, Binet, Broca, Thorndike, James, Cattell), bringing the total to 42 pioneers of psychology.

Participants were asked to rate how well they recognized each psychologist with a 4-point Likert-type scale. The scale was identical to that of the Woody et al. (2002) measure: 0 = *never heard of this person*, 1 = *heard of the name, but cannot name one thing the person did*, 2 = *know of the person’s name and a minimal number of their contributions*, and 3 = *can recall the person and the majority of their accomplishments easily*.

It is important to note that Woody et al. (2002) treated this scale as interval data, thus reporting mean scores. However, it could be argued that the current measure produces ordinal data, rather than interval, being that distances between scale options are unknown. Thus, both mean and median recognition scores were calculated for the each of 21 women and 21 men (see Table 1). Subscales were created by calculating median recognition scores for all the women together, all the men together, all the people of color together, all the Whites together, all the women of color, all the White women, all the men of color, all the White men, and an overall median recognition score for all 42 pioneers. For the purposes of comparison to Woody et al. (2002), mean subscales were also calculated and are reported along with medians. Median and mean recognition subscales are reported in Table 2.

Reliability estimates were not reported for the

original measure in the Woody et al. (2002) article. However, reliability estimates for the current form of the measure are as follows. Based on Cronbach’s (1951) guidelines, reliability was good for the full scale ($\alpha = .90$), White pioneers ($\alpha = .89$), men pioneers ($\alpha = .86$), White men pioneers ($\alpha = .86$), and women pioneers ($\alpha = .82$). Reliability estimates were found to be in the acceptable range for pioneers of color ($\alpha = .78$) and the White women pioneers ($\alpha = .77$). Based on Cronbach’s guidelines, reliability estimates for women of color pioneers ($\alpha = .64$) and men of color pioneers ($\alpha = .63$) are questionable. However, Vaske, Beaman, and Sponarski (2016) pointed out that it is not uncommon for alpha levels to drop with fewer items in a scale, allowing for greater flexibility in interpreting results.

In addition to the name recognition task, participants responded to demographic questions and identified whether their university offered a History of Psychology/History and Systems course (hereafter referred to as “History of Psychology”) and History of Women or Gender Studies course. If these courses were available, student were asked whether they had taken them and the grade they received. Further, students self-reported their overall grade point average as well.

Procedures

Prior to conducting the current study, institutional review board approval was obtained (#18-27). Participants completed a Qualtrics survey online and on their own time through the use of a computer or personal device. No incentives for participation were offered to participants. The survey was

TABLE 2

Subscale Scores for Name Recognition Task

Subscale	Mean Subscale (SD)	Median Subscale
Women	0.45 (0.34)	0.00
Men	1.60 (0.48)	2.00
People of color	0.30 (0.38)	0.00
White	1.23 (0.42)	1.00
Women of color	0.26 (0.37)	0.00
White women	0.51 (0.37)	0.00
Men of color	0.35 (0.48)	0.00
White men	1.91 (0.55)	2.00
Overall Recognition Score	1.03 (0.37)	0.00

Note. A score of 0 indicates “never heard of this person,” 1 = “heard of the name, but cannot name one thing the person did,” 2 = “know of the person’s name and a minimal number of their contributions,” and 3 = “can recall the person and the majority of their accomplishments easily.”

distributed electronically, via e-mail to eight different colleges and universities across the United States which had professional ties to the faculty researchers. Regions represented in the sample include: Eastern, Southeastern, Rocky Mountain, and Western. Location specific links were generated and shared with psychology professors who agreed to provide access to their students. Additionally, undergraduate researchers distributed a link generated for their home institution on social media platforms (including Facebook and Twitter) and other electronic sources including campus and personal email.

Results

Exploratory data analysis of mean subscales revealed skewness values of greater than 1.0 for the dependent variable subscales for women, people of color, women of color, White women, and men of color. In other words, recognition was so low for the pioneers represented by the items used to calculate these subscales, and their means were so positively skewed that the assumption of normality was violated. Because this scale may also be considered ordinal data, median subscales were calculated. Exploratory analyses on median subscales yielded excessive skewness for the same subscales. Due to these violations, and because this scale arguably represents ordinal data, nonparametric statistical tests were employed using both mean and median subscales, and means are reported in order to directly compare results to the Woody et al. (2002) study. Original and final datasets may be accessed at <https://osf.io/sy6ue/>.

Hypothesis 1

A paired-samples nonparametric *t* test (Wilcoxon Signed Ranks test) was used to evaluate differences in participants' ability to recognize women versus men pioneers of psychology. The Wilcoxon Signed Ranks test demonstrated that median women recognition scores were significantly lower ($Mdn=0.00$) than men recognition scores ($Mdn=2.00$), $z=-12.95$, $p<.001$, $r=-.82$. An additional Wilcoxon Signed Ranks was conducted to examine mean subscale differences and demonstrated that mean women recognition scores were significantly lower ($M=0.45$, $Mdn=0.38$) than men recognition scores ($M=1.61$, $Mdn=1.62$), $z=-13.63$, $p<.001$, $r=-.87$. These results support our first hypothesis that women pioneers would receive lower recognition scores than men pioneers by junior and senior undergraduate psychology students.

Hypothesis 2

Another nonparametric *t* test was conducted to identify differences in participants' ability to recognize White pioneers of psychology compared to those who are people of color. The Wilcoxon Signed Ranks test revealed that median recognition scores for people of color were significantly lower ($Mdn=0.00$) than recognition scores for pioneers who were White ($Mdn=1.00$), $z=-10.62$, $p<.001$, $r=-.68$. Again, similar results were yielded when examining mean subscales. A second Wilcoxon Signed Ranks test revealed that mean recognition scores for people of color were significantly lower ($M=0.30$, $Mdn=0.11$) than recognition scores for pioneers who were White ($M=1.23$, $Mdn=1.24$), $z=-13.61$, $p<.001$, $r=-.87$.

Because the White pioneers outnumbered the pioneers who are people of color, we opted to select a random matched sample (generated by SPSS) of nine White pioneers from our survey to compare to the nine people of color. The random sample included four White men and five White women: Thorndike, James, Rogers, Broca, Hollingsworth, Calkins, Johnson, Goodenough, and Horney. Another Wilcoxon Signed Ranks test was conducted using these parameters and similar results were yielded. The random sample of White pioneers attained higher recognition scores ($Mdn=0.00$) than the nine people of color ($Mdn=0.00$), resulting once again in a significant difference between the two groups, $z=-7.91$, $p<.001$, $r=-.50$. Taken together, these results support our second hypothesis that pioneers who are people of color would receive lower recognition scores than White pioneers by undergraduate psychology students.

Mean subscale analyses mirror these findings. A Wilcoxon Signed Ranks test was conducted using the mean subscale of the identical sample of White pioneers and demonstrated higher recognition scores ($M=0.88$, $Mdn=0.89$) for White pioneers than the nine people of color ($M=0.30$, $Mdn=0.11$), resulting once again in a significant difference between the two groups, $z=-12.65$, $p<.001$, $r=-.80$. Furthermore, a visual examination of mean and median recognition scores reveals that pioneers who are both women and people of color received the lowest scores ($M=0.26$, $Mdn=0.2$), which supports the idea that intersectionality presents an additional barrier to recognition. A final Wilcoxon Signed Ranks test was conducted to examine this more closely. When using mean subscales between White women ($M=0.50$, $Mdn=0.45$) and women of color ($M=0.26$, $Mdn=0.20$), a significant

difference was yielded, $z = -10.22, p < .001, r = -.65$. However, the same analysis using median subscales did not yield significance.

Hypothesis 3

Our third hypothesis considers the influence of a History of Psychology course on our participants’ ability to recognize pioneers of psychology. Of our sample, 47 (19%) participants had previously completed their school’s History of Psychology course, 99 (40%) participants were currently enrolled in their school’s History of Psychology course, 54 (21.9%) of participants had not taken their school’s History of Psychology course, and 14 (5.7%) of participants reported that their school did not offer a History of Psychology course at all ($n = 33$ had missing data). Our survey also asked participants to report whether their school offered a History of Women or Gender Studies course. So few respondents ($n = 23; 9.3%$) had taken their school’s History of Women/Gender Studies course that we opted against analyzing data with this as an independent variable.

A Kruskal-Wallis (nonparametric Analysis of Variance) was conducted using the median overall recognition score as the dependent variable to evaluate whether taking a History of Psychology course influenced participants’ ability to recognize pioneers of psychology. These analyses excluded participants who reported that they were currently enrolled in a History of Psychology course. Thus, the analysis included 47 participants who indicated that they had completed a History of Psychology course and 54 who reported that they had not. Results yielded a significant difference in median overall recognition scores between students who completed a History of Psychology course, $X^2(2) = 16.41, p < .001, r^2 = .40$, with a mean rank score for those who completed a History course of 63.72, and a mean rank of 39.93 for those who have not.

To test this hypothesis as outlined in our preregistration, we also examined this using mean subscales. An Analysis of Covariance using the overall recognition score as the dependent variable and overall GPA as the covariate was conducted to evaluate whether taking a History of Psychology course influenced participants’ ability to recognize pioneers of psychology. These analyses excluded participants who reported that they were currently enrolled in a History and Systems course and those who did not report their GPA. Thus, the analysis included $n = 46$ who indicated that they had completed a History of Psychology course and $n = 53$

who reported that they had not. Results yielded a significant difference in mean overall recognition scores between students who completed a History of Psychology course ($M = 1.26, SD = 0.35$) and those who have not ($M = 0.93, SD = 0.29$), $F(1, 96) = 25.85, p < .001, partial \eta^2 = .21$, controlling for GPA. These results supported our third hypothesis and corroborate results from the Kruskal-Wallis assessing medians, indicating that students who completed a History of Psychology course have higher recognition scores than students who had not taken the course. See Table 3 for medians and means by group.

Exploratory Analysis

Beyond our preregistered hypotheses, we elected to examine these data through additional analyses. First, to determine whether differences exist in participants’ recognition of different groups of psychologists, a nonparametric Friedman test of differences among repeated measures was conducted. Specifically, a total of eight median subscales was included for men, women, people of color, Whites, White women, White men, women of color, and men of color pioneers. The Friedman test yielded an astounding Chi-Square value of 1288.05, which was significant at the $p < .001$ level. We conducted a second Friedman analysis using mean subscales,

TABLE 3

Mean Recognition Subscales Scores and Median Recognition Subscale Scores for Participants Who Have Taken a History of Psychology Course and Have Not Taken a History of Psychology Course

Subscale	Completed History of Psychology Course ($n = 47$)		Have Not Taken History of Psychology ($n = 54$)	
	Mean recognition score (SD)	Median recognition Score	Mean recognition score (SD)	Median recognition score
Women	0.61 (0.38)	0.00	0.36 (0.24)	0.00
Men	1.92 (0.38)	2.00	1.50 (0.40)	1.50
People of color	0.35 (0.39)	0.00	0.20 (0.23)	0.00
White	1.51 (0.38)	2.00	1.13 (0.34)	1.00
Women of color	0.32 (0.44)	0.00	0.19 (0.25)	0.00
White women	0.69 (0.38)	0.00	0.41 (0.26)	0.00
Men of color	0.39 (0.40)	0.00	0.20 (0.33)	0.00
White men	2.28 (0.47)	3.00	1.80 (0.47)	2.00
Overall Recognition Score	1.26 (0.35)	1.00	0.93 (0.29)	0.00

SPECIAL ISSUE
PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

which also yielded a large Chi-Square value of 1425.58, also significant at the $p < .001$ level. The Friedman allows for a nonparametric version of a repeated-measures analysis and demonstrates significant differences among our subscales. However, with such astronomical Chi Square values, these results must be reported with caution. The recommended follow-up post hoc for a Friedman analysis is individual Wilcoxin Signed Rank tests (Laerd Statistics, 2018), some of which have already been reported (see Hypotheses 1 and 2).

A second exploratory analysis involves examining the potential influence of a History of Psychology class more closely. A series of Mann-Whitney U tests were conducted to examine differences among students who had and had not completed History of Psychology on the dependent measures of the eight median subscales for men, women, White pioneers, people of color pioneers, White men, White women, men of color, women of color, with a Bonferroni adjusted p value of .006 (calculated using a p value of .05 with 8 comparisons).

Significant differences were found. Students who had taken a History of Psychology course rated pioneers higher than those who had not taken the course on the dependent median subscales for men, Whites, White men, and White women pioneers. Recognition of men was better for participants who completed a History of Psychology course ($Mdn = 2.00$) than participants who had not ($Mdn = 1.50$), $U = 738.00$, $z = -3.79$, $p < .001$, $r = -.38$. Recognition of Whites was better for participants who completed a History of Psychology course ($Mdn = 2.00$) than those who had not ($Mdn = 1.00$), $U = 653.50$, $z = -4.14$, $p < .001$, $r = -.41$. Recognition of White men was better for participants who had completed a History of Psychology course ($Mdn = 3.00$), than participants who had not ($Mdn = 2.00$), $U = 713.50$, $z = -4.17$, $p < .001$, $r = -.42$. Lastly, recognition of White women was better for participants who had completed a History of Psychology course ($Mdn = 0.00$) than participants who had not ($Mdn = 0.00$), $U = 829.50$, $z = -3.86$, $p < .001$, $r = -.38$.

All of these subscales, with the exception of White women, were normally distributed so the tests may be reported with confidence. Caution should be taken with the finding regarding White women pioneers due to a nonnormal distribution of this subscale, which increases the likelihood of Type 1 error. Although it is important to mention that other subscales also possessed nonnormal

distributions, it is also notable that no significant differences were yielded for those: women, people of color, women of color, men of color. In other words, taking a History of Psychology course resulted in no appreciable difference in participants' recognition scores for women overall and people of color.

Discussion

The results of the current study reflect a disheartening reality in the field of psychology, and the nation as a whole. Undergraduate majors' inability to recognize female pioneers in psychology compared to male pioneers, as well as pioneers of color versus White pioneers, is reflective of a national trend in gender and racial inequality (Pew, 2016, 2017). Further, the combined racial and gender inequality represented in the results of the current study provides support of intersectionality being a barrier to women of color in the field of psychology not only in the past, but in current day (Cundiff, 2012; Turner, 2013). Illustrative of the aforementioned modern misogyny, even though she is not a woman of color, but is one of the few contemporary pioneers, Elizabeth Loftus only received a mean recognition score of 0.68, and a median recognition score of 0.

As elucidated previously, there were a number of roadblocks for women and people of color in their advancement in the field of psychology (Furumoto & Scarborough, 1986). The current study illustrates that not only did women and people of color experience educational, occupational, and gender discrimination a century ago, but suggests that they are still experiencing such discrimination present day in the classroom. With recognition scores so low for women and people of color, it is a possibility that these pioneers are not recognized by students because their histories and contributions may be absent from the classroom. Based on these findings, it is plausible that not only are women and people of color underrecognized, they are also underrepresented in the curriculum. By not talking about their contribution in our classrooms, programs, and in our textbooks, the profession continues to silence these women and men of color. Instead of perpetuating the problem of discrimination within our history, the field of psychology should not only recognize the achievements of these women and people of color, but utilize their achievements as a way to celebrate our diverse roots. Further, the pioneers can also be used as models for the ever increasing minoritized

students in psychology programs.

Although the APA has charged institutions of higher learning with including more diversity, exhibiting respect for diverse groups, and increasing awareness related to issues of privilege, power, and discrimination within their programs, it is possible that this has been implemented inconsistently at the curricular level with regard to the historical roots of our field (APA, 2013). Thus, a disservice is likely being done to undergraduates in psychology because they are not learning the full scope of the role that women and people of color have played in the development of this field, and how their history of discrimination and oppression can help the field continue to improve. When minoritized groups' contributions and historical barriers are not part of the curriculum, it is difficult to notice when discriminatory practices are occurring in less overt, more modern ways.

It is essential to note that taking a class on the History of Psychology is one important step to recognizing the impact of women and people of color in this field. Indeed, the results of this study suggest that, overall, students who completed a History of Psychology course have higher recognition scores of pioneers when compared to students who have not completed a History of Psychology course. This finding is important because these results not only reflect students' individual awareness about pioneers of psychology, but also illuminate what students are learning in their psychology classes up until they complete a History of Psychology course (Woody et al., 2002). Of note however, even among the group who completed a History course, there was lower recognition scores of marginalized groups, which was also found in the overall sample. Astoundingly, it appears that the benefits of a History of Psychology course disproportionately fall on White, male pioneers, rather than the other groups. Specifically, recognition scores of White males were half a point higher for those who had completed History of Psychology courses as compared to those who had not. When examining mean scores for people of color and White women, the difference in recognition scores is less powerful, at only approximately a 0.2 or less. In other words, students who had completed History of Psychology only recognized White women and people of color marginally more than those who had not completed the course. Thus, with a similar trend as the overall sample, students in these courses are still lacking in knowledge about pioneers in psychology who are both women

and people of color, but they are lacking most in knowledge about those who were women of color. This suggests a lack of knowledge of an entire section of pioneers in psychology by students even after completing a History of Psychology course. This disparity calls for further investigation of the information sources for such courses.

Limitations

Limitations to our research include the lack of diversity in the present sample. The majority of students who completed the survey were White/Non-Hispanic, women. On one hand, this can pose severe limitations to the research. However, when looking at the gender representation of psychology majors, the current sample matches the field, in which approximately 77% of graduates are women (Olson, 2014). Surprisingly, with women dominating the field of psychology for the last 40 years, one would assume there would be better recognition of female pioneers. However, because men still hold the majority of positions in academia (APA, 2014), it is possible that highlighting the accomplishments of women is an unrecognized need among this group.

Although the gender breakdown was fairly representative of the field, the ethnic breakdown is skewed toward White students. The overall population of White undergraduates in psychology is only 55%, with Hispanic or Latino individuals representing 19%, and Black or African students encompassing approximately 12% of the majors, and other groups to a lesser degree. Further, White women only represent 44% of undergraduate degree earners in the United States (Data USA, 2016). Thus, the current study might have yielded different results if there was a better ethnic representation within the sample.

Further limitations include the online nature of the survey, and a limited sample of universities within the United States. Although online survey platforms have a number of advantages, they can also lend to participants being distracted while completing the research. Thus, if this survey were given in paper format in a controlled environment, participants might have yielded better recognition scores. Further, the institutions which participated in the current study did so via professional contacts of the faculty researchers, or personal contacts of the student researchers via social media and e-mail. Therefore, it is possible that other universities not solicited would have garnered better scores. For instance, psychology majors at Minority Serving Institutions, Historically Black Colleges and

SPECIAL ISSUE

**PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH**

Universities, or all women's universities might have had a different educational experience with regard to pioneers of psychology; thus, yielding more positive results.

Future Directions

To fully understand U.S. junior and senior psychology students' knowledge and recognition of pioneers of psychology, further research is needed. Woody and colleagues (2002) paved the way for such an exploration. However, the researchers did not have a representative illustration of female pioneers in their survey. The current study is the first of its kind to engage in an in-depth analysis using a diverse group of pioneers in the field including those with marginalized identities. However, one study is not enough. More work needs to be done looking at specific types of institutions that may be teaching their psychology majors differently such as those with underrepresented populations and those in certain regions of the country.

Further, a sample with more ethnically diverse participants also needs to be utilized in future studies. And, of the utmost importance, understanding is needed for why students recognize only White men as the pioneers of the field. Future research needs to explore what information is included in textbooks for various classes to ensure that textbooks begin to reflect the reality of the past, rather than an illusion of history. In addition, research needs to assess the content of what professors are teaching with regard to the History of Psychology. Although students did not recognize women and pioneers of color, this does not mean that their professors are not teaching about them. Thus, a study exploring what is actually being taught, and how it is being taught (e.g., via text books, in class activities, supplemental readings) should also be conducted.

Recognizing Diversity: Responding to National Calls

In recent years, APA (2017) has updated their Multicultural Guidelines, in which the taskforce emphasized that psychologists should increase their awareness of how educational settings impact students' self-identity. With more and more women and persons of color within the field, this seems to be a necessary step within all psychology programs in the United States. However, the guidelines go a few steps further to indicate that psychologists are supposed to attend to their power and privilege in interactions with students.

One way such power and privilege may be demonstrated within the classroom is by not only attending to the history of individuals who look like the professors teaching the material, but rather attending to the history of our field that represents all students in the classroom as well. In a charge to the profession, the guidelines expect that psychologists explore ways to address privilege once it is identified. Thus, the first logical step is for programs to explore ways they are being inclusive of the actual history of the profession, rather than what has been taught for decades. Once this has been identified, then in line with these guidelines is the inclusion of multicultural curriculum within programs. Psychology programs should explore, at all levels, what they are teaching to undergraduates about the field and infuse multicultural history in every course from General Psychology to upper division electives (e.g., Social Psychology, Health Psychology). Lastly, the guidelines emphasize the need for psychologists to "aspire to recognize and understand historical and contemporary experiences with power, privilege, and oppression" (APA, 2017b, p. 45).

Moreover, Vazire (2017a, 2017b) has claimed that in modern times, a drive for "eminence" itself perpetuates privilege and is at odds with scientific transparency and integrity. "Those with the most prestige will be heard the loudest" (Vazire, 2017a, p. 6). Diverse voices are at risk of being silenced if dominant culture, particularly male, voices are overrepresented, and scientific rigor may be sacrificed (Vazire, 2017a, 2017b). This is concerning especially in light of gendered publication bias. West, Jacquet, King, Correll, and Bergstrom (2013) reported findings from over eight million scientific papers, indicating that men predominate in first and last author positions, and reviewers prefer pieces authored by male-sounding names over female-sounding names. In some ways, it may come as no surprise that our findings indicate that junior and senior psychology majors primarily recognize White men as pioneers of the field.

Still, the rapidly changing demographics of psychology as a whole suggests that role models who do not fit the stereotypical "old, White male" are relevant and timely. The CGC2 (Committee on Women in Psychology, 2017) not only suggests that more women of color are entering doctoral programs, but also that there is a shortage of faculty of color to mentor these students. Students of color, at every level of their education, are hard pressed to find faculty who resemble them. Between the

demographics of the faculty, and the content of the classes, it is no wonder that certain pioneers are more easily recognized than others. Numerous national organizations have taken on the task to bring awareness to psychology's diverse history and galvanize the next generation of psychologists of color including The Drs. Nicholas and Dorothy Cummings Center for the History of Psychology and Psychology's Feminist Voices Oral History and Digital Archive Project, which recognized the need for young women of color to be inspired and see themselves as future psychologists when they partnered with the APA Women's Program Office to create the national tour for the museum exhibit "I Am Psyched!" This need has not only been recognized on a national level through the APA, but also through social media movements.

Twitter trends like #ThisIsWhatAPsychologist LooksLike and Kevin Nadal's #ThisIsWhatAProfessor LooksLike have attempted to bring awareness to the diversity of the profession and the academy. Nadal (2018) notes,

it has become so important for me to ensure that young people of color, particularly those with multiple marginalized intersectional identities, could indeed recognize that they, too, could become professors. Perhaps many of us do not know what is possible because we don't have exposure to professors or others who look like us. (para 11)

Therefore, we challenge psychology faculty and students alike to rise to the calls of international, national, and regional organizations, and their commitments to promoting and honoring diversity. Psychology should attend to whose voice is missing and begin recognizing and valuing diversity in all contexts, starting with the classroom.

References

- Aldridge, J., & Christensen, L. M. (Eds.). (2013). Mamie Phipps Clark (1917-1983). In *Stealing from the mother: The marginalization of women in education and psychology from 1900-2010* (pp. 105-112). Lanham, MD: Rowan & Littlefield Education.
- American Psychological Association. (2013). *APA guidelines for the undergraduate psychology major: Version 2.0*. Retrieved from <http://www.apa.org/ed/precollege/undergrad/index.aspx>
- American Psychological Association. (2017a). How is the gender composition of faculty in graduate psychology departments changing? *Monitor on Psychology*, 45(9), 11. Retrieved from <http://www.apa.org/monitor/2014/10/datapoint.aspx>
- American Psychological Association. (2017a). Ethical principles of psychologists and code of conduct. Retrieved from <https://www.apa.org/ethics/code/>
- American Psychological Association. (2017b). *Multicultural guidelines: An ecological approach to context, identity, and intersectionality*. Retrieved from <http://www.apa.org/about/policy/multicultural-guidelines.pdf>
- American Psychological Association, Center for Workforce Studies. (2010). *Summary report doctoral recipients from United States universities* (selected years). Retrieved from <http://www.nsf.gov/statistics/>
- American Psychological Association, Committee on Women in Psychology. (2017). *The changing gender composition of psychology: Update and expansion of the 1995 task force report*. Retrieved from <https://www.apa.org/pi/women/programs/gender-composition/index.aspx>
- American Psychological Association, Women's Program Office (n.d.). Inspiring histories, inspiring lives: Women of color in psychology. Retrieved from <http://www.apa.org/pi/women/iampsyched/>
- Anderson, K. J. (2017). Modern misogyny and backlash. In C. B. Travis & J. W. White (Eds.), *APA Handbook of the Psychology of Women: Vol 1: History, theory, and battlegrounds* (pp. 27-46). Washington, DC: American Psychological Association.
- Blickenstaff, J. C. (2005). Women in science careers: Leaky pipeline or gender filter? *Gender and Education*, 17, 369-386. <https://doi.org/10.1080/09540250500145072>
- Crenshaw, K. (1989). Demarginalizing the intersection of sex and race: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 1989(1). Retrieved from <http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334. <https://doi.org/10.1007/BF02310555>
- Cundiff, J. L. (2012). Is mainstream psychological research 'womanless' and 'raceless'? An updated analysis. *Sex Roles*, 67, 158-173. <https://doi.org/10.1007/s11199-012-0141-7>
- Data USA. (2016). *General psychology*. Retrieved from <https://datausa.io/profile/cip/420101/#demographics>
- Furumoto, L., & Scarborough, E. (1986). Placing women in the history of psychology: The first American women psychologists. *American Psychologist*, 41, 35-42. <http://doi.org/10.1037/0003-066x.41.1.35>
- Gasser, C. E., & Shaffer, K. S. (2014). Career development of women in academia: Traversing the leaky pipeline. *The Professional Counselor*, 4, 332-352. <https://doi.org/10.15241/ceg.4.4.332>
- González Ramos, A. M., Navarrete Cortés, J., & Cabrera Moreno, G. (2015). Dancers in the dark: Scientific careers according to a gender-blind model of promotion. *Interdisciplinary Science Reviews*, 40, 182-203. <https://doi.org/10.1179/0308018815Z.000000000112>
- Guthrie, R. V. (2003). *Even the rat was White: A historical view of psychology*. Boston, MA: Allyn and Bacon.
- Guzman, L. P., Schiavo, R. S., & Puente, A. E. (1992). Ethnic minorities in the teaching of psychology. In A. E. Puente, J. R. Matthews, & C. L. Brewer (Eds.), *Teaching psychology in America: A history* (pp. 182-213). Washington, DC: American Psychological Association.
- Isanski, B. (2011). History of women in psychology. Retrieved from <https://www.psychologicalscience.org/observer/the-history-of-women-in-psychology>
- Laerd Statistics. (2018). Friedman test in SPSS statistics. Retrieved from <https://statistics.laerd.com/spss-tutorials/friedman-test-using-spss-statistics.php>
- Mission and purpose. (2018). Diversity and inclusion statement. Retrieved from <https://www.psiichi.org/page/purpose>
- Nadal, K. (2018). You can't be what you can't see: On increasing the visibility of professors of color. *Fierce Advocate: Voices of John Jay College*. Retrieved from <http://fierceadvocate.jjay.cuny.edu/index.php/2018/03/14/kevin-nadal-is-increasing-the-visibility-of-people-of-color/>
- Olson, R. (2014, June 14). *Percentage of bachelor's degrees conferred to women, by major*. Retrieved from <http://www.randalolson.com/2014/06/14/percentage-of-bachelors-degrees-conferred-to-women-by-major-1970-2012/>
- Pew Research Center. (2016, June 27). *On views of race and inequality, Blacks and Whites are worlds apart: 3. Discrimination and racial inequality*. Retrieved from <http://www.pewsocialtrends.org/2016/06/27/3-discrimination-and-racial-inequality/>
- Pew Research Center. (2017, October 18). *Wide partisan gaps in the U.S. over how far the country has come on gender equality*. Retrieved from <http://www.pewsocialtrends.org/2017/10/18/wide-partisan-gaps-in-u-s-over-how-far-the-country-has-come-on-gender-equality/>
- Phipps Clark, M. (1983). Mamie Phipps Clark. In A. N. Connell & N. F. Russo (Eds.), *Models of achievement: Reflections of eminent women in psychology*. New York, NY: Colombia University Press.
- Rosenthal, L. I., Levy, S., London, B., Lobel, M., & Bazile, C. (2013). In pursuit of

SPECIAL ISSUE

**PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH**

- the MD: The impact of role models, identity compatibility, and belonging among undergraduate women. *Sex Roles*, 68, 464–473. <https://doi.org/10.1007/s11199-012-0257-9>
- Russo, N. F., & O'Connell, A. N. (1980). Models from our past: Psychology's foremothers. *Psychology of Women Quarterly*, 5, 11–55. <https://doi.org/10.1111/j.1471-6402.1980.tb01032.x>
- Rutherford, A. (2015). Maintaining masculinity in mid-twentieth-century American psychology: Edwin Boring, scientific eminence, and the 'Woman Problem'. *Osiris*, 1, 250. <https://doi.org/10.1086/683022>
- Sternberg, R. J. (2016). Becoming an eminent researcher in psychological sciences. In R. J. Sternberg, S. T. Fiske, & D. J. Foss (Eds.), *Scientists making a difference: One hundred eminent behavioral and brain scientists talk about their most important contributions*. (pp. 487–490). New York, NY: Cambridge University Press.
- Tiefer, L. (1991). A brief history of the association for women in psychology: 1969–1991. *Psychology of Women Quarterly*, 15, 635–649. <https://doi.org/10.1111/j.1471-6402.1991.tb00436.x>
- The Complete University Guide. (n.d.). Ten famous psychologists and their achievements. Retrieved from <https://www.thecompleteuniversityguide.co.uk/courses/psychology/ten-famous-psychologists-and-their-achievements/?entry=4>
- Turner, C. S. (2013). Advancing diversity in higher education. *Journal of Diversity in Higher Education*, 6, 155–157. <http://doi.org/10.1037/a0034356>
- Turner, C. S. V., González, J. C., & Wong (Lau), K. (2011). Faculty women of color: The critical nexus of race and gender. *Journal of Diversity in Higher Education*, 4, 199–211. <https://doi.org/10.1037/a0024630>
- Vaske, J. J., Beaman, J., & Sponarski, C. C. (2016). Rethinking internal consistency in Cronbach's alpha. *Leisure Sciences*, 1–11. <http://doi.org/10.1080/01490400.2015.1127189>
- Vazire, S. (2017a, April 18). Against eminence. Retrieved from <https://osf.io/n37g9>
- Vazire, S. (2017b, July 4). Our obsession with eminence warps research. *Nature*. Retrieved from <https://www.nature.com/news/our-obsession-with-eminence-warps-research-1.22251>
- Wallace, B. (2015). Ten African and African American psychologists you should know. Retrieved from <https://www.activeminds.org/blog/10-african-african-american-psychologists-you-should-know/>
- West J. D., Jacquet, J., King, M. M., Correll, S. J., & Bergstrom C. T. (2013). The role of gender in scholarly authorship. *PLOS ONE*, 8, 1–6. <https://doi.org/10.1371/journal.pone.0066212>
- Williams, W. M., & Ceci, S. J. (2015). National hiring experiments reveal 2:1 faculty preference for women on STEM tenure track. *Proceedings of the National Academy of Sciences*, 112, 5360–5365. <https://doi.org/10.1073/pnas.1418878112>
- Winston, A. S. (2004). *Defining difference: Race and racism in the history of psychology*. Washington, DC: American Psychological Association.
- Woody, W. D., Viney, W., & Johns, J. C. (2002). Historical literacy of advanced undergraduate psychology students: Pedagogical implications for courses in the history of psychology. *Perceptual and Motor Skills*, 94, 1013–1024. <https://doi.org/10.2466/pms.2002.94.3.1013>

Author Note. Leslie D. Cramblet Alvarez,  <https://orcid.org/0000-0002-0830-9606>, Department of Psychology, Adams State University; K. Nicole Jones, Department of Social and Behavioral Sciences, Colorado Mesa University; Chelsea Walljasper-Schuyler, Department of Psychology, Adams State University; Marissa Trujillo, Department of Psychology, Adams State University; Mikayla A. Weiser, Department of Psychology, Adams State University; Jerome L. Rodriguez, Department of Psychology, Adams State University; Rachael L. Ringler, Department of Psychology, Adams State University; and Jonah L. Leach, Department of Psychology, Adams State University.

The authors would like to thank William Douglas Woody for his generosity as a consultant, enthusiastically sharing his expertise and feedback. We appreciate your unwavering support and guidance. We would also like to thank Krista D. Bridgmon and Jon E. Grahe for statistical consultations and feedback on earlier drafts.

Correspondence concerning this article should be addressed to Leslie Cramblet Alvarez, Department of Psychology, Adams State University, Alamosa, Co, 81101. E-mail: lcramblet@adams.edu.

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

Effects of Group Status and Implicit Theories of Personality on Bystander Responses to Antigay Bullying

Jennifer Katz*  and Sydney Klainberg
SUNY Geneseo

ABSTRACT. Students perceived to be lesbian, gay, bisexual, transgender, questioning or otherwise nonconforming (LGBTQ+) are at risk for bullying and other forms of victimization. Bystanders who witness bullying may respond as prosocial advocates, such as by confronting the perpetrator, which may promote both individual safety and a more inclusive campus climate. The present study assessed the effects of group status and bystander's beliefs about the human capacity for change on college students' responses to antigay bullying. Participants ($N = 199$) at a small Northeastern college in the United States were randomly assigned to react to an antigay bullying scenario in which they were either alone or with 3 friends after they were surveyed on their beliefs about human malleability. Results showed a significant Group Status \times Beliefs interaction ($p = .004$, Cohen's $d = 0.48$). In the lone bystander condition, compared to those who reported the belief that humans are essentially unchangeable, those who reported greater belief in the human capacity for change reported significantly greater intent to confront ($p = .004$, Cohen's $d = 0.61$) and less intent to withdraw from the perpetrator ($p = .04$, Cohen's $d = 0.33$). In contrast, bystanders in groups reported similarly low intent to confront regardless of their reported beliefs about the human capacity for change. Bystander educational programs may explicitly address beliefs about human malleability as well as the classic bystander effect to promote more frequent intervention.

Keywords: bystander, bullying, gay, confrontation, entity beliefs, incremental beliefs

People who identify as lesbian, gay, bisexual, transgender, questioning, or otherwise nonconforming (LGBTQ+) commonly experience mistreatment. Bullying and harassment against gender and sexual minorities has been identified as a serious problem in high schools (Kosciw, Greytak, Giga, Villenas, & Danischewski, 2016; Poteat & Vecho, 2016) and on college campuses (Tetreault, Fette, Meidlinger, & Hope, 2013). Bullying is often verbal with 71% of high school students reporting being verbally harassed due to their sexual orientation in the past year (Kosciw et al., 2016). Such experiences can lead to

significant negative consequences. Many students who are bullied because of their gender identity or sexual orientation report feelings of depression, lowered self-esteem (Kosciw et al., 2016), and poorer academic and social engagement (Kulick, Wernick, Woodford, & Renn, 2017; Woodford & Kulick, 2015). Bullied students feel less safe and less accepted at school. In fact, being bullied because of one's sexual orientation is linked to less positive perceptions of the campus climate (Hong & Espelage, 2012; Tetreault et al., 2013). The prevalence and harmful effects of anti LGBTQ+ bullying suggests the need for research on effective

SPECIAL ISSUE
PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

prevention efforts.

Some campus-based prevention efforts may involve bystanders, or witnesses to situations involving actual or potential harm to others. In response to witnessing anti-LGBTQ+ bullying or harassment, bystanders who prosocially intervene to interrupt the situation may promote safety in the immediate environment and may promote more egalitarian norms generally. That is, prosocial bystander intervention in response to antigay bullying and harassment represents advocacy by signaling to everyone present that intolerance and mistreatment are unacceptable and will not be tolerated. In their classic work on understanding prosocial bystander behavior, Latané and Darley (1970) described bystander intervention in terms of a five-step decision making model that requires that a responsive bystander: (a) notice the event; (b) interpret the event as an emergency that requires assistance; (c) accept responsibility for intervening; (d) know how to intervene or provide help; and (e) implement intervention decisions. More recent research focused on bystander responses to bullying and harassment confirmed that these steps are related to the decision to behaviorally intervene in a prosocial way (Nickerson, Aloe, Livingston, & Feeley, 2014).

Confrontation is one specific type of intervention that can address anti-LGBTQ+ bullying. Verbal confrontation involves interrupting the situation by talking to the perpetrator and expressing disagreement with how others are being treated. For example, Martinez, Hebl, Smith, and Sabat (2017, p. 2) defined confrontation as “verbally expressing one’s dissatisfaction with a perpetrator’s negative behaviors, attitudes, or assumptions.” Bystander confrontation redirects the attention of the perpetrator, which benefits the target of bullying. Confrontation may also benefit bystanders. Compared to those who respond passively, bystanders who confront expressions of anti-LGBTQ+ prejudice tend to feel more powerful and satisfied with their behavior, which gives them further cause to confront in the future (Dickter, 2012; Tetreault et al., 2013). Confrontation can also help educate others about acceptable versus unacceptable forms of public behavior. Direct confrontation of expressions of prejudice, including sexism (Mallett & Wagner, 2011), racism (Czopp, Monteith, & Mark, 2006), and heterosexism (Evans & Broido, 2002; Hyers, 2010), may reduce repeated expressions of prejudice, thereby contributing to a more inclusive environment for diverse students.

Despite the benefits of confrontation, not all those who witness problematic behaviors confront others or get involved as advocates. In their classic monograph on bystander behavior, Latané and Darley (1970) argued that situational effects on bystander behavior overpower individual differences in bystander attitudes. One specific situational factor that may affect bystander confrontation is the bystander effect, or the inhibiting effects of the presence of others on intervention (Latané & Darley, 1970). Bystanders who witness bullying while with others might be less likely to confront a perpetrator than those who witness bullying while alone. The bystander effect has been found to be so powerful that even merely thinking of being with others decreases the likelihood of prosocial action (Garcia, Weaver, Moskowitz, & Darley, 2002). Furthermore, the bystander effect has been observed in research on how college students respond to witnessing different types of problem situations. For example, compared to those who are alone, college students who are in a group show greater reluctance to intervene in response to witnessing a theft (Howard & Crano, 1974) or a potential sexual assault (Katz, 2015). Given the prevalence of antigay bullying on college campuses, research is needed to examine whether and under what conditions the bystander effect inhibits advocacy for students who are bullied because they are perceived to be gay. To add to the literature on the bystander effect and college students’ prosocial bystander behavior, we specifically investigated the effect of group status on intent to confront bullying in which a male peer taunts another male peer and expresses an antigay slur.

Beyond the bystander effect, bystanders also may show individual differences in interpreting bullying that affect the likelihood of confronting those who mistreat others (e.g., Oh & Hazler, 2009; Poteat & Vecho, 2016). Research by Carol Dweck and colleagues (e.g., Dweck, 2008) has suggested that each individual has a mindset or personal theory about the human condition and the human capacity for change. Implicit theories of personality reflect beliefs about people as malleable and capable of growth (i.e., incremental beliefs) versus fixed and unchangeable (i.e., entity beliefs; Dweck, Chiu, & Hong, 1995). That is, people who believe that personal characteristics and behaviors may change over time are considered to be incremental theorists, whereas people who believe that personal characteristics and behaviors remain constant are considered to be entity theorists. The type of

implicit theory individuals hold affects responses to peer conflict (e.g., Chen, DeWall, Poon, & Chen, 2012; Yeager et al., 2014), with greater constructive responding among those with more incremental (as compared to more entity) theories of personality.

Multiple studies have supported the prediction that bystanders who believe that humans have the capacity to change (i.e., incremental theorists) are more likely to confront others than bystanders who believe that humans are less capable of meaningful change (i.e., entity theorists). For example, Kammrath and Dweck (2006, Study 1) found that, after a romantic relationship transgression, college students with a more incremental view of relationships were more likely to verbally confront their romantic partner than were college students with a more entity view. Similarly, in a study of racial/ethnic minority group members' responses to expressions of racial prejudice, although all individuals rated the statement as highly offensive, Rattan and Dweck (2010) found that individuals with incremental views of personality were more likely to confront the prejudicial speaker than those with entity views. Other research has suggested that, compared to entity theorists, incremental theorists exert more effort in empathizing with a racial out-group member's personal story (Schumann, Zaki, & Dweck, 2014, Study 5) and exhibit a greater attempt to learn from and take the perspective of a racial out-group member (Neel & Shapiro, 2012). These findings suggest that incremental theorists are more likely than entity theorists to enact prosocial behaviors while managing conflict and during intergroup interactions. To date, however, no studies have examined implicit theories of personality as related to bystander responses to witnessing antigay bullying.

Based on the available literature, compared to those with more entity views of personality, bystanders with more incremental views may be expected to show more prosocial bystander responses. Because incremental beliefs reflect optimism about the human capacity for growth, this prediction also matches with past research showing that dispositional optimism was associated with greater confrontation of anti-LGBTQ+ prejudice (Weber & Dickter, 2015). Importantly, however, it is possible that incremental beliefs are associated with *less* prosocial bystander responses specifically in the case of antigay bullying. In past research, people who perceived that sexual orientation is changeable also tended to show greater prejudice and blame towards those who are LGBTQ+ (Hoyt,

Morgenroth, & Burnette, 2018). Because incremental theorists may believe that sexual orientation can be changed, incremental theorists may also be more blaming than entity theorists towards a target of antigay bullying, and thus less willing to advocate for the targeted individual. For this reason, research is needed to investigate the role of implicit theories of personality specifically as it affects bystander responses to antigay bullying.

Beyond confrontation, another potential outcome of holding a more incremental view of personality is a sustained openness to interacting with others with different points of view. Incremental theorists may believe that future interactions represent opportunities for change and growth in each person. In contrast, entity theorists may perceive future interactions as aversive and unlikely to lead to change or growth. This reasoning is supported by past research in which White individuals who were taught that prejudice is malleable were less anxious and friendlier during interactions with a Black person than White individuals who held more fixed/entity beliefs about prejudice (Carr, Dweck, & Pauker, 2012, Study 5). Similarly, in studying college students' responses to expressions of prejudice, Rattan and Dweck (2010) found that women and racial/ethnic minorities with greater incremental views of personality also showed greater willingness to engage in future interactions with a prejudicial speaker. The current study sought to extend this past research by investigating implicit theories of personality as related to bystanders' openness to future interactions with a peer who enacts antigay bullying.

Hypotheses

The current study examined the effects of group status and implicit theories of personality on bystander responses to antigay bullying. Based on the classic bystander effect (Latané & Darley, 1970), compared to lone bystanders, bystanders with friends were expected to report less intent to confront the perpetrator (Hypothesis 1). Extending past research on targets' responses to a racially prejudicial speaker (Rattan & Dweck, 2010), in response to antigay bullying, bystanders with more incremental beliefs reflecting the human capacity for change were expected to show greater intent to confront the perpetrator (Hypothesis 2a) and less intent to avoid potential future interactions with the perpetrator (Hypothesis 2b). Finally, potential interactive effects of group status and implicit

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

theories of personality were explored. More specifically, participants' implicit theories were expected to affect responses to antigay bullying more strongly in some types of situations than others. For lone bystanders, intent to confront was expected to be higher among more incremental theorists than more entity theorists (Hypothesis 3a). However, for bystanders in groups, responses to antigay bullying were not expected to vary based on implicit theories of personality because the bystander effect (Garcia et al., 2002) generally inhibits prosocial responding (Hypothesis 3b).

Method

Participants

Data were collected from 199 (74.9% female) undergraduates at a small public college in the Northeastern United States. The average age was 18.96 years old ($SD = 1.09$, 17 to 23). All class years were represented, including first year students (48.7%), sophomores (31.2%), juniors (16.1%), and seniors (4%). Participants self-identified as White (78.9%), Asian (10.1%), Hispanic (7%), Black (2%), Native American (0.5%), or other (1.5%). With regard to sexual orientation, participants self-identified as heterosexual (86.9%), bisexual (7.5%), gay or lesbian (2%), queer (1%), or other (2.5%).

Manipulation

Participants were randomly assigned to read one of two scenarios that varied only in terms of whether the participant was alone or in a group with three same-gender friends. Scenarios were developed in collaboration with LGBTQ+ students on campus about their experiences to ensure the situations were realistic. Portions of the scenario included only in the group condition are underlined. The nonunderlined text was presented in the alone condition.

It is a typical weeknight in your residence hall. You're walking back to your room with three friends of the same gender after getting dinner (and indigestion) from the dining hall. When you go in your building, you hear loud voices coming from a nearby lounge. The door is open. You walk past the door to get to your room. As you and your friends go by, you see two guys in the lounge. You've never seen either of these two guys before. One is wearing a blue baseball hat and moving toward the other

guy, who is wearing a gray T-shirt. The guy with the hat says, "I saw you looking at me like that, Sam." Sam takes a step back and says in a low voice, "C'mon, Bill, relax. You know—" but he's cut off as Bill says, "I knew it. I knew you were a fag." Sam's face reddens. He puts his hands up in what looks like surrender, but Bill keeps on taunting him. You look around. There's still nobody in sight besides you and your friends. Sam notices you, and the two of you make eye contact.

Design

This was a 2 (group status; alone or group) x 2 (implicit theories of personality; incremental or entity) between-subjects design. Group status was manipulated whereas implicit theories were not. Intent to confront and withdrawal from future interactions with the perpetrator were the dependent variables.

Measures

Implicit theories about human nature as either open to change (incremental theorists) or unchanging (entity theorists) were assessed with a 3-item measure from Chiu, Hong, and Dweck (1997): "The kind of person someone is is something basic about them and it can't be changed very much"; "People can do things differently, but the important parts of who they are can't really be changed"; "Everyone is a certain kind of person, and there is not much that they can do to really change that." Participants rated each item on a 6-point Likert-type scale (1 = *very strongly agree*, 6 = *very strongly disagree*). Responses were averaged so that higher scores reflected greater endorsement of an incremental theory. The overall sample average suggested that, on average, participants did not have extreme views about the degree to which people can grow and change ($M = 3.37$, $SD = 1.26$, range 1 to 6). In the present sample, the estimate of internal consistency was good (Cronbach's $\alpha = .87$). Following past research (e.g., Rattan & Dweck, 2010) those who scored above the midpoint of the scale were classified as incremental theorists and those who scored below the midpoint were classified as entity theorists.

Intent to confront antigay bullying was measured with two items adapted from past research on bystander behavior responses to interpersonal violence (Katz & Nguyen, 2016). Prior to items

being presented, the following statement was made: "In the situation, Bill is the "angry guy" accusing Sam; Sam is the "target" of these accusations." Items used to assess direct but nonhostile verbal responses to interrupt the situation were "Try to talk to the angry guy (Bill)," and "Confront the angry guy (Bill) politely." Responses to each item were made on a 7-point Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*) and averaged so that higher scores indicated greater intent to confront. In the current sample, the estimate of internal consistency was adequate (Cronbach's $\alpha = .78$).

Withdrawal from the perpetrator in future possible interactions was measured with three items from Rattan and Dweck (2010): "How likely are you to avoid socializing with Bill?", "How likely are you to develop a relationship with Bill?" (reverse-scored), and "How likely are you to collaborate with Bill on a project if you had the chance?" (reverse-scored). Items were rated on a 7-point Likert-type scale (1 = *not at all*, 7 = *extremely*). Scores were averaged so that higher scores reflected less willingness to interact with the perpetrator in the future. In the current sample, the estimate of internal consistency was acceptable (Cronbach's $\alpha = .76$).

Procedure

Undergraduate students were recruited through a voluntary human participants pool for an anonymous study titled "An Anonymous Study of Responses to and Perceptions of Peer Conflict." We did not determine the sample size in advance. Rather, data collection ceased at the end of an academic year. Data collection sessions were held on campus in classrooms where participants were seated in alternating rows to ensure privacy. After providing informed consent, participants completed a measure of implicit theories of personality and then read about a verbal bullying situation in which one man accuses another man of being a "fag." About half of the participants were randomly assigned to a situation in which they read about being alone as a witness to this incident, and the other half were randomly assigned to a situation in which they read about witnessing this incident with three friends. Participants were asked to respond to measures of willingness to confront the perpetrator and willingness to interact with the perpetrator. Participants were also asked to respond to measures of aggressive responding and other nonconstructive behaviors, but these responses were not analyzed in the absence of a priori hypotheses. After completing these

measures, participants submitted study materials face down into a slotted box for privacy and were fully debriefed. Participants earned course credit for their time; no session lasted longer than one hour. All study procedures were approved by the campus institutional review board.

Results

In the current study, 103 participants were assigned to the group bystander condition, whereas 96 were assigned to the lone bystander condition. One participant in the lone bystander condition did not complete the measure of intent to withdraw and thus was not included in the study analyses. There were no other missing data and no other data exclusions. Across conditions, the average level of intent to confront was moderately low ($M = 3.81$, $SD = 1.82$, 1 to 7), whereas the average level of withdrawal from interaction with the perpetrator was high ($M = 5.96$, $SD = 1.04$, 2.67 to 7). Intent to confront was negatively correlated with withdrawal from future interaction, $r(196) = -.22$, $p = .002$.

To test the study hypotheses, a 2 (group status; alone or group) x 2 (implicit theories; incremental or entity) Multivariate Analysis of Variance was conducted with intent to confront and withdraw as the dependent variables. Unexpectedly, there was no overall main effect of either group status, $F(2, 193) = 0.19$, $p = .82$, Pillai's Trace = .002, Cohen's $d = 0.08$, observed power = .08, or of implicit theories, $F(2, 193) = 0.82$, $p = .44$, Pillai's Trace = .19, Cohen's $d = 0.18$, observed power = .16. There was, however, a significant Group Status x Implicit

TABLE 1

Effects of Group Status and Implicit Theories of Personality on Bystander Responses to Antigay Bullying

	Group Status F(1, 194)		Implicit Theory F(1, 194)	Group x Theory F(1, 194)
	Alone	Group		
<i>Intent to Confront</i>			0.22	1.24
Entity theorist	3.38 (1.57)	4.01 (2.01)		8.50**
Incremental theorist	4.42 (1.67)	3.55 (1.87)		
<i>Intent to Withdraw</i>			0.24	0.71
Entity theorist	6.14 (0.92)	5.89 (1.07)		4.74*
Incremental theorist	5.69 (1.15)	6.09 (0.98)		

Note. Means (and standard deviations) are reported. Cell sizes are as follows: lone bystander/entity theorist ($n = 47$), lone bystander/incremental theorist ($n = 48$), group bystander/entity theorist ($n = 43$), group bystander/incremental theorists ($n = 60$), * $p < .05$. ** $p < .01$.

Theories interaction effect, $F(2, 193) = 5.58$, $p = .004$, Pillai's Trace = .06, Cohen's $d = 0.48$, observed power = .85.

Univariate follow up analyses are reported in Table 1. Compared to lone bystanders, bystanders in groups were expected to report less intent to confront (Hypothesis 1). Unexpectedly, because there was no overall difference in intent to confront as a function of group status, Hypothesis 1 was not supported (Cohen's $d = 0.06$). We had also hypothesized that, in response to antigay bullying, those who held a more incremental view of human nature would be more likely to confront the perpetrator (Hypothesis 2a) and less likely to withdraw from future interactions with the perpetrator (Hypothesis 2b) than those who held a more entity view. Neither of these hypotheses were supported; there were no main effects of implicit theories on either intent to confront (Cohen's $d = 0.16$) or intent to withdraw (Cohen's $d = 0.13$). Instead, results showed a significant Group Status x Implicit Theory interaction for both intent to confront (Cohen's $d = 0.42$) and intent to withdraw (Cohen's $d = 0.31$), indicating that the effect of each of the independent variables depended on the other.

To explicate the significant Group Status x Implicit Theory interaction effect for intent to confront, independent-samples t tests were conducted. These tests examined whether there were differences in intent to confront among lone bystanders versus among bystanders in groups. Among those assigned to the lone bystander condition, participants who held a more incremental view of human nature showed significantly greater intent to confront than participants who held a more entity view of human nature, $t(94) = 2.95$, $p = .004$, $d = 0.61$. This finding supported Hypothesis 3a. In contrast, among those assigned to the group bystander condition, intent to confront did not differ between participants with more incremental versus more entity views of human nature, $t(101) = -1.20$, $p = .24$, $d = 0.23$. This finding supported Hypothesis 3b. Given that intent to confront ranged from 1 to 7, with 4 as a neutral response, as shown in Table 1, the only participants who tended to report that they were more likely than not to confront antigay bullying were incremental theorists in the lone bystander group.

Although not predicted on an a priori basis, the Analysis of Variance results also revealed a significant Group Status x Implicit Theory interaction for withdrawal from the perpetrator. As such, additional independent-samples t tests were

conducted to compare the mean withdrawal scores of incremental versus entity theorists among lone bystanders and among bystanders in groups. Among those assigned to the lone bystander condition, participants who held a more incremental view of human nature showed significantly less withdrawal from the perpetrator as compared to participants who held a more entity view, $t(93) = -2.09$, $p = .04$, $d = 0.33$. In contrast, among those assigned to the group bystander condition, there was no difference in withdrawal between those with more incremental versus more entity views, $t(101) = 0.96$, $p = .34$, $d = 0.06$. Although most participants reported high levels of withdrawal from future interactions with the perpetrator, incremental theorists in the lone bystander group reported the least withdrawal (i.e., the most openness to future interactions).

Discussion

The present study investigated bystander responses to antigay bullying as a function of the bystander effect as well as bystanders' implicit theories about the human capacity for change. Results showed that both the type of situation (i.e., being alone) and bystander's beliefs about human nature (i.e., people can change) jointly affected prosocial responding. More specifically, individual differences in beliefs about human nature affected the likelihood of prosocial responding, but only among lone bystanders. Among those in the lone bystander condition, bystanders with more incremental views of human nature reported significantly more intent to confront and less intent to withdraw compared to bystanders who endorsed more entity views.

These results extend past research on the bystander effect with college students (Howard & Crano, 1974; Katz, 2015) by demonstrating the role of individual differences in responses by lone bystanders. In the current study, not all lone bystanders reported that they were likely to confront a perpetrator of antigay bullying. Rather, lone bystanders who held the belief that people are capable of growth and change reported greater intent to confront than those who believe people are essentially fixed/set in their ways.

These significant effects of implicit theories of personality on lone bystander behavior are similar to those reported by Rattan and Dweck (2010). The authors found that when a peer expressed racially prejudicial comments to a student member of a racial/ethnic minority group, minority students with higher incremental beliefs were more likely to confront the prejudicial peer than minority

students with higher entity beliefs (Study 1). The current findings directly extend this work by showing the effects of implicit theories about human nature on promoting confrontation and decreasing withdrawal across different perspectives (bystander vs. target) and different types of prejudice (antigay vs. racist). The current findings also extend past research more generally on the ways in which incremental views about human nature promote constructive responses to interpersonal conflict with a romantic partner (Kamrath & Dweck, 2006) and constructive behaviors during intergroup exchanges (Carr et al., 2012; Neel & Shapiro, 2012; Schumann et al., 2014). Lone bystanders with incremental beliefs showed the most prosocial responses to antigay bullying. This is an important finding given that the perception that sexual orientation is changeable—a belief that incremental theorists may be particularly likely to hold—has been associated with greater antigay prejudice (Hoyt et al., 2018). The current results suggest that incremental theorists who are alone when they witness antigay prejudice are likely to act as advocates for the target of prejudice despite potentially believing that sexual orientation is malleable.

Unexpectedly, participants' implicit theories of personality did not predict responses across all antigay bullying situations. In the group bystander condition, beliefs about the capacity for humans to change were not related either to intent to confront or to withdrawal from the perpetrator. Null findings in the group condition appear to be consistent with the classic bystander effect in which prosocial responding is suppressed in groups, including when individuals who are thinking of others (e.g., Garcia et al., 2002). Given that prosocial bystander intervention requires that bystanders identify a situation as problematic and feel personally responsible to help, we speculate that group status may interfere with how problematic the antigay statements were perceived to be or how responsible each person felt to speak up. For example, participants in the group condition who were exposed to antigay bullying might have dismissed the comments as harmful to fewer people present, which decreased how problematic the comments seemed to be. Furthermore, group status may lead to a diffusion of responsibility to address the comments, inhibiting prosocial confrontational behavior. It is also possible that perceptions of group norms related to the specific friend group affected responses to antigay bullying. Past research has suggested that group norms shape how individuals perceive disparaging humor such

that group norms favoring such humor are related to an acceptance of the negative characteristics presented in the disparaging jokes (Gutiérrez, Carretero-Dios, Willis, & Morales, 2018).

Our findings diverge from Rattan and Dweck (2010, Study 2) who found that participants' implicit theories of personality affected responses to scenarios in which individuals were with a group of other new interns when a new coworker expressed racist comments. Differences in study methodologies might explain these different patterns of results. First, because we studied scenarios involving groups of friends and not new interns (i.e., strangers or acquaintances), the effects of incremental beliefs on constructive responses to prejudice may differ based on who the other bystanders are. It is possible that group norms established within friend groups, which may include a level of tolerance of prejudice, affect responses to expressions of prejudice. Second, the majority of the current sample identified as heterosexual, and so unlike most of the participants studied by Rattan and Dweck (2010), most participants in the current study were unlikely to feel as personally targeted by the comments; perhaps they also were less likely to feel that others would be targeted as well. Third, it is possible that bystanders in groups respond differently to antigay comments made to a specific individual versus racist or sexist comments made about people more generally. When in a group of friends, bystanders might perceive antigay bullying as kidding around or as representing a more benign type of interpersonal conflict involving a target individual rather than a social group (i.e., people who are LGBTQ+). A priority for future research is to assess different perceptions of antigay bullying situations that inhibit prosocial responding when others are physically present, psychologically present, or both. Another priority is to examine various types of prosocial responding that may occur in a group context, such as caring for a target of bullying.

Limitations of this study must be acknowledged. Participants were asked to imagine the antigay bullying situation instead of witnessing and acting in person. Future research with more naturalistic situations and behavioral assessments is needed. The homogeneity of the primarily White, heterosexual, female sample also might have limited the generalizability of these results. In past research, female bystanders and bystanders with more favorable LGBTQ+ attitudes were more likely to intervene in response to witnessing a range of LGBTQ+ discriminatory acts (Dessel, Goodman, &

Woodford, 2016). The effects of bystander gender on responses to different types of bullying related to sexual orientation and gender identity warrant study in future research with greater representation of men and women. Another limitation of the current study is the comparison of incremental versus entity theorists on the basis of a split on the continuous measure; although this is a commonly used method to classify people with different types of implicit beliefs (e.g., Rattan & Dweck, 2010), this method also may have limited our statistical power to detect a potential main effect of beliefs on responses to antigay bullying. Additional research is needed to examine whether and under what conditions implicit theories of personality affect responses to antigay bullying as well as other expressions of anti-LGBTQ+ prejudice.

Despite these limitations, the current findings may be used to inform bystander education programs on college campuses aimed at helping students promote safety and inclusion. The current results suggest that programs aimed at addressing prejudicial or harmful behavior may be more effective if they can educate students about the bystander effect. Educators may forecast for students the general tendency for prosocial responding to be suppressed within groups. Students may be encouraged to reflect upon whether this tendency matches with their personal values as well as how they can use their friendships to support their ability to act in ways consistent with their personal values. Perhaps even more importantly, bystander education programs should foster beliefs about the malleability of human nature and the usefulness of feedback in helping others act in more inclusive, less prejudicial ways. For example, Yeager et al. (2014; Studies 2 and 3) subjected high school students to a brief, one-time experimental intervention to promote incremental beliefs. Students read a brief summary of a neuroscience article and comments ostensibly written by upper-class students who wrote about how they used the information to deal with peer conflict. The overall message was that people who exclude or otherwise mistreat peers are not bad people but instead have complex motivations that may change. More generally, Dweck (2008) has outlined several successful interventions used to increase ideas about the malleability of human nature. Applying these interventions and adapting them to fit an antibullying scenario help interventionists reach both incremental and entity theorists. This wider reach may increase

the likelihood that more students will confront perpetrators in dangerous situations and, in turn, may promote a more positive campus climate for all.

References

- Carr, P. B., Dweck, C. S., & Pauker, K. (2012). 'Prejudiced' behavior without prejudice? Beliefs about the malleability of prejudice affect interracial interactions. *Journal of Personality and Social Psychology, 103*, 452–471. <https://doi.org/10.1037/a0028849>
- Chen, Z., DeWall, C. N., Poon, K.-T., & Chen, E.-W. (2012). When destiny hurts: Implicit theories of relationships moderate aggressive responses to ostracism. *Journal of Experimental Social Psychology, 48*, 1029–1036. <https://doi.org/10.1016/j.jesp.2012.04.002>
- Chiu, C. Y., Hong, Y. Y., & Dweck, C. S. (1997). Lay dispositionism and implicit theories of personality. *Journal of Personality and Social Psychology, 73*, 19–30. <https://doi.org/10.1037/0022-3514.73.1.19>
- Czopp, A. M., Monteith, M. J., & Mark, A. Y. (2006). Standing up for a change: Reducing bias through interpersonal confrontation. *Journal of Personality and Social Psychology, 90*, 784–803. <https://doi.org/10.1037/0022-3514.90.5.784>
- Dessel, A. B., Goodman, K. D., & Woodford, M. R. (2016). LGBT discrimination on campus and heterosexual bystanders: Understanding intentions to intervene. *Journal of Diversity in Higher Education, 10*, 101–116. <https://doi.org/10.1037/dhe0000015>
- Dickter, C. L. (2012). Confronting hate: Heterosexuals' responses to antigay comments. *Journal of Homosexuality, 59*, 1113–1130. <https://doi.org/10.1080/00918369.2012.712817>
- Dweck, C. S. (2008). Can personality be changed? The role of beliefs in personality and change. *Current Directions in Psychological Science, 17*, 391–394. <https://doi.org/10.1111/j.1467-8721.2008.00612.x>
- Dweck, C. S., Chiu, C. Y., & Hong, Y. Y. (1995). *Implicit theories and their role in judgments and reactions: A world from two perspectives: Psychological Inquiry, 6*, 267–285. https://doi.org/10.1207/s15327965pli0604_1
- Evans, N. J., & Broido, E. M. (2002). The experiences of lesbian and bisexual women in college residence halls: Implications for addressing homophobia and heterosexism. *Journal of Lesbian Studies, 6*, 29–42. https://doi.org/10.1300/J155v06n03_04
- Garcia, S. M., Weaver, K., Moskowitz, G. B., & Darley, J. M. (2002). Crowded minds: The implicit bystander effect. *Journal of Personality and Social Psychology, 83*, 843–853. <https://doi.org/10.1037/0022-3514.83.4.843>
- Gutiérrez, C. A., Carretero-Dios, H., Willis, G. B., & Morales, M. M. (2018). 'It's funny if the group says so': Group norms moderate disparaging humor appreciation. *Humor, 31*, 473–490. <https://doi.org/10.1515/humor-2017-0055>
- Hong, J. S., & Espelage, D. L. (2012). A review of research on bullying and peer victimization in school: An ecological system analysis. *Aggression and Violent Behavior, 17*, 311–322. <https://doi.org/10.1016/j.avb.2012.03.003>
- Howard, W., & Crano, W. D. (1974). Effects of sex, conversation, location, and size of observer group on bystander intervention in a high risk situation. *Sociometry, 49*, 491–507. <https://doi.org/10.2307/2786423>
- Hoyt, C. L., Morgenroth, T., & Burnette, J. L. (2018). Understanding sexual prejudice: The role of political ideology and strategic essentialism. *Journal of Applied Social Psychology, 49*, 3–14. <https://doi.org/10.1111/jasp.12560>
- Hyers, L. L. (2010). Alternatives to silence in face-to-face encounters with everyday heterosexism: Activism on the interpersonal front. *Journal of Homosexuality, 57*, 539–565. <https://doi.org/10.1080/00918361003608749>
- Kammrath, L. K., & Dweck, C. (2006). Voicing conflict: Preferred conflict strategies among incremental and entity theorists. *Personality and Social Psychology Bulletin, 32*, 1497–1508. <https://doi.org/10.1177/0146167206291476>
- Katz, J. (2015). Effects of group status and victim sex on male bystanders' responses to a potential party rape. *Journal of Aggression, Maltreatment and Trauma, 24*, 588–602. <https://doi.org/10.1080/10926771.2015.1029184>
- Katz, J., & Nguyen, L. J. (2016). Bystander responses to risk for rape perpetrated by a friend, acquaintance, or stranger. *Journal of Aggression, Maltreatment, and Trauma, 25*, 652–667. <https://doi.org/10.1080/10926771.2016.1185755>
- Kosciw, J. G., Greytak, E. A., Giga, N. M., Villenas, C., & Danischewski, D. J. (2016). The 2015 National School Climate Survey: The experiences of lesbian, gay, bisexual, transgender, and queer youth in our nation's schools. New York, NY: Gay, Lesbian & Straight Education Network (GLSEN).
- Kulick, A., Wernick, L. J., Woodford, M. R., & Renn, K. (2017). Heterosexism,

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

- depression, and campus engagement among LGBTQ college students: Intersectional differences and opportunities for healing. *Journal of Homosexuality*, 64, 1125-1141. <https://doi.org/10.1080/00918369.2016.1242333>
- Latané, B., & Darley, J. M. (1970). *The unresponsive bystander: Why doesn't he help?* New Jersey: Prentice Hall.
- Mallett, R. K., & Wagner, D. E. (2011). The unexpectedly positive consequences of confronting sexism. *Journal of Experimental Social Psychology*, 47, 215-220. <https://doi.org/10.1016/j.jesp.2010.10.001>
- Martinez, L. R., Hebl, M. R., Smith, N. A., & Sabat, I. E. (2017). Standing up and speaking out against prejudice toward gay men in the workplace. *Journal of Vocational Behavior*, 103, 71-85. <https://doi.org/10.1016/j.jvb.2017.08.001>
- Neel, R., & Shapiro, J. R. (2012). Is racial bias malleable? Whites' lay theories of racial bias predict divergent strategies for interracial interactions. *Journal of Personality and Social Psychology*, 103, 101-120. <https://doi.org/10.1037/a0028237>
- Nickerson, A. B., Aloe, A. M., Livingston, J. A., & Feeley, T. H. (2014). Measurement of the bystander intervention model for bullying and sexual harassment. *Journal of Adolescence*, 37, 391-400. <https://doi.org/10.1016/j.jadolescence.2014.03.003>
- Oh, I., & Hazler, R. J. (2009). Contributions of personal and situational factors to bystanders' reactions to school bullying. *School Psychology International*, 30, 291-310. <https://doi.org/10.1177/0143034309106499>
- Poteat, V. P., & Vecho, O. (2016). Who intervenes against homophobic behavior? Attributes that distinguish active bystanders. *Journal of School Psychology*, 54, 17-28. <https://doi.org/10.1016/j.jsp.2015.10.002>
- Rattan, A., & Dweck, C. S. (2010). Who confronts prejudice? The role of implicit theories in the motivation to confront prejudice. *Psychological Science*, 21, 952-959. <https://doi.org/10.1177/0956797610374740>
- Schumann, K., Zaki, J., & Dweck, C. S. (2014). Addressing the empathy deficit: Beliefs about the malleability of empathy predict effort responses when empathy is challenging. *Journal of Personality and Social Psychology*, 107, 475-493. <https://doi.org/10.1037/a0036738>
- Tetreault, P. A., Fette, R., Meidlinger, P. C., & Hope, D. (2013). Perceptions of campus climate by sexual minorities. *Journal of Homosexuality*, 60, 947-964. <https://doi.org/10.1080/00918369.2013.774874>
- Weber, D. M., & Dickter, C. L. (2015). Confronting the 'F' word: The effects of gender, ambiguity, and individual difference variables on non-targets confrontation of heterosexist comments. *Journal of Homosexuality*, 62, 1289-1312. <https://doi.org/10.1080/00918369.2015.1060050>
- Woodford, M. R., & Kulick, A. (2015). Academic and social integration on campus among sexual minority students: The impacts of psychological and experiential campus climate. *American Journal of Community Psychology*, 55, 13-24. <https://doi.org/10.1007/s10464-014-9683-x>
- Yeager, D. S., Johnson, R., Spitzer, B. J., Trzesniewski, K. H., Powers, J., & Dweck, C. S. (2014). The far-reaching effects of believing people can change: Implicit theories of personality shape stress, health, and achievement during adolescence. *Journal of Personality and Social Psychology*, 106, 867-884. <https://doi.org/10.1037/a0036335>

Author Note. Jennifer Katz, <https://orcid.org/0000-0002-6740-5040>, Department of Psychology, SUNY Geneseo; Sydney Klainberg, Department of Psychology, SUNY Geneseo.

The authors gratefully acknowledge Aiden Cropsey, Dillon Federici, and Tess Ramos-Dries, for their assistance with planning the study, data collection, and data management. Special thanks to *Psi Chi Journal* reviewers for their support.

Correspondence concerning this article should be addressed to Jennifer Katz, Department Psychology, SUNY Geneseo, Geneseo NY, 14454. E-mail: katz@geneseo.edu

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

Diversity Training Methods, Opinions of Political Correctness, and Perceptions of Microaggressions

Nicole L. Smith  and Elise J. Percy*
North Central College

ABSTRACT. This experiment studied the impact of diversity training methods and political correctness opinions on participants' perception of microaggressions. It was hypothesized that (a) those with a positive political correctness opinion would be more aware of microaggressions after diversity training than those with a negative political correctness opinion, (b) the perspective-taking training group would be more effective than the prescriptive training group, and (c) those with a negative political correctness opinion in the prescriptive training condition would have a backfire response in which their awareness of microaggressions would decrease. Using a 2 x 2 design, participants completed a questionnaire assessing their opinion of political correctness and were then randomly assigned to 1 of the diversity training conditions. All participants analyzed a series of comics depicting microaggressions and ranked their offensiveness on a 5-point Likert scale, both before and after training, to measure their change in perception. No significant difference was found for opinion of political correctness, $F(2, 54) = 0.11$, $p = .900$, $\eta_p^2 = .004$. A significant opposite result was found for diversity training method, $F(1, 54) = 10.03$, $p = .002$, $\eta_p^2 = .150$, with a greater change in perception for those in the prescriptive group as compared to those in the perspective-taking group. Additionally, no backfire response was detected among those with a negative political correctness opinion in the prescriptive condition. Findings suggest that exposure to diverse perspectives is important for changes in microaggression perception to occur.

Keywords: microaggressions, political correctness, diversity training



Open Materials badge earned for transparent research practices. Materials are available at <https://osf.io/k3wz4>

In his 1903 seminal work, *The Souls of Black Folk*, W.E.B. Du Bois addressed a White audience from behind the veil, a metaphorical curtain separating the experiences of White and Black citizens. The veil is a symbol of oppression, a persistent cloud looming over African Americans

which is invisible to the majority of the White population.

I remember well when the shadow swept across me. . . something put it into the boys' and girls' heads to buy gorgeous

visiting-cards and exchange. The exchange was merry, till one girl refused my card, —refused it peremptorily, with a glance. Then it dawned on me with a certain suddenness that I was different from the others . . . shut out from their world by a vast veil. (Du Bois, 1903, p. 4)

Today, the girl's glance would be referred to as a racial microaggression, or a subtle form of discrimination experienced by a racial or ethnic minority (Ong & Burrow, 2017). These glances, slights, and snubs are extremely common, yet highly ambiguous, and not always recognized by the racial majority. When confronted, unaffected individuals often claim that racial minorities are being too sensitive, a similar argument made by those who reject political correctness (Loury, 1994). To lessen the frequency of microaggressions, organizations have implemented various diversity training programs, yet very few have empirical evidence to support their efficacy. Furthermore, none have assessed the impact of an individual's opinion of politically correct speech on the effectiveness of diversity training programs. This study aims to examine individual opinions of political correctness in relation to perceptions of microaggressions after two different diversity training methods.

Although the concept of microaggressions is not new, the language used to describe them is. Only within the past decade has research on the topic expanded, catalyzed by the taxonomy created by Sue et al. (2007). They identified and coined three forms of microaggressions: microassaults, microinsults, and microinvalidations. Microassaults are explicit, and often conscious, forms of discrimination such as racial slurs, displaying a swastika, or wearing blackface. Microinsults are rude or insensitive forms of communication which demean a person's racial or ethnic heritage. They are nuanced and often unintentional, such as avoiding eye contact. Microinvalidations, also commonly unintentional, minimize or negate the feelings, thoughts, and experiences of another person. For example, if someone said, "I just don't see color" to a Black friend, the intention may be to communicate that race does not change how they view people. However, by negating the reality that humans experience life differently based on their race, they minimized the obstacles that marginalized groups face (Sue et al., 2007).

Studies on microaggressions have primarily involved interviewing a population and coding

responses for themes, most commonly using the framework set forth by Sue et al. (2007). Reil (2017) interviewed Black, White, and mixed-race high school students in rural North Carolina, finding common themes of pathologizing cultural values. One White student said, "[Black people] . . . don't like to keep their mouth shut . . . and have loud voices," a microinsult pathologizing her Black classmate's communication style (Reil, 2017). Similarly, Ayón and Philbin (2017) asked Latino immigrants in Arizona a series of open-ended questions, which elicited numerous responses surrounding assumptions of criminality, such as, "At school . . . someone found gun bullets and blamed my son." Although those on the receiving end struggle to express the subtle bias they have experienced, many perpetrators are blind to their own implicit biases, not even recognizing that a microaggression has occurred (Boysen, 2012). When confronted, the perpetrator will often provide excuses or become upset for being accused of bigotry. They are unable, or unwilling, to recognize that a veil even exists. Thus, with the receiver's recognition that a microaggression has occurred, comes the decision to speak up and potentially be met with pushback, or to remain silent and frustrated. The regularity and ambiguity of this discrepancy in perception has a detrimental impact to those on the receiving end. Hollingsworth et al. (2017) used self-assessments to evaluate the psychological impact of microaggressions on African American high school students, and found that frequent microaggressions were strongly associated with increased perceptions of self-burdensomeness and thoughts of suicide. Similar methodology found that the daily microaggressions experienced by children of Latino immigrants were strongly correlated with social isolation, poor health outcomes, and internalized oppression (Ayón & Philbin, 2017). Whether intentional or unintentional, there is a clear need to address the significant negative impact of racial microaggressions.

Many communities have turned to diversity training as a means to reduce the frequency of microaggressions. Diversity training is broadly defined as programs geared toward reducing discrimination and increasing positive intergroup relations (Anand & Winters, 2008). These programs initially began in the 1960s when employment discrimination became illegal. Businesses convicted of discrimination were given court-mandated diversity training, which were typically lectures (Anand & Winters, 2008). Contemporary methods

have shifted away from compliance to fostering an environment of sensitivity (Anand & Winters, 2008) and vary widely, from lectures and videos to simulation exercises (Bezrukova, Spell, Perry & Jehn, 2016). Despite widespread usage, with nearly two thirds of companies implementing some form of diversity training (Lindsey, King, Hebl, & Levine, 2014), there is little empirical evidence to support their effectiveness. In fact, diversity training programs have the opposite reputation, with notoriously low success rates (Bezrukova et al. 2016). Subotnik (2016) argued that this is because the current structure of diversity training works against itself. In practice, the trainer speaks as the ultimate authority by outlining politically incorrect phrases which are discouraged. However, by limiting what the participants can and cannot say, the ability to have truly open and honest racial conversations is impeded—the very thing necessary to progress. Given that political correctness is a polarizing term strongly correlated with political affiliation (Batchis, 2016), and given that certain diversity training methods overtly employ principles of political correctness (Subotnik, 2016), the following should be considered: does an individual's opinion of political correctness mediate the efficacy of various diversity training methods?

To date, very few psychometric assessments measure individual opinions of politically correct speech, with the exception of Strauts and Blanton's (2015) Concern for Political Correctness (CPC). Using the CPC to assess baseline political correctness opinions, the present study aimed to compare the effectiveness of different diversity training programs and whether their efficacy was dependent on participants' opinions of political correctness. Participants were randomly assigned to either a prescriptive training session, where a trainer explained what the participants could and could not say in regard to racial conversations, or a perspective-taking session, where participants imagined themselves as a racial minority and wrote a short story about the challenges they might experience. The efficacy of diversity training was measured by the participants' change in awareness of microaggressions, using the Perception of Microaggressions Scale (POMS), which was developed by the authors. We hypothesized that participants with a positive opinion of political correctness would be more aware of microaggressions than participants with a negative opinion of political correctness. We also hypothesized that posttraining, participants who undergo a perspective-taking training would be

more aware of microaggressions than those who undergo a prescriptive training. Additionally, we hypothesized that participants with a negative political correctness opinion who undergo a prescriptive training session would have a backfire response, in which they would be less aware of microaggressions after training.

Method

Design

This study used a 2 x 2 experimental design with one quasi-independent variable. The true independent variable was the diversity training program the participants attended, either prescriptive, where a trainer outlined types of microaggressions, or perspective-taking, where participants wrote a short narrative. The quasi-independent variable was the participants' opinions of political correctness, measured by the CPC, and the dependent variable was their change in perception of microaggressions, measured by the difference between pretraining and posttraining scores on the POMS. Participants were randomly assigned to one of the diversity training conditions via a coin flip.

Participants

Sixty participants, all of whom were enrolled in an Introductory Psychology course at North Central College, were recruited through SONA. The sample consisted of 43 women and 17 men, with 29 in the prescriptive group and 31 in the perspective-taking group. Participants responded that they were White (85%, $n = 51$), Hispanic or Latino (15%, $n = 9$), Asian (6%, $n = 4$), Native American or Alaska Native (6%, $n = 4$), Middle Eastern or North African (2%, $n = 1$), and Jamaican (2%, $n = 1$). Each participant was compensated with 1 credit for their psychology class.

Materials

A revised version of the CPC (Strauts & Blanton, 2015) was used to measure participants' opinions of political correctness. Criterion validation studies have confirmed that the CPC accurately predicts negative responses to politically incorrect speech (Strauts & Blanton, 2015). However, the original measure was left-leaning because all nine questions were indicative of a positive political correctness perspective. The revised version added three questions indicative of a negative political correctness opinion and altered the phrasing of three original questions, creating six questions leaning toward a positive political correctness opinion and six

leaning toward a negative political correctness opinion (see Appendix). Participants responded using a 5-point Likert scale from 1 (*strongly agree*) to 5 (*strongly disagree*).

The POMS was created by the authors using Pixton, an online comic book creator. The 20-question measurement was developed by compiling examples of microaggressions, coding each example by theme, and creating comic strips to depict the scenarios. The POMS consisted of 16 comics depicting microinvalidations and microinsults, two comics depicting microassaults, and two control comics. The comics used in the present study can be accessed via Open Science Framework at <https://osf.io/k3wz4>. For each question, a comic strip was displayed on a Smart board for 15 seconds along with the question, "Do you perceive anything about this situation to be harmful or offensive?" Participants answered using a 5-point Likert scale and were asked to remain silent so as not to influence other participants. Two versions of the POMS were created in order to measure microaggression perception before and after diversity training. It was randomly decided via a coin flip before each experimental session which version of the POMS would be taken first, to ensure reliability between the versions.

Those in the prescriptive condition were given a condensed handout from the University of Southern California's academic affairs ("Recognizing Microaggressions," n.d.). The handout was adapted from Sue (2010) and gave information about the messages that microaggressions send. For the perspective-taking condition, participants were given a worksheet with a writing prompt and space to write. The prompt was modeled after Lindsey et al. (2015), where participants were asked to imagine themselves as a member of a marginalized ethnicity and write about the challenges that person might face.

Procedure

The North Central College institutional review board provided approval (#2017-60) for research with human subjects. Initially, participants were randomly assigned to one of the diversity training methods based on a coin flip. Upon arrival, participants were seated with at least one empty seat between each other. They were given an informed consent form and asked to carefully read through it before voluntarily signing. A manilla folder was placed in the center of the table and participants were told they would personally place their packets

in that folder after the experiment. Each participant was then given a packet of materials for the experiment, faced down.

When prompted, participants flipped over their packets and had 2 minutes to complete the CPC (see Appendix). Next, they were given detailed instructions on how to take the POMS. Comic strips were projected onto a whiteboard, with a number in the lower right-hand corner indicating the question number. They were directed to observe each storyboard carefully and answer the question in their packets, "Do you perceive anything about this situation to be harmful or offensive?" Responses were recorded using a 5-point Likert-type scale from 1 (*definitely not*) to 5 (*definitely yes*) and each storyboard was displayed for 15 seconds. After completing the POMS pretest, participants underwent a diversity training session.

In the prescriptive condition, participants followed along in their packets as a handout was read aloud. Going through this handout took approximately 5 minutes. Participants in the perspective-taking condition were asked to imagine themselves as a member of a marginalized race, religion, or ethnicity. Then, they were given 5 minutes to write a short story about the challenges this person might experience in everyday life. After the training session, all participants took a posttest of the POMS and answered a brief demographic questionnaire. Once completed, participants placed their packets inside the manilla folder in the center of the table, given debriefing forms, thanked, and dismissed.

Results

A two-way Analysis of Variance was performed to evaluate the influence of two independent variables (diversity training method, opinion of political correctness) on participants' change in perception of microaggressions. There were two levels for the diversity training method (prescriptive, perspective-taking) and three levels of political correctness opinions (positive, neutral, negative). CPC scores were converted into discrete categories, with scores above zero categorized as *positive* ($N = 25$, $\mu = 9.96$), scores below zero categorized as *negative* ($N = 27$, $\mu = -7.41$), and scores equivalent to zero categorized as *neutral* ($N = 8$, $\mu = 0$). Given the current climate of bipartisan polarization, the authors made CPC scores categorical as a means to detect distinctions between groups associated with political affiliation. The main effect of political correctness opinion was not significant, $F(2, 54) = 0.11$, $p = .900$, $\eta_p^2 = .004$,

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

with similar results among positive ($M = 7.40$, $SD = 8.54$), negative ($M = 6.67$, $SD = 9.39$), and neutral ($M = 7.00$, $SD = 10.43$) CPC scores. Consequently, there was no significant difference between political correctness opinions, and the first hypothesis was rejected.

A one-way Analysis of Covariance was performed to evaluate the influence of diversity training method on participants' perceptions of microaggressions while controlling for political correctness opinion on a continuous scale. The main effect of diversity training method was statistically significant, $F(1, 54) = 10.03$, $p = .002$, $\eta_p^2 = .150$, with a higher change in perception for those in the prescriptive condition ($M = 10.72$, $SD = 9.67$) than those in the perspective-taking condition ($M = 3.55$, $SD = 6.88$; see Figure 1). Thus, a significant, opposite relationship was found regarding the second hypothesis. Finally, those with a negative political correctness opinion in the prescriptive training session had a mean increase in awareness of microaggressions ($M = 9.40$, $SD = 11.46$). Therefore, the predicted backfire response did not occur and the third hypothesis was rejected.

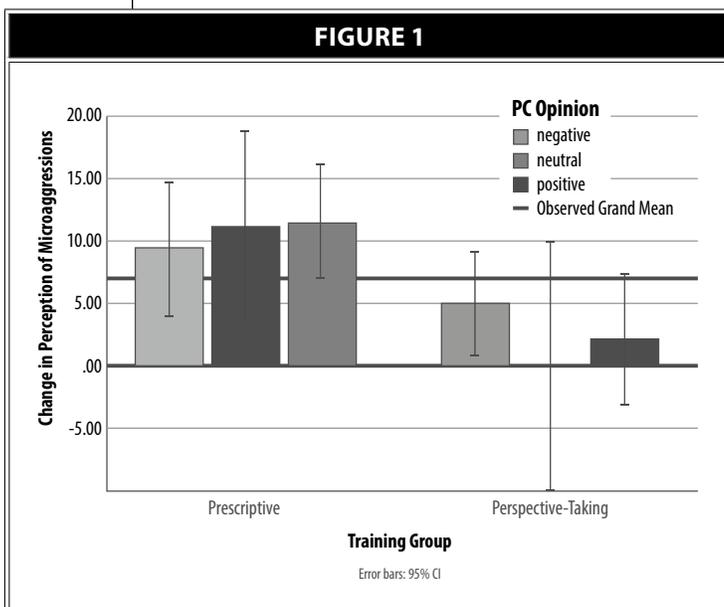
Discussion

The aim of this experiment was to evaluate the impact of various diversity training methods and political correctness opinions on perceptions of microaggressions. It was initially hypothesized that those with a positive political correctness opinion would experience a greater increase in awareness after diversity training than those with a negative

political correctness opinion. Results failed to find a significant difference in awareness of microaggressions based on one's opinion of political correctness. It was also hypothesized that those with a negative political correctness opinion in the prescriptive group would be less aware of microaggressions after the training. This hypothesis was also rejected, as these participants experienced an increase in perception similar to that of the other conditions. These findings suggest that the efficacy of diversity training does not depend on political correctness opinion, but it is also possible that the prescriptive condition was not an exact representation of political correctness. The prescriptive handout did not explicitly tell participants that they could not say, or act upon, the listed microaggressions; rather, it explained the subliminal messages which they send to members of marginalized races and ethnicities. Political correctness implies some type of restraint on expression (Loury, 1994); the handout merely suggested the elimination of certain phrases, but did not require it. It is also possible that the statistical significance was a fluke—a reflection of conformity in the social environment of the experimental session. Many of the examples listed in the handout were very similar to some of the comics on the POMS, so that by the posttest it was fairly clear to participants that the comics were portraying microaggressions. This, along with the knowledge that the trainer perceives microaggressions as detrimental, could lead participants to label situations as harmful or offensive even if they did not personally believe so. Indeed, political correctness can lead group members to self-censor if their beliefs differ from the majority, for fear of backlash or social ostracism (Loury, 1994).

It was also hypothesized that the perspective-taking training group would be more effective than the prescriptive group. The opposite was found; participants in the prescriptive training condition experienced a significant increase in their perceptions of microaggressions, while those in the perspective-taking condition did not. Perhaps our initial categorization was inaccurate because the prescriptive group might be more adequately described as a perspective-taking group. For those in the prescriptive condition, becoming aware of the metacommunications of microaggressions was a driving force to push them outside of their own experiential thoughts. In a sense, they were taking on the perspective of those with different life experiences. Meanwhile, the initially named perspective-taking group might be more accurately

FIGURE 1



described as an introspection group. The logic behind this condition's diversity training method is that, by pondering the experiences of those with different life experiences, social comparison occurs, thereby reducing the confines dividing in-groups and out-groups (Lindsey et al., 2015). However, these participants only had access to their internal thoughts, rather than outside perspectives, leading to circular thinking, which was represented in many of the responses reinforcing stereotypes. One participant wrote that the most common challenges facing the African-American community were "single parent homes . . . Black on Black crime . . . and gangs." Another wrote, "I have a heavy Indian accent because I only know life on the reservation." These statements are as perplexing as they are problematic. They could easily be perceived as microaggressions, but may also reflect the miseducation that led to these conclusions in the first place. Regardless, the attitudes of these participants will not alter if they do not travel outside their own sphere of thinking.

It is important to note that the vast majority of participants in this study were White, and no participants self-identified as Black. This study occurred at a predominately White institution, which may have made participants particularly prone to perpetrating racial microaggressions. These results indicate the impact of diversity training on primarily White students, and may not be representative of other communities. It would be beneficial for future studies to evaluate the efficacy of diversity training in communities with majority people of color. Another limitation of this study was the method of communicating microaggressions. Comic strips are two-dimensional, unable to fully depict something as nuanced and multifaceted as microaggressions. For example, it would be difficult to create a clear comic strip portraying a White person speaking extra slowly to a person with a Chinese accent. This occurrence is common yet tricky to accurately illustrate via this medium, thus limiting the types of microaggressions which could be included on the POMS. Portraying microaggressions realistically and also within a controlled environment has emerged as one of the leading issues with their measurement. Previous studies have used role playing (Boysen, 2012), interviews (Ayón & Philbin, 2017), and even memes (Williams, Oliver, Aumer, & Meyers, 2016) to measure people's perceptions of microaggressions. However, the method does not matter if the assumptions made about microaggressions are unfounded to begin with.

In a critical review of microaggression research, Lilienfeld (2017) brought to attention the issue of mono-source bias. By definition, microaggressions lie in the eyes of their beholder, with their existence resting on a singular perspective. This is the exact opposite of critical multiplism, where a construct is examined from a variety of viewpoints in order to gain a broader understanding (Lilienfeld, 2017). Everyone's perception is valid, but there needs to be some sort of consensus on what constitutes a microaggression if it is to be scientifically investigated. To date, only one study (Constantine, 2007) has examined interrater reliability in judgement of microaggressions, finding moderately high agreement ($r = .76$) between White counselors and African American clients. Future studies should investigate differences in perception between various communities, in order to come closer to answering the question—who, or what, determines if something is a microaggression?

Regardless of political correctness opinion, all people carry conscious and unconscious internal biases. These findings suggest that in order for perceptions of subtle bias to change, individuals must be exposed to differing perspectives. This line of thinking is consistent with intergroup contact theory, or the idea that forming positive, interdependent relationships with multiple members of an out-group leads to more positive attitudes of that community. It is one of the most effective and applicable methods of improving cross-cultural relations; for example, Bohmert and DeMaris (2015) found that having more interracial friendships is strongly associated with more positive racial attitudes. Then, in order to reduce internal racial biases, cooperative bonds must be formed with many people of various different backgrounds. The changes in perception detected in this study are a step in the right direction but should not be confused with altered internal biases. Future studies should examine whether changes in perceptions of microaggressions actually lead to fewer microaggression occurrences. Although it is unlikely that a one-time diversity training class will truly change deeply rooted racial schemas, exposing students and employees to the underlying messages that microaggressions send lays the groundwork for understanding. Because culture shapes reality, authentic intercultural relations will inevitably lead to misunderstandings. These differences in perception can be uncomfortable, but should be embraced and worked through in order to facilitate a better understanding of those

with different life experiences. Perhaps then the veil will be recognized and, eventually, begin to lift.

References

Anand, R., & Winters, M. F. (2008). A retrospective view of corporate diversity training from 1964 to the present. *Academy of Management Learning and Education, 7*, 356–372. <https://doi.org/10.5465/amle.2008.34251673>

Ayón, C., & Philbin, S. P. (2017). 'Tú no eres de aquí': Latino children's experiences of institutional and interpersonal discrimination and microaggressions. *Social Work Research, 41*, 19–30. <https://doi.org/10.1093/swr/sww028>

Batchis, W. (2016). *The right's first amendment: The politics of free speech and the return of conservative libertarianism*. Stanford, CA: Stanford Law Books.

Bezrukova, K., Spell, C. S., Perry, J. L., & Jehn, K. A. (2016). A meta-analytical integration of over 40 years of research on diversity training evaluation. *Psychological Bulletin, 142*, 1227–1274. <https://doi.org/10.5465/ambpp.2014.14813abstract>

Bohmert, M. N., & DeMaris, A. (2015). Interracial friendship and the trajectory of prominity attitudes: Assessing intergroup contact theory. *Group Processes and Intergroup Relations, 18*, 225–240. <https://doi.org/10.1177/1368430214550342>

Boysen, G.A. (2012). Teacher and student perceptions of microaggressions in college classrooms. *College Teaching, 60*, 122–129. <https://doi.org/10.1080/87567555.2012.654831>

Constantine, M. G. (2007). Racial microaggressions against African-American clients in cross-racial counseling relationships. *Journal of Counseling Psychology, 54*, 1–16. <https://doi.org/10.1037/0022-0167.54.1>

Du Bois, W. E. B. (1903). *The souls of Black folk*. Chicago, IL: A. C. McClurg & Company.

Hollingsworth, D. W., Cole, A. B., O'Keefe, V. M., Tucker, R. P., Story, C. R., & Wingate, L. R. (2017). Experiencing racial microaggressions influences suicide ideation through perceived burdensomeness in African Americans. *Journal of Counseling Psychology, 64*, 104–111. <https://doi.org/10.1037/cou0000177>

Lilienfeld, S. O. (2017). Microaggressions: Strong claims, inadequate evidence. *Perspectives on Psychological Science, 12*, 138–169. <https://doi.org/10.1177/17456916166659391>

Lindsey, A., King, E., Hebl, M., & Levine, N. (2015). The impact of method, motivation, and empathy on diversity training effectiveness. *Journal of Business and Psychology, 30*, 605–617. <https://doi.org/10.1007/s10869-014-9384-3>

Loury, G. (1994). Self-censorship in public discourse: A theory of 'political correctness' and related phenomena. *Rationality and Society, 6*, 428–461. <https://doi.org/10.1177/1043463194006004002>

Ong, A. D., & Burrow, A. L. (2017). Microaggressions and daily experience: Depicting life as it is lived. *Perspectives on Psychological Science, 12*, 173–175. <https://doi.org/10.1177/1745691616664505>

Riel, V.P. (2017). I don't go by White, Black, and stuff like that. I don't see a race. I see it's all equal: Racial microinsults and microinvalidations in a rural high school. (Unpublished master's thesis). North Carolina State University, Raleigh, NC. Retrieved from <https://repository.lib.ncsu.edu/handle/1840.20/33638?show=full>

Strauts, E., & Blanton, H. (2015). That's not funny: Instrument development and validation of the concern for political correctness scale. *Personality and Individual Differences, 80*, 32–40. <https://doi.org/10.1016/j.paid.2015.02.012>

Subotnik, D. (2016). How diversity training hurts. *Academic Questions, 29*, 198–204. <https://doi.org/10.1007/s12129-016-9564-x>

Sue, D. W. (2010). *Microaggressions in everyday life: Race, gender and sexual orientation*. Hoboken, NJ: Wiley.

Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A. M. B., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist, 62*, 271–286. <https://doi.org/10.1037/0003-066x.62.4.271>

Tool: Recognizing Microaggressions and the Messages They Send [PDF file]. (n.d.). Retrieved September 14, 2017, from https://academicaffairs.ucsc.edu/events/documents/Microaggressions_Examples_Arial_2014_11_12.pdf

Williams, A., Oliver, C., Aumer, K., & Meyers, C. (2016). Racial microaggressions and perceptions of internet memes. *Computers in Human Behavior, 63*, 424–432. <https://doi.org/10.1016/j.chb.2016.05.067>

Author Note. Nicole L. Smith, <https://orcid.org/0000-0002-5833-2062>, Department of Psychology, North Central College; Elise J. Percy, Department of Psychology, North Central College.

Nicole L. Smith is now at the School of Social Service Administration at University of Chicago. This study was supported by the North Central College Fall Symposium for Undergraduate Research. Special thanks to *Psi Chi Journal* reviewers for their support.

Materials for replication can be found at <https://osf.io/k3wz4> via Open Science Framework.

Correspondence concerning this article should be addressed to Nicole L. Smith, School of Social Service Administration, University of Chicago, Chicago, IL, 60637. Contact: nlsmith1@uchicago.edu

APPENDIX	
Concern for Political Correctness	
Please indicate how much you agree or disagree with each of the following statements by circling the number that corresponds with your answer. (' denotes reverse-scored)	
1.	I get anxious when I hear someone use politically incorrect language.
2.	'I dislike political correctness because it limits what I can and cannot say.
3.	'I do not educate people around me about the political meaning of their words.
4.	The use of politically incorrect language makes me very uncomfortable.
5.	'Language other people deem "politically incorrect" does not bother me.
6.	I get mad when I hear someone use politically incorrect language
7.	'People get too sensitive about what other people say.
8.	When a person uses politically incorrect words, I point it out to them to help educate them about the issues.
9.	When people show political ignorance in their choice of words, I call this to their attention.
10.	'Political correctness undermines my freedom of speech.
11.	'I get angry when someone tells me I can't say something because it offends them.
12.	Even if no harm was intended, I correct people if they say something that is politically incorrect.

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

Scholar Identity Development: A Book Writing Journey and Tips for Undergraduate Mentors

Jorge Cabrera, Jennifer E. Gilmour, and Jennifer L. Lovell*
California State University, Monterey Bay

ABSTRACT. Faculty on campuses of higher education do not reflect the cultural diversity within the United States. To create a pipeline of diverse faculty, it is necessary to foster the scholar identity development of underrepresented undergraduate students via research experience and mentor-mentee relationships. To address this gap in the literature, a collaborative autoethnography was used to investigate factors that helped mold the scholar identity of 6 diverse undergraduate students (e.g., gender, ethnicity, age, first generation status, and class) and worked with their mentor on the writing process of a book. Participant researchers included 5 women (83%) and 3 first-generation college students (50%), with ages from 22–31 years. Ethnic identity was split between Latino/a ($n = 3$; 50%) and White/European American ($n = 3$; 50%). As part of the book writing process, team members used technology (e.g., reference management, asynchronous communication, online resource evaluation, and QR Codes), allowing them to work remotely outside the confines of the conventional research lab. Students provided feedback, reviewed resources, worked on references, and completed other tasks. Participant researchers reflected on how their experiences in the research lab impacted their scholar identity development. Qualitative analysis produced themes defining scholar identity and elaborating on ways the experience expanded personal and professional growth. Scholar identity development was supported via a trusting and safe environment created in two primary ways: (a) valuing each person and (b) closing the power gap. A full description of themes and subthemes will be presented along with suggestions for future research.

Keywords: Collaborative autoethnography, scholar identity, mentor, protégé

According to the U.S. Department of Education, National Center for Education Statistics (2018), among full-time professors in higher education in fall 2016, the gender and ethnic composition was comprised largely of White men and women (41% and 35%, respectively), followed by 6% Asian/Pacific Islander men and women (6% and 4%, respectively), 3% Black men and women, and Hispanic men and women (3% and 2%, respectively). To compare, the United States population is composed of 61% White, 18% Hispanic, or Latino, 12% Black/African American,

6% Asian, 1% American Indian/Alaska Native, and <1% Native Hawaiian/Pacific Islander (Henry J. Kaiser Family Foundation, 2017). This means less than a quarter of higher education faculty are ethnic minorities and less than half of faculty are women. Less is known about representation in academia for other minority groups based on identities such as sexual orientation, first generation status, and socioeconomic status.

Lack of diversity in the professoriate is an issue because the diversity in the United States is shifting and leadership on campuses in the

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

country are not mirroring this shift. The lack of diverse faculty cannot be fixed by only modifying hiring practices; it is also important to increase graduation rates of minority students from higher education institutions and mentor them into graduate school. For example, Latinx people are the fastest growing population in the United States (U. S. Census Bureau, 2010). This population growth is not proportional to the growth of Latinx students on college campuses, where Latinx students continue to be underrepresented (Castellanos & Jones, 2003). With such a low percentage of minorities earning a bachelor's degree, this means an even lower percentage go on to graduate school. According to the American Psychological Association's (APA) Summary report (Cope, Michalski, & Fowler, 2016) for the 2014–15 year, African Americans and Hispanics together comprised approximately 20% of students in masters only programs, 13% of students in doctoral only programs, and 20% of students in combined master's and doctoral programs.

Obtaining a degree from a graduate school is one of many stepping stones in the pathway to becoming a full-time faculty member at an institution of higher education. Graduate and professional schools are the highest and most difficult prerequisites for the professoriate (Wilds & Wilson, 1998). As aforementioned, achieving this prerequisite is difficult for underrepresented minorities due to the disproportion of degrees obtained by minorities. Then, once individuals are in academia, they must progress through the process of tenure and promotion (Pedilla, 2003).

To increase racial and ethnic diversity within higher education and the professoriate, it is important to create a robust pipeline of ethnic minority students from high school, to college, and into graduate school. One important way to accomplish this goal is to foster the *scholar identity* of ethnic minority students. In the following section, we discuss scholar identity development, the importance of mentorship, and provide an example of how being involved in the book writing process as an undergraduate student can support scholar identity development.

Scholar Identity

Scholar identity seems to be a newer area of study within academia, with most of the research emerging in the past few decades. Most of this research has been focused on reducing educational disparities for racial/ethnic minority (REM)

kindergarten to 12th grade students. As one of the pioneering researchers in this area, Whiting (2006) defined scholarly identity as viewing oneself as intellectual and capable in academic settings, and discussed the many factors comprising scholar identity. These factors include self-efficacy, self-awareness, racial/ethnic identity, academic performance, aspirations, and multicultural education. Whiting (2006) suggested students who develop positive views of themselves as scholars have better persistence rates in education, and this is especially important for students from culturally diverse backgrounds who are often underrepresented in gifted education programs. Welch, Hodges, and Payne (1996) also argued that research on academic identity development among individuals who may identify with marginalized identities based on categories such as gender, race, ethnicity, and ableness is particularly important in order for them to develop a positive academic identity despite experiencing marginalization based on those identities. Thus, both Whiting (2006) and Welch et al. (1996) highlighted the importance of promoting development of scholar identities as a key component of college readiness and persistence.

Although much research in this area has been devoted to the scholar identity development of REM males in K–12 education, Rosenthal, Levy, London, Lobel, and Bazile (2013) argued that scholar identity is also a key component of academic success for undergraduate women and their pursuit of higher education. Moreover, Murakami-Ramalho, Militello, and Piert (2013) found that among graduate students, developing relationships with faculty were particularly important for student research identity development. Relationships between faculty and students can be enhanced by social justice-informed pedagogy, wherein teaching and mentorship is informed by understanding and deconstruction of privileged and marginalized identities. For example, Hendrix, Jackson, and Warren (2003) suggested multiple identity representation (e.g., referring to the multiple identities one person may hold including race, gender, sexual orientation) among faculty increases positive scholar identity development among students from marginalized groups. London, Rosenthal, Levy, and Lobel (2011) also found greater retention rates among female medical students whose faculty shared their identities when compared to students who did not have faculty sharing their identities. Thus, scholar identity can be fostered by seeing

role models in the field who are minorities and by receiving culturally sustaining mentorship.

Mentorship

Levinson (1978) described mentorship as one of the most important relationships a young person experiences in adulthood. Johnson (2016) argued the mentoring relationship is a unique relationship that is not often based on formal roles, but instead, based on the quality of the relationship and the goals set by the mentor and mentee. Johnson (2016) recommended the use of the *Mentoring Relationship Continuum*, which is a developmental model of mentoring relationships specifying the level of (a) engagement and (b) deliberate fulfillment of mentoring functions (e.g., accessibility, encouragement and support, and professional socialization). Castellanos, White, and Franco (2018) defined mentorship as a relationship intended to facilitate the development of a mentee (someone less advanced or younger), and they specified that both the mentor and mentee should grow and thrive as part of this relationship.

Castellanos et al. (2018) developed a multi-tiered model to mentor racial and ethnic minority undergraduates into the professoriate for their forthcoming book. Within this model, *research* is one of the pillars of higher education, in combination with *academics*, *practical experience*, *leadership*, and *community service*. Thus, one component of this holistic model involves scholar identity development. The model also highlights the importance of empowerment, cultural awareness, cultural validation, and social consciousness in scholarship. Often, research involvement for undergraduates is facilitated by research projects in class and extracurricular research lab experience. Research labs usually involve empirical projects, gathering data, analyzing data, and presentation. However, it is also important to consider how scholar identity development can be facilitated by involvement in other scholarly work, such as the book preparation process.

Scholarship and Book Writing

Writing in general, and writing a book specifically, can be an overwhelming, exciting, and humbling experience. Writing chapters and books is often a novel experience allowing authors to move beyond scholarship of discovery (e.g., empirical research studies) to application/engagement, integration of information across the discipline, and writing to educate and teach (Boyer, 1990). Being exposed

to various forms of scholarship can expand student understanding of what scholars do and how creativity and innovation are part of academia. Students can benefit from exposure to this process, but book material can also be improved through involvement of students. Integrating diverse student voices in the writing and feedback process can improve the accessibility, resonance, and multicultural competence of the material. In the past decade, the American Psychological Association has aimed to increase diversity representation in curriculum (Boysen, 2011; Nguyen Littleford, 2013). Textbooks and curriculum should include representation across multiple aspects of cultural identities (e.g., racial/ethnic, gender, sexual orientation, first-generation). There are published resources for how to write research articles, but fewer resources for how to write books. Although authors might use undergraduate students as part of the book writing process, a literature search found no published work describing how this is done and how this process might benefit the scholar identity development of students.

Summary

In summary, diversity among professors does not mirror that of the United States. This is in part because minority students have low graduation rates and even lower rates of graduate school matriculation. Developing a scholar identity is essential for success in higher education especially among underrepresented minority students. Luebbe and Ogbaselase (2018) argued there is a strong need for qualitative research examining the experiences of underrepresented minorities in higher education. Mentors can help students in the development of their scholar identity, but the literature on fostering scholar identity among undergraduates is limited. Likewise, no literature was found discussing the potential role of undergraduates in the book writing process. To fill these gaps in the literature, the present study used a collaborative autoethnography to examine undergraduate students' experiences through the book writing process with their mentors. Utilizing a qualitative approach can yield extensive data on the complexity of scholar identity. An autoethnographic approach removes the "yes or no" binary and allows for extensive examination of the motivations, barriers, and support of students which shape their scholar identity.

Research Question

We sought to answer the research question: In

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

what way did participating in the book writing process and overall team experience contribute to scholar identity development? A collaborative autoethnographic research design was most appropriate due to the self-reflective nature of our research question. Goals included (a) to explore key elements impacting scholar identity development situated within a small group of diverse undergraduate students and (b) to identify tips for mentors interested in fostering scholar identity development within first-generation and underrepresented students.

Method

Collaborative Autoethnography

Collaborative autoethnography (CAE) is a qualitative research method consisting of two or more autoethnographers in a research team, with a shared experience told through the sociocultural standpoint of each individual in the group (Chang, Ngunjiri, Hernandez, 2012). Autoethnography is the process of using one's own life story (autobiographical data) to gain understanding of sociocultural contexts, unpack social phenomenon, and interpret relationships between self and culture (Chang, 2008). In CAE, the autoethnographers reflect on their lived experiences and then collaboratively analyze and interpret the writings to find commonalities and differences (Chang et al., 2013). The experience of being undergraduate students developing our scholar identity was both an individual and joint journey; thus, we decided CAE was the best method to capture the experiences of six researcher participants.

Autoethnography and CAE are not common methods cited within psychology journals. However, they are powerful analytical methods more often used within education and other social sciences (Chang et al., 2013). In a recent article published in *The Counseling Psychologist*, Hargons, Lantz, Marks, and Voelkel (2017) used a CAE approach to analyze the leadership experiences of four diverse female counseling psychology students. CAE is unique because it is a method that sets the research team as the subject of their own inquiry and gives voice to the researchers' experiences (Chang et al., 2013).

Philosophical paradigms. Using a CAE framework, the research team rooted our research in both the critical-ideological and postpositivist paradigms (see Ponterotto, 2005). Consistent with the critical-ideological approach, all participant-researchers engaged in question development,

coding, and data interpretation process to ensure fairness in representation. We collaborated with one another and reflected on our identities as underrepresented scholars. By using a CAE approach, we aimed to also empower ourselves. CAE breaks down the barriers between the research participant and the researcher (Ponterotto, 2005). Our values and subjectivity was forefront, but we also deidentified the data during the initial analysis process to decrease power and privilege (e.g., prioritizing certain experiences) and to increase objectivity as we identified prominent themes. The team's choice to deidentify data reflects our postpositivist training and beliefs around epistemology; more specifically, the team's belief that data can only imperfectly approximate reality and objectivity can help gain perspective (Ponterotto, 2005). The critical-ideological and postpositivist paradigms are often at odds with one another in how research is approached, and we sought to be as intentional with decisions as possible to balance the team's beliefs.

Trustworthiness. Trustworthiness—also known as validity, rigor, and credibility—was sought by aligning our methods with standards for quality qualitative research outlined by Morrow (2005). Based on Morrow's (2005) transcendent criteria for qualitative research, we reflected on our subjectivity, beliefs, and experiences throughout the analytical process. Consultation with our team occurred throughout the research process and preparation for a conference symposium. The present CAE included six participant researchers, and having this number of collaborators is a strength due to offering a variety in kinds of evidence (i.e., adequacy of data; Morrow, 2005). Adequacy of interpretation involved reaching consensus based on themes and balancing quotes with interpretation.

Regarding the social validity of the study, the experiences of underrepresented undergraduate students is an import area of study that aligns with social justice values of equity, representation, and diversification of the field of psychology. The consequential validity of our study (i.e., achieving our goal to positively impact social change and improve mentorship of diverse students) cannot be determined until our research is published. Our hope is that this study inspires discourse and contributes to better resources and mentorship of student scholar identity.

Participant Researchers

Six participant researchers engaged in CAE. The campus Institutional Review Board designated the

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

study as excluded from Human Subjects Review. The team consisted of primarily undergraduate students ($n = 5$, 83.33%) and one recent alumnus. The group included five females, one male, and three first-generation college students ($n = 3$, 50%). Ages ranged from 22–31 years, with three students identifying as nontraditional college students who returned to undergraduate following a few years away from school (50%). Participant ethnic identity comprised of Latino/a ($n = 3$; 50%) and White/European American ($n = 3$; 50%). In addition to participating in this research project, most participants also held part-time or full-time jobs during the school year and identified as coming from working class backgrounds. Every participant identified with at least one underrepresented identity within academia.

Shared research experience and book process.

All six participant researchers participated in the same research experience. While rewriting and revising *The “Troubled” Adolescent: Challenges and Resilience Within Family and Multicultural Contexts* (Lovell & White, 2019), JL (the third author of this manuscript) created a summer 2017 research team to allow students the opportunity to be involved in the book writing process. It was important to involve diverse student voices because one audience for the book is upper-division undergraduates. Key components of the experience are outlined to contextualize the participant researcher narratives and to allow mentors to read an example of what involving students in book writing may look like.

Tasks and responsibilities. The full team met at the beginning of the summer to discuss the book writing process and build relationships. JL conducted training sessions on how to evaluate online resources, write discussion questions and summaries, craft learning objectives, and use technology for productivity (e.g., reference management, Google Drive, online search engines). We then held weekly meetings with the majority of work completed remotely. Two teams were created: a resources team (six students) and a references team (two students). Within each team, students were assigned one partner who they were responsible for communicating with and checking each other’s work.

The resources team was responsible for reading assigned chapter drafts, identifying topics for elaboration, reflecting on cultural factors, creating reflective questions to help readers think deeply about the content, reviewing and adding discussion questions and resources, and adding key terms

to the glossary section for each chapter. Another important responsibility was finding, reviewing, and evaluating QR codes (i.e., in-text resources such as videos, audio clips, or readings) to make the material relevant and interesting for diverse audiences. Each team had a week to review one chapter, and then the following week the same chapter would be reviewed by a different team to evaluate the resources and feedback provided by the first group. The references team was responsible for using Mendeley, a reference-management software plugin for Microsoft Word, to enter missing references, link references, edit or add missing information to these references. This team also reviewed and drafted chapter abstracts and learning objectives for each chapter. This team had a week to review each chapter, and shared the workload by having one person work on odd-numbered chapters, and one on even-numbered chapters. In the last weeks leading up to submission, this team also worked on compiling the final glossary.

Use of technology. Being able to participate in the book process and research team was largely dependent on the team’s ability to utilize technology, work remotely, and communicate both asynchronously and synchronously. Technology allowed students to work on the project because most team members were working part or full time, not living on campus, and/or providing for families. Utilizing tools like Google Drive enabled the team to work remotely and outside the confines of the conventional research lab. Use of Mendeley allowed the references team to work remotely and ensure content was given appropriate credit. Including QR codes and links to resources in each chapter enabled the inclusion of relevant and easily accessible material for students to deepen their understanding of supplemental content on cultural topics influencing the mental health experiences of youth (e.g., youth caregivers, school-to-prison pipeline, racial justice, and sexual minority youth). Numerous students expressed an interest in being involved in research teams during the semester but could not fit it into their schedule, and so meeting over the summer also increased inclusion and diversity of team members.

Cultural identities and relationships. Throughout the research and book process, our team sought to foster strong relationships and cultural sharing. During each team meeting, the team discussed situations in which we felt confident, were struggling, and could improve upon. JL also contributed to these discussions, and would share her own

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

moments of pride and insecurity (e.g., imposter phenomenon) throughout the book process. These regular check-ins helped the team grow closer.

By the end of the summer, the team had reviewed and added resources for 9 of the 12 chapters. Six students decided to remain involved during fall 2017 to finish the other chapters, finalize the glossary, and submit the manuscript in February 2018. During spring 2018, the same group of six students decided to conduct the present study to reflect on how the experience impacted their scholar identity development. Initial results were presented at the 2018 American Psychological Association Convention (Lovell et al., 2018), and the full results are presented in the present manuscript.

Researcher-as-instrument statements.

Involvement in this manuscript was offered to all participant researchers. However, the majority of participant researchers graduated and moved from the area. Thus, only two from the original team decided to participate in authorship of the manuscript for publication. In qualitative methods, we recognize that the authors' subjectivities can influence the research process and analysis (Morrow, 2005). In this CAE, the first two authors were participants in the study, and the third author is their mentor. At the time of data collection, Jorge Cabrera was in his senior year with interests in health care policy for undocumented children in California. He is a Hispanic, heterosexual, able-bodied, lower middle class male born in Mexico raised in the United States. He is married and a father of three children. Jennifer Gilmour was completing her junior year of college, working as a teaching assistant and research assistant in clinical evaluation and studying people living with first episode psychosis. She is a White, heterosexual, able-bodied, cisgender female from a rural, middle-class background. Jennifer Lovell was a second-year assistant professor during data collection. She is a White, multi-ethnic, heterosexual, able-bodied, cisgender female from a middle-class background.

Procedure

The participant researchers decided to take a rigorous approach to reflection and analysis of their own personal journeys (i.e., CAE). The team cocreated a list of questions that each person individually answered (see Appendix). These answers were then deidentified and qualitatively analyzed by the full group using thematic analysis (Braun & Clarke, 2006). Google Docs and Nvivo were used to manage

the qualitative transcripts.

Qualitative questions and reflective practice.

Participant researchers conducted a meeting to formulate reflective questions to be used for analysis. We identified topics of interest for our reflective writing based on our identity development as scholars. Two primary topics of interest included (a) the mentor-mentee relationship and (b) the impact of cultural variables on individual scholar identity development. Scholar identity, for the purpose of this study, referred to students' ability to see themselves as competent intellectuals who can function and perform as scholars (e.g., researchers, authors, editors). The six participant researchers formulated a total of six questions (see Appendix). Team members answered each question in a personal reflection free write form. These essays were used to identify initial themes, and then the team met together as a group to share, reflect, ask questions of one another, and finalize our results.

Thematic analysis. Thematic analysis is a widely used qualitative analytic method for identification of patterns within data, analysis of themes, and reporting of qualitative results (Braun & Clarke, 2006). For our study, we used an inductive thematic analysis approach which is a "bottom up" approach as compared to theoretical thematic analysis which is "top down." We also initially used *semantic themes*, which is the process of identifying themes by looking at the surface meaning of the data and not looking beyond what is written. We followed Braun and Clarke's (2006) step-by-step guide for conducting thematic analysis.

Phase 1 included the process of familiarizing ourselves with the data. This phase requires a clear understanding of the research question shaping interpretation of the data. Our team had a clear understanding of the questions because we had formatted them together. We familiarized ourselves with the data by each reading the transcripts multiple times. The second phase, *generating initial codes* (Braun & Clarke, 2006), involved each participant researcher identifying important segments of thought/words within the data to form codes. Codes are a general list of ideas. We worked in three-person teams to generate a list of codes, and then the whole team met in-person to discuss the results and reach consensus. These codes were then sorted in to broader themes during Phase 3, *searching for themes*. We worked together to identify similarities and group the codes. We then began Phase 4, *reviewing themes*, the process of deleting/adding/merging themes so they best match the data.

Phase 5, *defining and naming themes* (Braun & Clarke, 2006), involved a process of defining each theme and refining our conceptualization. For this phase, our group went through the process of redefining, merging, and renaming our themes. Only the participant researchers were involved in phases 1–4 to avoid influence of the mentor. JL become involved in Phase 5 and 6 to help facilitate conversation and work with the group on how to finalize themes. We made sure we had clearly defined themes that did not overlap. The last step in the process, Phase 6, *producing the report*, involved finishing analysis of the data and sharing the results.

Results

Through thematic analysis, the six participant researchers reflected on their journey during the book contribution process and research team experience. We identified three overarching themes: (a) defining *scholar identity*, (b) sharing areas of *personal and professional growth*, and (c) outlining qualities of the *trusting and safe environment* that helped support scholar identity development. These themes along with subthemes are described in the following sections along with illustrative quotes.

Scholar Identity

Many of us considered ourselves researchers, but had never thought about how we define being a scholar. Based on our answers, three themes defining a “scholar identity” emerged from the data: (a) a scholar is in *constant pursuit of knowledge* ($n = 5, 83\%$), (b) a scholar engages in *multifaceted roles* ($n = 5, 83\%$), and (c) a scholar endeavors to *educate others* ($n = 4, 67\%$).

Constant pursuit of knowledge. Most of us ($n = 5, 83\%$) identified the pursuit of knowledge as one of the fundamental qualities of a scholar. For example, Participant Researcher (PR) 2 defined and self-identified as a scholar in the following way:

I define scholar as any individual who pursues knowledge, who has a passion for learning both in the classroom and outside of it. I have always loved learning and believe that my pursuit to gain more knowledge would identify me as a scholar.

Similarly, PR5 wrote, “I define a scholar as an individual who has reached a high level of education or knowledge through study and dedication... A scholar is also on a never-ending pursuit for more knowledge.” Both examples encapsulate our teams’ fundamental understanding and general consensus

that the constant pursuit of knowledge is a quality of scholarship. Pursuit of knowledge also involved a “passion for learning” and an intention to “better the world” through knowledge. Thus, being a scholar is an active process of joyful learning and a drive to seek, find, and consume new knowledge that can improve social conditions.

Multifaceted roles. Another emergent theme from the data was an understanding that scholars engage in multifaceted roles ($n = 5, 83\%$). Scholars’ never-ending pursuit of knowledge is enhanced by their ability to take on multiple roles (e.g., researcher, author, mentor, leader, activist). For example, PR4 stated “It really helped me see another side to the academic process, seeing the professional revision process.” The participant’s mention of “another side” of academia refers to the fact that scholars do not have a single role in the academic scene, and sometimes the challenging process of professional writing and editing is not shared with students. Also, this theme captured our excitement and the newness of being part of the book writing process specifically. With each new experience, developing scholars begin to broaden their understanding of the diversity of roles scholars can have as well as the diverse research methods and ways of pursuing and sharing knowledge.

Educating others. The third prominent theme within scholar identity highlighted the importance of scholars educating others ($n = 4, 67\%$). Educating others involved the dissemination of knowledge, raising awareness, and taking ownership of one’s social and professional responsibility. As PR4 explained, “a scholar is someone who works to educate themselves and then educate others, and seeks to explore ideas and answers on behalf of others.” PR6 wrote:

I also think that scholars have unique social and professional responsibilities. A scholar should understand some basic framework for their field so they can best communicate with others about topics within their field. I also think that scholars have the responsibility to not misinform others and accurately portray their field, as a sort of representative.

Thus, scholars have an ethical, social, and professional responsibility as they share knowledge and work to educate and collaborate with others.

Personal and Professional Growth

Participant researchers saw growth in their personal

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

and professional identities as a scholar through the experience of contributing to the book writing process. Our data revealed four primary themes including: (a) *empowerment and pride in self*, (b) *skill acquisition*, (c) *future goals*, and (d) *voice as a scholar*.

Empowerment and pride in self. Most participant researchers ($n = 5$, 83%) reported moments of empowerment and pride in self. Empowerment was connected to pride via feelings of confidence and competence in one's work. In particular, feelings of empowerment and pride were described when personal contributions were valued by the mentor and other team members. One participant described a moment of pride when selected to be part of the summer book team. PR3 shared:

Being part of the book process has developed my identity as a scholar by giving me more tools to continue my own work in the future. It has given me the confidence and knowledge to continue exploring the realm of research.

Another participant (PR2) noted, "This experience also boosted my confidence, not necessarily because I improved my abilities, but from the general fact that I know now that I can work hard for academics that are self-selected outside the classroom." In this case, PR2 felt empowerment in being able to choose to participate in academic activities beyond coursework. PR5 also stated, "The process of working on this project itself was empowering as well because Dr. Lovell was trusting me to read something that she knew was not perfect and she cared about my opinion." Therefore, inclusion in the book process through self-initiation and in being selected by a mentor lead to student empowerment and pride.

Another component of empowerment and pride discussed by half ($n = 3$, 50%) of participants was receiving positive feedback from family about their contributions. For example, PR2 stated:

This process was not just a process for myself but rather a topic of discussion with my family, a pillar of pride actually. When I first told them that I got the job, they were thrilled I remember my father saying, 'I knew you could do it, your smarter than you give yourself credit for.' My family has been supportive through the whole process, they have listened to me talk about the interesting articles I am reading and rant on about the impact this can have

on my pursuit of higher education. They have continued to express the pride that they have in the fact that I am finishing my degree as well as incorporating valuable academic pursuits outside the classroom that are only adding to my passion for learning.

Having family and friends understand, appreciate, and praise their scholarly pursuits was also reported by PR6:

Friends and family who are not interested in psychology still understand the impact of writing a book on a topic, and so their perception of scholarly identity got pushed on to me a bit. I can definitely feel like a scholar when explaining my work or interests to friends and family not in the psychology field.

Thus, feelings of empowerment and pride involved an individual process as well as a joint process of receiving positive feedback from others. Positive feedback from our mentor, family, and friends played a role in how we view ourselves as scholars.

Skill acquisition. Another prominent theme and area of growth reported by participants was skill acquisition ($n = 5$, 83%). Qualitative data revealed moments when students either learned a new skill or improved upon an already existing skill. PR6 stated:

After working on the citations in several of the chapters, I would return to previous chapters and realized my skill level had increased. Additionally, chapters were faster to complete as time went on, so I knew the work eventually fell into a comfortable territory. I took some pride in figuring out a new program (Mendeley) and realizing my skill and efficiency for citations and evaluating written work had increased.

Another participant noted, "... the impact that this experience had on my writing, editing, and research abilities was profound" (PR2). Yet another participant reported improving, "attention to detail in APA—really important for me as I advance towards a degree in psychology" (PR4). As would be expected from a research lab, participants were able to reflect on skills learned and skills that were enhanced. Practice using American Psychological

Association (APA) style in writing, utilization of online/digital tools, and participating in editing and creating the glossary are some of the skills mentioned.

Future goals. Most participants mentioned reaching or setting goals as an aspect of their professional and personal growth ($n = 5$, 83.3%). PR2 noted, “It is my hope that this experience will be a stepping stone to my pursuit of a masters and/or PhD,” and “The impact that this experience has had on my life as a scholar is imperative; this experience shifted what I believe I was capable of.” PR1 wrote, “For the first time I entertained the idea that I could publish a book.” Thus, the experience contributed to our ideas about what is possible and fit with goals of higher education.

Three participants reported feeling inspired to hold diversity in the field as a priority in their professional goals ($n = 3$, 50%). This was demonstrated in PR4’s statement:

Coming from a community made up of primarily Latino/a youth has also allowed me to see the disparities in education and scholarship opportunities for these youth and also motivates me to pursue scholarship and bring more education to communities like my own.

Diversity of gender was also mentioned as a concern. Only one of the participant researchers was a male, and he was inspired to join the field and become a scholar, “because I saw that males were a minority in the field of psychology.” Participant’s social identities based on ethnic identity, gender, and intersecting identities impacted our experience engaging in the book project as well as future goals. This theme is further exemplified by a quote from PR3:

The academic field of psychology needs to be more diverse and I want to be a part of that change. I want to contribute my perspective and research ambitions. Being a woman of color motivates me to continue my work as a scholar and touch on topics that have never, or rarely, been explored.

The growth experienced by participants included developing awareness of possibilities and future career paths. For some, this growth also included an internal commitment to diversification of the field of psychology, and this served as motivation to reach career goals.

Voice as a scholar. All participant researchers ($n = 6$, 100%) reported encountering struggles along their educational journey as well as ways they have overcome obstacles to get to where they are as scholars and students. PR1 described this experience:

Coming from a lower middle-class family where my parents worked through entry-level jobs most of my life, I felt like an imposter taking on the identity of a scholar. My parents often struggled relating to my experience in high school and that gap of knowledge widened when I continued on to a four-year university.

The participants who identified as first-generation college students and working class felt like it took longer for them to understand and believe in themselves as scholars. Receiving validation from people outside the family (e.g., professors, mentors, friends) was sometimes important for these students to be able to explain to their family the importance of their work. Also, some participants discussed how the goals of this book project were different from the goals of other research labs, and so this influenced how they presented and explained their work. For example, PR4 wrote:

In sharing with another research mentor, the main reaction was asking what product would come out of it, so I think it made me see it as more of a collaborative/other-centered research project because I didn’t see myself as a presenter of the project per se. I think it helped me look at myself in my future work as a scholar as also an assistant to others.

Thus, as students began to explain their involvement in the book to others as research, feedback from both friends, family members, and professionals aided students in being able to express their perspectives as researchers and scholars in the book process.

Trusting and Safe Environment

When reflecting on what made the book contribution experience meaningful and successful, all participant researchers ($n = 6$, 100%) mentioned the importance of having a trusting and safe environment with their mentor and the team to support development as a scholar. Within this overarching theme, participant researchers identified

two subthemes contributing to a trusting and safe environment: (a) *feeling valued* and (b) *closing the power gap*.

Feeling valued. One of the most persistent themes we found in our data was that each one of us felt valued ($n = 6$, 100%). This sense of feeling valued by our mentor is an important aspect of the mentor-mentee relationship, which benefited each member of our team. Feeling valued involved our mentor (a) *acknowledging our individual contributions*, (b) *respecting each team member's perspective*, and (c) *celebrating accomplishments*.

Acknowledging individual contributions and showing appreciation is vital in creating a positive work setting for both mentors and mentees. A positive work setting then translates into productive and creative work, which benefits all involved. PR1 expressed feeling valued in the following way: "Compared to other research experiences I felt the most valued in this setting...there was no doubt that our opinions were valued." PR4 expressed the sense of value in the progression of the project: "Seeing the work progressing and knowing I was a part of it...being asked to take on additional things towards the end (of the project)."

In addition to acknowledging contributions throughout the project, respecting each team member's perspective was an important way in which participants reported feeling valued. Respect for difference in perspectives and beliefs helped improve the communication and collaboration between mentees and mentor. PR2 said, "She [Dr. Lovell] provided me with an incredible first experience in research that was informative, knowledgeable, and filled with respect and passion for this experience as a team." PR3 expressed a similar experience, and wrote, "I felt respected and knew my thoughts were as well."

Feeling valued also involved celebrating accomplishments. Celebrations vindicate all the hard work put into research projects or any other endeavors, and multiple participants mentioned how important it was to celebrate the completion of the project. PR6 expressed excitement of being included in the celebration of completing the project:

After finishing all of our work, I really enjoyed being included in Dr. Lovell's celebration party. Sometimes I feel like professors or professionals will tell the people working with/under them that they are important just to keep them doing

their work, but being included in celebrating the final moments made me feel like I was genuinely appreciated. Knowing that I learned new skills and was appreciated for my work empowers me to continue research.

Thus, our results indicate students feel valued when mentors include perspectives of individual students, integrate student perspectives into group work, and celebrate accomplishments.

Closing the power gap. Closing the power gap ($n = 3$, 50%) is a key theme contributing to why participants felt valued and trusted. By closing the power gap between mentor and mentee, the relationship flourishes and it allows both parties to be vulnerable and human with one another. PR1 said, "It was the first time that where I did not feel treated as an inferior because of my status of an undergraduate student." Similarly, PR4 described how the experience "helped reduce the 'power' gap between me and professors 'they're people too.'" Overlooking titles and seeing each individual as equal and having valued expertise helped to close the power gap in the "professor" and "student" relationship.

Participants referred to a few specific strategies for closing the power gap, and these included (a) seeking feedback and allowing students to edit the mentor's work, and (b) being genuine. First, mentors seeking team feedback, opinions, and questions was mentioned as an important component of the experience that helped close the power gap and made participants feel valued. Communication is key in all relationships, and in the mentor-mentee relationship it helps foster a beneficial and productive environment for both parties. Our mentor also helped close the power gap by allowing students to edit her work, as PR2 explained, "The trust that Dr. Lovell extended to each of her team members was immeasurable, allowing us each to edit her words, provide ideas and suggestions, with her full support and enthusiasm even when things were stressful."

Being genuine was another construct that emerged under this theme ($n = 2$, 33%). PR3 stated, "Dr. Lovell has a genuine desire to share her knowledge with others through teaching, mentoring and everything else." PR2 also noted trusting Dr. Lovell because she was open about her own experiences, stating, "Dr. Lovell herself is very conscious of mental health and the welfare of others, I believe because of her personal experiences

and her experience as a clinical psychologist.”

Therefore, our results revealed that, when mentors are intentional about sharing their own genuine experiences, weaknesses, and moments of pride and struggle, students feel a closer personal connection to their mentor. This, in turn, decreases the power gap between mentors and students. Additionally, when mentors allow students to provide the mentor with constructive criticism, it helps students grow in their confidence as scholars.

Discussion

This research sought to explore how contributing to the book writing process was meaningful for participant researchers' scholar identity development. Through CAE and thematic analysis, we identified three primary themes: (a) defining *scholar identity*, (b) experiencing personal and professional growth, and (c) creating a trusting and safe environment. Illustrative examples of these themes and subthemes contribute to the literature on scholar identity development of diverse undergraduate students and have direct implications for mentors as well as research students.

First, participant researchers worked to define *scholar identity*. This theme included three subthemes: constant pursuit of knowledge, multifaceted roles, and educate others. Predominantly, scholar identity has been defined in the kindergarten through 12th grade using terms such as academic achievement, viewing oneself as intelligent or competent, and compatibility or representation with faculty and peers (London et al., 2011; Whiting, 2006). This study made unique contributions to the literature on scholar identity development, specifically for undergraduate students. We would add to previous definitions by highlighting the importance of viewing oneself as a lifelong learner, being adaptable to various challenges in academia, and disseminating knowledge as educators.

Second, participant researchers identified four specific areas of personal and professional growth including empowerment and pride in self, skill acquisition, future goals, and voice as scholar. One specific skill identified was use of technology. In particular, use of a reference management system, navigation within Word documents, and linking online resources are potentially unique and important skills when working on a chapter or book due to the sheer amount of content. Subthemes related to personal and professional growth align with some of the mentoring outcomes identified within

Castellanos et al.'s (2018) model for mentoring racial and ethnic minority students. Desired outcomes included supporting mentee's confidence, academic efficacy, goal setting, skill development, work ethic, feeling valued/mattering, connections to academic family, and pursuit of graduate school. Similarly, Chan (2010) highlighted the importance of developing protégé's skills by discussing dreams and goals, building their confidence with positive words, giving quality feedback, giving practical support, and overcoming self-limiting beliefs. Our results support these findings by emphasizing skill development, goals, and empowerment, but a unique theme emerging from our data was the importance of finding one's voice as a scholar.

Lastly, participant researchers found that a trusting and safe environment was important for achieving high levels of personal and professional growth. This theme included two primary subthemes: feeling valued and closing the power gap. Trusting and safe environments are created by mentors. Johnson (2016) identified five characteristics of excellent mentoring of undergraduate students which are consistent with our identified theme of creating a trusting and safe environment and our subtheme of feeling valued. In particular, Johnson (2016) argued a mentor should (a) approach and praise talented students, (b) be sensitive to unique cultural and ethnic backgrounds, (c) recognize students' need of encouragement, (d) provide social support, and (e) allow students to develop their identities without withdrawing from the mentoring relationship. In her book on mentoring across differences, Chan (2010) identified ways to build trusting relationships with mentees. Two of these themes are related to our subtheme of closing the power gap: acknowledging limitations and acknowledging and repairing mistakes. Our findings provide new and unique information specifically identifying closing the power gap as an important component in the mentoring model.

Implications for Mentors and Students

The participant researchers used their experiences to identify tips for mentors who are interested in supporting the scholar identity development of diverse students. These tips are paired with actions students can take to improve scholar identity development.

Offer and seek various opportunities. Mentors should include students in a variety of research processes (e.g., book writing, meta-analyses, grant writing, institutional review board applications).

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

A range of experiences allows students to develop skills in multiple areas and helps students to explore their scholar identity. When possible, some scholarship opportunities should be offered during summers or school breaks utilizing technology; participant researchers in the present study were able to participate in this research experience over the summer due to the hybrid nature of the project. Sharing technology tools with students can promote professional growth and awareness around ways to increase efficiency and productivity in scholarship. Providing flexibility with technology can make experiences accessible, but participants also found great value in the interpersonal connections when together as a team. Thus, finding ways to reinforce the relationship via in-person or video conferencing may be important.

Students should also seek experiences that give them a broader sense of scholarly work (e.g., chapters, empirical projects, literature reviews, teaching, presenting). This diversity of experience with projects and mentors will help them know what domains of scholarship interest them most and highlight their strengths (Ritzer, 2018). Seeking opportunities involves putting oneself out there and following up when faculty offer mentorship or research experiences. It may take a while to get a research position, but keep trying.

Close the power gap. Mentors should give students opportunities to provide them with open and honest feedback, concerns, and ideas they may have (e.g., editing written work, including resources they suggest for content). Also, mentors should consider sharing personal moments of both pride and struggles. When opening up to students, students feel less intimidated, and more like the research is a shared space for them to contribute their ideas, values, and skill sets. A mentor's individual identity is complex and will not match each mentee, but mentors should find and highlight commonalities between their identities and that of their students. In doing so, mentors help close the power gap by creating a relationship no longer defined by superior and inferior. However, it is important to note that closing the power gap might be riskier for faculty who identify as minorities or are new to teaching. This was not evaluated in the present study, but would be an important area of future research.

Regarding students' roles, mentees are encouraged to share their perspectives if a faculty member seems genuinely interested in receiving feedback. Sharing constructive criticism with a faculty

member can feel intimidating. Students should not let imposter syndrome, or feelings of inadequacy, keep them from sharing ideas and opinions. Imposter syndrome, or phenomenon, refers to feeling like an intellectual fraud, experiencing difficulty internalizing achievements, and fearing exposure as an imposter (Clance & Imes, 1978). Imposter feelings are associated with increased risk for mental health challenges within female (Cusack, Hughes, & Nuhu, 2013) and ethnic minority students (Cokley, McClain, Encisco, & Martinez, 2013). It can often be challenging to find a balance between humility and confidence when speaking to a faculty member. Although mostly focused on graduate students, there are resources for identifying and dealing with imposter syndrome online via the American Psychological Association (e.g., Craig, 2018). Faculty can also share their personal experiences with imposter syndrome, and this can help foster discussion about "expertise" and whose voices are valued in academia.

Develop meaningful relationships based on respect and trust. Faculty should develop meaningful relationships based on trust and respect with their mentees through seeking alternative perspectives. Including diverse experiences within the research processes, providing students with positive feedback, and praising students individually for their work fosters positive relationship development. Diversity is a key component of creating a safe space in which mentees feel valued, and this includes diversity in content (e.g., social identities represented in research and scholarship), diversity in access (e.g., in-person, remote, accommodations), and diversity in the team membership (e.g., ethnicity, class status, first-generation, nontraditional status; Gallor, 2017). Mentors are encouraged to celebrate both individual student contributions and team successes because this can build a sense of ownership and joy in the learning process.

Students should look for mentors whom they identify with and/or hold similar values (Welsh & Campbell, 2017). Seeking faculty who are inclusive of diverse perspectives can be particularly important for underrepresented students. Students should also take moments throughout the scholarship process to acknowledge their individual contributions to projects along with what they appreciate about their mentor. Being responsible, taking ownership, and recognizing accomplishments can help solidify respect and trust between mentor and mentee.

Explore and define scholar identity. Mentors should collaboratively define scholar identity, and

ask students how they see themselves as scholars. Next, mentors can identify areas where students can grow in their definitions, such as seeing value in lifelong learning and seeing beyond course-based work. Students should continually revisit their definition of scholar identity and what it means as they navigate academia and explore areas in which they feel confident and areas in which they struggle or need further scholarly growth.

Conclusions

This research is unique because we used a collaborative autoethnographic (CAE) research design to explore the scholar identity development of a diverse group of undergraduate students. Our mentor provided us the opportunity to join her in the book writing journey, and as part of this journey we utilized technology to collaborate, develop our skills, and deepen our relationships. Our identities based on ethnicity, first-generation status, socioeconomic status, and gender were affirmed within the process. Three overarching themes emerged from the data (i.e., scholar identity, personal and professional growth, and trusting and safe environment). We believe the creation of a trusting and safe environment is the most important theme. Mentors are responsible for both creating this environment as well as identifying a diverse group of students (mentees) who will thrive in the environment. Once the environment has been created and the promising mentees have been identified, the stage is set for the development of scholar identity. Mentees are responsible for being open to the experience and using it to foster growth as a scholar. Scholar identity development is a continuing quid pro quo between mentor and mentee. Mentors provide opportunities which allow the personal and professional development of their mentees.

Although the depth of qualitative data is a strength that helps to illuminate the experiences of the participant researchers in this study, the results likely lack generalizability due to the small sample size and autoethnographic design. However, the findings can still be used to inform diversity-affirming mentorship approaches and inspire future research. Also, because we sought to focus on scholar identity development of undergraduates, we did not incorporate content focused on the mentor's experience into our design. Future studies examining the relationship between mentorship style and scholar identity development should include both mentee and mentor perspectives to better represent this complex relationship. Future

studies can also seek to explore the impacts of a broader range of social identities on scholar development. Although the participant researchers sought to include information about socioeconomic status, racial/ethnic identity, gender, and first-generation status, we did not discuss the impacts of sexual orientation or ability on our scholar identities. The sample was not large enough to make comparisons between participants who identified within each of these diverse identities. However, exploration of scholar identity development among underrepresented students is an important area for future research. Also, one area of interest that emerged from our data was the impact of family and peer relationships on our scholar identity development, and this is also an important area for future study.

The scholar identity development of undergraduate students is important, especially for students who are underrepresented in academia. The mentee-mentor relationship allows both parties to grow and learn from each other. Within this study, a diverse group of participant researchers reflected on our experiences so we could share our insights. We hope our study will be used by faculty at institutions of higher education who aim to promote diversity, utilize technology, and foster the scholar identity development of undergraduate students.

References

- Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Lawrenceville, NJ: Princeton University Press.
- Boysen, G. A. (2011). Diversity topics covered in teaching of psychology courses. *Society for the Teaching of Psychology, 38*, 89–93. <https://doi.org/10.1177/0098628311401593>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Castellanos, J., & Jones, L. (2003). Latina/o undergraduate experience in American higher education. In J. Castellano & L. Jones (Eds.), *The majority in the minority: Expanding the representation of Latina/o faculty, administrators and students in higher education* (pp. 1–13). Sterling, VA: Stylus Publishing, LLC.
- Castellanos, J., White, J., & Franco, V. (2018, August). Racial ethnic minority student scholarship development: A mentorship research model. In J. L. Lovell & J. Castellanos (Chairs), *Shaping racial ethnic minority student scholarship: Effective models for writing and publication*. Symposium conducted at the meeting of the American Psychological Association Convention, San Francisco, CA.
- Chan, A. (2010). *Inspire, empower, connect: Reaching across cultural differences to make a real difference*. New York, NY: Rowman & Littlefield Publishers, Inc.
- Chang, H. (2008). *Autoethnography as method: Developing qualitative inquiry*. Walnut Creek, CA: Left Coast Press.
- Chang, H., Ngunjiri, F. W., & Hernandez, K. A., C. (2013). *Collaborative autoethnography*. Walnut Creek, CA: Left Coast Press.
- Clance, P. R., & Imes, S. A. (1978). The impostor phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy Theory, Research, and Practice, 15*, 241–247. <https://dx.doi.org/10.1037/h0086006>
- Cokley, K., McClain, S., Enciso, A., & Martinez, M. (2013). An examination of the impact of minority status stress and imposter feelings on the mental health of diverse ethnic minority college students. *Journal of Multicultural*

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

- Counseling and Development*, 41, 82–95.
<https://doi.org/10.1002/j.2161-1912.2013.00029.x>
- Cope, C., Michalski, D., & Fowler, G. (2016). *Summary report, graduate study in psychology 2017: Student demographics*. Retrieved from the American Psychological Association website: <https://www.apa.org/education/grad/survey-data/2017-student-demographics.aspx>
- Craig, L. (2018). Are you suffering from imposter syndrome? Ways to identify and deal with feelings of self-doubt in grad school. *American Psychological Association Science Directorate, Psychological Science Agenda, Science Student Council*. Retrieved from <https://www.apa.org/science/about/psa/2018/09/imposter-syndrome>
- Cusack, C. E., Hughes, J. L., & Nuhu, N. (2013). Connecting gender and mental health to imposter phenomenon feelings. *Psi Chi Journal of Psychological Research*, 18, 74–81. <https://doi.org/10.24839/2164-8204.JN18.2.74>
- Gallor, S. (2017). A social justice approach to undergraduate psychology education: Building cultural diversity, inclusion, and sensitivity into teaching, research, and service. *Psi Chi Journal of Psychological Research*, 22, 254–257. <https://doi.org/10.24839/2325-7342.JN22.4.254>
- Hargons, C., Lantz, M., Marks, L. R., & Voelkel, E. (2017). Becoming a bridge: Collaborative autoethnography of four female counseling psychology student leaders. *The Counseling Psychologist*, 45, 1017–1047. <https://doi.org/10.1177/0011000017729886>
- Hendrix, K. G., Jackson, R. L., II & Warren, J. R. (2003). Shifting academic landscapes: Exploring co-identities, identity negotiation, and critical progressive pedagogy. *Communication Education*, 52, 177–190. <http://dx.doi.org/10.1080/0363452032000156181>
- Henry J. Kaiser Family Foundation. (2017). Population distribution by race/ethnicity. Retrieved from <https://www.kff.org/other/state-indicator/distribution-by-raceethnicity/>
- Johnson, W. B. (2016). *On being a mentor: A guide for higher education faculty* (2nd ed.). New York, NY: Routledge.
- Levinson, D. J. (1978). *The seasons of a man's life*. New York, NY: Alfred A. Knopf, Inc.
- London, B., Rosenthal, L., Levy, S. R., & Lobel, M. (2011). The influences of perceived identity compatibility and social support on women in nontraditional fields during the college transition. *Basic and Applied Social Psychology*, 33, 304–321. <https://doi.org/10.1080/01973533.2011.614166>
- Lovell, J., Luna, J., Cabrera, J., Carrillo, S., Clark, N., Hatch, J., & Riquetti, D. (2018, August). Feminist research with racial/ethnic minority and first-generation undergraduate students. In J. L. Lovell & J. Castellanos (Chairs), *Shaping racial ethnic minority student scholarship: Effective models for writing and publication*. Symposium conducted at the meeting of the American Psychological Association Convention, San Francisco, CA.
- Lovell, J., & White, J. L. (2019). *The 'troubled' adolescent: Challenges and resilience within family and multicultural contexts* (2nd ed.). New York, NY: Routledge.
- Luebbe, A. M., & Ogbaselase, F. A. (2018). Constriction of the educational pipeline for students of color at the point of entry to doctoral work in psychology: Commentary on Callahan and colleagues. *Training and Education in Professional Psychology*, 12, 291–294. <http://dx.doi.org/10.1037/tep0000211>
- Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counseling psychology. *Journal of Counseling Psychology*, 52, 250–260. <https://doi.org/10.1037/0022-0167.52.2.250>
- Murakami-Ramalho, E., Militello, M., & Piert, J. (2013). A view from within: How doctoral students in educational administration develop research knowledge and identity. *Journal of Studies in Higher Education*, 38, 256–271. <https://doi.org/10.1080/03075079.2011.578738>
- Nguyen Littleford, L. (2013). Diversity in the undergraduate curriculum: Perspectives held by undergraduate students at a predominately European American university. *Society for the Teaching of Psychology*, 40, 111–117. <https://doi.org/10.1177/0098628312475030>
- Pedilla, R. V. (2003). Barriers to accessing the professoriate. In J. Castellano & L. Jones (Eds.), *The majority in the minority: Expanding the representation of Latina/o faculty, administrators and students in higher education* (pp. 179–204). Sterling, VA: Stylus Publishing, LLC.
- Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology*, 52, 126–136. <https://doi.org/10.1037/0022-0167.52.2.126>
- Ritzer, D. R. (2018, Fall). Finding a mentor. *Eye on Psi Chi*, 23(1), 18–22. Retrieved from www.psichi.org/page/231EyeFall18Ritzer
- Rosenthal, L., Levy, S. R., London, B., Lobel, M., & Bazile, C. (2013). In pursuit of the MD: The impact of role models, identity compatibility, and belonging among undergraduate women. *Sex Roles*, 68, 464–473. <https://doi.org/10.1007/s11199-012-0257-9>
- United States Census Bureau. (2010). Data. Retrieved from <https://www.census.gov/data.html>
- United States Department of Education, National Center for Education Statistics. (2018). *The condition of education: Characteristics of postsecondary faculty* (NCES 2018-144). Retrieved from https://nces.ed.gov/programs/coe/indicator_csc.asp
- Welch, O. M., Hodges, C. R., & Payne, L. T. (1996, April). *Project EXCEL: Developing scholar identity within a community of respect*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY. Retrieved from <https://eric.ed.gov/?id=ED394471>
- Welsh, K., & Campbell, E. L. (2017, Winter). Relational mentoring: Fostering genuine connections with professors. *Eye on Psi Chi*, 21, 10–12. Retrieved from www.psichi.org/page/212EyeWin17hWelsh
- Whiting, G. W. (2006). Enhancing culturally diverse males' scholar identity: Suggestions for educators of gifted students. *Gifted Child Today*, 29, 47–50.
- Wilds, D. J., & Wilson, R. W. (1998). *Minorities in higher education 1997–98: Sixteenth annual status report*. Washington, DC: American Council on Education.

Author Note. Jorge Cabrera, California State University, Monterey Bay; Jennifer E. Gilmour, California State University, Monterey Bay; Jennifer L. Lovell, California State University, Monterey Bay.

Special thanks to members of the research team: Jazmin Luna, Nicolette Clark, Shelby Carrillo, and Danielle Riquetti. Special thanks also goes to the California State University, Monterey Bay, Undergraduate Research and Opportunities Center (UROC) for their support of student involvement in this project. This manuscript is dedicated to Dr. Joseph White, master mentor, who transitioned from the earth in November 2017.

Correspondence concerning this article should be addressed to Jennifer L. Lovell, California State University, Monterey Bay, Department of Psychology, 100 Campus Center, Seaside, CA 93955. Email: jllovell@csumb.edu

APPENDIX

List of Reflective Questions for Collaborative Autoethnography

1. How do you feel your identities (e.g., racial/ethnic, first-generation, gender, class, ability, sexual orientation, etc.) impact how you think about or perceive "scholarship?"
2. How did working on the book impact your identity development as a scholar? How does this experience compare to other research/mentorship experiences?
3. How did working with your mentor impact your identity development as a scholar (interpersonally)? In what ways did your mentor's ethnicity/race and other characteristics impact your relationship?
4. What moments of pride/empowerment did you experience as part of this project?
5. When sharing your experience with others (e.g., friends, professors, family), how did they react, and how did their reactions impact your perception of yourself as a scholar?
6. How do you define a "scholar" and how do you see yourself as a "scholar"?

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

Microaggression Detection Measurement Impact on White College Students' Colorblindness

Christina A. Patterson, University of New Mexico
Melanie M. Domenech Rodríguez , Utah State University

ABSTRACT. Racial microaggressions can unduly tax people of color. To combat their impact, people need an increased awareness and ability to detect microaggressions when they occur. The present study examined White individuals' ability to accurately detect microaggressions across 3 conditions with varied exposure to knowledge about microaggressions (control, low-exposure, high-exposure) at pre- to postintervention. Undergraduate university students ($N = 103$) were recruited from 2 predominantly White universities. At pre- and postintervention, participants watched a set of video clips, some of which contained racial microaggressions, answered a series of questions regarding the content of the videos, and completed the Colorblind Racial Attitudes Scale (CoBRAS). Participants watched a 1 hr video on racial microaggressions, read an article on microaggressions, or read an article on positive psychology. CoBRAS total score from pre- ($M = 62.23$, $SD = 15.39$) to postintervention ($M = 61.67$, $SD = 15.66$), $t(102) = 3.26$, $p = .002$, $d = .32$, indicated a significant decrease in overall colorblindness and a significant increase in awareness of racial privilege scores from pre- ($M = 26.67$, $SD = 7.51$) to postintervention ($M = 25.51$, $SD = 7.87$), $t(102) = 3.28$, $p = .001$, $d = .32$. Awareness of institutional discrimination and blatant racial discrimination did not shift significantly. Results suggest that repeated exposures to videos of microaggressions had a significant effect in increasing awareness of participants' racial privilege and decreasing colorblind attitudes. This has implications for interventions and future research.

Keywords: microaggressions, prejudice reduction, colorblindness, online intervention, media psychology



Open Materials badge earned for transparent research practices. Materials are available at <https://osf.io/w3vsn>

Prejudice is rooted in habitual thinking that results in discriminatory practices (Forscher, Mitamura, Dix, Cox, & Devine, 2017). To break prejudicial habitual thinking, one must first be aware of the root bias and have concern about how the bias influences others (Chaney & Sanchez,

2018; Devine, Forscher, Austin, & Cox, 2012). Increasing awareness of bias is perhaps the most difficult step to achieve (Chaney & Sanchez, 2018) because prejudicial bias has shifted significantly from being overt racism to a more covert, modern racism (McConahay & Hough, 1976). The question

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

then becomes, how can awareness of bias be increased in order to create the foundation for change in prejudicial attitudes?

Colorblind Racial Ideology

After the civil rights movement, it was no longer acceptable to display open prejudice against people of color, and more covert forms of racism (Dovidio, Gaertner, Ufkes, Saguy, & Pearson, 2016), known as *modern racism*, became prevalent (McConahay & Hough, 1976). Modern racism posits that racial beliefs form early in life and are influenced by cognitive and conative components (McConahay & Hough, 1976). Conative components relate to public policy and law, and can shift quickly, such as the signing of a new law. Cognitive components include an individual's negative thoughts and feelings about a marginalized group. Cognitive components are slower to shift than conative components and can be transmitted to future generations (McConahay & Hough, 1976).

As societal expectations have shifted, negative thoughts and biases about people of color seem to have shifted to the unconscious realm (Gaertner & Dovidio, 2005; Staats, Capatotso, Tenney, & Mamo, 2017). These movements might have been facilitated by the espousing of colorblind racial attitudes. Conative actions (e.g., establishment of affirmative action laws in employment) resulted in new broad social norms (e.g., one shall not express prejudice openly), but these broad social norms did not necessarily shift individuals' attitudes (e.g., Black people are not as competent in philosophy as Whites). The colorblind narrative (e.g., Black and Whites are all the same! I don't see color!) simply served to cover negative attitudes from the person espousing that perspective. The end result is a system that appears equitable but is not so.

People holding a colorblind racial ideology claim not to judge others by their perceived race, but rather by the content of their character (Delgado & Stefancic, 2017). Although this is a noble sentiment, true colorblind racial ideology is thought to be unattainable (Neville, Awad, Brooks, Flores, & Bluemel, 2013). Proponents of colorblind racial ideology assert that colorblindness will eradicate racism (Valdes, Culp, & Harris, 2002). However, critics of colorblind racial ideology argue that colorblindness perpetuates racial inequality because it allows racism to go unacknowledged by claiming that race was not a factor in judgement (Delgado & Stefancic, 2017). Colorblind racial ideology has been conceptualized into three

distinct domains: *institutional discrimination* (i.e., rejection of the role of racism in social policy), *blatant racism* (i.e., denial of overt racism), and *racial privilege* (i.e., denial of White privilege; Neville, Lilly, Duran, Lee, & Browne, 2000). Blatant racism reflects color evasion or simply put, the minimization of race in society. Institutional discrimination and racial privilege reflect power evasion, or the minimization of racism (Mekawi, Bresin, & Hunter, 2017; Neville et al., 2013). Although these subscales tap different constructs within colorblindness, no known research has examined their differential relationship to different expressions of prejudice.

Across White, Hispanic, and African American groups, most people endorse a colorblind identity (Hartmann, Croll, Larson, Gerteis, & Manning, 2017) indicating that beliefs in a colorblind racial ideology are strong and widespread. However, individuals who endorse a colorblind identity were no more or less likely to support or object to race-based policies (Hartmann et al., 2017) suggesting that egalitarian views do not necessarily translate into less discriminatory behavior or interactions. Further, educators who endorsed stronger colorblind racial ideology were less likely to utilize inclusive teaching practices (Aragón, Dovidio, & Graham, 2017). A colorblind racial ideology maintains the status quo by way of a tenet that people are the same across racial groups (color evasiveness) and have the same opportunities (power evasion) *despite evidence to the contrary* (Neville et al., 2013). Although these findings may be construed as neutral, neutrality is not always a desired outcome. Eli Wiesel (1986) argued that "neutrality helps the oppressor, never the victim" (para. 9).

Racial and Ethnic Microaggressions

The term *microaggression* was first described as "subtle, stunning, often automatic and non-verbal exchanges which are 'put-downs' of blacks by offenders" (Pierce, Carew, Pierce-Gonzalez, & Wills, 1977, p. 66). Pierce and colleagues coined the term to describe media depictions of Blacks in television. Following the initial definition of microaggressions, little research was conducted on microaggressions (see Pettigrew, 1989; Solorzano, Ceja, & Yosso, 2000). In 2007, Sue and colleagues published a seminal article expanding the definition of microaggressions to "brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults" (p. 273).

Sue et al. (2007) further highlighted specific categories of racial and ethnic microaggressions: *microassaults*, *microinsults*, and *microinvalidations*. Microassaults are explicit, intentional derogations against a person of color and are more reflective of old-fashioned racism (e.g., racial slurs, refusing to serve a person in an establishment). Microinsults are demeaning, insulting communications about or against a person/community of color (e.g., a White woman walking across the street when a Black man walks toward her). Microinvalidations are communications that attempt to nullify or negate a person of color's experiences with race (Sue et al., 2007). Colorblind racial ideology is a microinvalidation because it seeks to invalidate the reality a person of color experiences by perpetuating the false, racist claim that their experience could not possibly be linked to race and instead must be some other characterological issue. Sue (2010) further argued that adhering to colorblindness denies the role of power and privilege as it pertains to race in our society, which is consistent with the belief that colorblind racial ideology exists to maintain the status quo (Neville et al., 2013).

It is important to note that, in the years following the development of the first taxonomy of racial and ethnic microaggressions, new categories and themes of racial and ethnic microaggressions have been identified (see Johnston & Nadal, 2010; Nadal, Escobar, Prado, David, & Haynes, 2012; Nadal, Wong, Sriken, Griffin, & Fujii-Doe, 2015), and research has expanded to other identities (see Nadal, Whitman, Davis, Erazo, & Davidoff, 2016; Sterzing, Gartner, Woodford, & Fisher, 2017).

Racial and ethnic microaggressions have negative impacts on people of color. Students of color who experience racial and ethnic microaggressions at school report a negative school climate that impacts their educational achievement (Carter Andrews, 2012) and a decrease in their sense of belonging and an increase in emotional distress (Clark, Mercer, Zeigler-Hill, & Dufrene, 2012). Racial microaggressions can also negatively impact mental health. People of color who experience higher rates of racial microaggressions endorsed increased risks for anxiety (Liao, Weng, & West, 2016) and underage binge drinking of alcohol (Blume, Thyken, Lovato, & Denny, 2012), higher rates of somatic symptoms, and negative affect (Ong, Burrow, Fuller-Rowell, Ja, & Sue, 2013). These impacts are problematic by themselves and are also compounded by the fact that persons of

color are less likely than White Americans to seek mental health treatment (Buser, 2009).

Prejudice Reduction Interventions

The body of literature on prejudice is one of the most prolific in psychology and has informed research on prejudice reduction (Paluck & Green, 2009). Despite the interest in prejudice reduction interventions, there is no consensus on how to best reduce prejudice (Bezrukova, Spell, Perry, & Jehn, 2016; Paluck & Green, 2009).

Research examining the effectiveness of prejudice reduction interventions is sparse, lacking in applicable designs, and does not actually answer whether there are any significant effects in the real world (Paluck & Green, 2009). To explore the vastness of researchers attempting to do just that, numerous meta-analytic studies have been conducted examining the effects of prejudice reduction interventions (see Bezrukova et al., 2016; Kalinoski et al., 2013). In one meta-analysis, Bezrukova and colleagues (2016) reviewed the effectiveness of diversity interventions. Interventions targeting attitudinal/affective outcomes were more likely to lead to decay following the intervention; whereas, interventions targeting cognitive outcomes (i.e., knowledge-based learning) were more stable. Further, integrated (i.e., interventions incorporated throughout a curriculum) were more effective than standalone interventions; there was no difference between training with focused teachings (e.g., teaching about race/ethnicity and then LGBTQ+) compared to generalized issues (e.g., ingroup vs. outgroup), and longer intervention trainings were more effective than brief intervention trainings.

Devine et al. (2012) examined the effectiveness of a habit-breaking intervention that focused on increasing awareness of how bias forms and maintains and then teaching how to replace biased responses with desired, nonbiased behaviors. They found significant reductions in implicit bias during a 12-week longitudinal study. Other research teams have explored how to reduce prejudice in interpersonal contexts. Cooley, Lei, and Ellerkamp (2018) examined whether bringing ownership to implicit biases would reduce prejudice and found mixed outcomes of increasing and decreasing prejudiced behavior depending on internal motivations to decrease prejudice. In an updated and modern exploration of the contact hypothesis, White, Verrelli, Maunder, and Kervinen (2018) examined the role of how e-contact may reduce prejudice against gay and lesbian individuals, and

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

found that heterosexual men reported decreased prejudice when communicating online with a lesbian woman. Although controversial, interpersonal confrontation, verbal communications addressing the prejudice, can have lasting effects where individuals expressed fewer negative stereotypes about marginalized groups of people (Chaney & Sanchez, 2018). These findings lend to the possibility that interpersonal confrontation may be an effective antiprejudice tool.

Ultimately, there are promising leads for educators and interventionists on how to combat prejudice, especially racism. We aimed to contribute to this important and growing body of literature.

Overview of the Study

This article is a smaller portion of a larger study. To contribute to this expansive body of knowledge, we developed a multimedia intervention designed to increase awareness and detection of racial and ethnic microaggressions in video clips specifically targeting White college students. The original study posited that racial prejudice is difficult to reduce because White people lack basic knowledge about the sociocultural and historical construction of race, the history of racism with particular focus on how modern racism came to be, and the harmful effects of modern racism (see Marley Hypothesis; Bonam, Nair Das, Coleman, & Salter, 2019). Our intervention targeted this gap. We created an intervention within a Critical Race Theory framework (Delgado & Stefancic, 2017) that provided basic information about a topic (e.g., racial and ethnic microaggressions) with clear, accessible examples, and measured whether participants took in the information and were able to demonstrate a measurable difference before and after the intervention (e.g., detection rates). Detection was conceptualized as participants' ability to watch multimedia clips (e.g., movie or television clips), detect whether a racial or ethnic microaggression occurred during the clip, and describe the encounter observed. We argue that the first step in creating change is to create awareness (Chaney & Sanchez, 2018).

The original study hypothesized that participants' ability to detect racial and ethnic microaggressions would have different outcomes: the high-exposure condition (i.e., a 1 hr lecture), would have higher detection and accuracy rates compared to the low-exposure (i.e., reading a scholarly article on microaggressions) and control conditions (i.e., reading an article on positive psychology) and participants in the low-exposure

condition would have higher detection and accuracy rates compared to the control conditions. We further hypothesized that colorblind racial ideology, as measured by the Colorblind Racial Attitudes Scale (CoBRAS; Neville et al., 2000) would moderate the effects of detection rates. Because we did not find significant results regarding detection rates and thus could not explore the moderating effects of colorblind racial ideology, we turned our attention to general shifts in colorblindness. Our decision to explore shifts in colorblindness was guided by previous research where participation in antiprejudice interventions led to changes in reported colorblind racial ideology. We conducted exploratory analysis of the CoBRAS measure and found significant shifts in reported colorblindness, which we believe provide interesting implications for advancing prejudice reduction interventions. We did not complete any other exploratory analyses on any of the other data because we did not want to "cherry pick" our data nor did we want to mislead our community about the magnitude of our findings. The Method section outlines all aspects of the original study to provide transparent methodology, allow for interpretation and critique of our findings, and provide a starting point to outline future directions. The entirety of the original study is available for review (Patterson, 2017).

Method

Participants

A total of 103 (61 women, 40 men, 1 nonbinary, 1 agender; $M_{age} = 23$, $SD_{age} = 6.69$, range 18–47 years) undergraduate university students were recruited from two predominantly White universities (PWU) in the state of Utah. All participants self-identified as White, Caucasian, or European American. Participants were fairly homogenous across other identities: an absence of disabilities (93.20%), members of The Church of Jesus Christ of Latter-day Saints (LDS; 75.73%), heterosexual sexual orientation (85.44%), and parents with at least some college education (Parent/Caregiver 1, 87.40%; Parent/Caregiver 2, 88.30%). For full demographics, see Table 1.

Procedure

All study procedures were reviewed and approved by the Utah State University Institutional Review Board. Participants were assigned to one of three conditions: control, low-exposure, and high-exposure. Preintervention, participants watched a set of video clips (see Video Clips), answered

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

TABLE 1

Participant Demographics (N = 103)

Variable	Condition			Variable	Condition		
	Control	Low Exposure	High Exposure		Control	Low Exposure	High Exposure
	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)		<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
Total	34 (100%)	35 (100%)	34 (100%)				
Gender				State Resident			
Male	13 (38.2%)	14 (40.0%)	13 (38.2%)	Yes	24 (70.6%)	31 (88.6%)	29 (85.3%)
Female	20 (58.8%)	21 (60%)	20 (58.8%)	No	10 (29.4%)	4 (11.4%)	5 (14.7%)
Other	1 (2.9%)	0 (0.0%)	1 (2.9%)				
Disability				Parent/Caregiver 1 Education Level			
Yes	2 (5.9%)	2 (5.7%)	3 (8.8%)	Less than High School	0 (0.0%)	1 (2.9%)	1 (2.9%)
No	32 (94.1%)	33 (94.3%)	31 (91.2%)	Some High School	0 (0.0%)	0 (0.0%)	1 (2.9%)
				High School diploma/GED	1 (2.9%)	6 (17.1%)	2 (5.9%)
Religion				Some College	9 (26.5%)	7 (20.0%)	6 (17.6%)
Atheist	2 (5.9%)	2 (5.7%)	0 (0.0%)	College degree	20 (58.8%)	17 (48.6%)	13 (38.2%)
Latter Day Saint (LDS)	28 (82.4%)	26 (74.3%)	24 (70.6%)	Graduate Degree	4 (11.8%)	4 (11.4%)	10 (29.4%)
Christian –Not LDS	2 (5.9%)	1 (2.9%)	6 (17.6%)	Not Applicable	0 (0.0%)	0 (0.0%)	1 (2.9%)
Agnostic	0 (0.0%)	2 (5.7%)	0 (0.0%)				
Other	0 (0.0%)	0 (0.0%)	1 (2.9%)	Parent/Caregiver 2 Education Level			
None/Not Applicable	2 (5.9%)	3 (8.6%)	3 (8.8%)	Less than High School	0 (0.0%)	1 (2.9%)	0 (0.0%)
No response	0 (0.0%)	1 (2.9%)	0 (0.0%)	Some High School	0 (0.0%)	0 (0.0%)	2 (5.9%)
Sexual Orientation				High School diploma/GED	2 (5.9%)	4 (11.4%)	1 (2.9%)
Asexual	0 (0.0%)	0 (0.0%)	1 (2.9%)	Some College	8 (23.5%)	6 (17.1%)	8 (23.5%)
Gay/Lesbian/Homosexual	0 (0.0%)	1 (2.9%)	0 (0.0%)	College Degree	9 (26.5%)	14 (40.0%)	14 (41.2%)
Bisexual	1 (2.9%)	1 (2.9%)	0 (0.0%)	Graduate Degree	14 (41.2%)	10 (28.6%)	7 (20.6%)
Demisexual	0 (0.0%)	1 (2.9%)	0 (0.0%)	Not Applicable	1 (2.9%)	0 (0.0%)	1 (2.9%)
Straight/Heterosexual	31 (91.2%)	29 (82.9%)	27 (79.4%)	No response	0 (0.0%)	0 (0.0%)	1 (2.9%)
No response	2 (5.9%)	3 (8.6%)	5 (14.7%)				
Year in College							
First Year	18 (52.9%)	19 (54.3%)	17 (50.0%)				
Sophomore	7 (20.6%)	5 (14.3%)	7 (20.6%)				
Junior	6 (17.6%)	6 (17.1%)	3 (8.8%)				
Senior	3 (8.8%)	5 (14.3%)	7 (20.6%)				

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

questions regarding the content of the videos, and completed the CoBRAS (Neville et al., 2000). At postintervention, participants watched another set of video clips, answered questions regarding the content of the videos, and completed the CoBRAS. Participants who completed the pre- and postintervention materials received course credit.

Sample Size

We had no literature to inform a priori power analysis calculations. Using G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) we set α at .05, power at .80, and input a moderate effect size (.25) following guidelines for confirmatory research (Jaeger & Halliday, 1998). The program returned a needed sample size of 102 for the total sample that included three between groups (control, low-exposure, high-exposure) and three time points (pre-, post-, follow-up).

Materials

Demographics. The demographics questionnaire obtained self-reported age, gender, race and ethnicity, sexual orientation, religion, program major, state residency status, disability, and parent/guardian education levels.

Video clips. A total of 21 video clips (ranging from 6 s to 2 min) divided into three sets of seven clips were used in this study. Their original purpose was to measure participants' ability to detect racial/ethnic microaggressions. Clips contained content from web series, Vines, television shows, movies, and stand-up comedy. All final video clips were reviewed by an expert panel: three graduate students (one White genderqueer person, one woman of color, and one man of color), one faculty member (woman of color), and a faculty consultant with an active program of research on racial and ethnic microaggressions (man of color). The expert panel determined whether or not a video clip expressed a racial/ethnic microaggression (yes/no), and if so, they determined the category of each microaggression (i.e., microassault, microinsult, microinvalidation). To be included in the study, video clips had at least 80% interrater agreement.

Video clips were organized by category (e.g., microinsult, microassault). Each video clip was then numbered 1, 2, or 3 in order of how they appeared on the list and grouped by their number assignment so that seven clips were in each set. Once in a set, each clip was then randomly assigned a number between 1 and 7. Then, video clips were sequentially ordered becoming the final order of the clips for

each set. The ordering of the clips within each set did not vary. However, the ordering of the video sets was counterbalanced. For parity, each set of clips contained one nonmicroaggression race-related clip to determine if participants could discern a race-related nonmicroaggression interaction from a microaggression-based interaction. For more information regarding the order of the video clips, a brief description of the content, and length of each video, supplemental tables can be found in Open Science Framework (OSF; Patterson & Domenech Rodríguez, 2018).

Microaggressions detection. We developed four questions to test observer knowledge about microaggressions. The first question "Did you see a racial or ethnic microaggression?" (*yes or no*), assessed participants' ability to recognize microaggressions broadly. An open-ended request to describe "what happened" when answers were affirmative. Next participants were asked which category (i.e., *microinvalidation, microinsult, microassault, or not sure*) they would place the microaggression under. Finally, we asked them to identify the theme (i.e., *ascription of intelligence, second-class citizen, assumption of criminality, pathologizing cultural values, environmental, alien in own land, colorblindness, myth of meritocracy, denial of individual racism, or not sure*) for each microaggression. For specific examples tied to specific categories and themes, readers are referred to Sue et al. (2007) and Sue et al. (2019). Respondents could select multiple responses for each item. Responses were coded as correct or incorrect. To provide context regarding the questions asked about the video clips, we have included basic information regarding this measure. However, this article focuses on shifts in colorblindness as a result of participating in an online microaggression training. Thus, further information regarding microaggression detection will not be included. The measure is available in OSF (Patterson & Domenech Rodríguez, 2018). For information regarding data outcome, please review the original study (Patterson, 2017).

Colorblindness. The CoBRAS (Neville et al., 2000) is a 20-item measure that assesses perceptions of racial colorblindness on a 6-point Likert-type scale (1 = *strongly disagree* to 6 = *strongly agree*). Items are summed and full-scale scores range from 20–120. The CoBRAS also yields three subscale scores: Racial Privilege (seven items with summed score ranging from 7–42; e.g., "Race is very important in determining who is successful and who is not"), Institutional Discrimination (seven items

with summed score ranging from 7–42; e.g., “Due to racial discrimination, programs such as affirmative action are necessary to help create equality”), and Blatant Racial Issues (six items with summed score ranging from 6–36; e.g., “Racism may have been a problem in the past, it is not an important problem today”). Higher scores on each scale indicate stronger perceptions of colorblindness. For the present sample, Cronbach’s α coefficients for each scale were adequate: full-scale score was .89, Unawareness of Racial Privilege was .87, Institutional Discrimination was .76, and Blatant Racial Issues was .91.

Control intervention. Participants in the control condition read “Positive Psychology: Past, Present, and (Possible) Future” by Linley, Joseph, Harrington, and Wood (2006). This article was chosen to directly mirror the structure of the Sue et al. (2007) article but was completely devoid of any mention of racial/ethnic microaggressions. A six-item questionnaire consisting of *true* or *false* and multiple-choice questions followed the article to assess reading comprehension and engagement, with scores ranging from 0 (*none correct*) to 6 (*all correct*; $M = 4.53$, $SD = 1.16$).

Low-exposure intervention. Participants in the low-exposure condition read the article “Racial Microaggressions in Everyday Life: Implications for Clinical Practice” by Sue et al. (2007). This article was chosen for the low-exposure condition because it allowed participants to develop a base understanding of racial/ethnic microaggressions without any further elaboration. A six-question questionnaire consisting of *true* or *false* and multiple-choice questions followed the article to assess reading comprehension and engagement, with scores ranging from 0 (*none correct*) to 6 (*all correct*; $M = 5.34$, $SD = 0.80$).

High-exposure intervention. Participants in the high-exposure condition viewed one of two microaggression training intervention videos. Visible racial/ethnic minority leaders, one woman of color and one man of color, each led a training intervention video lasting approximately 1 hr. The presentation content was the same. Both videos provided information on the following topics in the following order: objectives and ground rules, brief history of racism with emphasis on the development and occurrence of modern racism, a definition and taxonomy of racial microaggressions (Sue et al., 2007), and physical and mental health impacts of racial microaggressions. The intervention utilized pictures and video clip examples of racial/ethnic

microaggressions from television shows, movies, news clips and web-based programming to provide illustrative examples of different kinds of microaggressions. The final videos contained PowerPoint slides spliced throughout the video so that the viewer saw the intervention leader teaching the content and the actual content as it was taught. PowerPoint slides can be found in OSF (Patterson & Domenech Rodríguez, 2018).

Results

The levels of colorblind racial attitudes in our college sample were comparable or slightly lower than Neville’s reported means for White Americans across four samples (Neville et al., 2000; see Table 2). Correlations between the CoBRAS total scale and subscales are found in Table 3 and are similar or stronger than those reported by Neville and colleagues (2000).

We conducted a paired-samples *t* test to evaluate changes from pre- and postintervention CoBRAS total scores and subscale scores: Racial Privilege, Institutional Discrimination, and Blatant Discrimination. There was a statistically significant decrease in CoBRAS total score from pre- to postintervention across participants for all conditions indicating a decrease in overall colorblindness, $t(102) = 3.26$, $p = .002$, $d = .32$. Similarly, there was a statistically significant decrease in Racial Privilege scores from pre- to postintervention across participants indicating an increased awareness of racial privilege, $t(102) = 3.28$, $p = .001$, $d = .32$. There was no significant difference in Institutional Discrimination scores from pre- to postintervention across participants, $t(102) = 1.39$, $p = .169$, or in Blatant Discrimination scores from pre- to postintervention across participants, $t(102) = 0.29$, $p = .774$, indicating that there was no change in awareness of Institutional Discrimination or Blatant Discrimination. See Table 2.

To explore the veracity of the effects when the three subscales were examined together, a repeated measures Analysis of Variance (ANOVA) was conducted with the three subscales as the within group variables and group membership (control, low exposure, high exposure) as the between subjects variable. The findings were quite similar. Only awareness of racial privilege decreased over time, $F(1, 100) = 10.55$, $p = .002$, $\eta^2_p = .095$. There were no other significant main effects for time nor any significant time by group interactions.

A two-way mixed ANOVA was used to compare mean differences between conditions from pre- to

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

postintervention for total CoBRAS scores. There was no significant interaction between pre- and postintervention CoBRAS scores by condition, $F(2, 100) = 1.31, p = .273$. The main effect of time showed a statistically significant difference in CoBRAS total scores from pre- to postintervention, $F(1,100) = 10.62, p = .002, \eta^2_p = .096$. There was no significant main effect for condition, $F(2,100) = 0.49, p = .612$.

Discussion

The purpose of the original study was to examine the impact of an intervention on students' ability to detect racial and ethnic microaggressions in media video clips. Although we did not find significant changes in detection rates from pre- to postintervention, we did observe a significant decrease in overall colorblindness from pre- to postintervention across all participants, despite assigned condition. Participants in the control condition read an article

on positive psychology, those in the low-exposure condition read the seminal Sue et al. (2007) article outlining an initial taxonomy of racial and ethnic microaggressions, and participants in the high-exposure condition viewed a video lecture detailing the history of racism, discussing and observing examples of racial and ethnic microaggressions, and highlighting the impacts of microaggressions on communities of color. Because a significant decrease in overall colorblindness was observed across all participants, we cannot attribute this shift to the interventions. Instead, we argue that exposure to video clips containing racist interactions and subsequent reflection was itself the stimulus that facilitated the change in colorblind attitudes. We suspect that the shifts in colorblindness are linked to repeated exposure to racial and ethnic microaggressions via the video clips. Given the limited findings in prejudice reduction research (Paluck & Green, 2009) and the very few studies on

TABLE 2
Descriptive Statistics for Pre- and Postintervention CoBRAS Scores

Outcome	N	Pretest		Observed Min-Max	Posttest		Observed Min-Max
		M	SD		M	SD	
Total Sample							
CoBRAS Total	103	63.23	15.38	24–103	61.67	15.65	20–100
Unawareness of Racial Privilege	103	26.67	7.51	7–42	25.51	7.87	7–42
Institutional Disc.	103	22.52	6.29	9–38	22.19	5.84	7–38
Blatant Racial Disc.	103	14.04	4.56	6–23	13.96	4.71	6–23
Control Group							
CoBRAS Total	34	65.35	16.51	24–103	63.38	15.79	32–100
Unawareness of Racial Privilege	34	26.50	7.56	9–42	25.76	7.37	10–42
Institutional Disc.	34	23.91	6.86	9–38	23.24	6.51	13–38
Blatant Racial Disc.	34	14.94	4.54	6–23	14.38	4.51	6–23
Low Exposure							
CoBRAS Total	35	61.80	15.30	28–93	59.57	15.41	23–91
Unawareness of Racial Privilege	35	26.20	7.73	13–42	24.69	8.09	10–41
Institutional Disc.	35	21.91	6.62	9–34	21.49	5.70	7–33
Blatant Racial Disc.	35	13.69	4.48	6–22	13.40	4.77	6–23
High Exposure							
CoBRAS Total	34	62.59	14.52	25–91	62.12	15.98	20–89
Unawareness of Racial Privilege	34	27.32	7.43	7–39	26.12	8.28	7–39
Institutional Disc.	34	21.76	5.23	9–33	21.88	5.28	7–32
Blatant Racial Disc.	34	13.50	4.67	6–12	14.12	4.94	6–23

Note. Unawareness of Racial Privilege and Institutional Discrimination scores range from 7–42; Blatant Racial Issues scores range from 6–36. Total scale score ranges from 20–120 with higher total scores indicating stronger perceptions of colorblindness. CoBRAS = Colorblind Racial Attitudes Scale.

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

microaggressions using an experimental paradigm (Wong, Derthick, David, Saw, & Okazaki, 2014), we thought these data and findings worthy of sharing.

Increasing awareness of bias is a challenge (Chaney & Sanchez, 2018). Consciousness raising is the act of intentionally raising awareness about privilege and oppression (Leonard, 1996) and has been shown as a likely effective intervention in reducing bias and prejudice (Paluck & Green, 2009) and in increasing knowledge of racism in college students (Aldana, Rowley, Checkoway, & Richards-Schuster, 2012). Specifically related to microaggressions, a microintervention of making the invisible visible calls for bringing the microaggression to the foreground of awareness (Sue et al., 2019). Having participants watch repeated videos that depict racial and ethnic microaggressions and asking participants to reflect on the content of the video may act as powerful stimulus in facilitating change. Whether a person agrees with the conceptualization and veracity of microaggressions or not, if a person is asked to thoroughly examine a race-based interaction and independently concludes that a microaggression has occurred, it becomes much more difficult to deny the racist interactions evident in the video clips. The repeated act of watching video clips with racial and ethnic microaggressions compels the audience to reflect on race, and thus, may be acting as a consciousness raising tool.

When examining the subscales separately, significant movement was observed for the Racial Privilege subscale specifically and not for the other two CoBRAS subscales. These findings may be reflective of characteristics of the sample or confounding variables that were unmeasured. We saw a decrease in racial privilege scores, indicating that participants' reported increased awareness of racial privilege. Scores on racial privilege have been positively linked with empathic concern and negatively linked to openness to experiences (Mekawi et al., 2017). It is possible that watching videos of racist interactions had an effect on empathic concern for those who were targeted by the microaggressions. It definitely opens the door to an exciting direction to explore. Further, respondents might have been invested in not appearing racist (Sue, 2010) and might have answered items on the CoBRAS in a socially desirable manner (Sears & Henry, 2003). The initial study examined participants' ability to detect racial and ethnic microaggressions within video clips. We did not assess social desirability because our initial goal was to measure knowledge (i.e., participants' ability to correctly or incorrectly

identify a racist interaction) which should not be impacted by social desirability. However, as participants' consciousness raised, it is possible that participants became more inclined to report socially desirable findings, especially if they interpreted the researchers on this study as wanting a particular point of view. Thus, it is important that future research examine the role of social desirability.

There were no significant changes in participants' scores on the Institutional Discrimination and Blatant Racial Discrimination subscales. The content of the video clips was relational in nature. Each clip contained an interaction between characters (e.g., a White character asking "where are you from" to an Asian character) or a reflection of an overall concept (e.g., America being a melting pot). However, none of the clips contained content explicitly regarding institutional discrimination, even if the microaggression demonstrated was reflective of systemic racism (e.g., myth of meritocracy), nor did the intervention materials provide in-depth information regarding systemic racism. Thus, it is unsurprising that no awareness of institutional discrimination occurred. It would be interesting if future intervention materials explicitly linked the relationship of systemic discrimination to the manifestation of racial and ethnic microaggressions. Further, it is not surprising that there was not a significant shift pre- to postintervention on the Blatant Racial Discrimination subscale because pre-intervention scores were relatively low, indicating a general awareness of blatant racial discrimination prior to participation in the study, leaving little room for shifts to be statistically significant.

Strengths and Limitations

Because there has been significant interest in trainings that reduce prejudice, researchers have been seeking the most effective ways to deliver an

TABLE 3

Correlations Between CoBRAS Subscales and Total Scale at Pre- and Postintervention (N = 103)

	1	2	3	4
1. Racial Privilege	--	.521**	.495**	.848**
2. Institutional Discrimination	.556**	--	.638**	.853**
3. Blatant Racism	.538**	.647**	--	.799**
4. Total	.872**	.848**	.813**	--

Note. ** = $p < .001$. Correlations above the midline are for pre-intervention scales (N = 103). Correlations below the midline are for post-intervention scales (N = 103). CoBRAS = Colorblind Racial Attitudes Scale.

SPECIAL ISSUE
PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

intervention. This study incorporated some of the strongest recommendations currently available. We developed an experimental (Paluck & Green, 2009) intervention that integrated knowledge, awareness, and skills (Bezrukova et al., 2016; Garriott, Reiter, & Brownfield, 2016) via media examples (Estrada, Durlak, & Juarez, 2002; Garriott et al., 2016; Soble, Spanierman, & Liao, 2011). We created an experimental design that examined the differences between varying intervention levels (e.g., high-exposure, low-exposure, and control) across three different time points. Further, we utilized authentic media depictions of racial and ethnic microaggressions to highlight the invasiveness of racial and ethnic microaggressions in people's everyday lives. The original conceptualization of microaggressions examined changing expressions of racism in the media (Pierce et al., 1977). Our study went back to the original abstraction of racial and ethnic microaggressions and also expanded the range of media depictions by utilizing various outlets (e.g., television shows, movies, web series) that people regularly consume.

Although there are significant strengths to this study, there are also some limitations. All of the materials for this intervention were online. Although online interventions increase accessibility and flexibility, there can be complications. For instance, we included manipulation checks to assess engagement (e.g., questionnaire following each article). However, it is impossible to determine actual engagement and interest in the materials. Online materials also present a challenge in that technology can have difficulties (e.g., a video not working) and does not allow for interpersonal engagement at the time of the intervention. If a participant had questions or concerns, there was no person present to respond. This might have led to low engagement or general confusion about the content of the intended interventions.

Although we found significant shifts in overall colorblindness, the effect size was small. There are two possible reasons for this small effect size. First, our intent was not to have the video clips act as the catalyst for change, thus the quantity or quality of the content was not assessed for that purpose. Second, the CoBRAS scores for college students were moderate according to Neville and colleagues (2000). It is possible that a consciousness raising intervention of this nature (i.e., passive watching combined with a brief prompt to consider racism) is more or less effective at different levels of colorblindness.

Future Directions

One could conclude that it is unfortunate that there were no differences across conditions on racial microaggressions detection. However, we believe that nonsignificant findings are valuable to scientific progress, and although we did not report on our null findings in this article, we have offered transparent methodology in the hopes that we can utilize our findings to better construct antiprejudice trainings in the future. Perhaps the interventions were not sufficiently strong enough to lead to changes in knowledge. Nonetheless, we did find significant shifts in overall colorblindness and shifts in awareness of racial privilege. Our effect sizes were small and may be attributed to error. However, we believe that our findings indicate something of value; increased exposure to racial and ethnic microaggressions with intentional reflection may facilitate change and reduce colorblind racial ideology. The implications for this research, we believe, warrant replication to confirm the findings.

Future research may manipulate the quantity and quality of the video clips and examine the relative impact in shifting colorblind attitudes. For example, manipulating exposure to clips that target subtle and blatant discrimination and institutional factors may lead to insights about the differential impact of this observation-plus-reflection method on attitude shifts. At another level, it is much simpler and more cost-effective to direct people, especially college students, to access existing materials that could reduce prejudice than it would be to develop new materials. Understanding how such simple stimuli might exert a meaningful change could be of great interest to educators. Also, we purposefully sought a White population, and our sample was fairly homogenous. It would be important to explore the impact of such a stimulus on a diverse group of individuals or on a group of individuals who have generally higher levels of exposure to diversity (e.g., rural vs. urban university settings). It is an interesting note that the vast majority of our participants identified as members of the Church of Jesus Christ of Latter Day Saints. Exploring the role of religiosity and religious identification on experiences and perceptions of racial and ethnic microaggressions may provide a unique perspective that has not been explored. Because we did not examine these variables and no data exists to support the role of the LDS religious identification on colorblind racial ideology, we cannot assert any connection at this time.

CoBRAS scores for students in our sample

were generally moderate. The careful development of a stand-alone intervention based on this combination of consciousness-raising material from popular media combined with a reflection exercise for people at varied levels of colorblindness could yield important information for educators and interventionists. Attitudes shifts may require different interventions depending on the strength of the belief. For example, research has found that extreme attitudes may be best addressed with an intervention that presents exaggerated agreement, the absurdity of which leads people to shift attitudes (Hameiri, Porat, Bar-Tal, Bieler, & Halperin, 2014).

At this time, the CoBRAS provides total scores and subscale scores that can be used for research purposes. However, there is no known information regarding the clinical utility of these ratings. For example, is there a cutoff at which problematic behaviors are more likely to be observed? Cut-off scores may also provide opportunities to evaluate different types of prejudice reduction interventions for groups with differing starting points. For instance, a group low in blatant discrimination scores, such as our participants, may be most significantly impacted by a consciousness raising intervention to shift scores that were higher on other scales; whereas, a group high in blatant discrimination may better respond to increased exposure with individuals different from themselves (e.g., cooperative learning based on the contact hypothesis; Allport, 1954; Paluck, Green, & Green, 2018; Pettigrew & Tropp, 2006).

Further, we recommend exploring other possible facets that may assist in understanding these findings. Future research should explore the role of social desirability in self-reported colorblindness. Another exciting direction may explore how shifts in empathic concern relate to shifts in colorblind racial ideology (Mekawi et al., 2017).

Our research utilized cutting edge practices on the forefront of technological innovation in research. Overall, our findings hold promise for low-cost, highly feasible prejudice reduction activities in educational or community contexts.

References

- Aldana, A., Rowley, S. J., Checkoway, B., & Richards-Schuster, K. (2012). Raising ethnic-racial consciousness: The relationship between intergroup dialogues and adolescents' ethnic-racial identity and racism awareness. *Equity and Excellence in Education, 45*, 120-137. <https://doi.org/10.1080/10665684.2012.641863>
- Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley.
- Aragón, O. R., Dovidio, J. F., & Graham, M. J. (2017). Colorblind and multicultural ideologies are associated with faculty adoption of inclusive teaching practices. *Journal of Diversity in Higher Education, 10*, 201-215. <https://doi.org/10.1037/dhe0000026>
- Bezrukova, K., Spell, C. S., Perry, J. L., & Jehn, K. A. (2016). A meta-analytical integration of over 40 years of research on diversity training evaluation. *Psychological Bulletin, 142*, 1227-1274. <https://doi.org/10.1037/bul0000067>
- Blume, A. W., Lovato, L. V., Thyken, B. N., & Denny, N. (2012). The relationship of microaggressions with alcohol use and anxiety among ethnic minority college students in a historically White institution. *Cultural Diversity and Ethnic Minority Psychology, 18*, 45-54. <https://doi.org/10.1037/a0025457>
- Bonam, C. M., Nair Das, V., Coleman, B. R., & Salter, P. (2019). Ignoring history, denying racism: Mounting evidence for the Marley Hypothesis and epistemologies of ignorance. *Social Psychological and Personality Science, 10*, 257-265. <https://doi.org/10.1177/1948550617751583>
- Buser, J. K. (2009). Treatment-seeking disparity between African Americans and Whites: Attitudes toward treatment, coping resources, and racism. *Journal of Multicultural Counseling and Development, 37*, 94-104. <https://doi.org/10.1002/j.2161-1912.2009.tb00094.x>
- Carter Andrews, D. (2012). Black achievers' experiences with racial spotlighting and ignoring in a predominantly White high school. *Teachers College Record, 114*(10), 1-46. Retrieved from <https://eric.ed.gov/?id=EJ1001990>
- Chaney, K. E., & Sanchez, D. T. (2018). The endurance of interpersonal confrontations as a prejudice reduction strategy. *Personality and Social Psychology Bulletin, 44*, 418-429. <https://doi.org/10.1177/0146167217741344>
- Clark, C., Mercer, S., Zeigler-Hill, V., & Dufrene, B. (2012). Barriers to the success of ethnic minority students in school psychology graduate programs. *School Psychology Review, 41*, 176-192. Retrieved from <http://psycnet.apa.org/record/2012-17606-004>
- Cooley, E., Lei, R. F., & Ellerkamp, T. (2018). The mixed outcomes of taking ownership for implicit racial biases. *Personality and Social Psychology Bulletin, 44*, 1424-1434. <https://doi.org/10.1177/0146167218769646>
- Delgado, R., & Stefancic, J. (2017). *Critical race theory: An introduction* (3rd ed.). New York, NY: New York University Press.
- Devine, P. G., Forscher, P. S., Austin, A. J., & Cox, W. T. L. (2012). Long-term reduction in implicit race bias: A prejudice habit-breaking intervention. *Journal of Experimental Social Psychology, 48*, 1267-1278. <https://doi.org/10.1016/j.jesp.2012.06.003>
- Dovidio, J. F., Gaertner, S. L., Ufkes, E. G., Saguy, T., & Pearson, A. R. (2016). Included but invisible? Subtle bias, common identity, and the darker side of 'we'. *Social Issues and Policy Review, 10*, 6-46. <https://doi.org/10.1111/sipr.12017>
- Estrada, A. U., Durlak, J. A., & Juarez, S. C. (2002). Developing multicultural counseling competencies in undergraduate students. *Journal of Multicultural Counseling and Development, 30*, 110-123. <https://doi.org/10.1002/j.2161-1912.2002.tb00483.x>
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*, 1149-1160. <https://doi.org/10.3758/bm.41.4.1149>
- Forscher, P. S., Mitamura, C., Dix, E. L., Cox, W. T. L., & Devine, P. G. (2017). Breaking the prejudice habit: Mechanisms, time course, and longevity. *Journal of Experimental Social Psychology, 72*, 133-146. <http://dx.doi.org/10.1016/j.jesp.2017.04.009>
- Gaertner, S. L., & Dovidio, J. F. (2005). Understanding and addressing contemporary racism: From aversive racism to the common in group identity model. *Journal of Social Issues, 61*, 615-639. <https://doi.org/10.1111/j.1540-4560.2005.00424.x>
- Garriott, P. O., Reiter, S., & Brownfield, J. (2016). Testing the efficacy of brief multicultural education interventions in white college students. *Journal of Diversity in Higher Education, 9*, 158-169. <https://doi.org/10.1037/a0039547>
- Hameiri, B., Porat, R., Bar-Tal, D., Bieler, A., & Halperin, E. (2014). Paradoxical thinking as a new avenue of intervention to promote peace. *Proceedings of the National Academy of Sciences, 111*, 10996-11001. <https://doi.org/10.1073/pnas.1407055111>
- Hartmann, D., Croll, P. R., Larson, R., Gerteis, J., & Manning, A. (2017). Colorblindness as identity: Key determinants, relations to ideology, and implications for attitudes about race and policy. *Sociological Perspectives, 60*, 866-888. <https://doi.org/10.1177/0731121417719694>
- Jaeger, R. G., & Halliday, T. R. (1998). On confirmatory versus exploratory research. *Herpetologica, 54*, S64-S66. <https://doi.org/10.1108/EUM000000006474>
- Johnston, M. P., & Nadal, K. L. (2010). Multiracial microaggressions: Exposing monoracism in everyday life and clinical practice. In D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 123-144). Hoboken, NJ: Wiley.

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

- Kalinoski, Z. T., Steele-Johnson, D., Peyton, E. J., Leas, K. A., Steinke, J., & Bowling, N. A. (2013). A meta-analytic evaluation of diversity training outcomes. *Journal of Organizational Behavior, 34*, 1076–1104. <https://doi.org/10.1002/job.1839>
- Leonard, P. J. (1996). Consciousness-raising groups as a multicultural awareness approach: An experience with counselor trainees. *Cultural Diversity and Mental Health, 2*, 89–98. <https://doi.org/10.1037/1099-9809.2.2.89>
- Liao, K. Y., Weng, C., & West, L. M. (2016). Social connectedness and intolerance of uncertainty as moderators between racial microaggressions and anxiety among Black individuals. *Journal of Counseling Psychology, 63*, 240–246. <https://doi.org/10.1037/cou0000123>
- Linley, P. A., Joseph, S., Harrington, S., & Wood, A. M. (2006). Positive psychology: Past, present, and (possible) future. *Journal of Positive Psychology, 1*, 3–16. <https://doi.org/10.1080/17439760500372796>
- McConahay, J. B., & Hough, J. R. (1976). Symbolic racism. *Journal of Social Issues, 32*(2), 23–46. <https://doi.org/10.1111/j.1540-4560.1976.tb02493.x>
- Mekawi, Y., Bresin, K., & Hunter, C. D. (2017). Who is more likely to 'not see race'? Individual differences in racial colorblindness. *Race and Social Problems, 9*, 207–217. <https://doi.org/10.1007/s12552-017-9211-3>
- Nadal, K., Escobar, K. M. V., Prado, G. T., David, E. J. R., & Haynes, K. (2012). Racial microaggressions and the Filipino American experience: Recommendations for counseling and development. *Journal of Multicultural Counseling and Development, 40*, 156–173. <http://doi.org/10.1002/j.2161-1912.2012.00015.x>
- Nadal, K. L., Whitman, C. N., Davis, L. S., Erazo, T., & Davidoff, K. C. (2016). Microaggressions toward lesbian, gay, bisexual, transgender, queer, and genderqueer people: A review of the literature. *Journal of Sex Research, 53*, 488–508. <https://doi.org/10.1080/00224499.2016.1142495>
- Nadal, K. L., Wong, Y., Sriken, J., Griffin, K., & Fujii-Doe, W. (2015). Racial microaggressions and Asian Americans: An exploratory study on within-group differences and mental health. *Asian American Journal of Psychology, 6*, 136–144. <https://doi.org/10.1037/a0038058>
- Neville, H. A., Awad, G. H., Brooks, J. E., Flores, M. P., & Bluemel, J. (2013). Color-blind racial ideology: Theory, training, and measurement implications in psychology. *American Psychologist, 68*, 455–466. <https://doi.org/10.1037/a0033282>
- Neville, H. A., Lilly, R. L., Duran, G., Lee, R. M., & Browne, L. (2000). Construction and initial validation of the Color-Blind Racial Attitudes Scale (CoBRAS). *Journal of Counseling Psychology, 47*, 59–70. <https://doi.org/10.1037/0022-0167.47.1.59>
- Ong, A. D., Burrow, A. L., Fuller-Rowell, T., Ja, N. M., & Sue, D. W. (2013). Racial microaggressions and daily well-being among Asian Americans. *Journal of Counseling Psychology, 60*, 188–199. <https://doi.org/10.1037/a0031736>
- Paluck, E. L., & Green, D. P. (2009). Prejudice reduction: What works? A review and assessment of research and practice. *Annual Review of Psychology, 60*, 339–367. <https://doi.org/10.1146/annurev.psych.60.110707163607>
- Paluck, E. L., Green, S. A., & Green, D. P. (2018). The contact hypothesis re-evaluated. *Behavioural Public Policy, 1*–30. <https://doi.org/10.1017/bpp.2018.25>
- Patterson, C. A. (2017). *Increasing knowledge and detection of racial and ethnic microaggressions in White college students*. (Unpublished doctoral dissertation). Utah State University, Logan.
- Patterson, C. A., & Domenech Rodríguez, M. (2018). *Microaggression detection measurement impact on White college students' colorblindness*. Retrieved from: <https://osf.io/w3vsn>
- Pettigrew, T. F. (1989). The nature of modern racism in the United States. *Revue Internationale De Psychologie Sociale, 2*, 291–303. Retrieved from <http://psycnet.apa.org/record/1991-32959-001>
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*, 751–783. <https://doi.org/10.1037/0022-3514.90.5.751>
- Pierce, C. M., Carew, J. V., Pierce-Gonzalez, D., & Wills, D. (1977). An experiment in racism: TV commercials. *Education and Urban Society, 10*, 61–87. <https://doi.org/10.1177/001312457701000105>
- Sears, D. O., & Henry, P. J. (2003). The origins of symbolic racism. *Journal of Personality and Social Psychology, 85*, 259–275. <https://doi.org/10.1037/0022-3514.85.2.259>
- Soble, J. R., Spanierman, L. B., & Liao, H. (2011). Effects of a brief video intervention on White university students' racial attitudes. *Journal of Counseling Psychology, 58*, 151–157. <https://doi.org/10.1037/a0021158>
- Solorzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro Education, 69*, 60–73.
- Staats, C., Capatosto, K., Tenney, L., & Mamo, S. (2017). *State of the science: Implicit bias review*. Columbus, OH: The Kirwan Institute. Retrieved from <http://kirwaninstitute.osu.edu/researchandstrategicinitiatives/implicit-bias-review/>
- Sterzing, P. R., Gartner, R. E., Woodford, M. R., & Fisher, C. M. (2017). Sexual orientation, gender, and gender identity microaggressions: Toward an intersectional framework for social work research. *Journal of Ethnic and Cultural Diversity in Social Work: Innovation in Theory, Research and Practice, 26*(1–2), 81–94. <https://doi.org/10.1080/15313204.2016.1263819>
- Sue, D. W. (2010). *Microaggressions in everyday life: Race, gender, and sexual orientation*. Hoboken, NJ: Wiley.
- Sue, D. W., Alsaidi, S., Awad, M. N., Glaeser, E., Calle, C. Z., & Mendez, N. (2019). Disarming racial microaggressions: Microintervention strategies for targets, White allies, and bystanders. *American Psychologist, 74*, 128–142. <http://dx.doi.org/10.1037/amp0000296>
- Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J., Holder, A. B., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist, 62*, 271–286. <http://doi.org/10.1037/0003-066X.62.4.271>
- Valdes, F., Culp, J. M., & Harris, A. P. (2002). Introduction: Battles wages, won, and lost: Critical race theory at the turn of the millennium. In F. Valdes, J. M. Culp, & A. P. Harris (Eds.), *Crossroads, directions, and a new critical race theory* (pp. 3–6). Philadelphia, PA: Temple University Press.
- White, F. A., Verrelli, S., Maunder, R. D., & Kervinen, A. (2018). Using electronic contact to reduce homonegative attitudes, emotions, and behavioral intentions among heterosexual women and men: A contemporary extension of the contact hypothesis. *Journal of Sex Research*. Advance online publication. <https://doi.org/10.1080/00224499.2018.1491943>
- Wiesel, E. (1986). *Nobel Prize acceptance speech*. Retrieved from <http://eliewiesel/foundation.org/elie-wiesel/nobelprizespeech>
- Wong, G., Derthick, A. O., David, E. J. R., Saw, A., & Okazaki, S. (2014). The what, the why, and the how: A review of racial microaggressions research in psychology. *Race and Social Problems, 6*, 181–200. <https://doi.org/10.1007/s12552-013-9107-9>

Author Note. Christina A. Patterson, Center for Development and Disability, Department of Pediatrics, University of New Mexico; Melanie M. Domenech Rodríguez, <https://orcid.org/0000-0002-6610-6890>, Department of Psychology, Utah State University.

The authors thank Alexandra K. Reveles, Lester A. Papa, and Lucas Torres for support in the development and implementation of the study. This research is based on Christina A. Patterson's dissertation. Portions of this research were presented at the fifth biennial American Psychological Association Division 45 Society for the Psychological Study of Culture, Ethnicity, and Race Research conference. The study was financially supported by a Peter Kranz Scholarship to the first author.

Correspondence concerning this article may be addressed to Christina A. Patterson and Melanie M. Domenech Rodríguez, Department of Psychology, Utah State University, 2810 Old Main Hill, Logan, UT 84322-2810. E-mail: capatterson42@gmail.com, melanie.domenech@usu.edu

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH



BALL STATE UNIVERSITY

Teachers College
Department of Educational
Psychology

Find your **career.**

Eight graduate degree programs and four certificates in **Educational Psychology**

PhD in Educational Psychology

Engage in the science of learning. Prepare for a career where you can use your knowledge of human learning and development to help shape the school environment and public policy. Core program areas include learning, motivation, and research design.

MS or MA in Educational Psychology*

Broaden your ability to apply psychological principles to a variety of professional contexts or prepare for your future doctorate in social science.

MS in Quantitative Psychology*

Do you like numbers, statistics, and social science? Prepare for a career in research, assessment, and data analysis. Develop proficiency in advanced statistical techniques, measurement theory, and data analytics.

PhD in School Psychology (five-year program)

Prepare for a career as a licensed psychologist. Gain competencies in health service psychology to work in schools, private practice, or hospital settings. Accredited by the American Psychological Association (APA)** and approved by the National Association of School Psychologists (NASP). Scientist-practitioner model with advocacy elements. Specializations available.

MA/EdS in School Psychology (three-year program)

Be immersed in community engaged, real-world field experiences and intervention opportunities in our scientist-practitioner-advocate program. Leads to licensure as a school psychologist. Approved by NASP and the National Council for Accreditation of Teacher Education (NCATE).

MA in School Counseling (two-year program)

Be a leader and advocate for educational equity for all students in PK-12 schools. Leads to licensure as a school counselor. Accredited by the Council for



Accreditation of Counseling and Related Educational Programs (CACREP) and nationally recognized by The Education Trust as a Transforming School Counseling program.

Certificates

High Ability/Gifted Studies,* Human Development and Learning,* Identity and Leadership Development for Counselors,* Neuropsychology*

Graduate assistantships and tuition waivers are available.

bsu.edu/edpsy

*Online programs are available.

**Questions related to the PhD in school psychology's accreditation status should be directed to the Office of Program Consultation and Accreditation, American Psychological Association, 750 First St. NE, Washington, D.C. 20002; (202) 336-5979; apaaccred@apa.org; or apa.org/ed/accreditation.

Ball State University practices equal opportunity in education and employment and is strongly and actively committed to diversity within its community. Ball State wants its programs and services to be accessible to all people. For information about access and accommodations, please call the Office of Disability Services at 765-285-5293; go through Relay Indiana for deaf or hard-of-hearing individuals (relayindiana.com or 877-446-8772); or visit bsu.edu/disabilityservices. 582418-18 mc

SPECIAL ISSUE

**PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH**

CENTRAL CONNECTICUT STATE UNIVERSITY



Master of Arts in Psychology

A Master's degree in psychology can lead to a new or more rewarding career in health & human services or a doctorate.

Featuring flexible program scheduling, CCSU's MA in Psychology offers three tracks

General Psychology

Highly flexible and tailored to students' particular interests, the graduate program in General Psychology prepares graduates for careers in human services or further graduate study.

Community Psychology

The program in Community Psychology prepares students to be active practitioners in prevention and community-based research. You can take the lead in developing and implementing interventions against the onset of substance abuse, interpersonal violence, and depression.

Health Psychology

The only program of its kind in New England, the program in Health Psychology enables students to deeply understand biological, behavioral, and social factors in health and illness and to develop interventions fostering health.

Graduate Studies at Central
Connecticut State University



Affordable, Accessible, Excellent

To learn more and apply: www.ccsu.edu/grad

WE ARE ALSO EXCITED TO ANNOUNCE A NEW GRADUATE CERTIFICATE PROGRAM IN GERONTOLOGY!

SPECIAL ISSUE CALL FOR ABSTRACTS

Psychological Science in the Workplace and Life

Submit an abstract* for a potential empirical manuscript to be published in our upcoming special issue. This issue welcomes articles that showcase psychological science in a variety of real-world settings such as human resources, teaching and learning, health services, industrial/organization, relationship counseling, and game design.

- Abstracts are due to Debi.Brannan@psichi.org by **October 1, 2019**.
- Selected manuscripts are due **December 15, 2019**.
- Publication for the issue is anticipated for **Summer 2020**.

This special issue is in direct support of the new 2019–20 Psi Chi theme of "Psychological Science for All." Learn more at <https://psichi.com/PCLabJan1819>.

SPECIAL ISSUE

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

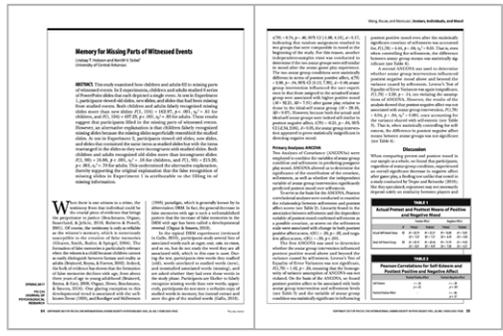
*Faculty and student authors are both eligible to submit. Only the first author is required to be a Psi Chi member.

PSI CHI Advertising Contract: *Psi Chi Journal*

CLIENT INFORMATION	
Advertiser	
Contact Name	
Address Street or P.O. Box	
City State Zip Country	
Phone (daytime)	E-mail
Submitted by	
Authorized Signature	

Please read our Privacy Policy at <https://www.psichi.org/general/custom.asp?page=PrivacyPolicy>

DIGITAL PUBLICATION			
Issue			
<input type="checkbox"/> Spring _____ (deadline Jan 31) online Feb 22	<input type="checkbox"/> Summer _____ (deadline April 15) online May 17	<input type="checkbox"/> Fall _____ (deadline Sept 3) online Sept 28	<input type="checkbox"/> Winter _____ (deadline Nov 15) online Dec 14
Size/Dimensions			
<input type="checkbox"/> Full page (no bleed) 6 5/8" x 9 1/4"	Cost: \$400 Black & White only	<input type="checkbox"/> Half page (horizontal) 6 5/8" x 4 1/2"	Cost: \$275 Black & White only



OUR JOURNAL

Advertising in *Psi Chi Journal* allows you to connect with established psychology researchers and mentors, as well as undergraduates and graduate students striving to build a career in one of the many areas of research. People regularly visit our journal online to

- view current and past issues,
- submit their research for publication,
- learn about reviewing for *Psi Chi Journal*, and
- share invited editorials as teaching tools in the classroom.

All issues and advertisements are permanently free online to both members and nonmembers alike. During the 2017–18 fiscal year, psichi.org received almost **1.5 million page views**, ensuring that high-achieving students and professionals will see your content for years to come.

To further enhance the visibility of our journal, latest issues and calls for submissions are regularly featured in *Psi Chi Digest* e-mails (**177,000+ subscribers**) and on our four social media platforms.

- Facebook (22,500+ followers)
- Twitter (4,700+ followers)
- LinkedIn (10,200+ followers)
- Instagram (1,000+ followers)

Articles are also indexed in PsycINFO, EBSCO, and Crossref databases—essential tools that researchers use to search for millions of psychology-related articles. This makes *Psi Chi Journal* a key place to communicate your message with our Professional Organization's **three quarters of a million lifetime members** and far beyond.

AD SPECIFICATIONS

Digital format: PDF, EPS, and TIFF
Resolution : 300 dpi | B&W line art—1,200 dpi
Black & white ads (no RGB or 4-color process)
PDF settings: Press quality, embed all fonts

DEADLINE/BILLING

Payment due upon receipt of invoice.

CONTACT

Submit contract by e-mail to
Susan Iles
Advertising Sales
Psi Chi Central Office
E-mail: susan.iles@psichi.org
Phone: 423-771-9964

See past issues of *Psi Chi Journal of Psychological Research* at http://www.psichi.org/?journal_past



All advertisements must be scholarly and professional in nature, and *Psi Chi* reserves the right to reject (or cancel) any ads that are not in the best interest of the Organization or consistent with the Society's mission.



SPECIAL ISSUE
PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

Publish Your Research in *Psi Chi Journal*

Undergraduate, graduate, and faculty submissions are welcome year round. Only the first author is required to be a Psi Chi member. All submissions are free. Reasons to submit include

- a unique, doctoral-level, peer-review process
- indexing in PsycINFO, EBSCO, and Crossref databases
- free access of all articles at psichi.org
- our efficient online submissions portal

View Submission Guidelines and submit your research at www.psichi.org/?page=JN_Submissions

Become a Journal Reviewer

Doctoral-level faculty in psychology and related fields who are passionate about educating others on conducting and reporting quality empirical research are invited become reviewers for *Psi Chi Journal*. Our editorial team is uniquely dedicated to mentorship and promoting professional development of our authors—Please join us!

To become a reviewer, visit www.psichi.org/page/JN_BecomeARewriter

Resources for Student Research

Looking for solid examples of student manuscripts and educational editorials about conducting psychological research? Download as many free articles to share in your classrooms as you would like.

Search past issues, or articles by subject area or author at www.psichi.org/journal_past

Add Our Journal to Your Library

Ask your librarian to store *Psi Chi Journal* issues in a database at your local institution. Librarians may also e-mail to request notifications when new issues are released.

Contact PsiChiJournal@psichi.org for more information.



Register an account:
<http://pcj.msubmit.net/cgi-bin/main.plex>

