P Is for Psychologist: Stimulating Interest in Psych Careers

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ABSTRACT. In this invited editorial I acknowledge the need for greater efforts to translate both the identity and purpose of psychologists. I present a two-pronged approach involving building equitable representations of psychologists and opting into the usage of inclusive curricula. The former can begin with updates to career profiles and commercially available media for younger students while the latter helps to sustain the diverse legacy for the field. The aim of this invited editorial is to call us to broaden the opportunities for the next generation to understand what is meant by P is for psychologist.

Stimulating interest in psych careers takes a coordinated effort to translate both who we are (our identity) and what we do (our purpose) to others. It requires teachers in informal and formal settings to raise awareness of the full extent of what it means to become a psychologist. When conducting research for my latest book *Academic Pipeline Programs: Diversifying the Bachelors to the Professoriate* (Byrd & Mason, 2021), I noticed that few career books designed for children included examples of careers in psychology. Instead of *P* standing for psychologist in the alphabetical listings of careers, it stood for pediatrician (Teachey, 2019), pilot (Sugar Snap Studio, 2018), or plumber, politician, photographer, and police officer (McDonagh, 2020). What steps can we take to increase the likelihood that the most diverse generation, Z, will also discover the richness in diversity within the discipline of psychology?

Communicating our identity as psychologists is complicated by the fact we serve in a variety of fields, roles, and settings. The variety of fields and roles are defined by the 50 psychology subdisciplines recognized by the American Psychological Association (APA, 2021). These subdisciplines are cross-cutting and oftentimes interdisciplinary, one quarter of which have nonlinear career pathways (APA, 2021) moving across education, government, and private sectors. For example, educational and developmental psychologists work in schools, hospitals, clinical practice, government agencies, nonprofit organizations, etc. and collaborate with a variety of other disciplines (e.g., education, speech, language, pathology, sociology, linguistics, public health, public policy). The subdisciplines of educational and developmental psychology have even been described as transdisciplinary, "reach[ing] out of the academic ivory tower to provide real world outcomes" (Allen, 2021, p.1).

At the heart of translating why P stands for psychologist is the idea of representation, which the APA (n.d.) defines as: "[something] which stands for or signifies something else." Cognitive psychologists study the intricate process of creating mental representations in semantic memory (Kumar, 2020). Mental representations for new concepts are formed by linking several sources of information together across multiple and varied encounters. The process of generating an occupational profile for a psychologist might be analogous to the process of forming a new mental representation because we attribute meaning using both a persona and a role as defining attributes. The extent to which personas and roles link tightly to a specific exemplar of a psychologist depends on our set of experiences and the context in which these experiences occur. How can we ensure that the full spectrum of psychology as a discipline is translated well to our protégés? In this invited editorial article, I suggest an approach that involves building equitable representations of a psychologist and opting into the usage of inclusive curricula.

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Building Equitable Representations of a Psychologist

Building equitable representations of who psychologists are and what contributions they make to the world is important to stimulate interest in the field. In order to cast a wider net, so to speak, capturing an increased future variety of persons and perspectives, we must diversify the profile of a psychologist and reimagine pathways into the discipline. This is essential as our identity and purpose can be difficult to articulate because the scope of what it means to study the mind and behavior is rather broad. Resources designed to either attract new psychologists or explain the discipline to nonpsychologists are constrained by the multidimensionality of how psychologists are trained, the work settings in which we exist, and the social identities we are associated with.

Expanding Career Resource Profiles

Expanding the profile of a psychologist requires the diversification of psychology career-related terminology and descriptions. Achieving this goal can help resources like O-Net Resource Center (https://www.onetcenter.org/) and the *Occupational Handbook* (U.S. Bureau of Labor Statistics, 2021) classify psychologists in more equitable ways. For example, existing taxonomies used to build the career profiles for psychologists in the *Occupational Handbook* underrepresent the number of subdisciplines within psychology. Occupations such as marriage and family therapist have independent profiles but can only be discoverable if one knows that this subarea exists. If you search for animal behaviorist, you are taken to a profile with a different occupational title, animal care and service worker. Further, if you search for cognitive or experimental psychologist, the *top* profile is the same as the *general* profile for a psychologist. Clearly, defaulting to this general occupational profile does not capture the nuanced and cross-cutting activities of all psychologists.

Commercially available career resources geared at precollegiate students translate the career profile of a psychologist into highly visualizable materials. These visualizations are typically available in the form of posters, trading cards, history books, and coloring books. Posters contain a mixture of both a description of a subdiscipline and settings where psychologists work. Several free posters are in fact produced by the APA, with the tagline "Psychology—It's More Than You Think," which is intended to acknowledge the broad spectrum of our discipline. These posters provide examples of psychologists' profiles who study violence, engage in health promotion, and work with environmental issues. Because these posters are devoid of personified icons, they also are examples of unbiased representations about who can become a psychologist.

In contrast, additional forms of commercial media (i.e., trading cards, children's history books, coloring books), capitalize on the personification of career profiles by emphasizing the career-pathways of notable persons. The use of realistic images offer a way to illustrate STEM careers in a way that people see themselves represented. For example, Science Delivered (https://www.stemtradingcards.org/) sponsors a STEM Trading Card Project. These trading cards include images of scientists, their career profiles, career setting, media links, and quotes. Gender, racial/ethnic, and ability diversity in addition to areas of scientific emphasis are also represented. A prime example would be Mamie Phipps Clark, a black, female psychologist who is featured in a black history book for children (Pellum, 2019).

Representations of psychologists extend to coloring books and coloring pages. Quiñones-Soto (2020) created a coloring book to depict the diversity among scientific disciplines. The included artwork elevates the profiles of female scientists including psychologists. In addition to the coloring book pages, her *Women in Synapse* artwork has been used on the cover of a special issue of *The Journal of Neuroscience Research* (Cortes, 2021) dedicated to women in neuroscience. Although these are impressive accomplishments, there remains room to embrace more subdisciplines and notable figures within these resources. My colleagues and l are adapting Savage (2020)'s coloring book and Collier and Mason (2011)'s workbook into a coloring workbook, which describes psychologists and other related professionals (e.g., speech language pathologists, occupational therapists, anthropologists). The coloring workbook will have descriptions of each occupation as well as images that are diverse in gender, race/ethnicity, and ability.

Reimagining Career Training Opportunities

Much like there is need to expand the ways to communicate the diversity among the profiles of existing psychologists, there is also a need to reimagine our psychology career training opportunities. Since careers in psychology courses are not widely adopted at the associates degree (12%) or baccalaureate degree (39%) granting programs

in psychology (Pfund et al., 2021), career training should also extend into informal learning settings. These opportunities include participation activities like pipeline programs, science fairs, and conferences.

Academic pipeline programs support one's academic progression from one level of the academy to another (Byrd & Mason, 2021). Students who participate in these programs perceive that their experiences support their academic readiness and career networking ability (Troutman et al., 2019), as well as shape their identity as a scientist in academic and industry settings (Gazley, et al, 2014). Academic pipeline programs are also an example of high-impact opportunities (Schwartz et al., 2018) for future psychologists to hear personal experiences of persons from similar backgrounds who have successfully navigated into careers (Byrd & Mason, 2021). This exposure to models of successful psychologists is particularly important for first-generation students and from historically underrepresented backgrounds (Herrmann, 2019).

Examples of academic pipeline programs that have succeeded at training those interested in psychology from historically underrepresented backgrounds are the Ronald E. McNair Post Baccalaureate Achievement Program, The Leadership Alliance, National Institutes of General Medical Sciences Research Initiative for Scientific Enhancement (NIGMS-RISE) and Project Energize. NIGMS-RISE has been demonstrated to influence students' career choice and enrollment into graduate programs (Woodcock et al., 2016). Project Energize (Glenberg & Lanphier, 2021) was specifically designed to give psychology undergraduates who are underrepresented either by race/ethnicity, age, or ability status, the opportunity to learn more about opportunities beyond the classroom including mentored research and graduate school.

Research also supports participation in internship opportunities (Halonen & Dunn, 2018; Schwartz et al., 2018), science fairs (Grinnell et al., & 2020; Lakin, et al., 2021; Paul et al., 2016), and conference attendance (Casad et al., 2017; Mason et al., 2021) as a workforce training option for future psychologists (Halonen & Dunn, 2018; Schwartz et al., 2018). Internships are also one of many high-impact opportunities that link well to career preparation when they include real-world applicable experiences (Halonen et al., 2018). For example, Entry Point!, sponsored by the American Association for the Advancement of Science (AAAS), offers undergraduate and graduate STEM majors the opportunity to work with companies, engage in co-ops, or research opportunities. Entry Point! is also inclusive of persons with disabilities. If internships are advertised widely, offered in varying durations, and cocreated with students, they can drive students toward the field (Carlson, 2020).

Science fairs which attract middle and high school students can be thought of as a precursor to more discipline-specific conference presentations. Several studies have supported this by demonstrating that these events help students both gain interest in science-related careers and understand the process of following the scientific method (Grinnell et al., 2020; Lakin et al., 2021). Paul et al. (2016) suggests that high school students' science fair participation transfers knowledge about experimentation and scientific concepts.

Conference attendance has also been demonstrated to benefit psychology undergraduate students' career preparation and psychosocial attitudes. Undergraduate students who attended an APA regional convention, for example, perceived their attendance as beneficial to enhancing their curriculum vitae (CV) and gaining confidence in their research and presentation skills (Mason, et al., 2021). Further evidence comes from historically underrepresented students who were shown to develop greater science self-efficacy and a sense of belonging in science after attending the Annual Biomedical Research Conference for Minority Students (ABRCMS; Casad et al., 2017).

Opting Into the Usage of Inclusive Curricula

"Knowing where you came from is no less important that knowing where you are going" (deGrasse Tyson, 2003). Similar to the reasons for needing to build more equitable representations of psychologists in career profiles, using inclusive curricula in formal and informal settings helps to sustain the field by honoring all of the persons and perspectives that have forged psychology's legacy. Even though the current demographics of our discipline indicate that psychologists are mostly white, female, and persons without disabilities (APA, 2020), individuals in other groups have made significant contributions to the field. If psychology curricula and teaching resources neither include these other groups, their research, nor provide rich representations of the intersections between our social identities (Worthington, 2012), barriers are created to the workforce recruitment and retention needed to tackle societal issues.

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Examples of psychologists discussed in classrooms influence how we perceive our discipline's reality. Cramblet Alvarez et al. (2019) demonstrated that junior and senior psychology students recognize more white pioneers than historically underrepresented pioneers (i.e., women and persons of color). Student recognition performance for pioneers was better for those who had taken a History of Psychology course compared to those who had not for pioneers from overrepresented groups (i.e., men, whites, white men, and white women). However, taking a History of Psychology course was not related to the recognition of pioneers from historically underrepresented groups (i.e., women, women of color, men of color). Tracing the totality of our discipline's historical roots is integral to sustaining a legacy that promotes just and equitable representation of research approaches and perspectives.

Unsurprisingly, psychology textbooks are also susceptible to the underrepresentation of historical figures from underrepresented groups. In order to diversify the content of textbooks, Trimble et al. (2003) provided suggestions of examples of psychologists that can be used by publishers and authors. Trimble et al. (2003) also provided a rich set of examples for the 20 most common topics covered in introductory psychology textbooks. Cramblet Alvarez (2020) found further evidence that the contributions and narratives of women and persons of color were mentioned less in textbooks compared to those of men. As a result of these issues, several authors have called for the creation of more inclusive printed materials including textbooks (McKenzie, 2021) and journal articles (Roberts et al., 2020).

Grahe et al. (in preparation) answered this call by creating an additional teaching resource that deconstructs some of the earliest dissertations authored by women of color. This soon-to-be-published book not only provides the biographies of these women, but goes further by drawing attention to the relevance of each woman's scholarship and contextualizes it in modern times. Suggestions of how examples can be integrated into the classroom are also offered. New textbooks like Grahe et al.'s intentionally address several challenges with current publications highlighted by McKenzie (2021) including the "underrepresentation of minority ethnic groups in text, images and references; descriptions of people of color that exaggerate negative associations and stereotypes; missing stories of the achievements of people of color; and the idea that social and economic disadvantages are the result of personal circumstances and decisions rather than systemic injustices and inequalities" (p. x).

Conclusion

As we near the close of 2021, societal issues like the aftermath of natural disasters, international conflict, and a global health pandemic remind us that psychologists are in great demand. These societal issues continue to dictate movement toward the adoption of a diversity paradigm (Jones & Dovidio, 2018) that puts context as a focus of diversity related research, keeps our differences at the core, and acknowledges histories of diverse groups. There is room to progress toward the translation of our career profile and the dissemination of scholarship that might have otherwise remained obscured. We must not move forward without building equitable representations of who we are and clearly defining what we do in our careers to those outside of the discipline. Our ability to equip a workforce who can address the wholistic needs of all persons also depends on the decision to opt-in to the usage of inclusive curricula. Building and opting into inclusion enhances how psychologists are represented to the world.

References

Allen, K. A. (2021). The transdisciplinary nature of educational and developmental psychology. *Educational and Developmental Psychologist, 38*(1), 1–2. https://doi.org/10.1080/20590776.2021.1956868

American Psychological Association. (2021). *Bridging education and career: Non-linear career pathways in psychology.* https://www.apa.org/workforce/publications/psycpathways/non-linear-career.pdf

American Psychological Association. (2020). *Demographics of U.S. psychologist workforce.* [Interactive Data Tool].

American Psychological Association. (n.d.). Representation. In *APA dictionary of psychology.* https://dictionary.apa.org/representation

Byrd, C. D., & Mason, R. S. (2021). *Academic pipeline programs: Diversifying the bachelors to the professoriate.* https://doi.org/10.3998/mpub.12216775

Carlson, S. (2020, March 6). How internships reproduce privilege. *The Chronicle of Higher Education.*

Casad, B. J., Chang, A. L., & Pribbenow, C. M. (2017). The benefits of attending the Annual Biomedical Research Conference for Minority Students (ABRCMS): The role of research confidence. *CBE—Life Sciences Education, 15*(3), ar46. https://doi.org/10.1187/cbe.16-01-0048

Collier, C., & Mason, R. S. (2014). *Thinking critically about your career in psychology.* E-book. Retrieved from https://www.lulu.com/en/us/shop/dr-rihana-mason-and-dr-cherry-collier/thinking-critically-about-your-career-in-psychology/paperback/product-1nwerryp.html?page=1&pageSize=4

Cortes, C. J. (2021). Women in neuroscience. *Journal of Neuroscience Research, 99*(1), 1–4. https://doi.org/10.1002/jnr.24653

Cramblet Alvarez, L. D., Leach, J. L., Rodriguez, J. L., & Jones, K. N. (2020). Unsung psychology pioneers: A content analysis of who makes history (and who doesn't). *The American Journal of Psychology, 133*(2), 241–262. https://doi.org/10.5406/amerjpsyc.133.2.0241

Cramblet Alvarez, L. D., Jones, K. N., Walljasper-Schuyler, C., Trujillo, M, Weiser, M. A., Rodriguez, J. L., Ringler, R. 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*(2), 84–96. https://doi.org/10.24839/2325-7342.JN24.2.84

deGrasse Tyson, N. (2003, September). In the beginning. *Natural History*

Magazine, 112(7), 18–20. https://digitallibrary.amnh.org/handle/2246/6509

Gazley, J. L, Remich, R., Naffzige-Hircsch, M. E., Keller, J. Campbell, P. B., & McGee, R. (2014). Beyond preparation: Identity, cultural capital, and readiness for graduate school in the biomedical sciences. *Journal of Research in Science Teaching, 51*(8), 1021–1048. https://doi.org/10.1002/tea.21164

Glenberg, A. M., & Lanphier, E. K. (2021, June 28). Energizing the undergraduate pipeline. *The Observer, 34*(4), 54–57. https://www.psychologicalscience.org/observer/energizing-undergraduates

Grinnell, F., Dalley, S., & Reisch, J. (2020). High school science fair: Positive and negative outcomes. *PLOS One, 15*(2), e0229237. https://doi.org/10.1371/journal.pone.0229237

Grahe, J., Ceynar, M., & Mason, R. S. (in preparation). *Early contributions of women of color in psychological research.* Taylor & Francis

Halonen, J. S., & Dunn, D. S. (2018). Embedding career issues in advanced psychology major courses. *Teaching of Psychology, 45*(1), 41–49 https://doi.org/10.1177/0098628317744967

Herrmann, S. D. (2019). Crossing class cultures: Understanding first-generation college students' transitions. *Eye on Psi Chi, 23*(4), 23–25. https://doi.org/10.24839/2164-9812.Eye23.4.22

Jones, J. M., & Dovidio, J. F. (2018). Change, challenge, and prospects for a diversity paradigm in social psychology. *Social Issues and Policy Review, 12*(1), 7–56. https://doi.org/10.1111/sipr.12039

Kumar, A. A. (2020). Semantic memory: A review of methods, models, and current challenges. *Psychonomic Bulletin & Review, 28*(1), 40–80. https://doi.org/10.3758/s13423-020-01792-x

Lakin, J. M., Ewald, M. L., Hardy, E. E., Cobine, P. A., Marino, J. G., Landers, A. L., & Davis, V. A. (2021). Getting everyone to the fair: Supporting teachers in broadening participation in science and engineering fairs. *Journal of Science Education and Technology, 30*, 658–677. https://doi.org/10.1007/s10956-021-09910-7

Mason, R, S., Mason, J., Jones, L., Botros, C., & Sinkfield, A. (2021). Evaluating the experiences and perceived benefits of undergraduates attending a regional psychology conference. In H. Scherschel (Ed.), *Teaching tips: A compendium of conference presentations on teaching, 2019–2020.* (p. 84). http://teachpsych.org/ebooks/teachingtips5

McDonagh, C. (2020). *The ABCs of what I can be.* Holiday House.

McKenzie, L. (2021, February 26). *Tackling racism in textbook publishing.* Inside Higher Ed. https://www.insidehighered.com/news/2021/02/26/publisher-pearson-tries-tackle-systemic-racism-higher-ed

Paul, J., Lederman, N. G., & Groß, J. (2016). Learning experimentation through science fairs. *International Journal of Science Education, 38*(15), 2367–2387. https://doi.org/10.1080/09500693.2016.1243272

Pellum, K. B. (2019). *Black women in science: A Black history book for kids.* Rockridge Press.

Pfund, R. A., Hailstorks, R., Stamm, K. E., Christidis, P., Conroy, J. C., & Norcross, J. C. (2021). Careers in psychology course: Prevalence, structure, and timing.

Teaching of Psychology, 48(1), 63–68. http://dx.doi.org/10.1177/0098628320959950

Quiñones-Soto, S. (2020). *Types of scientists: A coloring book for all ages.* Author.

Roberts, S. O., Bareket-Shavit, C., Dollins, F. A., Goldie, P. D., & Mortenson, E. (2020). Racial inequality in psychological research: Trends of the past and recommendations for the future. *Perspectives on Psychological Science, 15*(6), 1295–1309. https://doi.org/10.1177/1745691620927709

Savage, E. (2020). *Black girlz color: Volume 1.* Author.

Schwartz, B. M., Gregg, V. R., & McKee, M. (2018). Conversations about careers: Engaging students in and out of the classroom. *Teaching of Psychology, 45*(1), 50–59. https://doi.org/10.1177/0098628317745247

Sugar Snap Studio. (2018). *ABC what can she be?: Girls can be anything they want to be, from A to Z.* Walter Foster Jr. Publishing.

Teachey, T. (2019). *What can I be? STEM careers from A to Z.* Thrive Edge Publishing.

Trimble, J. E., Stevenson, M. R., & Worrell, J. P. (2003). *Toward and inclusive psychology: Infusing the introductory psychology textbook with diversity content.* American Psychological Association.

Troutman, A. C., Russell, J. A., & Mason, R. S. (2019, March 22). *Perceptions of non-STEM majors experiences with undergraduate pipeline programs* [Poster presentation]. Annual Meeting of the Southeastern Psychological Association, Jacksonville, FL.

U.S. Bureau of Labor Statistics. (2021). Fastest growing occupations. *Occupational Outlook* Handbook. https://www.bls.gov/ooh/fastest-growing.htm

Woodcock, A., Hernandez, P. R., & Schultz, P. W. (2016). Diversifying science: Intervention programs moderate the effect of stereotype threat on motivation and career choice. *Social Psychological and Personality Science, 7*(2), 184–192. https://doi.org/10.1177/1948550615608401

Worthington, R. L. (2012). Advancing scholarship for the diversity imperative in higher education: An editorial. *Journal of Diversity in Higher Education, 5*(1), 1–7. https://doi.org/10.1037/a0027184

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