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Majel Ruth Baker – Personal, Relevant Background, and Future Goals Statement

**Personal Statement**

I knew with certainty that I wanted a research career when I found myself working late on a Friday night with my undergraduate research adviser, hurriedly trying to finish a manuscript. We sat for hours comparing the promax and varimax rotated factor loadings of a 70-item questionnaire-in-development. Would our factor loadings support some researchers’ assertions that there is little difference between the rotations, or would there be dramatic enough differences that we would have to pick a theoretically-appropriate side and choose one rotation? That we could approximate nebulous, latent constructs by looking at ostensibly minute decimal numbers inspired and challenged me. Since then, I have aimed to accumulate as much psychology knowledge and research skills as there are available opportunities to do so.

I have been fortunate to have received abundant support from my professors, mentors, and fellow students in my pursuit of becoming a psychological social scientist. As I navigated my undergraduate research opportunities and coursework, I found I was broadly interested in issues affecting women and specifically interested in gender-based violence (e.g., sexual assault, sexual harassment). I am pursuing this field because researching sexual assault is essential—it profoundly affects mental and physical health, and it occurs at an alarming frequency on college campuses in the U.S.\(^1\) Researchers have recently begun to examine its effect on college academic performance and persistence, with a few studies suggesting that sexual assault is related to poorer academic performance and dropping out of college.\(^2\) I want to devote my career to this area of research because there is still much work to be done in ameliorating the impact of sexual assault on women’s lives.

**Relevant Background**

My undergraduate education was enhanced by a variety of research experiences that informed my goal of becoming a psychological scientist. My first experience was in a lab investigating twin and sibling development at the University of San Francisco (USF) with Dr. Shirley McGuire. My journey from volunteer Research Assistant (RA) starting in my first year to becoming the paid Lab Manager in my final year was a significant learning process. Under Dr. McGuire’s guidance, I learned the basics of analyzing data to eventually mentoring junior undergraduate RAs and presenting nine posters at regional and national conferences, including the Western Psychological Association (WPA) and the Association for Psychological Science (APS). I learned in this lab how to lead others, share the research process with our RAs, and contribute to a stimulating environment of psychological discovery.

My full appreciation and passion for research developed in my second year when I sought to augment my research experience by volunteering to assist Dr. Peter Hendricks at the University of California, San Francisco with research on cigarette smoking expectancies. Dr. Hendricks’ one-on-one mentoring approach allowed me to become fully involved in data interpretation, and it was in his lab that I discovered my drive for research in the anecdote above. For the first time, research that I was writing was a metaphorical brick in the developing house of theory. With Dr. Hendricks’ support, I co-authored two publications—one in *Addiction* and one in *Psychology of Addictive Behaviors*—and first-authored four conference posters. Working in his lab provided me additional mentorship experience as I worked with two volunteer RAs on their research posters for presentation at a local university conference. Dr. Hendricks always encouraged my independence in pursuing my specific interests in his lab even though they were outside of the realm of smoking research. He supported me in presenting two first-authored posters at the 2014 APS conference that described the types of treatment and support that
In my final year, I was eager to investigate my own interests and lead my own research study via the Psychology Honors Program at USF. I examined the correlation between assertive sexual communication and sexual health in a sample of young adult women. I strengthened my research acumen as I learned how to conduct a research project through its full lifecycle. Challenges along the way, such as the Institutional Review Board’s initial concerns about the sensitivity of questions that ask about past sexual trauma, furthered my determination to conduct and disseminate research about sexual assault. I presented my final results at the WPA convention, which marked my first exhilarating experience disseminating results from my own work. The process confirmed for me that I wanted to gain more skills in analysis, synthesizing research literature, and developing novel ideas. When I graduated from USF, my dedication to research and service was acknowledged with the paramount award offered by the Department, the Fred Minnigerode Memorial Award for the outstanding graduating senior in Psychology.

**Intellectual Merit**

These experiences prepared me for where I am today, a second-year doctoral student at the University of Minnesota, Twin Cities (UMTC), researching the impact of traumatic life events with Dr. Patricia Frazier. In the year that I have been here, my work has flourished. I have focused on the outcomes of sexual victimization through a number of novel projects. Foremost was my first-author manuscript examining the relation between sexual victimization and college academic performance: I found that previous victimization was related to lower GPA in two longitudinal studies of college women and was the only significant predictor of dropout at four-year follow-up. I have revised and resubmitted the manuscript to the *Journal of Counseling Psychology* after receiving favorable reviews. I am hopeful these findings will make a significant contribution to the literature as they have emphasized for me the importance of examining academic performance as an understudied correlate of sexual victimization. I will continue to focus on sexual violence as I work to publish results from a study that I had a major role in designing and implementing last Spring. Although sexual violence is often linked with higher current levels of distress than other forms of trauma (e.g., bereavement), the psychological mechanisms underlying this increased risk are not understood. I am investigating likely psychological mechanisms of this relationship using a robust, micro-longitudinal daily diary design. By capturing the daily experiences of stress exposure and distress symptoms in survivors of sexual violence, I can model how past experiences correlate with current vulnerabilities to stress. I received a fellowship for this past Summer to devote time to working on this project, and I am currently enrolled in a course on linear mixed effects models, both of which have been integral to my analytic approach to these innovative data. I have been accepted to present some preliminary findings from this study in July 2016 at the International Congress of Psychology on the measurement of past trauma. Researchers often assume that adult self-reports of child sexual abuse accurately reflect past experiences and that differences between assessments are due to measurement error. However, I found that increases in distress between assessments just two weeks apart was associated with a greater likelihood of reporting child sexual abuse. These findings could have profound implications for our measurement of past abuse, as abuse scores may be vulnerable to fluctuations in reporting related to current distress.

My advisor has provided ample opportunities to sharpen my research skills by inviting me to co-author a chapter about meaning-making following sexual assault, which is currently in press, and to peer-review journal articles. These experiences have involved me in the collaborative process of science and how to systematically review research. Within this context, I
am fully supported both with mentorship and a strong history of relevant research to pursue my specific questions about sexual assault.

**Broader Impact**

It is important to me to balance my research practice with front-line experience of how sexual assault impacts survivors’ lives. I became a volunteer Certified Sexual Assault Crisis Counselor with a local crisis center when I lived in San Francisco and then again in Minneapolis after I moved here. I currently support survivors via a hotline and in-person during emergency room exams. These rewarding experience inform my understanding of both community-level responses to sexual assault and of gaps in our empirical understanding. Volunteering gives me the opportunity to share my empirical knowledge with other volunteers and leaders at the crisis center by presenting on sexual assault research developments at volunteer meetings and through emailed newsletters. My work with survivors draws from empirically-supported practices, such as helping them focus on the elements of their recovery over which they have control.3

I also am involved in disseminating research to the public. For example, for the past two Octobers, I participated in a day-long annual stress reduction exposition attended by 3,000 UMN students called Cirque de Stress, in which I used creative activities to teach students skills for controlling stress. I focused on encouraging students to maximize perceptions of control over their current stressors and to minimize ruminating on uncontrollable stressors, techniques which are found to be efficacious in my advisor’s web-based intervention.3 I am excited to pursue future opportunities for disseminating my work to the public like my adviser’s other students have in the past, such as presenting their work at the annual Minnesota State Fair (which almost two million people attend annually) and delivering a TEDx talk.

Teaching and mentorship have been and will continue to be an integral part of my career as a psychologist. The Minnigerode award I received from USF also reflected this because I was fortunate to have been a teaching assistant every semester of my undergraduate years, supporting professors in a total of 14 psychology courses. My favorite teaching experience was in my senior year when the professor for the department’s capstone research course selected me to lead the one-month-long module teaching SPSS. I enjoyed the challenges of creating the schedule, homework assignments, and lecture material for 20 undergraduate students. I currently assist with a course close my heart, Psychology of Women and Gender, and mentor undergraduate RAs in our lab. Keeping my data analysis techniques and teaching style sharp has been key in instructing my undergraduate RA mentee in her first foray into the world of number crunching. I hope I can inspire my mentees as I was so inspired by analyzing factor loadings one Friday night.

**Future Goals**

Support from NSF would allow me to pursue a dynamic program of research, mentorship, and public involvement. NSF support would buoy my progress toward becoming a successful researcher in the future. My volunteer and community involvement are essential to my success as a scientist, and NSF funding would support my pursuit of new avenues of disseminating my work. I would devote time to communicating with university leadership about providing programs and curriculum targeted at alleviating the academic, mental, and physical consequences of sexual assault, particularly in women. The women scientists, engineers, and scholars that shape our world are created in the lab spaces and classrooms of our universities. With NSF support, I can promote a successful trajectory through college for these women.

**References**