

Perceived Gender Stereotypes of Individuals Studying Pre-Law

Erika L. Axtell

Department of Psychology, McKendree University

PSY 496: Senior Thesis

Dr. Guy A. Boysen

December 1, 2021

Abstract

Gender stereotypes are present in society today and in many fields of study and careers. There is a lack of research on the possibility that there are gender stereotypes of individuals studying pre-law. In this research, the sample included 61 current college students from a small liberal arts college. The survey included three measures regarding participants' perceptions about the genders of individuals in pre-law/lawyers, the femininity or masculinity of 11 majors, and the goal affordance scales for men and women. The results showed that participants perceived the percentages for male pre-law students as higher than female pre-law students, that participants overall rated the major of pre-law as more masculine, and that participants perceived the goals of individuals who study pre-law as more agentic than communal. Overall, these results are important for colleges and universities to know so they can acknowledge the possibility of gender stereotypes present in certain majors and try to combat those stereotypes.

Perceived Gender Stereotypes of Individuals Studying Pre-Law

Gender stereotypes are present in many fields of study and careers. This includes in engineering, teaching, and psychology (Boysen et al., 2021; White & White, 2006). Men are seen to have career goals that include power, recognition, achievements, status, and success. Women are seen to have career goals that include helping others, serving the community, working with people, and connecting with others (Diekman et. al., 2010; Froechlich et al., 2020; Stout et al., 2016). With this previous research in mind, will individuals hold stereotypes about other fields of study and careers? Through this research, I hope to discover if people hold gender stereotypes about individuals studying pre-law, and if they think a major in pre-law will fulfill an individual's goals.

Gender Stereotypes

Gender stereotypes exist today and are documented through research. Throughout history men and women have had different stereotypical roles, which have developed some of the current gender stereotypes. Ancestral woman stayed at home, took care of the children, and were considered the primary caregiver to the children. Ancestral men were considered to be the providers for the family. This means that the ancestral men would make all the money and bring in all the food for the family (Wood & Eagly, 2002). Although society has moved from women strictly staying at home, there are still gender stereotypes when it comes to fields of study and careers. According to research, men are more interested in working with things, and women are interested in working with people (Su et al., 2009). Even from a young age, research on children has found that boys were more interested in occupations that were performed by male over female workers and that girls were more interested in occupations that were performed by female over male workers (Hayes et al., 2018).

A portion of gender research has documented that people have different perceptions of intelligence for men and women. This research has found that men are preferred for jobs that require intelligence over women (Bian et al., 2018; Meyer et al., 2015; Szymanowicz & Furnham, 2013). Several research articles have found this trend. First, research has found that people are more likely to elect men but not women to positions that require intellectual ability (Bian et al., 2018). Second, research found that individuals rate masculine hypothetical people as having higher intelligence as compared to female hypothetical people, and most intelligent hypothetical figures were judged as more masculine and less feminine (Szymanowicz & Furnham, 2013). Third, women are also underrepresented in fields that emphasize brilliance. According to research, the reason behind this could be due to women being seen as lacking the intelligence needed to participate in the field. This could discourage women from participating in fields that emphasize brilliance, as compared to men who are seen as having the needed intelligence and will therefore not be as discouraged from participating (Meyer et al., 2015).

Careers/Majors and Gender Stereotypes

Previous research has documented gender stereotypes when individuals choose careers and what people think about others in careers (Boysen et al., 2021; Farrell & McHugh, 2017; Fleming et al., 2020; White & White, 2006). Some of this research has shown that people will tend to have stereotypes about the gender of individuals filling those roles. Even with continued approaches to eliminate stereotypes, some still exist in society today and in research. Research has found that engineers are stereotyped as males, and elementary school teachers are stereotyped as females (White & White, 2006). Along with that, research has found that individuals will choose women over men for fields in the arts, specifically 72.7% of participants report that females are more suited for a career in the Arts (Fleming et al., 2020). Research by

Boysen et al. (2021), found that people rated psychology as a female-majority field and associate psychology with femininity over masculinity. The study also found that people perceived that psychology would meet fewer of men's needs, and men would be less satisfied with this field as compared to women. Research has also documented a pro-male bias in science, technology, engineering, and mathematics (STEM) careers, which suggests that males are preferred for the suitability of careers in STEM over females (Farrell & McHugh, 2017; Fleming et al., 2020).

Communal and Agentic Goals

Communal goals are described as goals that are related to helping others, serving the community, working with people, and connecting with others (Diekmann et al., 2010). However, on the other side are agentic goals which, are described as goals that are related to power, recognition, achievements, status, and success (Diekmann et al., 2010). Previous research has demonstrated that individuals perceive a difference in men and women's goals when it comes to careers and fields of study. Along with that, people associate certain goals with certain fields of study. Specifically for gender, research has shown that individuals perceive stereotypical female dominated fields of study and careers as communal (Diekmann et al., 2010; Froehlich et al., 2020; Stout et al., 2016). On the opposite side, individuals perceive stereotypical male dominated fields of study and careers as agentic (Diekmann et al., 2010; Froehlich et al., 2020; Stout et al., 2016). For careers, fields in STEM are more associated with agency goals, including self-promotion and self-direction (Stout et al., 2016). Behavioral science careers, such as sociology and psychology, are more associated with communal goals including working with others (Stout et al., 2016).

Past research has demonstrated that there is gender differences and gender stereotypes when it comes to several fields of study and careers. Specifically, researchers have documented

gender stereotypes in STEM fields, engineering, teaching, and psychology (Boysen et al., 2021; Farrell & McHugh, 2017; Fleming et al., 2020; White & White, 2006). Nobody has researched if individuals have gender stereotypes when it comes to the study of pre-law. Through this research, this gap will be filled. This gap is important because pre-law studies are common classes for an individual planning on going to law school to study. Filling this gap will allow undergraduate schools and law schools to determine if there are gender stereotypes. If so, the schools can take the necessary steps to help combat those stereotypes.

The Current Study

Pre-Law consists of any courses that individuals will take during their years of undergraduate studies to ensure they are ready for law school. For larger schools, this can be a major in pre-law or for smaller schools this may be a minor in legal studies. In 2020, women continued to take over in numbers for law school and around 54% were female with around 46% being male (“Women outnumbered men”, n.d.). Although this is a small difference in actual percentages, this research is important because I believe that people would still hold a gender stereotype about individuals studying pre-law. This is because, even though women are outnumbering males in law school, in 2020 only about 37.4% of lawyers were women and about 62.6% were male (Statista Research Department, 2021). Overall, there is a lack of research on the possibility of gender stereotypes of individuals studying pre-law. The current research will fill this gap.

The purpose of the current research is to examine two research questions. First, will individuals associate pre-law with a gender stereotype? Second, will individuals see pre-law students goals as communal or agentic? To answer the first questions, in my survey participants were asked the perceived percentage of males and females studying pre-law, and the masculinity

or femininity of pre-law studies. To answer the second question, participants were asked how much a major in prelaw would fulfill an individual's needs in six psychological areas. These six psychological areas include power, achievement, seeking new experiences, intimacy, affiliation, and altruism. The first three are agentic goals and the final three are communal goals. I hypothesized that individuals would perceive the major of pre-law as having more male participation and to be more masculine. This prediction would be consistent with previous research findings on other fields of study and careers. Along with that, I hypothesized that people would perceive the goals of individuals who study pre-law as more agentic. For the reason that agentic goals are associated with power and achievement, I believed that individuals would rate these two needs as very high for lawyers, therefore giving the score for the needs to pre-law students to be high for agentic goals. The results of this study will help undergraduate and law schools understand the gender perceptions of individuals in pre-law.

Method

Participants

Participants ($N = 61$) were 45.9% female and 45.9% male with the average age of participants being 20.17 ($SD = 1.70$) years old. Participants consisted of volunteers recruited from a small private liberal arts college. The average amount of years the participants had been in college was 2.67 ($SD = 1.38$) years. The majors of participants varied widely, with the highest percentages of students majoring within the School of Business (42.62%), the School of Education (26.23%), and the division of Social Sciences (14.75%).

Materials and Procedure

I administered the survey to students currently attending a small liberal arts college. I recruited participants for this study several different ways, including via email, in class, or at

practice. During class or practice, I wrote the link on the board or sent it out to the class. All of the measures used in this study have been used in previous research. The survey included four initial questions asking, “what percent of students studying prelaw in college do you think are men/women?” and “what percent of lawyers do you think are men/women?” These four questions had open ended responses and participants had from 1% - 100% to put in the blank. These questions were adopted from the Boysen et al. (2021) study. Next, participants filled out how feminine or masculine 11 different majors are to them. The 7-point scale ranged from *extremely feminine* (1) to *extremely masculine* (7) with a midpoint of *neither feminine nor masculine* (4). The majors being rated included business, nursing, pre-med, psychology, engineering, pre-law, biology, art, education, math, and English. This scale was adopted from the Boysen et al. (2021) study. Both of these scales have been used in previous published psychological research and are considered to be reliable and valid scales. This is because both of these scales have showed expected stereotype trends for gender stereotypes, specifically for psychology, in past research (Boysen et al., 2021).

Participants were then asked to complete the perceived goal affordance scales for both men and women (Diekmann et al., 2010). Participants rated how much a major in pre-law would fulfill a man/woman’s psychological needs in six areas. These included agentic needs (“power”, “achievement,” and “seeking new experiences”) and communal needs (“intimacy”, “affiliation,” and “altruism”). The 5- point scale ranged from *not at all* (1) to *extremely* (5). This measure has been used in multiple other research studies and therefore, is considered to be reliable and valid, because it has showed expected stereotypes trends in past research (Boysen et al., 2021; Diekmann et al., 2010). Finally, participants answered four demographic questions on their age, gender, amount of years in college, and major.

Results

I hypothesized that individuals would perceive the major of pre-law as having more male participation than female participation. In order to test this I conducted a one-sample *t*-test to determine if the scores were significantly different from 50%. Participants estimated that 66.90% ($SD = 11.73$) of students studying pre-law are male and that 33.85% ($SD = 12.86$) of students studying pre-law are female. A one-sample *t*-test determined that the perceived percentage of students studying pre-law that are male, $t(60) = 11.25, p < .001$, and the perceived percentage of students studying pre-law that are female, $t(60) = -9.81, p < .001$, were both significantly different from 50%. Participants estimated that 71.93% ($SD = 12.48$) of lawyers are male and that 28.74% ($SD = 12.09$) are female. A one-sample *t*-test determined that the perceived percentage of lawyers that are male, $t(60) = 13.73, p < .001$, and the perceived percentage of lawyers that are female, $t(60) = -12.68, p < .001$, were both significantly different from 50%. Therefore, the hypothesis that individuals would perceive the major of pre-law as having more male participation than female participation was supported.

I also hypothesized that individuals would perceive the major of pre-law to be more masculine than feminine. In order to test this I conducted a paired samples *t*-test to determine if participants would see pre-law as a more masculine or more feminine major. The mean rating for the study of pre-law was 4.70 ($SD = 1.17$). Pre-law fell on the masculine side of the rating scale and participants rated it as more masculine than all the majors falling on the feminine side of the scale (see Table 1). The results indicated that the mean rating for pre-law was significantly different from psychology, $t(60) = 8.50, p < .001$, education, $t(59) = 9.39, p < .001$, nursing, $t(60) = -11.95, p < .001$, pre-med, $t(60) = -5.46, p < .001$, biology, $t(60) = -5.46, p < .001$, art, $t(60) = -8.10, p < .001$, math, $t(60) = -0.42, p < .001$, and English, $t(60) = -8.09, p < .001$. Therefore, the

hypothesis that individuals would perceive the major of pre-law to be more masculine was supported.

Lastly, I hypothesized that people would perceive the goals of individuals who study pre-law as more agentic as compared to communal. In order to test this I conducted a paired samples *t*-test to compare the male agentic and communal means to each other and the female agentic and communal means to each other. The agentic goals for males had a mean score of 3.82 (*SD* = 0.75), and communal goals for males had a mean score of 2.93 (*SD* = 0.71). Results indicated that there was a significance difference in mean scores for male agentic and male communal goals, $t(59) = 9.42, p < .001$. Agentic goals for females had a mean score of 3.76 (*SD* = 0.79), and communal goals for females had a mean score of 2.97 (*SD* = 0.75). Results also indicated that there was a significance difference in mean scores for female agentic and female communal goals, $t(58) = 8.16, p < .001$. Therefore, the hypothesis that participants would perceive the goals of individuals who study pre-law as more agentic was supported.

Discussion

The current research addressed three hypotheses. My first hypothesis predicted that individuals would perceive the major of pre-law as having more male participation than female participation. Based on the results of the study this hypothesis was supported. Participants perceived the percentages for male pre-law students as higher than female pre-law students. My second hypothesis predicted that individuals would perceive the major of pre-law to be more masculine. Based on the results of the study this hypothesis was supported. Participants overall rated the major of pre-law as more masculine than all the majors that participants perceived as being more feminine. My third hypotheses predicted that participants would perceive the goals of individuals who study pre-law as more agentic. Based on the results of the study this hypothesis

was supported. Results showed that the agentic and communal goals mean score for males were significantly different from each other and that the agentic and communal goals mean scores for females were significantly different from each other.

The current research is mostly consistent with the findings of previous research. Previous research has documented gender stereotypes when an individual choose careers and what people think about others in careers (Boysen et al., 2021; Farrell & McHugh, 2017; Fleming et al., 2020; White & White, 2006). Similarly to previous research, the current research has documented that individuals perceive that the study of pre-law to have more male then female participation and participants scored it on the masculine side of the scale. Research has also documented a pro-male bias in science, technology, engineering, and mathematics (STEM) careers (Farrell & McHugh, 2017; Fleming et al., 2020). Similarly, the current research found that participants perceived engineering as slightly to somewhat masculine. In the current research, participants perceived both math and biology as slightly feminine to neutral. This finding is similar to the Boysen et al. (2021) study which participants perceived biology as neutral and math was perceived as neutral to slightly masculine. This shows an inconsistency within research regarding gender stereotypes when it comes to majors. These inconsistencies could be due to the measure used in both this study and the Boysen et al. (2021) study. The measure is intended to look at perceived masculinity and femininity of specific majors. The scale used in the measure is a 7-point scale ranging from *extremely feminine* to *extremely masculine* with a midpoint of *neither feminine nor masculine*. The middle points of the scale are *Somewhat* and *Slightly*. These middle points might not be distinguishable from each other enough for participants to determine which point to choose. Offering a sliding scale to choose from might allow participants to accurately pick what they perceive. Along with that, this measure had 11 majors for participants to rate. By

the end of the measure, the participants might have started to just choose random responses because there were too many majors to rate.

There are several strengths to the current research. First, there is construct validity with the measures used in my survey. Specifically, the dependent variable does measure the intended construct. All three measures used in this study were used in past research. The past research using these scales have showed expected stereotype trends for gender stereotypes (Boysen et al., 2021; Diekmann et al., 2010). The current research also found these trends. Second, the current research is the first to look at the perceived gender stereotype of individuals in pre-law; this study opens avenues for future research on this topic.

Even though this research has several strengths, there are a few validity limitations present in this study. First, is the internal validity of demand characteristics. When participants are asked the percentages of males and females who participate in something they may assume that the researcher does not want a 50/50 response. In this study, I asked participants their perceived percentages of males and females studying pre-law and who are lawyers. Participants might have assumed I did not want a 50% female and 50% male response and therefore, could have given a different percentage with the assumption in mind. Along with that, the participants in this study are my peers. With that in mind these individuals are aware that I want to attend law school. Since participants knew this prior to taking the survey, they might choose answers that they think align with what they think I want to hear. The second limitation is the external validity of the results regarding if the results are generalizable. This study was only open to participants attending one small liberal arts university, this means that there are a limited number of participants that could take the survey at a limited setting. Finally, the results might not be looked at as realistic. This is because participants took the survey online and their perceived

attitudes may not be what they perceive in the real world or they might not be aware of their own stereotypes. For example, a participant might have said in the survey that they believe that lawyers are equally male and female. If this participant goes to court and does not question when there are no female lawyers or no male lawyers in the room it can show that their responses in the survey are not exactly what they perceive in the real world or they are not aware of their own gender stereotypes and that's why they are not questioning the lack of a certain gender in the room.

This study is important when looking at gender stereotypes when it comes to specific majors. Research like this allows colleges and universities to acknowledge that there could be gender stereotypes present in certain majors and try to combat those stereotypes. Future studies should look at individuals not currently in college. Both high school students and graduate students are two populations that this research would benefit as participants. High school students are individuals who are currently applying for undergraduate school, and this means that they are looking at college majors and so are their peers. Graduate students are individuals who probably know current students in law school. Looking at these two populations will help determine if there are stereotypes present in other populations other than undergraduate students. The current research found that there is a significant gender stereotype present that needs to be addressed. When individuals hold stereotypes about a specific major or field of study, this can limit their perceived ability to have a specific major or do a specific job.

There are implications when it comes to stereotypes about a specific major or field of study. This can be an individual choosing not to study something or passing on a job because they think they are not capable of doing it. People considering the study of pre-law will likely perceive it as a male dominated field of study. This can deter females from pursuing a pre-law

degree while encourage males to pursue the degree. Both undergraduate and law schools need to work on ensuring that the study of pre-law is seen as accessible to every gender and that there is a shared ability for both genders to study it. No one should feel like they need to eliminate pre-law as a field of study for undergraduate because of gender stereotypes.

References

- Bian, L., Leslie, S.-J., & Cimpian, A. (2018). Evidence of bias against girls and women in contexts that emphasize intellectual ability. *American Psychologist, 73*(9), 1139-1153. <https://doi.org/10.1037/amp0000427>
- Boysen, G. A., Chicosky, R. L., Rose, F. R., & Delmore, E. E. (2021). Evidence for a gender stereotype about psychology and its effect on perceptions of men's and women's fit in the field. *The Journal of Social Psychology*. <https://doi.org/10.1080/00224545.2021.1921682>
- Diekman, A. B., Brown, E. R., Johnston, A. M., & Clark, E. K. (2010). Seeking congruity between goals and roles: A new look at why women opt out of science, technology, engineering, and mathematics careers. *Psychological Science, 21*(8), 1051–1057. <https://doi.org/10.1177/0956797610377342>
- Farrell, L., & McHugh, L. (2017). Examining gender-STEM bias among STEM and non-STEM students using the Implicit Relational Assessment Procedure (IRAP). *Journal of Contextual Behavioral Science, 6*(1), 80–90. <https://doi.org/10.1016/j.jcbs.2017.02.001>
- Fleming, K., Foody, M., & Murphy, C. (2020). Using the Implicit Relational Assessment Procedure (IRAP) to examine implicit gender stereotypes in science, technology, engineering and maths (STEM). *The Psychological Record, 70*(3), 459-469. <https://doi.org/10.1007/s40732-020-00401-6>
- Froehlich, L., Olsson, M. I. T., Dorrough, A. R., & Martiny, S. E. (2020). Gender at work across nations: Men and women working in male-dominated and female-dominated occupations are differentially associated with agency and communion. *Journal of Social Issues, 76*(3), 484–511. <https://doi.org/10.1111/josi.12390>
- Hayes, A. R., Bigler, R. S., & Weisgram, E. S. (2018). Of men and money: Characteristics of

- occupations that affect the gender differentiation of children's occupational interests. *Sex Roles: A Journal of Research*, 78(11–12), 775–788. <https://doi.org/10.1007/s11199-017-0846-8>
- Meyer, M., Cimpian, A., & Leslie, S.-J. (2015). Women are underrepresented in fields where success is believed to require brilliance. *Frontiers in Psychology*, 6. <https://doi.org/10.3389/fpsyg.2015.00235>
- Statista Research Department. (2021, June 25). *U.S.: Share of lawyers by gender 2020*. Statista. Retrieved October 28, 2021, from <https://www.statista.com/statistics/1086790/share-lawyers-united-states-gender/>
- Stout, J. G., Grunberg, V. A., & Ito, T. A. (2016). Gender roles and stereotypes about science careers help explain women and men's science pursuits. *Sex Roles: A Journal of Research*, 75(9–10), 490–499. <https://doi.org/10.1007/s11199-016-0647-5>
- Su, R., Rounds, J., & Armstrong, P. I. (2009). Men and things, women and people: A meta-analysis of sex differences in interests. *Psychological Bulletin*, 135(6), 859–884. <https://doi.org/10.1037/a0017364>
- Szymanowicz, A., & Furnham, A. (2013). Gender and gender role differences in self- and other-estimates of multiple intelligences. *The Journal of Social Psychology*, 153(4), 399–423. <https://doi.org/10.1080/00224545.2012.754397>
- White, M. J., & White, G. B. (2006). Implicit and explicit occupational gender stereotypes. *Sex Roles: A Journal of Research*, 55(3–4), 259–266. <https://doi.org/10.1007/s11199-006-9078-z>
- Women outnumbered men in law schools in 2020...again*. (n.d.). Enjuris. Retrieved October 28, 2021, from <https://www.enjuris.com/students/law-school-women-enrollment-2020.html>

Wood, W., & Eagly, A. H. (2002). A cross-cultural analysis of the behavior of women and men: Implications for the origins of sex differences. *Psychological Bulletin*, 128(5), 699-727.
<https://doi.org/10.1037/0033-2909.128.5.699>

Table 1

Major	<i>M</i>	<i>SD</i>
Engineering	5.36	1.24
Business	4.90	1.22
Pre-Law	4.70	1.17
Math	3.95	1.22
Biology	3.93	1.00
Pre-Med	3.64	1.29
Psychology	3.30	0.96
Art	3.02	1.04
English	3.00	1.08
Education	2.67	1.17
Nursing	2.26	0.89

Note: Ratings occurred on a scale ranging from *extremely feminine* (1) to *extremely masculine*

(7) with the midpoint being *neither feminine nor masculine* (4).