

The Value of Honor Society Participation: Is There a Relationship Between Honor Society Participation and Belief in Psychological Myths?

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Abstract

Psychological myths have become so widespread in both the general public as well as higher education undergraduate communities that it has been damaging to the psychology field (Gaze, 2014; Kowalski & Taylor, 2009; Meinz et al., 2022). Factors such as education, belief in psychology as a science, and their confidence in their myth beliefs (myth confidence) have previously been examined in relation to myth endorsement (Bensley & Lilienfeld, 2015; Richardson & Lacroix, 2021). However, there has been no previous research focusing on the connection between honor society membership and myth belief. The present study examined whether honor society participation could predict to myth belief. To better understand belief in psychological misconceptions, this study also measured the participants' belief in psychology as a science and confidence in myth beliefs. Understanding myth belief predictors may help psychologists mitigate the spread of psychological myths. A total of 972 participants from 2-year colleges across the United States were recruited to take a survey regarding psychological myths. We compared myth belief, belief in psychology as a science, and myth score confidence between two groups: honor society members (N = 129) and non-honor society members (N = 807). Non-honor society members identified significantly fewer myths than honors society members, were less confident when correctly identifying myths than honor society members, and had lower belief in psychology as a science than honor society members. These findings suggest that honor society membership may be a predictor of myth detection. This finding is possibly due to honor society eligibility requirements, such as grades and credits taken. Our results may be useful in developing academic interventions to prevent psychological myth belief.

Keywords: myth belief, honor societies, psychology as a science, psychological misconceptions

Psychology is often misrepresented as an unreliable art rather than a field of science (Gaze, 2014; Richardson & Lacroix, 2021). Such perceptions make it easy to be dismissive and doubtful of

research emerging from the field. This is exacerbated by the numerous psychological myths being spread in everyday life, perpetuating distrust, and misinformation. These misconceptions are

damaging to the science of psychology and the population as a whole (Cavazos et al., 2021). Psychologists have been studying these misconceptions to identify their underlying causes, and, more importantly, to explore strategies to reduce them.

Education is often believed to be a primary tool for combating myth beliefs (Macdonald et al., 2017; Richardson & Lacroix, 2021; Standing & Huber, 2003). Unfortunately, past studies demonstrated that taking only introductory psychology courses was not effective in reducing belief in psychological misconceptions (Gaze, 2014; Kowalski & Taylor, 2009; Meinz et al., 2022; Richardson & Lacroix, 2021; Sibicky et al., 2020; Standing & Huber, 2003;). However, taking more psychology courses had a greater effect in reducing psychological misconceptions (i.e., misinterpreting theories), though participants still scored low on identifying psychological myths (i.e., a theory with lacking evidence or is proven false; Gaze, 2014).

Kowalski and Taylor (2009) concluded that the best way to reduce misconceptions in an introductory course was to specifically call out the misinformation and provide the proper evidence and time to dispute it. The issue with this method is that it requires each myth to be pointed out and disproven; devoting time to covering each misconception and providing contrary evidence is an inefficient and unrealistic expectation to hold in an introductory psychology course.

Due to the challenge of disproving psychological myths, this study's purpose was to understand the connection between honor society participation and belief in psychological misconceptions. Current literature does not have extensive research in this area. Honor societies often require the students to have a minimum GPA to participate, and past research demonstrated that a higher GPA predicted better accuracy at identifying myths (Cho, 2022). Since more education seems to reduce misconceptions, it was hypothesized that there would be a difference in myth scores between students who are in

an honor society and students who are not in an honor society (Gaze, 2014; Macdonald et al., 2017; Meinz et al., 2022). Second, it was hypothesized there would be a difference in myth score confidence between students who are in an honor society and students who are not in an honor society. Finally, it was hypothesized there would be a difference in belief that psychology as a science between students who are in an honor society and students who are not in an honor society.

Method

Participants

Nine-hundred seventy-two participants from United States community colleges participated. Participants had an average age of 22. Participants filled out information involving their gender, race/ethnicity, socioeconomic status, and their participation in honor societies.

Materials

The Psychology as a Science (PAS) scale (Friedrich, 1996) was used to measure belief in psychology as a science. Scores were calculated by taking participants' average PAS scores, which were reported on a scale from one to seven. The PAS score was measured on a 7-point Likert scale, from 1 (Strongly Disagree) to 7 (Strongly Agree) based on statements that supported or did not support that psychology as a science.

Participants' myth belief was measured through a series of true/false questions, each regarding a psychological misconception (see Table 1 for a full list of misconceptions). This created a myth score, which calculated the sum of the total number of true/false questions participants answered correctly.

Myth confidence was measured on a scale from 1 (not at all confident) to 7 (very confident), asking participants to rate their confidence in their answers to each myth. The myth confidence score was calculated by giving participants one point for each myth question they answered correctly, then multiplied by the indicated confidence value.

Table 1*Psychological Myths and Misconceptions Included in the Survey*

Myths and misconceptions	Answer
If you're unsure of your answer when taking a test, it's best to stick with your initial hunch.	False
We dream every night even if we don't always recall the dreams.	True
Individuals seldom repress memories of traumatic experiences.	True
People only use 10% of their brain's total processing capability.	False
Men and women communicate in completely different ways.	False
It's better to express anger openly to others than to hold it in.	False
Eyewitness testimony is a highly accurate and reliable method for identifying criminal suspects.	False
Academic performance is significantly improved when teaching styles are matched to student learning styles.	False
A person's handwriting is not a valid and reliable indicator of their personality traits.	True
Recently, there has been a massive epidemic in infantile autism.	False
Dream interpretation is a valid and reliable method for revealing people's unconscious motivations and desires.	False
Psychiatric hospital admissions and crimes do not increase during full moons.	True
Playing classical music (e.g., Mozart) to infants and children produces long-lasting increases in their intelligence.	False
On average, people are romantically attracted to individuals who differ from them in their personality, interests, and attitudes.	False

Procedure

Data collection started after approval from the local Institutional Review Board. To protect the integrity of the data, the data was coded after cleaning. Eleven responses were removed for not giving consent, 49 were removed for being under the age of 18, and four were removed for not rounding their age to the nearest whole number. One respondent was removed for not attending a college, six were removed for having six or more missing responses, and 142 respondents were removed for not taking the survey at the college. One response was removed for taking the reflective thinking exercise twice.

This study was conducted through a national survey. The research survey was created by Psi Beta's National Council using Google Forms. The survey included a multiple-choice reflective thinking exercise, true/false statements testing participants' knowledge of psychological myths, and several Likert scales measuring participants' confidence in their knowledge and belief in psychology as a science. The survey also included demographic questions, such as honor society membership, gender, race/ethnicity, and socioeconomic status. There were two fill-in-the-blank questions regarding age and number of psychology courses completed.

Instructors were asked via email to recruit students to participate in in-person survey sessions. Survey sessions were held in computer labs on campus with a researcher present to discourage participants from looking up answers or multitasking. Instructors decided whether or not to reward participants with course credit or extra credit for their participation.

An informed consent statement was attached at the beginning of the survey, which participants read and agreed to before clicking "Next" to take the survey. There was no penalty for opting out, and students could stop the survey at any time. No names or email addresses were collected. To prevent potential reinforcement of misinformation, participants were debriefed after completing the

survey. Participants were given a debrief to read, which outlined the current research regarding each myth that appeared in the survey. The debrief gave participants corrective information on each of the psychological misconceptions that appeared in the study.

Results

To test all three hypotheses, data were collected from 129 honor society members and 807 non-honor society members. Data was not used from participants who were unsure of honor society participation.

The first hypothesis was that honor society members differ from other college students in their myth score accuracy. Participants' average myth score was 5.95 ($SD = 2.11$) out of 16. An independent samples t-test revealed a significant difference between the groups, $t(934) = -4.03$, $p < .001$, $d = -0.38$. Honor society members correctly identified more myths ($M = 6.64$, $SD = 2.15$) than non-honor society members ($M = 5.84$, $SD = 2.08$).

The second hypothesis was that honor society members differ from other college students in their myth score confidence. Students' average myth score confidence was 30.80 ($SD = 12.60$). An independent samples t-test found a significant difference between the two groups, $t(934) = -4.15$, $p < .001$, $d = -0.39$. Honor society members had higher confidence in their correct myth score answers ($M = 35.00$, $SD = 12.80$) than non-honor society members ($M = 29.00$, $SD = 12.40$).

An independent samples t-test was used to test the hypothesis that honor society members differ from non-honor society members in their belief in psychology as a science. Students' average PAS score was 5.16 ($SD = 0.64$) on a scale from one to seven. The independent samples t-test found a significant difference between the two groups, $t(934) = -6.29$, $p < .001$, $d = -0.60$. Honor society members had a greater belief in psychology as a science ($M = 5.48$, $SD = 0.67$) than non-honor society members ($M = 5.11$, $SD = 0.63$).

Discussion

Overall, students who were part of an honor society were more likely to have greater belief in psychology as a science, were more accurate in identifying psychological myths, and had more confidence when correctly identifying myths. Since previous research found a positive correlation between the amount of education in psychology and reduced myth belief, this may suggest that honor societies provide a step further in educating and disproving myths (Gaze, 2014; Kowalski & Taylor, 2009; Meinz et al., 2022; Richardson & Lacroix, 2021; Sibicky et al., 2020; Standing & Huber, 2003; Furham & Hughes, 2014). Most honor societies have requirements to join (e.g., academic performance, such as grade point average), and since they are extracurricular programs, honor society members tend to be students already doing well in academic settings. Honor societies provide students with opportunities to connect with other students, professors, work, projects, and so forth. These opportunities may be why honor society students correctly identified more myths. Additionally, there may be a link between students who see value in joining honor societies and being more likely to perceive psychology as a science.

Limitations

The sample was composed only of community college students in the United States, this limits generalizability and makes it unreasonable to generalize the results to the public or to citizens in other countries. Additionally, there is a lack of research regarding the interaction between psychological misconceptions and honor society membership that requires further research to understand. Finally, the survey did not ask participants which honor society they were a member of, the requirements for joining the honor society, their academic performance, or their involvement in other extracurricular activities. Future research should add these variables for further study to better understand the factors that predict myth beliefs.

Our study underscores the importance of honor societies and improved education in

fostering a more accurate understanding of psychology as a science and dispelling myths. The data suggests that honor society participation may be an effective strategy for challenging misconceptions. Despite the limitations, including the focus on United States community college students, this study contributes to a better understanding of the complex dynamics of myth belief and myth debunking in psychology. More broadly, these findings echo the importance of robust education in fighting misinformation. Since these misconceptions are damaging to the reputation of psychology as a science and harmful to the general public, it is important for scientists to understand what causes people to hold these misconceptions and factors that help dispel or even prevent the myths (Cavazos et al., 2021; Gaze, 2014; Richardson & Lacroix, 2021). By investing in high-quality educational experiences, such as those offered by honor societies, may be helpful for dispelling harmful misconceptions that can impede progress in psychology and in all scientific fields.

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