**Supplemental Materials**

**Pilot Study**

In Study 1, we presented participants with profiles of professors working in a fictional School of Science and Engineering. To indicate the gender and race of the professors, participants were presented with pictures of a Black woman, a Black man, a White woman, or a White man. We therefore conducted a pilot study to identify pictures of professors that were equally matched on competence, attractiveness, and perceived age. All the photos featured the individual in attire appropriate to a professional setting but did not explicitly identify the individual as a professor. In addition, all photos featured the individual smiling and were akin to photos that would appear on a faculty’s professional profile or webpage.

**Method**

**Participants.** Fifty participants were recruited from Amazon’s MTurk and received $0.75 compensation for completing the pilot study. Our sample was comprised of eighteen (36.0%) women and 32 (64.0%) men. Thirty-two participants identified as (64.0%) White, 8 (16.0%) as Black, 8 (16.0%) as Asian, and 2 (4.0%) as Latino/a. When asked to indicate their highest level of education, 16 participants (32.0%) reported a high school degree or GED, 16 (32.0%) reported a 2-year college degree, 15 (30.0%) reported a 4-year college degree, and 3 (6.0%) reported a master’s degree.

**Procedure.** Participants were presented with six pictures each of a Black woman, a Black man, a White woman, or a White man. Thus, participants saw and provided impressions of 24 total pictures. For each picture, participants rated their agreement with the statements about the person in the picture (“This person is competent”; “This person is attractive”; “This person looks older”) on a 1 (*strongly disagree*) to 5 (*strongly agree*) scale (competent: Black woman photos: *M* = 3.78, *SD* = .65, α = .78; Black man photos: *M* = 3.94, *SD* = .55, α = .74; White woman photos: *M* = 3.82, *SD* = .55, α = .70; White man photos: *M* = 3.68, *SD* = .60, α = .69; attractive: Black woman photos: *M* = 3.78, *SD* = .63, α = .83; Black man photos: *M* = 3.60, *SD* = .65, α = .79; White woman photos: *M* = 3.80, *SD* = .66, α=.71; White man photos: *M* = 3.52, *SD* = .58, α = .88; age: Black woman photos: *M* = 2.79, *SD* = .48, α = .76; Black man photos: *M* = 2.93, *SD* = .66, α = .70; White woman photos: *M* = 3.04, *SD* = .72, α = .76; White man photos: *M* = 2.85, *SD* = .60, α=.88).

**Results.** We identified four pictures (a Black woman, a Black man, a White woman, and a White man) that were most closely matched on perceived competency, attractiveness, and age. We then ran three separate within-subjects ANOVA with professor picture condition (Black woman vs. Black man vs. White woman vs. White man) predicting perceived competency, attractiveness, and age. First, there was no significant effect of picture condition on perceived competency, *F*(3, 47) = 0.75, *p* = .523, ηp2 = .015. Using a Sidak correction for multiple tests, we also ran posthoc tests comparing each picture to each other, and did not find any significant differences (Black woman versus Black man Mean Difference = -.18, *SE* =.14, *p* = .741; Black woman versus White woman, Mean Difference = .00, *SE* = .15, *p* = 1.00; Black woman versus White man, Mean Difference = -.20, *SE* = .15, *p* = 1.00; Black man versus White woman, Mean Difference = .18, *SE* = .12, *p* = .565; Black man versus White man, Mean Difference = .16 *SE* = .16 *p* = .896; White woman versus White man, Mean Difference = -.02, *SE* = .15, *p* = 1.00). Second, there was no significant effect of picture condition on perceived attractiveness, *F*(3, 47) = 1.70, *p* = .170, ηp2 = .034. Using a Sidak correction for multiple tests, we also ran posthoc tests comparing each picture to each other, and did not find any significant differences (Black woman versus Black man Mean Difference = -.37, *SE* =.22, *p* = .450; Black woman versus White woman, Mean Difference = -.22, *SE* = .22, *p* = .896; Black woman versus White man, Mean Difference = .00, *SE* = .21, *p* = 1.00; Black man versus White woman, Mean Difference = .18, *SE* = .12, *p* = .565; Black man versus White man, Mean Difference = .37, *SE* = .15 *p* = .106; White woman versus White man, Mean Difference = .22, *SE* = .15, *p* = .615). Finally, we found no significant effect of picture condition on perceived age, *F*(3, 47) = 1.01, *p* = .446, ηp2 = .018. The posthoc tests with Sidak corrections comparing each picture to each other did not reveal any significant differences (Black woman versus Black man Mean Difference = .34, *SE* =.21, *p* = .494; Black woman versus White woman, Mean Difference = .22, *SE* = .21, *p* = .883; Black woman versus White man, Mean Difference = .22, *SE* = .21, *p* = .869; Black man versus White woman, Mean Difference = -.12, *SE* = .20, *p* = .993; Black man versus White man, Mean Difference = -.12, *SE* = .21 *p* = .993; White woman versus White man, Mean Difference = .00, *SE* = .24, *p* = 1.00).

Consequently, these four pictures were well matched and were employed in Study 1 (see Table S1). The four matched pictures each featured the individual smiling and dressed in professional attire.

Table S1

*The Mean and Standard Deviations for Impression of Professor Pictures Used in Experiments 1 and 2.*

|  |
| --- |
| Condition Mean (Standard deviation) |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measure | Black woman professor | Black man  professor | White woman professor | White man professor |
| Competency | 3.66 (1.02) | 3.84 (0.79) | 3.66 (0.90) | 3.68 (0.84) |
| Attractiveness | 3.37 (1.09) | 3.73 (1.02) | 3.59 (1.11) | 3.37 (1.01) |
| Age | 3.16 (1.10) | 2.82 (1.16) | 2.94 (1.27) | 2.94 (1.19) |

Table S2

*Measures of Anticipated Belonging and Trust in the School of Science and Engineering.*

|  |  |
| --- | --- |
| Anticipated Belonging and Trust | |
| Item # | Item |
| 1 | I think I would like to be a student in the School of Science & Engineering. |
| 2 | I think I could “be myself” in the School of Science & Engineering. |
| 3 | I think other students in the School of Science & Engineering would become my close personal friends. |
| 4 | I think I would be treated fairly by students and professors in the School of Science & Engineering. |
| 5 | I think my values and the values of the School of Science & Engineering are very similar. |
| 6 | People in the School of Science & Engineering would like me. |
| 7 | People in the School of Science & Engineering would be a lot like me. |
| 8 | I would belong in the School of Science & Engineering. |
| 9 | I would feel like an outsider in the School of Science & Engineering. (R) |
| 10 | I would feel respected in the School of Science & Engineering. |
| 11 | I would feel excluded in the School Science & Engineering (R). |
| 12 | I would feel anxious in the School of Science & Engineering (R). |
| 13 | I would enjoy being an active participant in the School of Science & Engineering. |

*Note.* Participants rated their level of agreement (1 = *strongly disagree*, 5 = *strongly agree*) with each item. Items marked with an “R” were reverse-scored. We calculated means of the items to calculate a measure of anticipated belonging and trust in the School of Science and Engineering. All trust items were adapted from Purdie-Vaughns, Steele, Davies, Diltmann, & Crosby, 2008 and belonging from Walton and Cohen, 2007 and Good, Rattan, & Dweck, 2012.

When we looked at anticipated belonging and anticipated trust as separate scales, we found that they were highly correlated, *r*(351) = .75, *p* < .001. Moreover, an exploratory factor analyses revealed that the items in the anticipated belonging and trust scale loaded onto a single factor (eigenvalue = 5.93; all factor loadings >.507).

Table S3

*Measure of Individual Differences in Stigma Consciousness.*

|  |  |
| --- | --- |
| Stigma consciousness | |
| Item # | Item |
| 1 | Stereotypes about Black women have not affected me personally. (R) |
| 2 | I never worry that my behaviors will be viewed as stereotypical of Black women. (R) |
| 3 | When interacting with people, I feel like they interpret all my behaviors in terms of race and gender. |
| 4 | Most people do not judge other people on the basis of their race and gender. (R) |
| 5 | Being a Black woman does not influence how people act with me. (R) |
| 6 | I almost never think about the fact that I am a Black woman when I interact with people. (R) |
| 7 | Most people have a lot more negative thoughts about Black women than they actually express. |
| 8 | I often think that people are accused of treating Black women unfairly. (R) |
| 9 | Most people have a problem viewing Black women as equals. |

*Note.* Participants rated their level of agreement (1 = *strongly disagree*, 5 = *strongly agree)* with each item. Items marked with an “R” were reverse-scored. We calculated means of the items to calculate a measure of stigma consciousness. All items were adapted from Pinel, 1999 and were used in previous research (Pietri, Johnson, & Ozgumus, 2018).

Table S4

*Correlations Between Outcome Variables in Study 1 and Demographic Variables.*

|  |  |  |
| --- | --- | --- |
| Measure | STEM major  (Yes=1, No = 0) | Current Enrollment in School (1 = high school – 6 = Professional Degree) |
| Perceived similarity | .14\* | -.01 |
| Anticipated belonging and trust | .17\*\* | -.03 |
| Stigma consciousness | -.13\* | .13\* |

\**p* < .05, \*\**p* < .01.

Table S5

*Mean and Standard Deviation of Percentage of Role Models Identified as a Function of Racial/Ethnic Category and Gender at the PWI vs. HBC.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Study 2 | | | | |
| Predominately White Institution (PWI) | | | Historically Black College (HBC) | |
|  | Women | Men | Women | Men |
| Measure | *M (SD)* | *M (SD)* | *M (SD)* |  |
| Asian | 0.52 (3.41) | 1.09 (6.30) | 0.75 (3.72) | 0.89 (3.99) |
| Black | 13.46 (22.30) | 3.94 (11.16) | 48.06 (24.46) | 7.62 (11.95) |
| Latina/o | 0.77 (5.63) | 1.63 (7.28) | 0.78 (5.54) | 0.57 (3.88) |
| Middle Eastern | 0.38 (3.57) | 0.00 (0.00) | 0.18 (1.41) | 0.32 (2.55) |
| Multi-Racial | 1.25 (6.91) | 0.00 (0.00) | 1.79 (6.75) | 1.41 (5.26) |
| Native American | 0.16 (1.53) | 0.00 (0.00) | 0.00 (0.00) | 0.00 (0.00) |
| Other | 0.48 (3.20) | 0.48 (3.20) | 0.90 (4.77) | 0.51 (3.54) |
| White | 15.95 (23.01) | 5.39 (13.59) | 3.26 (7.77) | 1.41 (5.96) |

References in Supplemental Materials

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