

Supplemental Online Materials

Appendix A: Scenarios of Bias

Scenario from Study 1

You take a break to get a drink at work and find yourself speaking with John, a new employee whose name you had heard a few times but who you haven't met before. John is at your level in the organization and his work group is widely regarded as one of the most effective in the company. You and John begin discussing his first impressions of the company. After mentioning a few aspects of the position that he likes, John says, "You know, I'm really surprised at the types of people who are working here. When you get to the top level - a company like this - you expect only the best people here. I mean, I think they must be hiring associates just for diversity reasons. With all the women here, I wonder how long this company will stay on top."

Scenario from Study 3

Imagine you experienced the following situation *at a school friend's party one evening* [in the workplace one day]. *This party* [This workplace] includes people who you *went to school with* [work with] and some *of your friend's work colleagues* [newcomers] who you have not met before:

You take a break *from speaking with friends to get a drink* [from your work to get coffee] and find yourself talking to John [a new employee, whose name you have heard a few times but who you], who you have not met before. John is at *your friend's* [your] level in the[ir] organization and his work group is widely regarded as one of the most effective in the company. You and John begin discussing what each of your

managers is like. You both express that you generally like your managers and that you see your managers as effective. After mentioning a few positive experiences with his manager, John then says, "I am just so glad I didn't end up on a team with a woman manager. Women are just too emotional to manage teams effectively, and those teams will just never rise to the top or be stars."

Scenario from Study 4

Erica took a break to get a drink at work and found herself speaking with John, a new *[employee] manager* whose name she had heard a few times but who she hadn't met before. John is *[at] above* Erica's level in the organization and his work group is widely regarded as one of the most effective in the company. Erica and John begin discussing his first impressions of the company. After mentioning a few aspects of the position that he likes, John says "You know, I'm really surprised at the types of people who are working here. When you get to the top level - a company like this - you expect only the best people here. I mean, I think they must be hiring associates just for diversity reasons. With all the women here, I wonder how long this company will stay on top."

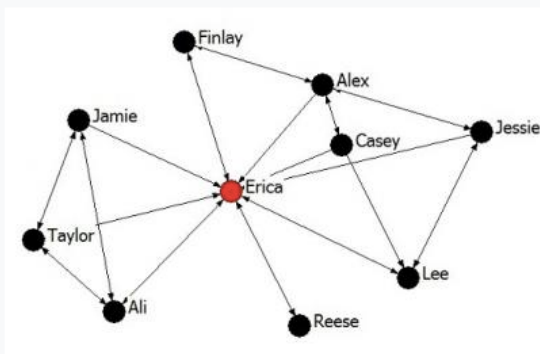
Appendix B: Network Role Manipulations from Study 4

Central Network Role Condition

This is the Digital Media team within a large professional services organization. The team is responsible for the company's presence in the media and deal with journalists and social media on a daily basis. All members are at the same level in the organization.

The diagram below represents the advice network in the team, that is, who asks who for advice on work related matters. The circles represent people and the arrows indicate that an advice tie exists between those two individuals.

Erica joined the team 14 months ago from another organization. In that time she has become a sought-after advisor in the team – everyone asks for Erica's advice on work related matters.

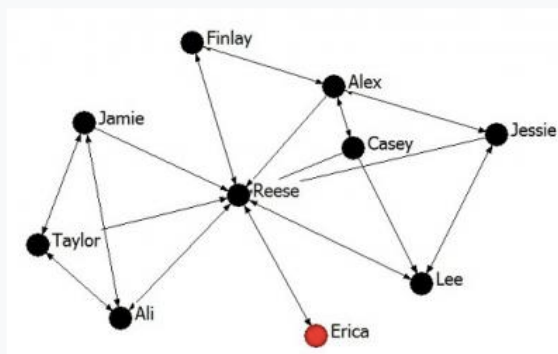


Peripheral Network Role Condition

This is the Digital Media team within a large professional services organization. The team is responsible for the company's presence in the media and deal with journalists and social media on a daily basis. All members are at the same level in the organization.

The diagram below represents the advice network in the team, that is, who asks who for advice on work related matters. The circles represent people and the arrows indicate that an advice tie exists between those two individuals.

Erica joined the team 14 months ago from another organization. In that time she has not become a sought-after advisor in the team – only one person asks for Erica's advice on work related matters.



Appendix C: Additional Study

Due to space constraints in the main text, we include the results of an additional experimental study here.

Study S1

Study S1 is a between-participants experimental design testing for causality in the relationship between centrality and reactions to a sexist comment.

Method

Participants

We set out to recruit 200 participants from Amazon's Mechanical Turk. One hundred ninety-eight North American residents completed the study in a single wave. According to the a priori exclusion criteria, we excluded 14 individuals who failed an attention check (i.e., did not recall details of the scenario correctly). Of the remaining 186 (93 women), 147 identified as White American, 16 as African American, 13 as Latino American, 10 as Asian American. The sample reported an average age of 34.11 years ($SD=10.48$).

Procedure

After providing informed consent, participants read about Erica, a member of the digital media team within a large professional services organization. Erica's role in the informal advice network of the team was described in words, and this description was accompanied by a network diagram with nodes (labeled with co-worker's names) and lines (representing advice ties), depicting Erica's role in the advice network. The other nodes were given gender neutral names to avoid the possibility that participants would interpret Erica's

network role differently depending on ties to women or men. Participants saw exactly the same network in each condition – only Erica’s role in the network changed.

Advice Network Centrality Manipulation. The *Central Network Role* condition described Erica as being sought after for advice by everyone in the network. A network diagram depicting arrows from every individual in the team to Erica accompanied the description. The *Peripheral Network Role* condition (N=97) described Erica as being asked for advice by only one person, and a network diagram depicted an arrow from one individual to Erica (see Appendix B for the manipulations used in this study).

Scenario. After reading about Erica’s role in the team advice network, participants were presented with the following scenario, which described a work interaction in which a male employee makes a biased statement. The scenario was generally the same as what was presented in Study 1, but adapted to refer to Erica rather than the self (adapted from Rattan & Dweck, 2010):

Erica took a break to get a drink at work and found herself speaking with John, a new employee whose name she had heard a few times but who she hadn’t met before. John is at Erica’s level in the organization and his work group is widely regarded as one of the most effective in the company. Erica and John begin discussing his first impressions of the company. After mentioning a few aspects of the position that he likes, John says “You know, I’m really surprised at the types of people who are working here. When you get to the top level - a company like this - you expect only the best people here. I mean, I think they must be hiring associates just for diversity reasons. With all the women here, I wonder how long this company will stay on top.”

The scenario made clear that John and Erica were at the same level in the organization to avoid formal power dynamics (i.e., leadership role) from influencing responses. After reading the scenario, participants responded to the following measures:

Anticipated Confronting. The confronting measure was again composed of two items: how likely Erica would be to calmly but firmly express her disagreement to John and how likely she would be to not express any disagreement to John. Both questions were accompanied by a five point Likert scale (1=very unlikely to 5=very likely; Rattan & Dweck, 2010). Responses to the latter question were reverse scored and, given they achieved adequate reliability ($r=.71, p < .01$), the two items were averaged to form a mean score for likelihood of confronting.

Public vs. Private Context. Participants indicated the degree to which they felt “that Erica was in a public vs. private context” on a single-item, bipolar scale (1= very public, 6=very private).

Perceived Risk. Two items separately assessed how much participants thought Erica would lose professionally and socially if she spoke out (1=risked nothing or almost nothing, 6=risked everything or nearly everything, $r=.55, p < .01$).

Manipulation Check. At the end of the study participants were asked to choose between two statements describing Erica’s role in the advice network, 1=many people ask Erica for advice or 2=few people ask Erica for advice.

Demographics. Finally, participants completed a standard demographics measure, were debriefed, and paid.

Participants also completed a measure of fixed-growth mindsets (Dweck, 1999) which was included as a pilot measure for work on mindsets and social networks in the lab, and thus is not reported on further in this manuscript.

Results

Manipulation Check. First, we examined whether the network role manipulation was successful. Participants in the central condition reliably endorsed the statement that many people asked Erica for advice, whereas participants in the peripheral condition reliably endorsed the statement that few people asked Erica for advice, $\chi^2(1)=177.17, p < .001$. Including participants who failed the manipulation check did not change the pattern of the results or affect whether or not results were significant.

Anticipated Confronting. In support of the hypothesis, participants randomly assigned to the Central Network Role condition ($M=3.98, SD=.93$) thought Erica would be more likely to express her disagreement with the sexist statement than participants assigned to the Peripheral Network Role condition ($M=3.39, SD=.98$), $t(185)=-4.17, p < .001, \eta_p^2=.09$, 95% CI of difference (-.84, -.30) (see Figure S1).

Public vs. Private Context. There was no main effect of network role condition on participants' ratings of how public or private the context was, $t(184)=1.37, p=.17$, 95% CI of difference (-.30, 1.67).

Perceived Risk. Network role condition significantly influenced participants' perceptions of how much Erica risked losing socially and professionally. Participants in the Central Network Role condition saw Erica as risking less ($Mean=2.51, SD=1.18$) than participants in the Peripheral Network Role condition ($Mean=3.07, SD=1.37$), $t(181.88)=3.0, p=.003, \eta_p^2=.05$, 95% CI of difference (.19, .93).

We tested whether perceived risk might mediate the relationship between network role condition and anticipated confronting. Using Hayes (2012) Process macro, model 4, we entered network role condition as the predictor X, expected confronting as the outcome Y, and perceived risk as the mediator M. As noted, when participants observed a woman in a central network role, they reported that she risked less than when they observed a woman in a

peripheral network role ($B = -.56$, $SE = .18$, $p = .003$). The more risk they saw, the less likely participants were to expect Erica to confront ($B = -.27$, $SE = .05$, $p < .001$). Based on a bootstrap sample of 5000 iterations, the 95% confidence interval for the indirect effect was (.06, .28), suggesting support for the indirect effect. The direct effect of network role remained significant, CI (.17, .70).

Participant Gender. The focus of this research is on confronting among targets of prejudice. Here, we recruited both men's and women's evaluations of Erica, and therefore the question arises as to whether there is a difference in perceptions by participant gender. We conducted an exploratory analysis to see whether gender affected participants' expectations of how Erica would respond. There was no difference between men and women in the extent to which they thought Erica would be likely to confront sexism, $p = .67$, how public or private they thought the situation was, $p = .24$, or their perceptions of risk, $p = .98$. Likewise, the effect of network role on the perceived likelihood of Erica confronting sexism did not depend on participant gender; 2 (network role: central vs. peripheral) by 2 (participant gender: women vs. men) ANOVAs revealed that the interaction between network role and gender was not significant for expected confronting, $p = .51$, public versus private perceptions, $p = .85$, or risk perceptions, $p = .52$.

Discussion

Study S1 offers experimental evidence that advice network centrality influences expectations of stigmatized individuals' responses to expressions of overt prejudice. The results of Study S1 support our theory that the sense of reduced risk afforded by central versus peripheral roles is an understanding that is shared widely, given that observers exhibited the same pattern of effects as found in Studies 1 and 2 (with no differences by participant gender in this study). People viewed the situation as more socially and

professionally risky when they thought Erica was in a peripheral (vs. central) advice network role. The pattern of indirect effects consistently suggests that the influence of network role position on confrontation worked through these differential risk perceptions, though a direct effect again remained.

Figure S1. Study S1: Anticipated confrontation by condition ($N=198$). Error bars represent standard errors of the mean.

