

An Activity for Teaching the Effects of Nonverbal Communication

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Abstract

This article describes a novel teaching activity that allows students in diversity, leadership, and communication courses to observe the powerful effects of nonverbal communication. The nonverbal experiences female leaders may encounter as they rise through the ranks of organizations are simulated and consequences discussed. Two student volunteers give impromptu speeches acting as “leaders,” while the rest of the students in the class provide positive nonverbal feedback to the first leader and negative nonverbal feedback to the second leader. Data collected in undergraduate student courses demonstrated that, as expected, the leader in the negative nonverbal feedback condition expressed reduced interest in performing future leader-related tasks thereby demonstrating how negative nonverbal reactions to leader behavior have serious consequences. Pre- and post-demonstration surveys clearly indicated that the students’ knowledge of gender, leadership, and nonverbal behaviors increased, and that students found the activity to be both effective and enjoyable. These findings suggest that this activity can be integrated into curricula with positive learning outcomes.

Keywords: Teaching activity, leaders, gender, nonverbal communication.

Nonverbal behaviors are informative, as they communicate feelings to interaction partners (Mehrabian, 2008). Nonverbal cues signal powerful messages that affect recipients’ behaviors. Indeed, a recent meta-analysis demonstrated a positive correlation between intentional nonverbal displays and receivers’ ability to perceive such communication (Elfenbein & Eisenkraft, 2010). For example, one field study explored how emerging leaders perceived, and acted upon responses, from members of a small group (Colbert, 2008). The researchers found that members of small groups unconsciously encouraged the emergent leader through nonverbal cues, ultimately affirming the powerful effect of nonverbal communication on potential leaders. Although empirical research documents the significance of nonverbal communication, it can be challenging for students to understand how such subtle, and seemingly imperceptible, cues influence meaningful outcomes.

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Indeed, we have observed in our own classrooms that students don't always understand or appreciate the importance of nonverbal behavior, particularly as it relates to female leaders. Although empirical evidence clearly demonstrates that male and female leaders encounter systematically different nonverbal reactions from their followers (Butler & Geis, 1990; Koch, 2005), students may not fully understand the manifestations and consequences of these differences. Understanding the outcomes of such differences is particularly important given the increase in women in leadership roles and the persistence of subtle sexism. An interactive classroom experience may provide a novel manner through which to convey these issues (e.g., Anderson, 2007; Cook & Olson, 2006; Hande & Hande, 2009; Knight, Hebl, & Mendoza, 2004; Paglis, 2008). Given the powerful effects of active learning (Benjamin, 1991), this article presents a novel teaching activity that simulates the nonverbal experiences female leaders encounter as they rise to positions of leadership. It is important to focus on women in the learning setting, as research suggests women have specific needs and concerns in the classroom (Buttner, 2002). Finally, this article provides evidence of students' learning and therefore affirms the effectiveness of the activity.

Brief Overview of Research on Gender, Leadership, and Nonverbal Behavior

Despite the decline of overt discrimination (Dovidio & Gaertner, 1998), women continue to experience subtle forms of sexism (Hebl, King, Glick, Singletary, & Kazama, 2007) that accumulate over time and lead to the underrepresentation of women at the highest levels of organizations (Valian, 1999). In particular, sexism is often manifested through subtle, nonverbal and paraverbal reactions to women when they occupy roles that are incongruent with the feminine gender role (Hebl et al., 2007). At the core of this discrimination is that women's leadership is unexpected and surprising, as it violates stereotypically feminine norms (Eagly, 1987, Eagly & Karau, 2002; Heilman, 1983, 2001). Meta-analytic (e.g., Eagly & Karau, 2002) and recent empirical (e.g., Johnson, Murphy, Zwebdie, & Reichard, 2008) research confirms that the role of leader continues to be perceived as incongruent with the feminine gender role (Eagly & Karau, 2002). There is essentially an incompatibility between the role of leader and woman (Eagly, 1987, Heilman, 1983, 2001; Powell, Butterfield, & Parent, 2002) contributing to prejudicial evaluations of women in positions of leadership (Eagly & Carli, 2003, 2007). Furthermore, women experience backlash when they act unexpectedly by asserting themselves as leaders (Rudman & Glick, 2001). It follows that women who take on leadership positions evoke a negative response. Consistent with this, Butler and Geis (1990) found that female leaders received more negative than positive affective responses compared to men.

The problematic nature of this covert form of contemporary sexism is often difficult to convey (Hebl et al., 2007). Although subtle discrimination may lead to negative outcomes for stigmatized individuals (e.g., women, African Americans, LGBT), this is difficult for students to understand due to its seemingly innocuous nature. It is challenging for students to believe that nonverbal communication such as reduced eye contact or frowning of the brow results in "real-world" outcomes (i.e., advancement to positions of leadership). Therefore, an interactive teaching activity can help to reinforce learning, which allows deeper understanding through direct engagement (Benjamin, 1991). We

believe this may be valuable in helping students to obtain a more comprehensive understanding of modern discrimination. Thus, the current article presents a novel teaching activity (and an empirical test of its effectiveness) to elucidate these concepts by demonstrating subtle manifestations of sexism and illustrating the potential consequences. In this article you will find the following: 1) learning objectives for the teaching activity, 2) detailed description of the demonstration for the instructor including suggestions for debriefing and classroom discussion, 3) an empirical study demonstrating the effectiveness (learning and liking) of this teaching activity with undergraduate students, and 4) a brief discussion of the implications of integrating this activity into classrooms.

Learning Objectives of Activity

There are four learning objectives for the teaching activity:

- 1) clarify the manifestations of subtle, nonverbal communication,
- 2) increase understanding of gender role stereotypes, and their influence on women in positions of leadership,
- 3) elucidate the consequences of negative communication that is generally exhibited towards female leaders, and
- 4) increase comprehension of modern discrimination in organizations

Activity Overview

Introducing the Activity

The teaching activity would be ideal to conduct as a kick-off to course material on gender, diversity, communication, and/or leadership. Therefore, the students should receive no prior training as to the role of gender in leadership. Assuming the activity is used in a leadership course, the activity should be introduced after a course discussion on leadership theory and characteristics/traits of leaders, but prior to any discussion on gender differences among leaders. The teaching activity requires the recruitment of two volunteers from the class to act as “leaders”.

The instructor should ask the class for two volunteers that are willing to act as leaders and stand in the front of the class to give a brief presentation. After the leaders have been selected, the instructor should ask these individuals to walk outside of the classroom to receive further instructions. Once the two leader volunteers are outside of the classroom, the instructor should explain that the intended goal is to simulate a leadership-type situation. The instructor should ask the two leaders to prepare and deliver an impromptu speech to the rest of the class regarding their favorite course, with an effort towards persuading the student participants to be interested in taking the course.

After the instructor shares the instructions with the leaders, the instructor should offer to answer questions and confirm that the two leaders feel comfortable with their task. After the instructor receives confirmation from the leaders they understand, and are willing to participate in, the task, the instructor should ask the leaders to prepare their speeches and

wait outside of the classroom for a few minutes while the instructor speaks to the student participants about the requirements for the activity. It is very important the instructor ensures the two leaders are out of earshot to preserve the integrity of the activity.

The instructor should return to the classroom and explain to the student participants that each of the leaders will enter the classroom (one at a time) to present an impromptu speech to the class regarding their favorite course. The instructor should then instruct the student participants to provide only subtle positive feedback (i.e., nodding, smiling) to the first leader and only subtle negative feedback (i.e., distracted, furrowed eyebrows) to the second leader. The instructor should explain that these behaviors should be subtle. For example, the instructor could suggest that students look down and “doodle” on their paper while the leader in the negative feedback condition is presenting. The instructor should ask the class to monitor each leader’s behavior in response to the class’ positive or negative nonverbal communication. The instructor should also inform the class that there will be a full discussion of the activity and related leadership concepts after the leaders give their presentations. At this point, the instructor should invite the first leader to return to the classroom to give their speech.

Action Phase of Activity

The instructor should go outside of the classroom to invite the first leader to return to the classroom to give the impromptu presentation. The instructor should introduce the first leader by name and ask the class to give the presenter their attention, as he/she shares a presentation regarding his/her favorite management class. The instructor should take a seat in the classroom and also provide nonverbal communication in line with the student participants’ communication to the leader. Once the first leader (positive nonverbal condition) is finished with the presentation he/she should be asked to wait outside of the classroom while the second leader (negative nonverbal condition) gives his/her presentation to the student participants. The instructor should introduce the second leader to the class in the same fashion as the first leader. Both leaders will typically open their presentation with enthusiasm and a smile. However, it is typical for the first leader (positive nonverbal condition) to present for a longer period of time, smile throughout the presentation, and exude confidence in her speech compared to the second leader (negative nonverbal condition). Once the second leader finishes the presentation, the first leader should be invited to return to the classroom.

At the conclusion of both leaders’ presentations, they should be asked to stand in the front of the classroom with the instructor. The instructor should ask each participant to describe his/her experience as a leader in the classroom. The leader in the positive nonverbal feedback condition will likely describe his/her experience as pleasant and will be eager to volunteer again in the future, whereas the leader in the negative nonverbal feedback condition will describe his/her experience as unpleasant and will not be eager to volunteer again in the future. After both leaders have an opportunity to fully share their experience and feelings with the class, it is important for the instructor to ask all students (leaders and participants) to participate in the debriefing and discussion of the activity.

Debriefing and Discussion of Activity

Student participants and leaders should be fully debriefed about the purpose of the activity. The debriefing section should open with the instructor explaining that when he/she gave the leaders time to prepare their speeches outside of the classroom the instructor was in fact directing the student participants on how to respond to the leaders' presentations. That is, the instructor should reveal the student participants were instructed to give positive (e.g., nodding, smiling) nonverbal feedback to the first leader, and give negative (e.g., distraction, frowning of brow) nonverbal feedback to the second leader. It is imperative that the instructor makes it very clear to the student participants, including the leaders, that the feedback the leaders' received was in no way an evaluation of their capabilities as a leader. This is particularly important to ensure the leader in the negative nonverbal feedback condition does not associate the student participants' communication with her performance as a leader. After the instructor reveals this information to the class, the instructor should ask the leaders to stand and receive a round of applause from the class for their efforts and participation in making this activity a success. The instructor should offer to answer any questions from the student participants and leaders before moving into a larger class discussion on nonverbal communication to female leaders.

Following the debriefing, the instructor should facilitate a class discussion on the powerful effects of nonverbal communication to female leaders in an effort to enrich the learning experience. During the class discussion, when the instructor feels it is appropriate, it is helpful for the instructor to review theory on gender role stereotypes (see Eagly 1987; Heilman, 1983 for review) and explain how positions of leadership are incongruent with the feminine gender role. This provides the students the appropriate theoretical frame to understand and discuss nonverbal reactions to female leaders.

Questions for Class Discussion

The following six questions may be used to facilitate class discussion:

- 1) How do you think you would have responded if *you* were the leader in the negative nonverbal feedback condition? Give specific examples.
- 2) How would you handle a situation where you received negative nonverbal feedback while giving a presentation at work?
- 3) After this experience, would you want to lead in the future? Why or why not?
- 4) How does this activity help us understand why women may not advance to the highest echelons of organizations?
- 5) Now understanding the consequences of gender incongruent behavior, can you translate this principle to other examples in the workplace?
- 6) Can you make any statements about how subtle discrimination may affect other members of stigmatized groups?
- 7) What are possible approaches to counteracting these types of negative nonverbal communication in the workplace?

Study Method

In order to evaluate the effectiveness of the proposed teaching activity, a survey methodology was utilized to assess undergraduate students' learning and overall enjoyment of the activity. The following empirical data suggests students' knowledge of gender, leadership, and nonverbal behaviors increased, and that students found the activity to be both effective and enjoyable

Participants

Two undergraduate students (both women) volunteered to serve as the "leaders" in the teaching activity. Thirty-five undergraduate students from a psychology of women course at a large Eastern university in the United States participated in this activity. The vast majority of the participants were women (3 men, 33 women). Participants were of mixed races (63% Caucasian, 9% Hispanic, 11% Asian-American, 3% African-American, 3% Native-American, and 9% Other) and years in college (3% 1st, 11% 2nd, 31% 3rd, 51% 4th, and 3% 5th).

An additional 33 undergraduate students from a psychology of women course at the same institution comprised the control group. The large majority of the participants were women (5 men, 28 women). The control group experienced the same syllabus, textbook, and professor as the experimental group but did not observe the activity. Participants in the control group completed the knowledge evaluation items used to test learning in the experimental group.

Procedure

The teaching activity was conducted as outlined and described in the Activity Overview with the addition of collecting pre- and post-demonstration survey items. Thus, prior to the activity students who consented to participate completed the pre-demonstration knowledge questions. Please note the two students who volunteered to serve as leaders did not complete the activity efficacy or pre- and post-demonstration knowledge questions. Following the debriefing and class discussion, the participants completed the activity efficacy, post-demonstration knowledge, and demographics questions.

Measures

Pre- and Post-Demonstration Knowledge. Three items assessed participants' perception of knowledge of the topic prior to and following the activity (i.e., "How much do you know about...") (a) nonverbal reactions to male and female leaders, (b) the impact of nonverbal behaviors in social interactions, and (c) the impact of nonverbal behaviors on gender differences in leadership) using a Likert-type responses ranging from 1 (*not a lot*) to 5 (*a lot*).

In addition, two multiple-choice questions served as the pre- and post-demonstration knowledge items. The first question prompt was "When men and women lead groups, the

group members tend to react”. The response options included: (a) generally the same, whether or not the leader is male or female, (b) somewhat differently, such that male leaders are recognized as more expert than female leaders, (c) somewhat differently, such that female leaders encounter more benevolent treatment than male leaders, (d) somewhat differently, such that male leaders receive more positive feedback than female leaders, and (e) none of the above. The second question was “Men may be more likely than women to hold leadership positions because.” The response options included: (a) men are more easily recognized as leaders than are women, (b) male and female leaders who engage in the same behavior are evaluated differently, (c) male leaders receive more positive nonverbal reactions than female leaders, (d) the role of leader is congruent with masculine role but incongruent with feminine role, and (e) all of the above.

Activity Efficacy. Participants completed four items evaluating the effectiveness of the activity in demonstrating the effects of nonverbal feedback on female leaders with a 5-point Likert-type responses ranging from 1 (*not at all*) to 5 (*a lot*). In addition, participants evaluated the extent to which the activity was a positive learning experience with an additional nine items (e.g., “How educational was this activity?”).

Demographics. Participants were asked to indicate their gender, race or ethnicity, and year in school.

Classroom Behavior Check. Three items were included as a classroom behavior check (e.g., To what extent did the class provide positive or negative nonverbal feedback behaviors in the “positive” and “negative feedback” conditions?) to ensure that the students in the classroom indeed gave positive and negative feedback to the appropriate leader.

Results

Classroom Behavior Check

The means of the three behavior check items confirmed that the participants in the classroom gave the appropriate positive or negative feedback to the leaders. Responses ranged from 4 to 5 and the means for each of the three items were high ($M = 4.77$, $SD = 0.49$), ($M = 4.97$, $SD = 0.17$), ($M = 4.44$, $SD = 0.82$).

Preliminary Evaluation

The preliminary evaluation consists of the leaders' ($N = 2$) self-reported experiences during the activity as reported by the instructor. The duration of the leaders' speeches differed; the leader in the positive feedback condition addressed the class for approximately three minutes whereas the leader in the negative feedback condition spoke for approximately one minute. Immediately following the demonstration the leaders discussed their experience. The leader in the positive feedback condition reported that it was “fun and enjoyable” and that she felt as though she could have “kept talking” to the class. The leader in the negative feedback condition reported that it was an uncomfortable experience and when asked (hypothetically) if she would volunteer to lead the class a second

time she replied, “definitely not.” (This individual retracted her statement after the debriefing.) These verbal reactions serve as indicators of the immediate affective responses of the leaders.

Knowledge Evaluation

The knowledge evaluation consisted of two forms: 1) three self-report items completed as a pre- and post-demonstration knowledge evaluation and 2) two multiple-choice questions completed prior to the demonstration and 1-month later on a final exam. Both forms of the knowledge evaluation were completed by the participants ($N = 35$). The self-report items were analyzed using paired samples t -tests and the two multiple-choice questions were analyzed using Pearson’s chi-square test.

Table 1. Results of Pre- and Post-Knowledge Evaluation.

	Pre-Demonstration		Post-Demonstration		$t(35)$
	M	SD	M	SD	
Self-Report Items					
Nonverbal reactions to male and female leaders	3.14	1.06	4.00	0.84	- 5.05 **
Impact of nonverbal behaviors on social interactions	3.49	1.12	4.31	.76	- 4.58 **
Impact of nonverbal behaviors on gender differences in leadership	3.06	1.03	4.09	0.70	- 5.07 **
Multiple-Choice Items	N Correct	N Incorrect	N Correct	N Incorrect	χ^2 (35)
When men and women lead groups, the group members tend to react	17	18	32	3	27.2 5**
Men may be more likely than women to hold leadership positions because	10	24	25	10	18.2 5**

* $p < .05$, ** $p < .01$

The three pre- and post-demonstration knowledge evaluation self-report items assessed students' learning (see Table 1). A paired samples t test of the first item, "How much do you know about nonverbal reactions to male and female leaders?" revealed that knowledge was significantly higher, $t(35) = -5.05$, $p < .01$, after the demonstration ($M = 4.00$, $SD = 0.84$) than before the demonstration ($M = 3.14$, $SD = 1.06$). A paired samples t test of the second item, "How much do you know about the impact of nonverbal behaviors on social interactions?" revealed that knowledge was significantly higher, $t(35) = -4.58$, $p < .01$, after the demonstration ($M = 4.31$, $SD = 0.76$) than before the demonstration ($M = 3.49$, $SD = 1.12$). Finally, a paired samples t test of the third item, "How much do you know about the impact of nonverbal behaviors on gender differences in leadership?" revealed that knowledge was significantly higher, $t(35) = -5.07$, $p < .01$, after the demonstration ($M = 4.09$, $SD = 0.70$) than before the demonstration ($M = 3.06$, $SD = 1.03$). In summary, all three of the self-rated items revealed that knowledge was significantly higher after the demonstration than before the demonstration.

In order to test the students' learning over time, two multiple-choice questions were given immediately prior to and one month after the activity (see Table 1). On both questions, the students were significantly more likely to correctly answer the multiple choice questions after the demonstration than prior to it, $\chi^2(1, 35) = 27.25$, $p < .01$ (Before demonstration: 17 correct, 18 incorrect; After demonstration: 32 correct, 3 incorrect), $\chi^2(1, 35) = 18.25$, $p < .01$ (Before demonstration: 10 correct, 24 incorrect; After demonstration: 25 correct, 10 incorrect), respectively. Furthermore, the students who participated in the demonstration were significantly more likely to correctly answer the multiple choice questions on the midterm examination than the students who did not experience the demonstration (control group), $\chi^2(1, 33) = 7.30$, $p < .01$ (Experimental group: 26 correct, 12 incorrect; Control group: 12 correct, 21 incorrect), $\chi^2(1, 33) = 4.81$, $p < .05$ (Experimental group: 37 correct, 1 incorrect; Control group: 27 correct, 6 incorrect).

Activity Efficacy

Activity efficacy was also captured using two forms 1) participants' ($N = 35$) ratings of the leader in the two conditions and 2) survey items asking their perceptions of the activity. Paired samples t -tests were performed on participants' ratings of the extent to which the leader in both conditions appeared to show four outcomes of interest: confident, comfortable, enjoyed the activity, and wanted to be the leader again. For all outcomes of interest, participants rated the positive feedback condition significantly higher than the negative feedback condition. Specifically, the leader in the positive feedback condition appeared more "confident" and "comfortable," and reported that they would "want to be the leader again" and "enjoy[ed] the activity" (see Table 2). Thus, students successfully identified the potential negative outcomes of nonverbal reactions on leaders.

Participants also provided feedback on the overall effectiveness of this activity. Means on each the nine overall effectiveness items were very positive, ranging from 3.89 to 4.97. Overall, students' affective responses indicated they "enjoyed" the activity ($M = 4.46$), found it "interesting" ($M = 4.46$), "educational" ($M = 4.37$), and that it made them "think critically about gender and leadership" ($M = 4.31$) and the "impact of nonverbal

Table 2. Results of Activity Efficacy for Positive and Negative Feedback Conditions

Activity Efficacy	Positive Feedback		Negative Feedback		<i>t</i> (35)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Confident	4.66	0.54	1.54	0.51	22.14**
Comfortable	4.40	0.50	1.17	0.38	34.92**
Enjoy the activity	4.45	0.67	1.11	0.32	30.95**
Want to be the Leader Again	4.80	0.41	1.06	0.24	43.81**

* $p < .05$, ** $p < .01$

behaviors" ($M = 4.43$). Students also reported that they felt the activity was "valuable" ($M = 4.37$), and would "recommend" ($M = 4.57$) this activity in future classes.

Discussion of Activity Effectiveness

The current results suggest that the proposed teaching activity conveyed the importance of nonverbal responses toward leaders. In particular, students learned about the subtle ways in which contemporary sexism is manifested and its consequences for female leaders. Participants' knowledge of gender, leadership, and nonverbal responses improved as a function of their participation in the class activity and discussion that followed. In addition, participants reported that the study was not only effective, but also enjoyable and interesting. Participants observed that the female leader who received the negative nonverbal feedback did not enjoy her leadership experience nor did she wish to pursue other leadership positions, making salient the power of nonverbal responses. As such, this activity allowed students to observe and experience the nonverbal responses that women in leadership often receive firsthand.

Limitations

Despite the overall success of this demonstration, there are several potential limitations. First, the leaders may not truly be perceived as such by the participants. Given that the leaders volunteered for the activity, there is some difficulty in believing that they are indeed leaders. Second, the vast majority of the participants were women, as were the leaders. However, in our experience both male and female volunteer-leaders respond poorly to the negative nonverbal feedback. Finally, unlike a real-world setting, participants were directly asked to deliver only positive or negative feedback. Therefore, the degree to which the feedback was occurring was more extreme than what would occur in a real-

world setting. However, unlike other research designs, the purpose of this activity is to make salient the process by which this effect occurs, thereby clarifying this effect for students' learning.

Implications for Classroom Integration

Given the prevalence of nonverbal behavior as a form of communication (Mehrabrian, 2008) and the influence of such behaviors on perceivers' judgments, it is increasingly important to address this general topic in classrooms. Specifically, students' participation in such an activity elucidates the challenges that diverse individuals face in the workplace and strengthens understanding of these topics. We encourage the integration of this activity to elucidate and make salient key theories that the students can apply to future scenarios. Active learning activities such as this one provide meaningful experiences that help students make the shift from memorizing concepts to actual learning and future application. This teaching activity serves to enhance the education and experience of students and should therefore be considered as a teaching tool in a variety of courses.

There are several applications of this teaching activity. There is a clear fit for this activity in gender, diversity, communication, or leadership courses. A more broad application could be in any introductory, organizational behavior, psychology, or communications course. Depending on the nature of the course, the teaching activity could be adapted and focused on gender-specific topics, or topics such as diversity, discrimination, leadership, or nonverbal communication.

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