

Breaking Ceilings: Debate Training Promotes Leadership Emergence by Increasing Assertiveness

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To date, little is known about what interventions can help individuals attain leadership roles in organizations. To address this knowledge gap, we integrate insights from the communication and leadership literatures to test debate training as a novel intervention for leadership emergence. We propose that debate training can increase individuals' leadership emergence by fostering assertiveness—"an adaptive style of communication in which individuals express their feelings and needs directly, while maintaining respect for others" (American Psychological Association, n.d.)—a valued leadership characteristic in U.S. organizations. Experiment 1 was a three-wave longitudinal field experiment at a Fortune 100 U.S. company. Individuals ($N = 471$) were randomly assigned to either receive a 9-week debate training or not. Eighteen months later, the treatment-group participants were more likely to have advanced in leadership level than the control-group participants, an effect mediated by assertiveness increase. In a sample twice as large ($N = 975$), Experiment 2 found that individuals who were randomly assigned to receive debate training (vs. nondebate training or no training) acted more assertively and had higher leadership emergence in a subsequent group activity. Results were consistent across self-rated, group-member-rated, and coder-rated assertiveness. Moderation analyses suggest that the effects of debate training were not significantly different for (a) U.S.- and foreign-born individuals, (b) men and women, or (c) different ethnic groups. Overall, our experiments suggest that debate training can help individuals attain leadership roles by developing their assertiveness.

Keywords: leadership, communication, human resources, career development, diversity


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Leadership emergence is "the process through which an individual becomes influential to relevant others in a manner that involves the implicit or explicit granting of the leader role" (Badura et al., 2022, p. 2070). Whether it is advancing to a formal leadership role that involves managing subordinates (formal leadership emergence) or being informally viewed as a leader by group members (informal leadership emergence), leaders can significantly impact individuals, teams, and organizations (Yukl & Gardner, 2020).

To date, researchers and practitioners have a limited understanding of how to enhance individuals' leadership emergence in

organizations. Despite theoretical discussions about potential interventions, it remains unclear what specific interventions can help individuals emerge as leaders, especially due to the lack of causal evidence (Day & Dragoni, 2015; Day et al., 2021). Martin et al. (2021) conducted "a state-of-the-science review of the leadership training literature and [found] that the majority of studies fail to meet the standards necessary for establishing causality" (p. 2). One exception, Burt and Ronchi's (2007) quasi-experiment, found that executives trained in the network structure of social capital were 43%–72% more likely to be promoted 2 years later. Nevertheless,

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participants in their study “were not assigned at random to the treatment and control groups” (Burt & Ronchi, 2007, p. 1158).

To address these knowledge gaps, we integrate insights from the communication and leadership literatures to examine debate training as a novel intervention for leadership emergence. We conducted two experiments to test whether debate training can increase individuals’ leadership emergence by fostering their assertiveness, a valued leadership characteristic in U.S. organizations (Lu et al., 2020). Specifically, we tested whether individuals randomly assigned to receive debate training (vs. nondebate training or no training) became more assertive and subsequently had higher leadership emergence.

The present research offers important theoretical and empirical contributions. First, we contribute to the literature on leadership emergence and development (Badura et al., 2022; Day & Dragoni, 2015; Gardner et al., 2024). By introducing debate training as a theory-based intervention, we are among the first to provide experimental evidence for the perennial question of how to help individuals emerge as leaders. In doing so, we answer the call from leadership scholars “to build an evidence-based science allowing for strong causal claims to be made” (Day et al., 2021, p. 2).

Second, we shed light on why debate training is helpful for leadership emergence by illuminating assertiveness as a mechanism. As a result, our research underscores “the merits of studying the *process* of leader emergence and the need for more clarity related to potential mediational processes” (Badura et al., 2022, p. 2091; italics in original). By highlighting assertiveness as a valued leadership characteristic in U.S. organizations, our research also aligns with leadership categorization theory, which suggests that individuals whose characteristics match culturally valued leadership prototypes are more likely to emerge as leaders (Lord et al., 1984, 2020).

Third, we contribute to the literature on inclusion and diversity by exploring whether the effects of debate training were moderated by (a) U.S.-/foreign-born status, (b) gender, and (c) ethnicity. Significant moderation results would suggest that debate training may be particularly beneficial for certain social groups. On the other hand, nonsignificant moderation results would suggest that debate training may be similarly effective across different social groups, including groups underrepresented in leadership positions partly due to their low assertiveness, such as women (who experience a glass ceiling in leadership; Babcock & Laschever, 2009) and East Asians (who experience a bamboo ceiling in leadership; Lu et al., 2020).

Fourth, we contribute to the communication literature. While this scattered literature has touched on various benefits of debate training (e.g., Bellon, 2000; Freely & Steinberg, 2013), limited research has explored how these benefits can translate into concrete outcomes in organizational contexts. We address this knowledge gap by providing explicit theorization and experimental evidence for the positive effects of debate training on assertiveness and leadership emergence, thereby integrating the communication literature into organizational research.

Theory and Hypotheses

Conceptualization of Assertiveness

Assertiveness¹ is defined as “an adaptive style of communication in which individuals express their feelings and needs directly, *while maintaining respect for others*” (American Psychological Association,

n.d.) or “the tendency to stand up and speak out for one’s interests and concerns *when appropriate*” (Lu et al., 2020, p. 4591). Assertiveness differs from related constructs in important ways. First, as the italicized portions above highlight, assertiveness is conceptually distinct from aggressiveness. Indeed, individuals can assert their opinions (e.g., in a meeting or during a class) without resorting to unpleasant aggressiveness. Consistent with such conceptualization, assertiveness is measured by scale items such as “I speak up and share my views *when it is appropriate*” and “I am willing to engage in *constructive* interpersonal confrontations” (Wallen et al., 2017). Second, assertiveness is conceptually distinct from direct communication. Both communication styles emphasize expressing feelings and needs directly and addressing issues head-on; however, assertiveness balances self-expression with respect for others, whereas direct communication prioritizes conveying the message explicitly, which can sometimes come across as blunt or insensitive (Park et al., 2012).²

Rather than an immutable trait, assertiveness is an adaptive communication style and behavioral tendency that can change over time (Bellon, 2000; Smith-Jentsch et al., 1996). The malleable nature of assertiveness means that it can be developed via training.

Why Debate Training Can Increase Assertiveness

Debate is defined as “an organized argument or contest of ideas in which the participants discuss a topic from two opposing sides” (American Debate League, n.d.) or “a formal discussion on a set of related topics in a public meeting, in which opposing perspectives and arguments are put forward” (Tikves et al., 2012, p. 898). While different types of debate (e.g., Public Forum Debate, Lincoln–Douglas Debate, Congressional Debate) vary in format, team size, topical focus, and so forth (Cossette, 2015), they share core components such as Constructive, Crossfire, Rebuttal, and Summary (Supplemental Table S1). In the (opening) Constructive speech, debaters state their positions and build their case for or against a resolution. During Crossfire, debaters ask and answer questions of each other. During Rebuttal, debaters focus on challenging their opponent’s Constructive contentions, exchanging arguments and counterarguments. In the Summary speech, debaters summarize their main arguments and attempt to convince the judge why their case is stronger.

Scattered research in the communication literature has touched on various benefits of debate training (Bellon, 2000; Colbert, 1993).

¹ The concept of “assertiveness” primarily originated in the field of psychology, specifically within behavioral therapy. Its roots can be traced back to the mid-20th century when psychologists began to explore ways to help individuals express their feelings and needs openly, directly, and appropriately (Gerber, 2023). In contemporary society, assertiveness continues to be a focus in therapeutic settings for treating mental health issues. It empowers clients to advocate for themselves, set personal boundaries, and improve their overall well-being (Speed et al., 2018). More recently, assertiveness has been increasingly examined and applied in educational (Lu, Nisbett, & Morris, 2022) and organizational contexts (Hu et al., 2018; Lu, 2023; Lu et al., 2020).

² For example, when an employee feels overwhelmed with his or her workload, an assertive response could be: “I appreciate the opportunities you have given me, but I feel overextended with my current tasks. Could we discuss adjusting my workload?” This response expresses personal feelings and needs, shows respect, and invites collaboration. By contrast, a direct communication response could be “You have assigned me too much work. Some of the tasks need to be reassigned.”

Integrating this literature into organizational contexts, we theorize that debate training can foster individuals' assertiveness in interrelated ways. First, debate training pushes individuals out of their psychological comfort zone to assert their views in front of large crowds and individuals holding opposing views (Freely & Steinberg, 2013). Indeed, a study of students found that debate training "reduced their fear of public speaking because they feel they are more capable of responding to questions and sharing opinions" (Ceneciro et al., 2023, p. 4544).

Second, debate training teaches individuals how to achieve confident and persuasive communication. The Constructive speech, in particular, trains debaters to effectively manage pacing and intonation to capture the audience's attention (Cossette, 2015). Moreover, individuals are coached to repeat and reinforce key points to convey strong conviction and enhance persuasiveness. Such debate knowledge can help individuals assert their viewpoints confidently and convincingly.

Third, debate training teaches individuals to stand their ground diplomatically in a disagreement, which is an important element of assertiveness (Wallen et al., 2017). Debate training helps individuals find the middle ground between passiveness and aggressiveness in interpersonal communications. For example, Crossfire teaches individuals to strike a balance between being too passive (letting their opponent dominate) and being too aggressive (dominating their opponent; Freely & Steinberg, 2013). Indeed, aggressive debaters are often penalized and, as a result, lose points in debate tournaments (Colbert, 1993). Notably, studies have found that debate training can enhance assertiveness "without increasing verbal aggression" (Bellon, 2000, p. 169).

Fourth, debate training helps individuals focus on communicating only their most essential points because each debate speech period is short (e.g., 2 min) and strictly timed. The need for brevity and clarity encourages honing one's ability to assert opinions effectively (Zarefsky, 2020).

Fifth, debate training improves verbal eloquence. For example, the Summary speech trains individuals to reduce fillers (e.g., "um," "like") so that they sound more confident. Reducing fillers and speaking with self-assurance can enhance the persuasiveness of one's arguments and reduce the likelihood of being interrupted (Cossette, 2015), thereby allowing individuals to maintain control of conversations and assert their viewpoints effectively.

Based on these interrelated reasons, we hypothesize the following:

Hypothesis 1: Debate training increases individuals' assertiveness.

Assertiveness as a Valued Leadership Attribute in U.S. Organizations

Next, we theorize that assertiveness is conducive to leadership emergence in U.S. organizations. This idea is informed by both leadership categorization theory (Lord et al., 1984, 2020) and dominance-based status research (Kakkar & Sivanathan, 2017; Maner & Case, 2016). Leadership categorization theory (Lord et al., 1984, 2020) posits that individuals tend to emerge as leaders when their characteristics align with the leadership prototype in a given environment. In U.S. organizations, prototypical leaders are assertive because asserting one's opinions

conveys confidence, motivation, and engagement (Lu et al., 2020; Sy et al., 2010). Additionally, research on dominance-based status posits that dominant behaviors like assertiveness can help individuals achieve status and influence (Foti & Hauenstein, 2007; Kakkar & Sivanathan, 2017; Maner & Case, 2016) because "the self-assured and confident demeanor of these dominant individuals is perceived as a signal of greater competence, which results in them being conferred with higher status or leadership positions" (Kakkar et al., 2020, p. 531). Moreover, because assertive individuals are inclined to express their needs directly, they are more likely to self-advocate for leadership opportunities (Moturu & Lent, 2023). In contrast, unassertive individuals who keep their heads down and work quietly may be passed over for leadership opportunities.

Thus, leadership emergence can be challenging for unassertive individuals in U.S. organizations—regardless of the source of low assertiveness (e.g., gender, cultural norms). For example, studies on the glass ceiling in leadership suggest that women tend to have lower leadership emergence than men partly because women's lower assertiveness is incongruent with the prototype of a leader (Babcock & Laschever, 2009; Eagly & Karau, 1991, 2002). In a similar vein, studies on the bamboo ceiling in leadership (Lu et al., 2020) suggest that East Asians (e.g., ethnic Chinese, Japanese, Korean) tend to have low leadership emergence in U.S. organizations partly because East Asian cultures emphasize humility and harmony rather than assertiveness (Leung & Cohen, 2011; Markus & Kitayama, 1991). In sum, the aforementioned perspectives and findings indicate that assertiveness is a valuable leadership attribute in U.S. organizations.

Promoting Leadership Emergence With Debate Training

Combining the insights above, we propose that debate training can increase leadership emergence by fostering assertiveness. Specifically, if debate training can develop assertiveness, and if assertiveness is conducive to leadership emergence in U.S. organizations, then debate training may increase leadership emergence. In other words, assertiveness may mediate the effect of debate training on leadership emergence, such that individuals who receive debate training (vs. not) are more likely to emerge as leaders as a function of increased assertiveness. For instance, individuals who have received debate training (vs. not) may be more likely to assert their views in work groups (e.g., when a question is posed to everyone in the room) and, consequently, emerge as group leaders.

The hypothesized effect of debate training on leadership emergence has been echoed by practitioners. When discussing how to identify potential leaders, Sher (2014) recommended, "search for those who competed in speech and debate competition." Indeed, many prominent business leaders (e.g., Warren Buffett, Jack Dorsey, Indra Nooyi) and political leaders (e.g., Jimmy Carter, Bill Clinton, Hillary Clinton, Ted Cruz, Kamala Harris, Lyndon Johnson, Richard Nixon, Elizabeth Warren) have received debate training (Chozick, 2015; Seo, 2022). For example, former presidential candidate Andrew Yang—one of the few widely known East Asian leaders in the United States—represented the U.S. National Debate Team in the World Championships (O'Connor, 2019).

Hypothesis 2: Debate training increases individuals' leadership emergence.

Hypothesis 3: Assertiveness mediates the effect of debate training on leadership emergence.

Transparency and Openness

To test our hypotheses, we conducted two experiments, which were approved by the Institutional Review Boards of the Massachusetts Institute of Technology (Protocols Nos. 2198 and 5534: "Debate Training and Leadership Study") and the University of Maryland (Protocol No. 2139365-1: "Debate Training and Leadership"). We followed the methodological checklist of the *Journal of Applied Psychology* to describe our sampling plan, measures, and data exclusions. Experiment 1 was preregistered at https://aspredicted.org/LDD_QHE, and Experiment 2 was preregistered at https://aspredicted.org/XL6_CYN; deviations from the preregistrations are explained in Supplemental Materials. Data were analyzed using R, Version 4.3.1. Data, code, and materials are available at <https://osf.io/ma2hd/>.

Experiment 1

Experiment 1 was a three-wave longitudinal field experiment at a Fortune 100 U.S. company. A total of 471 individuals signed up for a 9-week debate training and were randomly assigned to either receive the training or not. We tested whether, 18 months after the training started, the treatment-group participants were more likely than the control-group participants to advance in leadership level as a function of increased assertiveness. Our research design is illustrated in Figure 1.

Field Context

The company, which had around 150,000 employees at the time of our experiment, is particularly suitable for our longitudinal field experiment for two reasons. First, it has a standardized and transparent leadership ladder. Each person has a job level, which ranges from

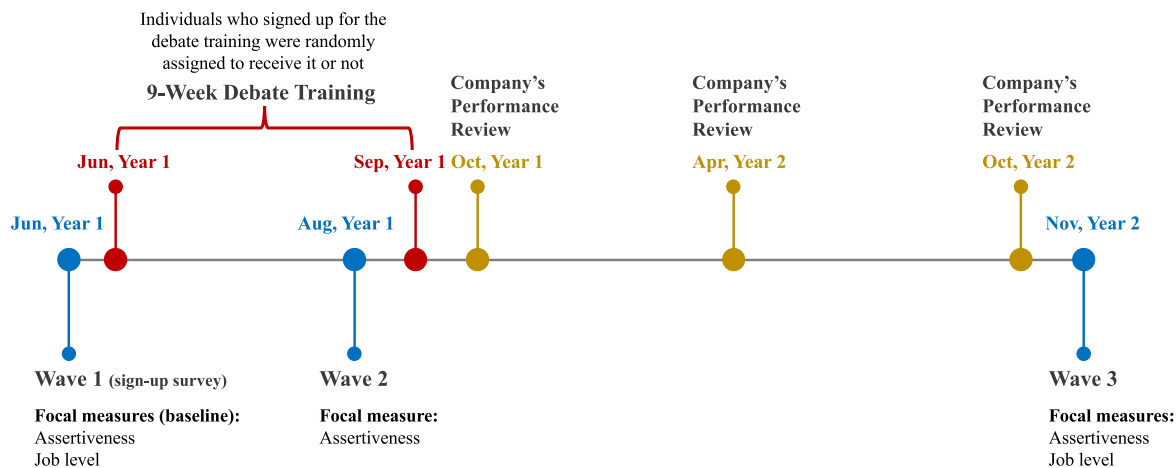
Level 1 (support staff) to Level 10 (fellow). While the company has different functional divisions (e.g., advertisement, engineering, finance, research, sales), a higher job level corresponds to greater leadership responsibilities. For example, a Level-5 senior software engineer leads a team of lower-level engineers to work on projects; a Level-2 research associate supervises Level-1 specialists. Therefore, promotion to a higher job level represents an objective leadership advancement.

Second, assertiveness is important in the company's promotion review process, which typically occurs around April or October. First, while managers may nominate employees for promotion, candidates usually initiate the promotion process through self-nomination, so assertive individuals may be more likely to self-advocate for promotion. Second, in the promotion packet, candidates need to articulate their accomplishments and assert why they meet the criteria for the next level. This also provides the foundation for what managers write in their "next-level assessment," which is included in the promotion packet to be reviewed by a committee that makes promotion decisions. Third, because projects at this company are often team-based, the promotion packet also includes peer evaluations. If competent individuals do not speak up in group discussions and meetings, they may not be perceived as leaders. Individuals cannot assume that they will be automatically tapped on the shoulder for promotions as long as they work hard and produce satisfactory outcomes; they also need to speak up about the positive impact of their work. Indeed, a senior manager from the company shared the following formula: one's leadership and impact = what one achieves × what one articulates. Debate training may help individuals advance in leadership level by cultivating their assertiveness.

Recruitment of Participants

We recruited participants from the company's Asian employee resource group, which has over 5,000 active members. In June of Year 1, the 9-week debate training was advertised via the employee resource group's email LISTSERV as an opportunity to improve communication skills. We explained that individuals who signed up

Figure 1
Experiment 1: Research Design



Note. See the online article for the color version of this figure.

would be entered into a lottery for this free communication training opportunity.

Power Analysis

According to G*Power, 139 participants per condition would be needed for between-subjects analyses to be powered at 80% for a small-sized effect Cohen's $d = .30$. For the mediation hypothesis, we used function `ssMediation.VSMc.logistic` from the R package `powerMediation`, which indicated a required sample size of 443 participants.³ We aimed to recruit as many participants as possible.

Wave 1 Survey (Registration and Baseline Measures)

Participants

In June of Year 1, to sign up for the debate training, 497 Asian individuals completed a registration survey, in which we embedded a simple attention check question ("Please select 'disagree' for this question"). Four hundred seventy-one of them passed the attention check question (59% female; 30% U.S. born; $M_{\text{age}} = 31.28$ years, $SD = 6.27$; mean tenure = 3.14 years, $SD = 3.11$).⁴ They represented a variety of functional divisions: 38% software/hardware/engineering, 37% products/sales/customers, 7% research, 6% advertisement/marketing, 5% finance, 4% human resources, and 3% legal or others.

Leadership Level (Wave 1)

Each individual reported his/her job title, time in the job title before Wave 1 ($M = 1.57$ years, $SD = 1.51$), and corresponding leadership level ($M = 4.19$, $SD = 1.18$).

Assertiveness (Wave 1)

We measured assertiveness with a frequently used three-item scale (Lu et al., 2020; Wallen et al., 2017): "I speak up and share my views when it is appropriate"; "I am willing to engage in constructive interpersonal confrontations"; "I am able to stand my ground in a heated conflict" (1 = *strongly disagree*, 7 = *strongly agree*; $\alpha = .74$). The Wave 1 mean assertiveness score was 4.73 ($SD = 1.11$), suggesting room for increases in assertiveness.

The literature commonly uses self-report to measure assertiveness (Ames, 2008; Lu, 2024a; Lu et al., 2020). Although demand effects might lead some participants to overreport their assertiveness after receiving the debate training, this concern is mitigated by Experiment 1's focus on whether assertiveness increase was a significant mediator for actual leadership advancement (i.e., an objective outcome). In fact, statistical noise due to demand effects could make it more difficult to detect a significant mediation by assertiveness, making our test more conservative.

Exploratory Variables

In addition to assertiveness, we explored whether the debate training would influence individuals' motivation to lead, self-esteem, job satisfaction, and affective commitment to the organization. For example, individuals who become more comfortable asserting their

opinions may feel more satisfied with themselves and their jobs. Including these exploratory variables also helped mask our survey's focus on assertiveness and thus mitigated potential demand effects (i.e., it was less obvious that our experiment focused on assertiveness). The display order of these variables was randomized across participants. For detailed measures and results of these exploratory variables, see Supplemental Materials.

Random Assignment

Individuals who signed up for the debate training were randomly assigned to either receive it ($N = 236$) or not ($N = 235$). As detailed in Supplemental Table S3, the treatment and control conditions did not differ significantly in any of the Wave 1 measures, including leadership level and assertiveness (all $ps > .05$). These nonsignificant results were corroborated by Bayesian t tests. Together, these results confirmed the success of our random assignment.

Nine-Week Debate Training

Weekly Sessions

The training used Public Forum Debate as the knowledge framework, which is "designed to enable debaters to discuss current events in an accessible, conversational format" (Hannan et al., 2012), and emphasized how debate concepts and skills apply to the workplace.

The debate training took place on Zoom at 1 p.m. Eastern Standard Time on Saturdays. For the training syllabus, see Supplemental Table S2. Each training session lasted about 2 hr: In the first part, the instructor (the second author) covered debate knowledge and skills. In the second part, students were randomly paired up to practice the skills they learned (in Zoom breakout rooms). The remaining time was dedicated to questions and answers. To ensure high-quality training, we conducted two mock sessions with research assistants on Zoom before each session.

To minimize potential contamination from the treatment group to the control group, we did not share any training slides and videos with the attendees. They were also instructed not to discuss any training content with their colleagues.

Attrition

As the debate training proceeded, six participants in the treatment condition dropped out for personal reasons.

³ For the mediation hypothesis, we also explored another power analysis method following Fritz and Mackinnon (2007): To be conservative, we assumed that both the a path (predictor \rightarrow mediator) and the b path (mediator \rightarrow outcome) might have small effect sizes in mediation analysis; if so, Fritz and Mackinnon's (2007) Table 3 suggests a required sample size of 462 participants for bias-corrected bootstrapped mediation analysis.

⁴ Among the 471 Asian employees, 83% were East Asian (e.g., ethnic Chinese), 9% were Southeast Asian (e.g., ethnic Vietnamese), 6% were South Asian (e.g., ethnic Indian), and the remaining 2% were half-Asian. While we also wished to recruit non-Asian participants, the company did not permit us to advertise or recruit outside the Asian employee resource group.

Wave 2 Survey

Eight weeks after the debate training started, we emailed the Wave 2 survey to both the treatment and control groups.⁵ To mitigate potential demand effects, we framed the survey as one about career development and did not mention the debate training (i.e., if we had explicitly mentioned debate training in the survey, treatment-group participants might be more likely to overreport increases in assertiveness).

To maximize the survey response rate, we guaranteed each respondent a \$5 Amazon eGift card for completing the short survey. Three hundred thirty-two of the 471 participants completed the Wave 2 survey (response rate = 70.5%); the treatment condition ($N = 174$) and the control condition ($N = 158$) did not differ significantly in response rate, $\chi^2(1) = 2.09, p = .15$. There was no significant difference in any of the demographic or focal variables between individuals who completed the Wave 2 survey and those who did not (all $ps > .05$).

Respondents completed the same measures as in Wave 1, including assertiveness (Wave 2 $\alpha = .83$).

Wave 2 Results

Descriptive statistics and bivariate correlations are displayed in Supplemental Table S4. Figure 2 visualizes the mean assertiveness level by condition at each wave.

To robustly examine the treatment effect of debate training, we used Bodner and Bliese's (2018) three analytic models: "(1) the posttest only model, (2) the ANCOVA model, and (3) the difference in mean change model" (p. 40). As detailed in Supplemental Table S5, each of the three models yielded a significant treatment effect, providing converging evidence for Hypothesis 1. When statistical power is sufficient, "the difference in mean change model has additional useful information to offer researchers" (Bodner & Bliese, 2018, p. 46). In particular, unlike the posttest only model and the ANCOVA model, the difference in mean change model provides "unambiguous information on the direction of mean change relative to baseline in either condition" (Bodner & Bliese, 2018, p. 47). Hence, our main analyses were based on the difference in mean change model.

Within the treatment condition, a paired-samples t test revealed that assertiveness increased significantly after the debate training ($M = .55, SD = .87, 95\% \text{ CI } [.42, .68], t = 8.38, p < .001, d = .64$). By contrast, within the control condition, assertiveness did not change significantly ($M = .08, SD = .79, 95\% \text{ CI } [-.04, .20], t = 1.27, p = .21$). Moreover, assertiveness *change* from Wave 1 to Wave 2 was significantly more positive in the treatment condition than in the control condition ($95\% \text{ CI } [.29, .65], t = 5.18, p < .001, d = .57$).

Wave 3 Survey

In November of Year 2, 18 months after the Wave 1 survey, we emailed the Wave 3 survey to both the treatment and control groups. By then, there had been three performance reviews (in October of Year 1, April of Year 2, and October of Year 2) and, thus, three opportunities to advance in leadership level. Our measure of leadership emergence was whether an individual advanced in leadership level (1 = yes, 0 = no) during the previous 18 months.

To mitigate potential demand effects, we framed the survey as one about career development and did not mention the debate training. To maximize the survey response rate, we guaranteed each respondent a \$10 Amazon eGift card for completing the short survey. Two hundred eighty-seven of the 471 participants completed the Wave 3 survey (response rate = 60.9%); the treatment condition ($N = 150$) and the control condition ($N = 137$) did not differ significantly in response rate, $\chi^2(1) = 1.16, p = .28$. Respondents completed the same measures as in Waves 1 and 2, including assertiveness (Wave 3 $\alpha = .85$) and exploratory variables (e.g., job satisfaction).

Wave 3 Results

Assertiveness

As visualized in Figure 2, the following results further supported Hypothesis 1: Within the treatment condition, a paired-samples t test revealed that assertiveness increased significantly from Wave 1 to Wave 3 ($M = .60, SD = .90, 95\% \text{ CI } [.46, .75], t = 8.15, p < .001, d = .67$). By contrast, within the control condition, assertiveness did not change significantly from Wave 1 to Wave 3 ($M = .11, SD = .80, 95\% \text{ CI } [-.03, .24], t = 1.60, p = .11$). Moreover, assertiveness change from Wave 1 to Wave 3 was significantly more positive in the treatment condition than in the control condition ($95\% \text{ CI } [.29, .69], t = 4.89, p < .001, d = .58$).

Additionally, within the treatment condition, assertiveness did not significantly decrease from Wave 2 to Wave 3 ($M = .06, SD = .84, 95\% \text{ CI } [-.08, .20], t = .85, p = .40$). This result indicates the lasting impact of debate training on assertiveness. Within the control condition, as expected, assertiveness did not change significantly from Wave 2 to Wave 3 ($M = .10, SD = .72, 95\% \text{ CI } [-.04, .23], t = 1.45, p = .15$).

Leadership Advancement

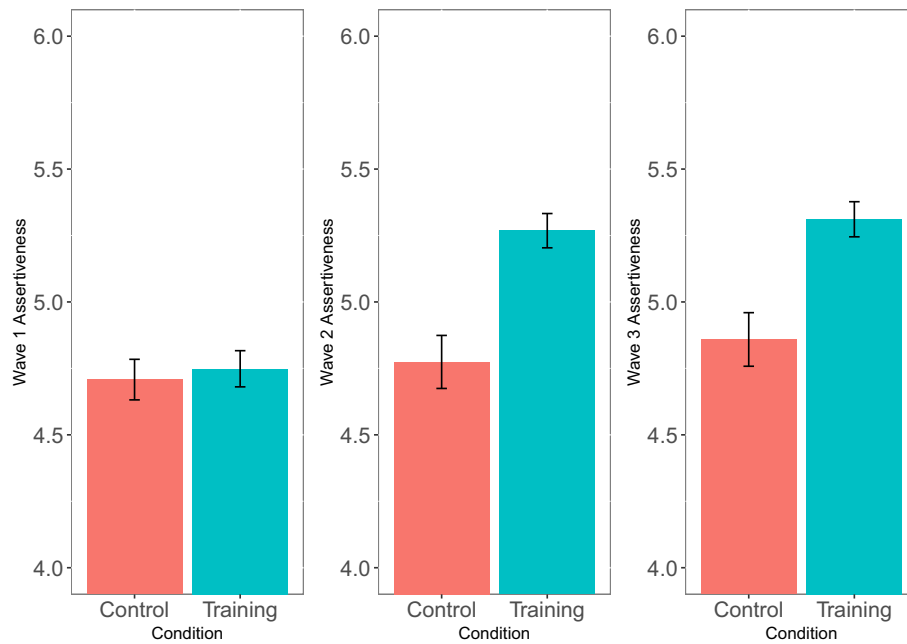
Compared to control-group individuals, treatment-group individuals were significantly more likely to have advanced in leadership level in the previous 18 months (logistic regression $B = .53, SE = .20, \text{Wald } z = 2.61, p = .009$). Specifically, 88 of the 227 treatment-group participants (38.8%) advanced in leadership level, compared to 59 of the 218 control-group participants (27.1%).⁶ Thus, Hypothesis 2 was supported.

We also explored the effect of the debate training alongside other variables of interest (Supplemental Table S7). The effect of debate training remained robust when accounting for leadership level at Wave 1 and time in the job title before Wave 1 ($B = .55, SE = .21, \text{Wald } z = 2.63, p = .009$), tenure at the company before Wave 1, gender, U.S./foreign-born status ($B = .57, SE = .21, \text{Wald } z = 2.72, p = .007$), and exit from the organization ($B = .56, SE = .21, \text{Wald } z = 2.60, p = .009$).

⁵ We administered the Wave 2 survey after the eighth week of the 9-week training for two reasons. First, we were concerned that some participants might neglect our survey once the training ended. Second, administering the survey—which was framed to address career development—before the debate training ended helped alleviate the impression that the survey was directly related to the debate training.

⁶ Leadership advancement information was missing for a small percentage (5.5%) of the 471 participants.

Figure 2
Experiment 1: Mean Assertiveness by Condition



Note. Error bars indicate standard errors. See the online article for the color version of this figure.

Mediation Analysis

As expected, assertiveness increase positively predicted whether an individual advanced in leadership level ($B = .46, SE = .14, Wald z = 3.17, p = .002$). When debate training and assertiveness increase were entered into a simultaneous logistic regression predicting leadership advancement, assertiveness increase had a significant effect ($B = .39, SE = .15, Wald z = 2.61, p = .009$), while the effect of debate training became nonsignificant ($B = .45, SE = .25, Wald z = 1.80, p = .07$). Consistent with Hypothesis 3, these results provide evidence for the mediating role of assertiveness (Baron & Kenny, 1986).

Additionally, we used the R package “mediation: Causal Mediation Analysis” to conduct a bootstrapping mediation analysis with 5,000 iterations. Further supporting Hypothesis 3, assertiveness increase significantly mediated the effect of debate training (1 = treatment, 0 = control) on leadership advancement (indirect effect = .04, bootstrapped 95% CI [.01, .08], $p = .003$). This mediating effect of assertiveness remained robust (indirect effect = .04, bootstrapped 95% CI [.01, .08], $p = .005$) when we controlled for the exploratory variables (motivation to lead, self-esteem, job satisfaction, and affective commitment).

Exploratory Analyses

We explored whether the effects of debate training were moderated by (a) U.S.-/foreign-born status and (b) gender. As detailed in Supplemental Materials, none of the interaction effects were significant, suggesting that the effects of debate training were not significantly different for (a) U.S.- and foreign-born individuals or (b) men and women.

Discussion

Using a three-wave longitudinal field experiment at a Fortune 100 U.S. company, Experiment 1 supported our hypotheses. Individuals randomly assigned to receive the debate training (vs. not) were more likely to have advanced in leadership level 18 months after the training started. This significant difference in leadership advancement was mediated by assertiveness increase. Notably, the increased assertiveness did not diminish after 15 months (from Wave 2 to Wave 3), indicating the lasting impact of debate training.

Experiment 2

Experiment 2 had five aims. First, we aimed to replicate the positive effects of debate training on assertiveness and leadership emergence. Using a sample ($N = 975$) twice as large as that of Experiment 1, we tested whether individuals who received an intensive 30-min debate training became more assertive and had higher leadership emergence in a subsequent group activity. Notably, whereas Experiment 1 focused on *formal* leadership emergence as measured by advancement to a higher leadership position in an organization, Experiment 2 focused on *informal* leadership emergence in groups without designated leaders, thereby furthering our understanding of leadership emergence.

Second, while Experiment 1’s random assignment precluded differences between the debate training group and the control group (e.g., the two groups were equally motivated to participate in the training to begin with), Experiment 1’s sample was limited to individuals who signed up for the training to improve their communication skills. Such self-selection matters because meta-analyses have shown that a predictor of training effectiveness is

trainees' motivation and voluntary participation in the training (Blume et al., 2010; Colquitt et al., 2000). To examine the generalizability of our findings, Experiment 2 recruited individuals who did not know about the study's details before taking part in the study.

Third, whereas Experiment 1 involved only *Asians* (because we partnered with the company's *Asian* employee resource group), Experiment 2 recruited an ethnically diverse sample to assess whether debate training is similarly effective across different ethnic groups or especially effective for certain ethnic group(s). In particular, an increasing number of studies have found that East Asians (e.g., ethnic Chinese, Japanese) in the United States tend to experience a "bamboo ceiling" in leadership partly due to their low assertiveness (Lu, 2022, 2024b; Lu et al., 2020; Zhu, 2024), so we explored whether debate training would be more (vs. less) effective for ethnic East Asians relative to other ethnic groups.

Fourth, Experiment 1 only had a passive control condition in which participants did not receive any training, but not an active control condition in which participants received another (nondebate) training (Lambert et al., 2022). Thus, although Experiment 1 showed that participants in the debate training condition were more likely than participants in the passive control condition to advance in leadership as a function of increased assertiveness, it is difficult to ascertain whether these differences were driven by debate training per se. For example, it is possible that individuals in the debate training condition felt luckier because they were randomly assigned to participate in the training. To address this limitation, Experiment 2 added an active control condition in which participants received a nondebate training. This three-condition design enabled us to compare the debate training condition against both a passive control condition (i.e., no training) and an active control condition (i.e., nondebate training), so as to ascertain whether increases in assertiveness and leadership emergence were driven by debate training per se.

Fifth, Experiment 1 measured self-rated assertiveness, which might be prone to demand effects and self-report biases. To address this limitation, Experiment 2 used coder-rated assertiveness as well as group-member-rated assertiveness.⁷

Method

Participants

We used G*Power to calculate the sample size needed for a small-sized effect in a between-subjects design with three conditions: 246 three-person groups were needed for the study to have 80% power. To exceed this threshold, we planned to run at least 300 three-person groups (i.e., 900 participants).

The study was advertised by two universities located in cosmopolitan cities in the northeastern United States. A small number of participants ($N = 27$) were excluded because they failed an attention check. The attention check, administered immediately after the training, asked participants to identify a concept that was not mentioned in their training; failing the attention check would suggest that they did not pay sufficient attention to the training. All results remain reliable when these 27 participants are included in analyses.

These criteria yielded 975 valid participants (61% female; 78% U.S. born; $M_{\text{age}} = 25.50$ years, $SD = 10.96$). Among them, 79% were university students and 21% were nonstudents from the local

communities; 45% were White, 16% were East Asian, 10% were South Asian, 10% were Latinx, 8% were Black, and the rest belonged to other ethnicities.

Experimental Design and Procedure

The experiment, which lasted for 60 min, was conducted via Zoom in groups of three participants; each participant was paid \$15.⁸ As explained in Table 1, in each group, one member was randomly assigned to be the "focal" participant, and the other two members were randomly assigned to be "nonfocal" participants. The focal participant was randomly assigned to one of three conditions in a between-subjects design: debate training condition (a 30-min debate training video), active control condition (a 30-min cultural training video), or passive control condition (30 min of free time). Meanwhile, the two nonfocal participants (in all three conditions) always had 30 min of free time. This design was clean because the only difference across the three conditions was the treatment received by the focal participant—the focus of our analyses. There were 107 groups in the debate training condition, 109 groups in the active control condition, and 109 groups in the passive control condition.

Every Zoom session was hosted by two hypothesis-blind experimenters. To ensure a standardized experience for all participants, the (anonymous) experimenters did not turn on cameras or use profile photos. In the waiting room, after sending a welcome message, the experimenters renamed the three participants as "red," "green," and "yellow" to anonymize their identities. We chose colors rather than "A/B/C" or "1/2/3" to avoid any signaling of relative importance. After the three participants were admitted to the main Zoom room and completed the consent form, they were assigned to three separate Zoom breakout rooms. Each of the two experimenters used two laptops. To provide instructions, three of the four laptops joined the three breakout rooms, respectively. Meanwhile, the fourth laptop remained in the main room to oversee the study and manage technical issues (e.g., if a participant was disconnected and rejoined the study).

Debate Training Condition. In the debate training condition, we created a 30-min training video that distilled key lessons from Experiment 1's training (e.g., expressing opinions confidently without being aggressive). To ensure that the training focused on applicable debate skills, Experiment 1's instructor developed the training and conducted two mock sessions with research assistants before finalizing the training video. In line with the benefits of debate training for assertiveness (as detailed in the Theory and Hypotheses section), the video focused on how to assert one's viewpoints confidently and persuasively (e.g., standing one's ground diplomatically, pacing, intonation, reducing filler words, and finding the middle ground between passiveness and aggressiveness).

⁷ Although it would be informative to also measure self-rated assertiveness (as in Experiment 1), we decided against it for two reasons. First, self-rated assertiveness is prone to self-report biases and demand effects. Second, we tried to minimize the length of Experiment 2 so that it could be completed within an hour, as a longer study might pose additional challenges (e.g., fewer participants might be willing to sign up). It would be fruitful for future research to measure self-rated and other-rated assertiveness in the same study.

⁸ In case some participants failed to show up for their scheduled timeslots, we recruited four participants for each timeslot. If all four participants showed up, one of them was randomly asked to reschedule for an additional \$5.

Table 1
Experiment 2: Experimental Design

| Condition | Focal participant | Two nonfocal participants |
|---------------------------|--------------------------|---------------------------|
| Debate training condition | 30-min debate training | 30-min free time |
| Active control condition | 30-min cultural training | 30-min free time |
| Passive control condition | 30-min free time | 30-min free time |

Note. In each three-person group, one member was randomly assigned to be the “focal” participant, and the other two members were randomly assigned to be “nonfocal” participants.

Active Control Condition. In the active control condition, we created a 30-min video about culture and conducted two mock sessions with research assistants before finalizing the training video. The video covered meaningful topics, including the definition of culture (Lu et al., 2023), Hofstede’s cultural dimensions (<https://www.hofstede-insights.com/country-comparison>), cultural intelligence, and global mindset. These topics are valuable for cross-cultural communication, which is common in the two cosmopolitan cities where the participants were located. Cultural training was therefore a meaningful activity distinct from assertiveness-focused debate training. This allowed us to introduce a relevant and engaging control activity without overlapping conceptually with debate training. More importantly, including this active control condition enabled us to ascertain whether our hypothesized effects were driven by debate training per se, as opposed to any training (i.e., placebo effect).

Notably, we standardized the visual (e.g., slide style, color, final slide, and number of slides) and auditory (e.g., voice, pace) features of the debate training and cultural training videos.

Passive Control Condition. Like the two nonfocal participants (in all conditions), the focal participant in the passive control condition did not receive any training and was asked to do his/her own thing for 30 min, but was not allowed to interact with other people. Including this passive control condition enabled us to ascertain whether the debate training increased assertiveness (mediator) and leadership emergence (outcome)—as opposed to the possibility that the cultural training decreased assertiveness and leadership emergence.

Three-Person Group Activity

After the focal participant received the treatment (i.e., debate training, cultural training, or no training), the experimenter asked all three participants to exit their individual Zoom breakout rooms and return to the main Zoom room. All participants were instructed not to share what they had done over the past 30 min to preclude comparisons and perception biases (e.g., the two nonfocal participants might rate the focal participant as more assertive if they learned that the focal participant had received debate training or they might feel resentful about not receiving any training).

Next, the three participants engaged in an ostensibly unrelated group activity, during which they were required to keep their video cameras on. The group activity we used was the “Freshman Orientation” task (Johnson & Bechler, 1998). Participants were asked to imagine that they were on a committee in charge of designing orientation activities for college freshmen. First, each participant had 5 min to independently generate five ideas and rank-order the ideas from relatively more important to relatively less important. Next, the three participants engaged in a 15-min group discussion to reach a group consensus about the best five ideas, and rank-ordered the five ideas

from relatively more important to relatively less important. After completing the group activity, each participant immediately rated the assertiveness and leadership of the other two group members, respectively (in a round-robin fashion).

Assertiveness (Mediator)

We assessed assertiveness in two complementary ways. First, after all sessions were conducted, two hypothesis-blind coders watched the group videos to rate the assertiveness of each participant using four items adapted from Wallen et al. (2017): “This person spoke up and shared his/her own views when appropriate”; “This person was willing to engage in constructive disagreement”; “This person was able to stand his/her ground in the discussion”; “This person expressed his/her opinions confidently without being aggressive” (1 = *strongly disagree*, 7 = *strongly agree*; $\alpha = .95$). For each person, we averaged the ratings provided by the two coders, as interrater agreement was satisfactory for each of the four items (intraclass correlation coefficients ranged from .85 to .91; Cohen’s weighted κ ranged from .84 to .91).⁹

Second, during each session, we asked each participant to rate the other two group members on assertiveness using the same four items (1 = *strongly disagree*, 7 = *strongly agree*; $\alpha = .87$). As detailed in Supplemental Materials, group-member-rated assertiveness yielded results similar to those of coder-rated assertiveness. Our main text reports coder-rated assertiveness to minimize common-source bias, as the key variables are all from different sources (independent variable = experimental manipulation, mediator = coder-rated assertiveness, outcome = group-member-rated leadership emergence).

Leadership Emergence (Outcome)

To assess leadership emergence, we used a three-item measure adapted from Porath et al. (2015): “I view this person as the leader of our group”; “This person acted like a leader”; “I think this person possesses leadership qualities” (1 = *strongly disagree*, 7 = *strongly agree*; $\alpha = .93$). This measure of leadership emergence is widely used in the literature (e.g., Lu, 2024a; Lu et al., 2020).

Exploratory Variables

We explored whether the debate training could also influence individuals’ self-esteem, task satisfaction, positive affect, and negative affect (see Supplemental Materials). Each participant completed these exploratory variables after rating the other two group members. The display order of these variables was randomized across participants.

⁹ Three of the 325 groups were not successfully video-recorded, so coder-rated assertiveness was missing for nine participants.

As detailed in Supplemental Materials, the three conditions did not differ significantly in any of these exploratory variables, thus ruling them out as alternative mediators.

Results: Between-Conditions Analyses

Descriptive statistics and bivariate correlations for focal participants are displayed in Supplemental Table S10.

Assertiveness (Mediator)

Consistent with Hypothesis 1, the focal participant in the debate training condition ($M = 5.32$, $SD = .75$) was rated by coders as significantly more assertive than the focal participant in the active control condition ($M = 4.92$, $SD = .87$; 95% CI [.18, .62], $t = 3.58$, $p < .001$, $d = .49$) and the focal participant in the passive control condition ($M = 4.93$, $SD = .95$; 95% CI [.16, .62], $t = 3.35$, $p < .001$, $d = .46$). Meanwhile, there was no significant difference between the focal participant in the active control condition and the focal participant in the passive control condition ($t = -.06$, $p = .95$, 95% CI [-.25, .24]).

As expected, the three conditions did not differ significantly in the coder-rated assertiveness of the two nonfocal participants, one-way analysis of variance $F = .78$, $p = .46$.

Leadership Emergence (Outcome)

Consistent with Hypothesis 2, the focal participant in the debate training condition ($M = 5.00$, $SD = 1.15$) was rated by group members as significantly more leader-like than the focal participant in the active control condition ($M = 4.49$, $SD = 1.32$; 95% CI [.18, .84], $t = 3.04$, $p = .003$, $d = .41$) and the focal participant in the passive control condition ($M = 4.60$, $SD = 1.26$; 95% CI [.08, .72], $t = 2.44$, $p = .016$, $d = .33$). Meanwhile, there was no significant difference between the focal participant in the active control condition and the focal participant in the passive control condition ($t = -.65$, $p = .52$, 95% CI [-.46, .23]).

As expected, the three conditions did not differ significantly in the leadership emergence of the two nonfocal participants, one-way analysis of variance $F = 1.44$, $p = .24$.

Mediation Analysis

As expected, coder-rated assertiveness positively predicted leadership emergence for the focal participant ($B = .77$, $SE = .07$, $p < .001$). Notably, this significant relationship is immune to common-source bias because this measure of assertiveness was rated by coders while leadership emergence was rated by group members.

Because the active control condition and the passive control condition did not differ significantly in any variables, we combined them into one “control” condition for mediation analysis. When condition (1 = debate training condition, 0 = active/passive control conditions) and assertiveness were entered into a simultaneous regression predicting leadership emergence, assertiveness had a significant effect ($B = .75$, $SE = .07$, $p < .001$), while the effect of condition became nonsignificant ($B = .14$, $SE = .13$, $p = .27$). Consistent with Hypothesis 3, these results provide evidence for the mediating role of assertiveness (Baron & Kenny, 1986).

As in Experiment 1, we also conducted a bootstrapping mediation analysis with 5,000 iterations. Further supporting Hypothesis 3, assertiveness significantly mediated the positive effect of debate training (1 = debate training condition, 0 = active/passive control conditions) on leadership emergence (indirect effect = .30, bootstrapped 95% CI [.15, .45], $p < .001$).¹⁰ These results indicate that the debate training increased individuals’ leadership emergence as a function of their increased assertiveness.

Exploratory Analyses

Similar to Experiment 1, we explored whether the effects of debate training were moderated by (a) U.S.-/foreign-born status, (b) gender, and (c) ethnicity. As detailed in Supplemental Materials, none of the interaction effects were significant, suggesting that the effects of debate training were not significantly different for (a) U.S.- and foreign-born individuals, (b) men and women, or (c) different ethnic groups.

Results: Within-Condition Analyses (Exploratory)

Complementing the between-conditions analyses, we also explored within-condition analyses. As expected, there were no significant differences between the two nonfocal participants within any of the three conditions—whether in terms of assertiveness or leadership emergence (all $ps > .05$)—so we combined the two nonfocal participants in the analyses below.

Assertiveness (Mediator)

Consistent with Hypothesis 1, within the debate training condition, the focal participant ($M = 5.32$, $SD = .75$) was rated by coders as significantly more assertive than the two nonfocal participants ($M = 5.03$, $SD = .81$; 95% CI [.11, .47], $t = 3.14$, $p = .002$, $d = .37$).

Leadership Emergence (Outcome)

Consistent with Hypothesis 2, within the debate training condition, the focal participant ($M = 5.00$, $SD = 1.15$) was rated as significantly more leader-like than the two nonfocal participants ($M = 4.70$, $SD = 1.25$; 95% CI [.03, .58], $t = 2.20$, $p = .029$, $d = .26$).

Mediation Analysis

Within the debate training condition, a participant’s coder-rated assertiveness positively predicted his/her leadership emergence ($B = .84$, $SE = .07$, $p < .001$). Consistent with Hypothesis 3, within the debate training condition, assertiveness significantly mediated the effect of participant role (focal vs. nonfocal participant) on leadership emergence (indirect effect = .24, bootstrapped 95% CI [.09, .41], $p = .002$).¹¹ These results further indicate that debate

¹⁰ This mediating effect of assertiveness remained robust (indirect effect = .31, bootstrapped 95% CI [.16, .46], $p < .001$) when we controlled for the exploratory variables (self-esteem, task satisfaction, positive affect, and negative affect).

¹¹ This mediating effect of assertiveness remained robust (indirect effect = .25, bootstrapped 95% CI [.10, .42], $p = .001$) when we controlled for the exploratory variables (self-esteem, task satisfaction, positive affect, and negative affect).

training increased individuals' leadership emergence as a function of their increased assertiveness.

Discussion

Experiment 2 further supported our hypotheses via a three-condition experiment involving 325 groups of participants. Both between-conditions and within-condition analyses found that, compared to individuals who received the nondebate training or no training, individuals who received the debate training became more assertive and had higher leadership emergence in the subsequent group activity.

General Discussion

The two experiments provided converging evidence that debate training can increase leadership emergence by fostering assertiveness. In Experiment 1, a three-wave longitudinal field experiment at a Fortune 100 U.S. company, 471 individuals were randomly assigned to either receive a 9-week debate training or not. Eighteen months later, the treatment-group participants were significantly more likely to have advanced in leadership level than the control-group participants, an effect mediated by assertiveness increase. Conceptually replicating these effects in an ethnically diverse sample twice as large ($N = 975$), Experiment 2 found that individuals who were randomly assigned to receive debate training (vs. nondebate training or no training) acted more assertively and had higher leadership emergence in a subsequent group activity.

Theoretical Contributions

The present research provides meaningful theoretical contributions. First, we contribute to the literature on leadership emergence and development (Badura et al., 2022; Day & Dragoni, 2015; Gardner et al., 2024). An enduring question in this literature is how to help individuals attain leadership roles in organizations (Eden, 2017). Although scholars have mused on potential interventions (Avolio et al., 2010; Ely et al., 2011), an evidence-based intervention has remained elusive. As summarized by a recent review (Lyness & Grotto, 2018), "organizational leadership development programs remain at an early stage of development because interventions have not been broadly implemented or thoroughly evaluated" (pp. 252–253). To address this knowledge gap, we not only introduce debate training as a theory-based intervention to increase leadership emergence but also provide experimental evidence for its effectiveness, thereby addressing Martin et al.'s (2021) concern that, in leadership training research, "the majority of studies do not meet many of the criteria, even the most basic criteria, required to establish causality" (p. 1). As a result, our research enriches leadership research and provides a foundation for further theory building.

Of note, our research contributes to both the literature on *formal* leadership emergence and the literature on *informal* leadership emergence, as our Experiments 1 and 2 capture formal and informal leadership emergence, respectively. A recent integrative review (Badura et al., 2022) notes that there has been a "lack of attention to formal leadership emergence" (p. 2090). While there is more research on informal leadership emergence, little of this literature has tested interventions for fostering leadership emergence (Badura et al., 2022). The present research addresses these limitations by

identifying debate training as a novel intervention that increases both formal and informal leadership emergence. In doing so, we add to the growing body of work on organizational interventions (Avolio et al., 2009; Parke et al., 2021; Zohar, 2002; Zohar & Polachek, 2014).

Second, besides showing that debate training can increase leadership emergence, we offer insight into why it can do so, thus further contributing to the literature on leadership emergence. We identify assertiveness as a key mechanism by providing evidence across self-rated, group-member-rated, and coder-rated assertiveness—while ruling out alternative mechanisms (e.g., motivation to lead, affective commitment). A recent review on leadership emergence calls for researchers to identify tangible behaviors individuals can engage in to emerge as leaders (Badura et al., 2022). We respond to this call by highlighting assertiveness as a behavioral antecedent of leadership emergence in U.S. organizations, so as "to advance theory on the behavioral antecedents of leader emergence" (Badura et al., 2022, p. 2082).

Notably, the assertiveness mechanism aligns with leadership categorization theory (Lord et al., 1984, 2020), which suggests that individuals who exhibit characteristics congruent with culturally endorsed leadership prototypes are more likely to emerge as leaders. Consistent with leadership categorization theory, our research underscores assertiveness as an important leadership characteristic in U.S. organizations (Härtel et al., 2024; Lu et al., 2020). Moreover, we contribute to the dominance-based status literature, which suggests that one way individuals can attain status and influence is through agentic behaviors like assertiveness (Foti & Hauenstein, 2007; Kakkar & Sivanathan, 2017; Maner & Case, 2016). We extend this literature by demonstrating that assertive behaviors (e.g., speaking up in group activities and engaging in constructive argumentation) can help individuals attain leadership roles that confer status and influence (Anderson & Kilduff, 2009).

Third, we contribute to the inclusion and diversity literature. The nonsignificant moderation results suggest that debate training may be similarly effective for (a) U.S.- and foreign-born individuals, (b) men and women, and (c) different ethnic groups. Importantly, this finding does not undermine the relevance of debate training in addressing the unique challenges faced by specific groups. Regardless of the source of a person's low assertiveness (e.g., gender, cultural norms), debate training has the potential to increase his/her assertiveness and leadership emergence in U.S. organizations. For example, debate training has the potential to help *unassertive* women break the glass ceiling in leadership (Powell & Butterfield, 1994) and help *unassertive* East Asians break the bamboo ceiling in leadership (Gündemir et al., 2019; Lu et al., 2020; Sy et al., 2010, 2017; Zhu, 2024). This potential of debate training is noteworthy, especially given that a common concern in the inclusion and diversity literature is that some interventions aimed at helping disadvantaged groups can backfire (Duguid & Thomas-Hunt, 2015; Kalev et al., 2006; Lin et al., 2024).

Fourth, we contribute to the understanding of assertiveness as a theoretical construct. While earlier research focused on assertiveness as a stable trait (Costa & McCrae, 1988), more recent research suggests that assertiveness is a communication style and behavioral tendency that can change over time. We expand this body of work by providing evidence that debate training can cultivate assertiveness, thereby underscoring its adaptive nature and clarifying its conceptualization.

Fifth, we add to the communication literature. While this fragmented literature has touched on the benefits of debate training (e.g., Bellon, 2000; Freely & Steinberg, 2013), little research has examined how these benefits can translate into tangible organizational outcomes. We address the need for research in this area by uncovering the positive effects of debate training on assertiveness and leadership emergence. By integrating the communication literature into organizational research, we spotlight debate training as a valuable developmental experience for organizational members.

Practical Implications

The current research also has meaningful practical implications for organizations and individuals.

For Organizations

The leadership development program market had an estimated value of \$81.19 billion in 2024 and was predicted to grow at a compound annual growth rate of 10.3% from 2024 to 2034 (Future Market Insights, 2024), yet most programs are ineffective (Westfall, 2019). Against this backdrop, our research identifies debate training as a novel and valuable intervention. Notably, Experiment 2 found that an intensive 30-min debate training session was effective for increasing assertiveness and leadership emergence. With more elaborate training, the effects could be stronger and more enduring. Indeed, in Experiment 1, the increased assertiveness did not diminish 15 months after the training (from Wave 2 to Wave 3), indicating the lasting impact of the debate training.

In addition, our successful implementation of debate training via Zoom highlights its accessibility through virtual platforms. Organizations can integrate virtual debate training into their professional development programs, enabling employees to participate regardless of location. This accessibility allows the benefits of debate training to extend to remote and geographically dispersed teams, which are increasingly prevalent globally.

Furthermore, our findings suggest that debate training may be effective across different social groups, including U.S.- and foreign-born individuals, men and women, and various ethnic groups. This broad effectiveness makes debate training a versatile tool for leader development programs, offering individuals from different groups the opportunity to develop assertiveness and realize their leadership potential. Therefore, organizations can consider debate training as a cost-effective and scalable intervention to foster assertiveness among employees. Likewise, schools can incorporate debate training into their leadership curricula.

Importantly, while assertive individuals are more likely to emerge as leaders in the U.S. workplace, they are not necessarily the most effective leaders (Galvin et al., 2024). We recommend that organizations look beyond assertiveness (e.g., listening skills, cooperativeness, humility) when evaluating individuals for leadership emergence, so as to leverage diverse leadership talent (Hu et al., 2018; Lu, Swaab, & Galinsky, 2022).

For Individuals

Our findings suggest that individuals could benefit from investing in debate training as a professional development endeavor. Following in the footsteps of influential leaders such as Andrew Yang, Hillary

Clinton, and Indra Nooyi, people can start debate training in childhood. Individuals can also practice debate techniques in everyday life. For example, friends can help each other reduce filler words in conversations by offering constructive feedback. With debate training, individuals can advocate for their ideas more effectively, stand their ground in disagreements, and unlock leadership opportunities.

Limitations and Future Directions

Our research has several limitations, which provide opportunities for future research. First, while we have identified a “supply-side” intervention that trains *employees*, future research could explore “demand-side” interventions that change *organizations’* practices or policies.

Second, while our experiments provided converging evidence that debate training increased leadership emergence by fostering assertiveness, we cannot eliminate all threats to validity. To reduce such threats (e.g., demand effects), we implemented various safeguards. For example, in Experiment 2, assertiveness was rated by coders and group members unaware of each participant’s condition—based on observable behaviors rather than self-report. Furthermore, mechanisms other than assertiveness might also be in play. Although our mediation analyses found that only assertiveness—but not other variables (e.g., motivation to lead, affective commitment)—emerged as a significant mediator, we cannot exhaust all potential mechanisms. Future research could explore other potential mechanisms (e.g., leadership efficacy and expectancy).

Third, while assertiveness is generally a valued characteristic in U.S. organizations, this is not always the case for every person or situation, so it is important to consider boundary conditions. For example, although assertiveness emphasizes expressing one’s feelings and needs directly when appropriate, whether someone’s communication is appropriate depends on the subjective perception of the recipient. Even if subordinates assert their opinions respectfully, it may still offend an egoistic manager who expects absolute deference and, thus, may elicit retaliatory punishment. Additionally, while our experiments show that, on average, debate training can increase individuals’ leadership emergence in U.S. culture, future research could explore its effectiveness in other cultures, including cultures that de-emphasize assertiveness (e.g., East Asian cultures; Lu et al., 2020).

Fourth, while power analyses suggest that both experiments had sufficient statistical power, future research could utilize larger samples to ascertain the reliability of our findings (Bliese & Wang, 2020).

Conclusion

The present research is among the first to provide experimental evidence for a leadership emergence intervention. Across an 18-month longitudinal field experiment and a Zoom experiment, individuals who received debate training had higher leadership emergence as a function of increased assertiveness. Overall, our research suggests that debate training can increase individuals’ leadership emergence in U.S. organizations by fostering their assertiveness.

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