# HOW COLLEGE STUDENTS CAN DEPOLARIZE: EVIDENCE FOR POLITICAL MODERATION WITHIN HOMOGENEOUS GROUPS

Yasmeena Khan and Alice Siu

#### **Abstract**

This paper demonstrates that, after deliberation, college students showed immense moderation potential and affective depolarization, especially even given their homogeneity as a bloc within American politics and within the overwhelmingly liberal sample for this paper. These findings offer optimism for future research in homogeneous groups through understanding that group polarization, while a very worrisome phenomenon, can be avoided with the right precautionary measures. It is clear that college students are capable of engaging constructively across differences and that deliberation, through Deliberative Polling in particular, can serve to build the capacity to do so.

In 2002, legal scholar Cass Sunstein wrote a seminal paper on group polarization that argued "...members of a deliberating group predictably move toward a more extreme point in the direction indicated by the members' predeliberation tendencies" (Sunstein 2002, p. 176). In essence, he was defining the concept of group polarization, which suggests that homogeneous groups only ever become more extreme in their opinions—a group of self-identified liberals will possess a greater dislike for Donald Trump after discussion; a "group of moderately profeminist women will become more strongly profeminist after discussion" (Bekafigo et al. 2019; Sunstein 2002, p. 178).

The law of group polarization poses a serious threat to the productivity of conversations given increasing political polarization in America. While there has been debate over whether the American public has polarized on political issues themselves (Abramowitz & Saunders 2008; Fiorina et al. 2008; Hetherington 2009), the political elite inarguably has (Hare & Poole 2014). And affective polarization—defined as "the tendency of people identifying as Republicans or Democrats to view opposing partisans negatively and co-partisans positively" (Iyengar & Westwood 2015, 691)—has also inarguably increased (Abramowitz & Webster 2016; Bafumi & Shapiro 2009; Iyengar et al. 2019; Mason 2013, 2015, 2016).

If homogeneous groups are indeed universally susceptible to group polarization, one battleground this pattern should present itself is among college students. Tracking college students over time, as a cohort they have become increasingly more liberal, both on social issues like abortion as well as fiscal issues like the question of the

wealth tax (Eagan 2016). The number of students identifying as "middle-of-the-road" has dropped, while the number of students identifying as "liberal" or "conservative" has increased (Astin 1977; Eagan 2016; Stolzenberg et al. 2020). However, liberal students significantly outnumber conservative students by percent; 36.7% identified as some form of liberal compared to 19.7% as conservative in 2019 (Stolzenberg et al. 2020).

With this political landscape across many college campuses, post-secondary institutions need to equip their students, so that students can engage constructively across differences. As students arrive at post-secondary institutions, students look to institutions to learn and understand how they should engage and behave with their peers. Therefore, it is necessary to have resources where students can build capacity to carry on conversations with others that are different from themselves (Longo and Shaffer 2019). Simply relying on students themselves to navigate what can be difficult political landscapes on campuses will turn students away from engaging with each other, and worse, turn them away from engaging in society overall. In recent years, academics and scholars have studied and encouraged deliberative pedagogy (Shaffer et al. 2017), rethinking the role of civics in colleges and higher education (Carcasson 2019), and stressed the importance of fostering the values of democracy in classrooms (Shaffer 2019; Thomas 2015). For years, scholars have investigated how higher education has and should continue to be the critical component of our country's democracy (Thomas & Levine 2011; Mallory & Thomas 2003) Deliberation in higher education should serve to build the foundational elements of civic education that people need to navigate and understand politics in our society. One goal of Deliberative Polling is to contribute to the overall development of a healthy civic identity among college students, and the method of Deliberative Polling does so by developing the building block of "engaging constructively across differences."

Thus, the purpose of this paper is to examine the effect of Deliberative Polling on college students, in order to gain understanding on whether homogeneous groups always tend to polarize, as well as to gain insight into how this politicized battleground affects an ability to have conversations. The aim of this paper is to address how deliberation can be alleviated through deliberation and in particular how Deliberative Polling as a tool can be used to support campus expression through dialogue and deliberation.

# **Deliberative Polling® Methodology**

Deliberative Polling is a public consultation method based on rigorous social science and was pioneered by James Fishkin in 1988. Deliberative Polling is a registered trademark of James S. Fishkin. Any fees generated from the trademark are used by the Deliberative Democracy Lab for ongoing research. Since then, Deliberative Polls have been implemented in over 50 countries, 150+ projects, and on a variety of topics. Please see deliberation.stanford.edu for list of countries and map. Deliberative Polling is a technique where a randomized sample is surveyed before and after they have a chance to deliberate on a set of issues. In Deliberative Polling, participants are given a set of fact-based briefing materials that elucidates both pro and con positions on controversial political proposals. In short, a Deliberative Poll "attempts to represent what the public would think about the issue if it were motivated to become more informed and to consider competing arguments" (Fishkin 2003, p. 128). Deliberative Polling has been used successfully across representative samples of American voters, and the findings from that

study suggest self-identified liberals' ability to moderate on economic issues, as well as self-identified conservatives' ability to moderate on issues of healthcare (Fishkin et al. 2021).

Globally, Deliberative Polls have made significant policy impacts. In 2017, the Mongolian Parliament passed a Law on Deliberative Polling, which required any constitutional amendments to have a national Deliberative Poll. After passing the law, a national Deliberative Poll was convened with a representative sample of over 650 people. The results were deliberated on in Parliament and in 2019, a number of amendments were passed based on the Deliberative Polling results. In 2023, the South Korean Parliament convened a nationally representative Deliberative Poll to discuss electoral reform changes that will be implemented ahead of the country's 2024 elections. The event and its results were nationally televised.

One goal of Deliberative Polling is to provide the foundational elements of civic engagement. This method has been implemented in secondary and post-secondary institutions globally. In 2023, using the Stanford Online Deliberation Platform,<sup>1</sup> the Deliberative Democracy Lab held two multi-country student deliberations: one event on reaching net-zero in the students' respective countries (about 60 students from five cities) and a second event on policies addressing misinformation (about 90 students from six cities). Both student deliberations were implemented at higher education institutions where professors allocated course time for students to engage in these deliberations. The multi-national nature of the deliberations was an intentional component of the deliberations to allow for students to be exposed to people with diverse opinions and experiences. Further, these deliberations were in fact not one-off, these professors have partnered with the Deliberative Democracy Lab over the last few years to run varying sizes of deliberations with their students. In high schools, the Deliberative Democracy Lab partners with the Close Up Foundation, a non-profit foundation that promotes civic education in the US. As a part of the Bank of America's annual Student Leaders Program, Deliberative Polling has been used as a method to introduce students to deliberation and deliberative democracy and engage them in practicing the necessary skills of dialogue and deliberation.

## About the Stanford Online Deliberation Platform

The experiment in this paper, Shaping Our Future, utilized the Stanford Online Deliberation Platform, an AIassisted online deliberation platform, as opposed to human moderators, a collaboration between the Stanford Crowdsourced Democracy Team, and the Deliberative Democracy Lab at Stanford University. The platform is designed based on the Deliberative Polling methodology to massively scale deliberation to allow an unlimited number of participants to deliberate in small groups together simultaneously. Among its many features is an automated moderator that allows participants to form speaking queues, discuss in small groups with timed agendas, and allow for equitable participation.

This platform is designed to be AI-assisted, not purely AI. That is, the platform allows for human intervention and monitoring to ensure that deliberations are proceeding as planned. On the backend of the platform,

<sup>1.</sup> A collaboration between the Deliberative Democracy Lab and Crowdsourced Democracy Team: https://deliberation.stanford.edu/ tools-and-resources/online-deliberation-platform.

monitors can observe several small groups simultaneously through real-time transcriptions. Monitors can also review any help requests or flags that are raised by participants. The deliberation platform requires fewer staff per event than in-person or online deliberations with human moderators, where each small group requires a human moderator and perhaps a moderator assistant. Furthermore, the platform is easy to use without any downloads, includes abuse prevention, and real-time analytics. Since its creation in 2017, this platform has been in over 35 countries, 20+ languages, and has carried out over 40,000 hours of small group deliberations.

## **Data and Methods**

Our analysis was based on a May 2021 Deliberative Polling experiment carried out by the Deliberative Democracy Lab at Stanford University entitled Shaping Our Future<sup>2</sup> (DDL 2021). Shaping Our Future had 617 participants, with 541 higher-education students from 35 postsecondary institutions, ranging in age from 18–29 years old. Most (69%) of the participants were currently enrolled in college, and the sample was 56% female and 38% male. 61% of the sample identified as Democrat, 25% as independent, and just 7% as Republican. When asked which of the two major political parties the sample leaned towards, 75% said the Democratic Party, and 11.5% the Republican Party.

The recruitment process for Shaping Our Future was two-fold. First, in an effort to have a representative sample of the postsecondary population, the recruitment process issued a national call for institutional partner participation. The call noted that institutions would receive a small stipend for taking part as a gesture of appreciation for any administrative work necessary on their campuses to carry out this event. The call also noted that the participants from their institutions that participated would also receive an honorarium (\$75) for their participation. The national call yielded a larger number of interested institutions and the list of institutions ultimately invited to join the event were based on criteria such as geography and institutional student populations. A total of 35 institutions from across the country participated in this event.<sup>3</sup> There was significant effort to ensure a balance of rural vs urban institutions, public vs private, 2-year vs 4-year, and including HBCUs and tribal colleges. Once the 35 institutions were invited, each institution drew a random sample of their student population. The random samples from each institution were invited to participate in batches to track response rate and completion of their pre-deliberation survey.

The second component of the recruitment process was the commissioning of a nationally representative sample of 18–29-year-olds from the polling firm Generation Lab. This polling firm specializes in recruitment of this age cohort and conducts regular surveys of this population. Participants recruited from Generation Lab also received a \$75 honorarium for their participation. Generation Lab was used for this recruitment because there was a desire to engage participants that were not currently and/or never enrolled in postsecondary education. This represents roughly half of the 18–29 age cohort and it was felt to be necessary to have their voices represented.

<sup>2.</sup> This event was sponsored by the Deliberative Democracy Lab at Stanford University, Haas Center for Public Service at Stanford University, Deliberations.US, and the Berggruen Institute.

<sup>3.</sup> Shaping Our Future Final Report. Please see page 4 for the list of institutions: https://drive.google.com/file/d/1IV2rpBvfe2VW6a WrghNlCEphFARrz55o/view.

It is also worth noting that given the recruitment process as described, this was not a traditional Deliberative Poll with a representative sample of a population as the goal of this deliberation was to engage and draw samples within post-secondary institutions. Therefore, while the structure of the deliberation follows the method of Deliberative Polling, this event is an experiment of Deliberative Polling due to the lack of representative sample of the desired population.

The pre- and post-event surveys from Shaping Our Future asked demographic questions as well as asked participants to rate their agreement on a scale (0 = completely oppose to 100 = completely support) for 12 political proposals. These proposals dealt with climate change (1, 2), economic questions (3-6), and voting rights reform (7-12). Affective polarization was measured using a feeling thermometer that asks participants to rate their warmth towards various institutions (political parties, Congress, the President, etc.) (0 = cold to 100 = warm). Because the pre- and post-event surveys asked the same questions at two timepoints, we can track change over time by comparing participants' answers pre-event to their answers post-event (each participant was identified by a number and their data was anonymized).

Day 1 of Shaping Our Future discussed voting rights proposals (7-12), while Day 2 focused on climate change (1, 2) and economic questions (3-6). On each day, participants deliberated for about 3 hours; approximately 1.5 hours during small group discussions and 1.5 hours for the plenary session with experts.<sup>4</sup>

When participants logged onto the Stanford Online Deliberation Platform, they were asked to login with their name, email address, and screen name. Note that only the screen name is visible to other participants; the name and email address is used for attendance purposes. Once they login, participants are placed in a waiting room as other participants arrive. Participants are able to see how many other participants are waiting as well. When the session starts, participants are greeted with a welcome video to the platform that explains how the platform functions and the key buttons they will need to use to engage in the deliberations. This video is just under about 1 minute, after which, they are asked to introduce themselves. When introductions are completed, participants click 'move on' to start their first agenda item. The platform manages the deliberation agenda with a visible timer and the agenda is prominently featured with the policy proposal and pro and con arguments that are drawn from the vetted briefing materials. As participants queue up to speak, each speaker can speak for 45 seconds (this timing can be adjusted by the convenor). The microphone goes to the next person in the queue after 45 seconds. The platform will also nudge participants that have not spoken or have not spoken in a while. The platform randomly draws from a database of nudges that encourage participants to join the conversation. Example nudges include "what do you think of the last person's comments?" and "what arguments would you like to share with your group about this topic?". When the agenda is completed, participants are then asked to develop two questions for the expert panel plenary session. The platform guides the group to write their own individual questions, rank, and discuss the questions. The final two questions are submitted to the plenary session experts. At the plenary session, all participants in the event gather. The panel format is purely Q&A and

<sup>4.</sup> Shaping Our Future Final Report. Please see pages 3-4 for the list of plenary session experts. Shaping-our-Future-report-FINAL.pdf.

is restricted to the questions developed by the small groups. A live moderator is present to help keep time and ensure all questions are fully answered by the experts.

For Shaping Our Future, the participants on Day 1 had small groups discussions and ended the day with plenary sessions on voting rights. On Day 2, they started with small groups discussions on climate and social media, and ended the day with plenary sessions on climate and social media.

#### Results

#### Overall

We chose to focus our analysis on the 541 participants that indicated they had attended or were attending college, as otherwise the sample was not representative of the U.S. average for possession of a bachelor's degree. Among these 541, we found that a majority of proposals (seven of twelve or 58.3%) moderated—that is, moved towards the middle (5) of the 0–10 scale. See Figure 1. Because 0 on the scale was associated with the conservative response and 10 was associated with the liberal response, this means that a majority of proposals became less liberal over the course of the event, despite the homogeneity of the sample and its extreme lean towards the left.

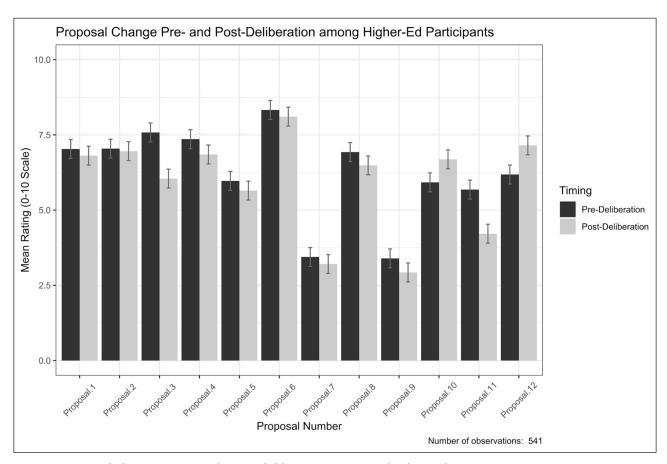


Figure 1: Proposal change pre- and post-deliberation among higher ed participants

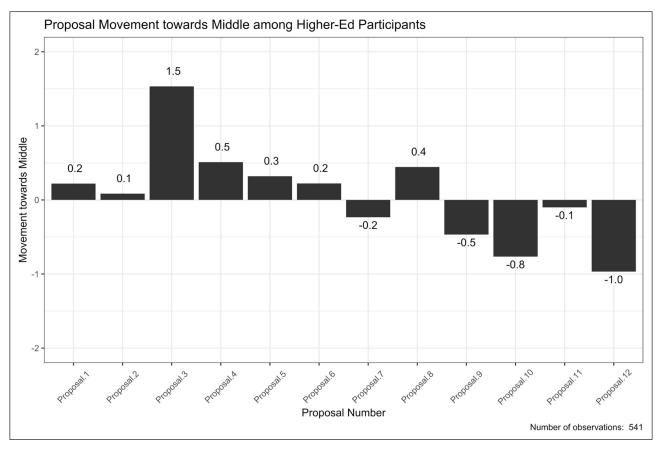


Figure 2: Proposal movement towards the middle among higher-ed participants

In Figure 2, using Welch's two-sided *t*-test, we found that three of these seven proposals (Proposal 3 [p = 0.00], Proposal 4 [p = 0.008], Proposal 8 [p = 0.02]) moderated in a statistically significant manner, with a fourth close to statistical significance (Proposal 5 [p = 0.11]). Proposals 3, 4, and 5 are all questions pertaining to economic issues. Proposal 3 states "The federal government should adopt a regional minimum wage that reflects differences in the cost of living and wages across the U.S," Proposal 4 states, "The federal government should increase the minimum wage to \$15/hour," and Proposal 5 states, "The federal government should give cash grants of \$1,000/month (also known as Universal Basic Income) to all adults at least 18-years-old." Proposal 8, meanwhile, is a voting rights proposal, which states, "We should elect the president through a national popular vote, in which the presidential candidate that receives the most votes nationwide wins." All these were placed on a 0-10 scale with 0 indicating complete disagreement and 10 indicating complete support.

This result tracks with the findings in other Deliberative Polls where liberal-identified participants are likelier to moderate on economic questions. In the America in One Room study from September 2019, of the "[s]even economic proposals [that] exhibited extreme partisan polarization... [s]everal of these were progressive proposals that lost support from the Democrats after deliberation" (Fishkin et al. 2021, p. 1475). Similarly, all four of the progressive economic proposals in this study (regional minimum wage, \$15 minimum wage, universal basic income, and a wealth tax [Proposal 6]) lost support after deliberation among this liberal-identified sample. See Appendix A for the breakdown by self-identified party; self-identified Democrats had the same movement away as the overall group. The moderation among multiple proposals in this group points to a positive finding for the efficacy of political discussions within homogeneous groups. While certain proposals did get more extreme (namely voting rights Proposals 9, 10, and 12, on winner-take-all, fractional proportional, and ranked-choice voting) it was not the case that all proposals saw movement towards the extreme, unlike what might have been predicted beforehand by the law of group polarization (Sunstein 2002).

Overall, 91% or 493 of the 541 participants moderated on at least one question over the course of the event, including 95% of the 328 self-identified Democrats, 86% of the 42 self-identified Republicans, and 94% of the 130 self-identified Independents. 79% of the 541 participants moderated on at least two of the proposals, including 82% of the 328 Democrats, 74% of the Republicans, and 80% of the Independents.

## **Group-Based**

In order to further evidence that homogeneous groups do not by law become more extreme, we also undertook group-based analysis. Since each participant was placed into a small group for each day's discussions, we sorted the groups to divide into groups that had at least one member that identified as some form of conservative, having rated themselves as a 6 or higher on a 0–10 scale (0 = completely liberal to 10 = completely conservative), and groups that did not have even a single member so identified. We termed these groups "diverse" and "liberal-only," respectively.

Recall that Day 1 of Shaping Our Future focused on voting rights (Proposals 7–12) and Day 2 focused on climate change and economic questions (Proposals 1–6). Participants were placed into different small groups for each day, so Figures 3–6 take into account the days.

From these findings, it is clear that having at least one member of a group that goes in identifying as non-liberal does affect moderation potential, and diverse groups had members more likely to moderate. However, even in groups without a single participant who identified as conservative, only certain questions became more extreme; again, the economic questions tended to remain stable or moderate over time (see Figures 4, 6).

When considering the timing of the events, it's interesting to note that there was greater movement within participants who were in the liberal-only groups on Day 2, as that was the day that the economic questions were discussed with experts during the event. Prior studies have found that exposure to differing opinions can reduce opinion polarization (Balietti et al. 2021), and this finding tracks with that assumption.

#### Affective Polarization

The last finding dealt with affective polarization. Each participant was asked in both the pre- and post-event survey to rate their warmth towards the Democratic and Republican Parties on a feeling thermometer (0 = cold to 100 = warm). By tracking change over time, we were able to study whether this event had meaningfully reduced affective polarization.

Both the self-identified Republicans and Democrats saw a decrease in affective polarization towards their respective opposing parties. The measure of affective polarization among the 328 Democrats declined from a

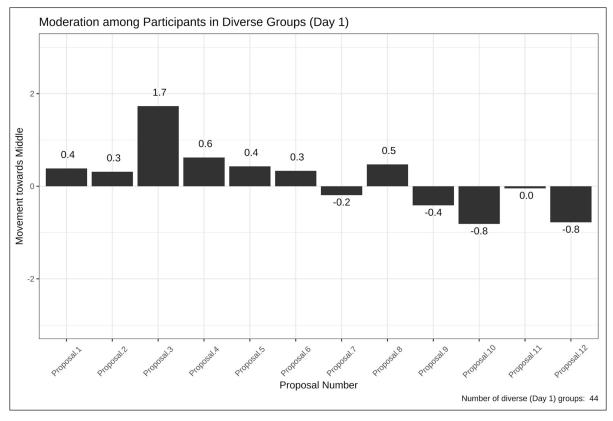


Figure 3: Moderation among Participants in Diverse Groups (Day 1)

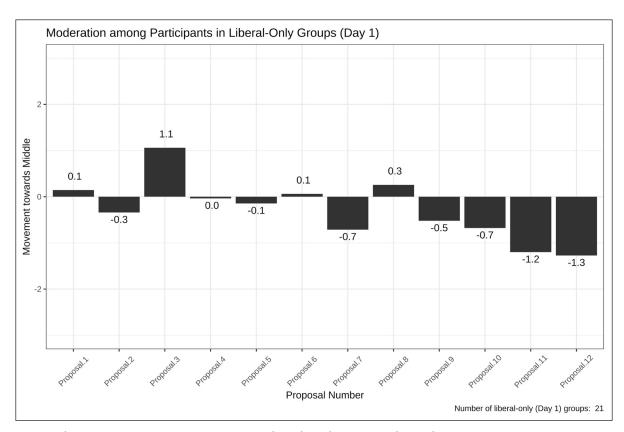


Figure 4: Moderation among Participants in Liberal-Only Groups (Day 1)

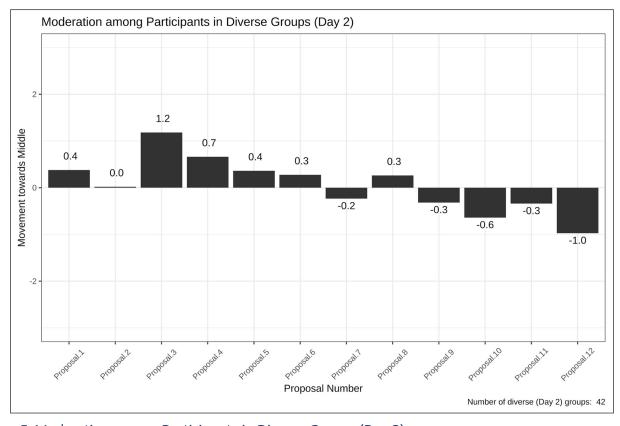


Figure 5: Moderation among Participants in Diverse Groups (Day 2)

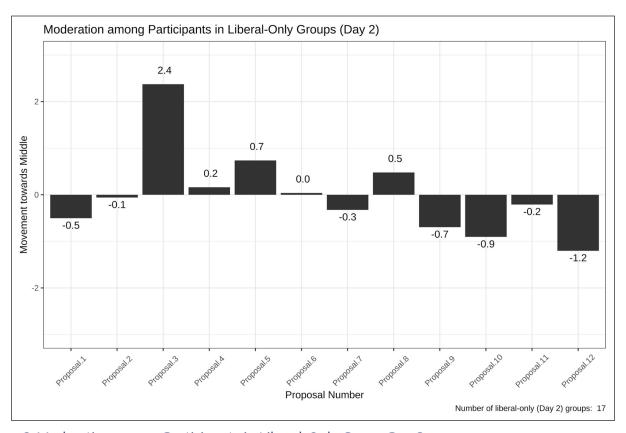


Figure 6: Moderation among Participants in Liberal-Only Group, Day 2

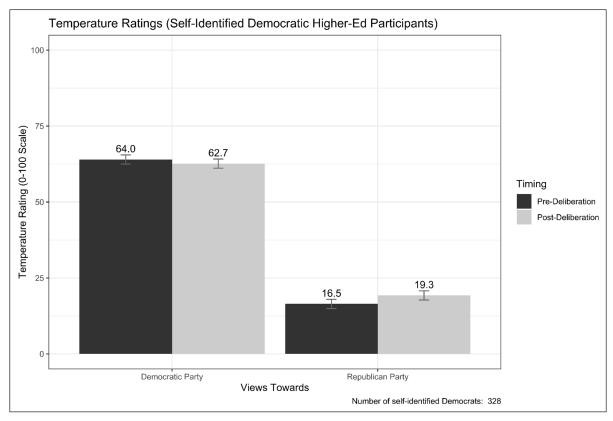


Figure 7: Temperature Ratings for Self-identified Democratic Higher-Ed Participants

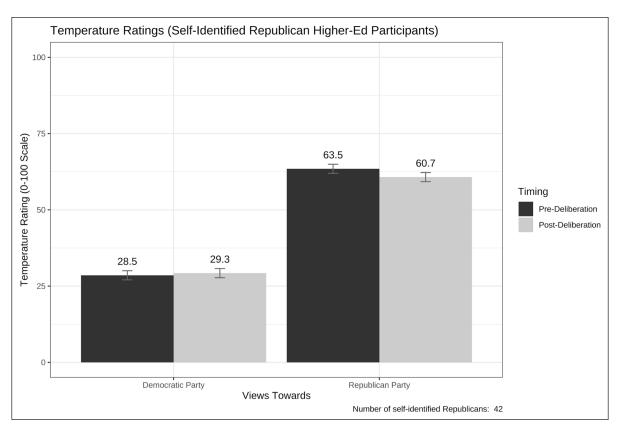


Figure 8: Temperature Ratings for Self-identified Republican Higher-Ed Participants

mean of 47.7 to 43.4, a difference of 4.3 points. After running a Welch's t-test, this 4.3 point difference was found to be statistically significant (p = 0.01). The measure of affective polarization among the 42 Republicans, meanwhile, also decreased from 34.9 to 31.5, a difference of 3.4 points. However, after running Welch's t-test, this difference was not statistically significant (p = 0.65)—likely in part because Welch's t-test takes sample size into account, and 42 participants likely skewed the metrics.

However, the statistically significant decrease in affective polarization by the Democrats in the sample points to the fact that affective polarization can be reduced, even within homogeneous groups. We also ran the analysis on participants who were in the liberal-only groups from either Day 1 or Day 2, and the participants in those groups did not show a meaningful difference in their reduction in affective polarization towards the Republican Party (Day 1 liberal-only group participants had a 2.9 point reduction in affective polarization; Day 2 liberal-only group participants had a 4.1 point reduction in affective polarization). This demonstrates that reductions in both ideological and affective polarization are possible within homogeneous settings.

We hypothesize that much of the movement in both the ideological and affective spheres is due to the unique setup of Deliberative Polling. The fact-based briefing materials give participants a chance to be exposed to opinions from all sides, regardless of whether their peers bring up salient points of view from opposing parties. The permissibility of a lack of consensus means that participants don't have to worry about changing their opinion to fit a social norm, as can be the danger with group polarization (Friedkin 1999; Sunstein 2002). And the moderation system ensures every individual has the chance to speak and be heard, which means it's more difficult for highly charismatic individuals to dominate the conversation, another potential pitfall in group discussions (Isenberg 1986; Sunstein 2002).

# Note and Impact of the Practicum

The Shaping Our Future event was created and implemented by a practicum course at Stanford University called Deliberative Democracy Practicum: Applying Deliberative Polling. This practicum course enrolled about a dozen students that created the agenda, pre and post surveys, briefing materials and videos, and most importantly, recruitment from all 38 post-secondary institutions. It was a herculean effort that yielded several hundred students from across the country to participate in this event.

This practicum in spring 2021 was not the first practicum at Stanford. The Deliberative Democracy Lab and the Haas Center for Public Service conducted their first practicum in 2014 and have since conducted one almost annually. After spring 2021, DDL and the Haas Center conducted a fall 2021 practicum, in collaboration with the American Academy of Arts and Sciences, for a national Deliberative Polling called Voices of the Future. In fall 2022, DDL and the Haas Center conducted a national practicum with several post-secondary institutions where the national practicum enrolled over 50 students nationally to jointly implement a national Deliberative Poll on the topics of campus expression and social media regulation. The success of the practicum has allowed students from across the country to participate in this hands-on experience. DDL and the Haas Center plan to grow this practicum to more students and more institutions.

## **Conclusions**

There are four major conclusions from this work. One, homogeneous groups have the ability to moderate their ideological opinions, given good conditions for discussion. Two, individuals that self-identify as liberal have particular moderation potential on issues pertaining to the economy. Three, exposure to opposing viewpoints, even in homogeneous settings, can potentially reduce affective polarization. And, lastly, there is great potential for using AI in supporting deliberation in higher education.

The findings around how the majority of proposals moderated over the course of the event demonstrate that the universal law of group polarization may not necessarily hold true when given the right conditions for discussion. 58% of the proposals moderated, including all the proposals pertaining to economic questions. This challenges the research that states such moderation is impossible within homogeneous samples (Sunstein 2002).

The results showed that all of the policy proposals related to economics moderated after deliberation, three of them in a statistically significant or nearly statistically significant manner; this follows prior research done that suggests that self-identified liberals have a particular ability to moderate on questions pertaining to the economy (Fishkin et al. 2021). Further research should be conducted to understand whether this pattern holds for all kinds of economic proposals, or whether there are subdivisions within this category that have higher moderation potential. However, it offers optimism for a category of discussion that may be conducive to wider discussions within the U.S., as there may be more middle ground on these topics as opposed to social issues, which tend to evoke more emotional responses (Hetherington 2009).

In addition, the finding that affective polarization can undergo reduction even when there are very few to no members of the other party to interact with is a positive finding that offers optimism against prior literature, which suggests that exposure to opposing views can increase polarization (Bail et al. 2018). Further research should be conducted to understand what differs between the presentation of the information in this manner as opposed to online in social media spheres, and how the bridges can be united to offer the most positive path forward for the future of discussions in America.

Lastly, the AI-assisted Stanford Online Deliberation Platform played a big role in the success of this deliberative event. First, technology assisted in managing the scale of the event. The event was able to simultaneously carry out small group deliberations for over 650 participants; where all participants had structured discussions with the same agenda and were presented the same information. In 2022, the Deliberative Democracy Lab carried out a global Deliberative Poll where over 6500 participants from 32 countries participated in deliberations. Second, a structured and safe environment. The design of the deliberation platform offers consistent, structured, and high-quality deliberation. The way the agenda is presented, prompts are offered, and design of the deliberation is the same for all participants and groups. With this in mind, participants have shown that they are comfortable sharing their personal stories and lived experiences. In a podcast series<sup>5</sup> following this experiment, the podcast hosts deep dive into the experiences of these participants from Shaping Our Future. The series highlights many stories of participants

<sup>5.</sup> Voices of Shaping Our Future: https://open.spotify.com/show/1Lu16c1TRzNnYmbCBD2AHK.

witnessing empathy being built in their small groups and the groups' cohesion being built with just several hours of interaction with each other. In one interview, Luke, a participant, reflected on a tense moment during a small group discussion. Luke noted that a participant had very critical comments about people who lived in rural communities. It stopped the group's conversation. Noting the silence, Luke entered the conversation by sharing that his own mother has lived her entire life in a rural community, and she has views that in fact he did not agree with. While conversations with his own mother are often difficult, Luke noted that over time conversations have improved, but he cannot blame her for her views, as they have been formed from her own lived experiences. Hearing Luke's contributions, another participant shared that she in fact was from a rural community, and she has difficulty navigating her daily life as she often disagrees with her peers. As participants shared their personal stories, Luke noted that the original participant that created the tense moment stepped in to express her deep gratitude for everyone's contributions. As the conversation continued, Luke felt empathy being built in his small group and he was amazed to see the growth in the small group's discussion. Not just with this experiment, but with countless others globally, participants that deliberate online with this deliberation platform wanted to exchange contact information with their group members and reconvene again because they built such strong connections with each other.

Lastly, this deliberation platform demonstrates how AI-based technology can support deliberation in a positive way. With the recent rapid increase in the use of AI-based technologies, there remain a lot of questions surrounding the positive and negative consequences of incorporating AI into higher education. With the success of this deliberative experiment, and the many others carried out in the US and globally, it is clear that this AI-assisted platform helps to alleviate polarization, provides a platform for people to discuss openly, and should be used to continue fostering deliberation at scale in higher education and beyond.

In sum, this paper demonstrated that college students showed immense moderation potential and affective depolarization, even given their homogeneity as a bloc within American politics and within this overwhelmingly liberal sample. These findings offer optimism for future research in homogeneous groups through understanding that group polarization, while a very worrisome phenomenon, can be avoided with the right precautionary measures. Through this paper, the findings show that in addition to developing the ability to engage constructively across differences, Deliberative Polling also contributes to the overall fostering of building knowledge, skills, and habits among participants. And, with the addition of the AI-assisted deliberation platform, any number of students across the many higher education institutions here and abroad can deliberate together. As a next step, let's incorporate deliberation and Deliberative Polling in classes across the country and allow students to practice what it means to create a deliberative society.

## References

Abramowitz, A. I., & Saunders, K. L. (2008). Is polarization a myth? *The Journal of Politics*, 70(2), 542–55. https://doi.org/10.1017/s0022381608080493

Abramowitz, A. I., & Webster, S. (2016). The rise of negative partisanship and the nationalization of U.S. elections in the 21<sup>st</sup> century. *Electoral Studies*, *41*, 12–22. https://doi.org/10.1016/j.electstud.2015.11.001

- Astin, A.W. (1977). The American freshman: National norms for fall 1976. Cooperative Institutional Research Program, Graduate School of Education, University of California. https://eric.ed.gov/?id=ED136660
- Bafumi, J., & Shapiro, R. Y. (2009). A new partisan voter. The Journal of Politics, 71(1), 1-24. https://doi. org/10.1017/s0022381608090014
- Bail, C. A., Argyle, L. P., Brown, T. W., Bumpus, J. P., Chen, H., Hunzaker, M. B. F., Lee, J., Mann, M., Merhout, F., & Volfovsky, A. (September 11, 2018). Exposure to opposing views on social media can increase political polarization. Proceedings of the National Academy of Sciences, 115(37), 9216-21. https://doi.org/10.1073/ pnas.1804840115
- Balietti, S., Getoor, L., Goldstein, D. G., & Watts, D. J. (December 28, 2021). Reducing opinion polarization: Effects of exposure to similar people with differing political views. Proceedings of the National Academy of Sciences, 118(52), e2112552118. https://doi.org/10.1073/pnas.2112552118
- Bekafigo, M. A., Stepanova, E. V., Eiler, B. A., Noguchi, K., & Ramsey, K. L. (2019). The effect of group polarization on opposition to Donald Trump. Political Psychology, 40(5), 1163-78. https://doi.org/10.1111/pops.12584
- Carcasson, M. (2019). From crisis to opportunity: Rethinking the civic role of universities in the face of wicked problems, hyper-partisanship, and truth decay. In W. V. Flores & K. S. Rogers (Eds.), Democracy, civic engagement, and citizenship in higher education: reclaiming our civic purpose (pp. 319-48). Lexington Books.
- DDL. (2021). Shaping our future. Center for Deliberative Democracy: Stanford University. https://deliberation.stanford.edu/deliberation-schools-shaping-our-future
- Eagan, K. (2016). The American freshman: Fifty-year trends, 1966-2015. Los Angeles: Higher Education Res Inst.https://www.heri.ucla.edu/monographs/50YearTrendsMonograph2016.pdf
- Fiorina, M. P., Abrams, S. A., & Pope, J. C. (April 2008). Polarization in the American public: Misconceptions and misreadings. The Journal of Politics, 70(2), 556-60. https://doi.org/10.1017/S002238160808050X
- Fishkin, J. S. (2003). Consulting the public through deliberative polling. Journal of Policy Analysis and Management, 22(1), 128-33.
- Fishkin, J., Siu, A., Diamond, L., & Bradburn, N. (November 2021). Is deliberation an antidote to extreme partisan polarization? Reflections on 'America in one room.' American Political Science Review, 115(4), 1464-81. https://doi.org/10.1017/S0003055421000642
- Friedkin, N. E. (1999). Choice shift and group polarization. American Sociological Review, 64(6), 856-75. https://doi.org/10.2307/2657407
- Hare, C., & Poole, K. T. (2014) The polarization of contemporary American politics. *Polity*, 46(3), 411–29.
- Hetherington, M. J. (April 2009). Review article: Putting polarization in perspective. British Journal of Political Science, 39(2), 413-48. https://doi.org/10.1017/S0007123408000501
- Isenberg, D. J. (1986). Group polarization: A critical review and meta-analysis. Journal of Personality and Social Psychology, 50(6), 1141. https://doi.org/10.1037/0022-3514.50.6.1141
- Iyengar, S., Lelkes, Y., Levendusky, M., Malhotra, N., & Westwood, S. J. (2019). The origins and consequences of affective polarization in the United States. Annual Review of Political Science, 22(1), 129-46. https://doi. org/10.1146/annurev-polisci-051117-073034

- Iyengar, S., & Westwood, S. J. (2015). Fear and loathing across party lines: New evidence on group polarization. *American Journal of Political Science*, *59*(3), 690–707.
- Longo, N. V., & Shaffer, T. J. (Eds.). (2019). Creating space for democracy: A primer on dialogue and deliberation in higher education. Stylus.
- Mallory, B. L., & Thomas, N. L. (2003). When the medium is the message: Promoting ethical action through democratic dialogue. Change: The Magazine of Higher Learning, 35(5), 10-17. https://doi. org/10.1080/00091380309604114
- Mason, L. (January 1, 2016). A cross-cutting calm: How social sorting drives affective polarization." Public Opinion Quarterly, 80(S1), 351-77. https://doi.org/10.1093/poq/nfw001
- Mason, L. (2013). The rise of uncivil agreement: Issue versus behavioral polarization in the American electorate. American Behavioral Scientist, 57(1), 140–59. https://doi.org/10.1177/0002764212463363
- Mason, L. (2015). 'I disrespectfully agree': The differential effects of partisan sorting on social and issue polarization. American Journal of Political Science, 59(1), 128-45. https://doi.org/10.1111/ajps.12089
- Shaffer, T. J. (2019). Democratic Professionals in Polarized Civic Life: The Challenge of Cultivating Civil Discourse in Community Development. Community Development. https://doi.org/10.1080/15575330.2019.16 42926
- Shaffer, T. J., Longo, N. V., Manosevitch, I., & Thomas, M. S. (Eds.). (2017). Deliberative pedagogy: Teaching and learning for democratic engagement. Michigan State University Press. https://msupress.org/9781611862492/ deliberative-pedagogy/
- Stolzenberg, E., Aragon, M., Romo, R., Crouch, V., McLennan, D., Eagan, K., & Kang, N. (2020). The American freshman: National norms fall 2019. Los Angeles: Higher Education Res Inst. https://www.heri.ucla.edu/ monographs/TheAmericanFreshman2019-Expanded.pdf
- Sunstein, C. R. (2002). The law of group polarization. Journal of Political Philosophy, 10(2), 175-95. https:// doi.org/10.1111/1467-9760.00148
- Thomas, N. L., & Levine, P. (2011). Deliberative democracy and higher education: Higher education's democratic mission. In J. Saltmarsh & M. Hartley (Eds.), "To serve a larger purpose": Engagement for democracy and the transformation of higher education (pp. 154–76.) Temple University Press.
- Thomas, N. L. (2015). The politics of learning for democracy. *Diversity & Democracy*, 18(4), 4–7.

## **Author Bios**

Yasmeena Khan, B.S., graduated from Stanford University with a degree in Symbolic Systems (human-centered artificial intelligence). While at Stanford, she performed research with the Deliberative Democracy Lab in the Center on Democracy, Development and the Rule of Law. Her scholarly interests include the study of group polarization within politics and the ethics of artificial intelligence. She is currently a consultant at McKinsey & Company in Washington D.C.

**Alice Siu** is Associate Director of the Deliberative Democracy Lab and Senior Research Scholar at the Center for Democracy, Development, and Rule of Law housed at the Freeman Spogli Institute at Stanford University. She received her Ph.D. from the Department of Communication at Stanford University, with a focus in political communication, deliberative democracy, and public opinion, and her B.A. degrees in Economics and Public Policy and M.A. degree in Political Science, also from Stanford. She is a lead collaborator on the Stanford Online Deliberation Platform, a partnership with the Crowdsourced Democracy Team at Stanford. On Deliberative Polling, she has advised policymakers and political leaders around the world. Her research interests in deliberative democracy include what happens inside deliberation, such as examining the effects of socio-economic class in deliberation, the quality of deliberation, and the quality of arguments in deliberation.

Acknowledgements: The authors thank Larry Diamond for his invaluable advice and guidance.

Alice Siu is the corresponding author and can be reached at asiu@stanford.edu.

# **Appendix**

Movement towards moderation on the significant proposals (Proposals 3, 4, and 8) was experienced by self-identified Democrats within the sample (those who answered "Democrat" to "What is your political party affiliation?"), as well as self-identified Republicans (those who answered "Republican" to "What is your political party affiliation?").

