

Political Polarization among Stanford and Korean students

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Abstract

This study investigates the degrees and relationships between ideological and affective polarization among university students in Korea and Stanford. Through surveys, we found that both Korean and Stanford students exhibit low levels of ideological polarization but show some degree of affective polarization, characterized differently in each group. In Korea, affective polarization manifests primarily as distrust, while Stanford students experience it as psychological distance towards supporters of the opposing party. Pearson correlation and regression analyses indicate that ideological polarization fosters affective polarization to some extent in both groups, with a slightly stronger effect among Stanford students. Our findings suggest that while distinct ideological polarization is not prominent, the ways students experience and relate affective polarization differ across cultural contexts. The study also highlights the need for further research with larger sample sizes and the inclusion of additional demographic factors to better understand the underlying causes and dynamics of political polarization among young adults.

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1 Introduction

Understanding the causes of political polarization is essential for addressing its negative impacts on democracy. Polarization is a barrier to discussion and negotiation, which are key to problem-solving in democratic society (Shin, 2023). We aim to gain insights into the causes of polarization by analyzing the key situations where polarization intensifies.

In particular, we examine the degree of polarization among university students. One motivation is that we are one of them, so we are interested in what our peers think and feel. A more important motivation is that university students will lead the next generation of democracy. By assessing their perspectives, we can better understand the challenges that democracy may face in the future. Through this approach, we hope to contribute to a better understanding of how to navigate and resolve the challenges posed by increasing political polarization.

That leads to our research questions, which are: what are the degrees of affective and ideological polarization among Stanford and Korean university students? How are the two types of polarization related to each other in each group of students?

In this paper, we attempt to quantify the degree of political polarization among Stanford and Korean students through survey. We found out that opposed to our initial hypotheses, the degree of political polarization is not high among both Stanford and Korean students. However, there was a correlation between ideological and affective polarization.

2 Literature Review

Political polarization refers to divergence of political ideas and attitudes towards extremes (ECPS, n.d.). The level of polarization in the US and East Asia have been discussed in existing literature. According to Pew Research Center, democrats and republicans in the US are more distant from each other now than they did in the past (Pew Research Center, 2014). Although the difference was small, the Korean public in 2004 was found to be more polarized than the average of East Asian countries (Dalton and Tanaka, 2007).

Political polarization can be divided into two categories: affective and ideological. Affective polarization is the gap between individuals' positive feelings toward their own political party and negative feelings toward the opposing party (Druckman and Levy, 2022).

The United States and South Korea have two-party systems, in which affective polarization can lead to hatred toward "the other" party. Ideological polarization is the extent to which political views are

diverged to extremes (Axelrod et al., 2021). For example, diverging views on issues such as government spending on welfare and immigration policies.

Existing literature addresses the relationship between the ideological and affective polarization. One study found that the more the political figures' ideological differences, the higher the affective polarization (Rogowski and Sutherland, 2016).

There is rich existing literature on the topic of affective and ideological polarization. However, their main interest is the general public. Instead, we were interested in how university students, who are our peers and also the next generation of leaders, are experiencing political polarization. In particular, since we are given the valuable opportunity to conduct the research on Stanford campus, we wanted to compare the political polarization of Stanford and Korean university students.

3 Argument

Here, we propose our hypotheses to answer the three research questions presented above.

1. What are the degrees of affective polarization and ideological polarization among Stanford and Korean university students?

In the last Korean presidential election, there was a distinctly divided voting pattern among people in their 20s based on gender. Therefore, we anticipate that there would be high degrees of ideological and affective polarization would be severe in Korea. 허석재 and 송진미, 2022

In contrast, the young population in California is expected to exhibit less polarization compared to the older demographic in the same region. Data suggests that approval of recent presidents and governors is more polarized among older Californians and less polarized among the younger population Eric McGhee et al., 2024. Therefore, the degree of polarization among the youth in California, which includes Stanford students, is likely to be less than Korea.

2. How are the two types of polarization related to each other in each group of students?

Based on the literature review, ideological polarization can influence or increase affective polarization. Nation has not been identified as a factor that alters this relationship. Therefore, we expect that for both groups, a high degree of ideological polarization would be associated with a high level of affective polarization.

4 Methodology

We tried to answer our research questions by conducting a survey targeting Stanford and Korean university students.

4.1 Survey questions

There were six questions on the survey. Three of them were designed to measure ideological polarization (questions 1, 3, 5), and the other three were on affective polarization (questions 2, 4, 6). For the three questions regarding ideological polarization, two were about redistribution of wealth, and one was about immigration.

They were all multiple choice questions, ranging from 1 (strongly agree) to 7 (strongly disagree). Both Stanford and Korean students were given the same questions in the same order. For question 3, students were asked about their respective nations.

Q1: The government spending on welfare needs to be increased.

Agree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Disagree

Q2: I would vote for the opposing political party, if I like the policy they suggest.

Agree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Disagree

Q3: A growing number of immigrants strengthens the American society.

Agree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Disagree

Q4: I feel psychologically distant to supporters of the opposing political party.

Agree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Disagree

Q5: The rich should pay more taxes than they do now.

Agree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Disagree

Q6: If the political party that you do not support wins an election, it would result in lasting harm to the country.

Agree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Disagree

Figure 1: Survey questions.

4.2 Data collection process

We conducted in-person surveys on campus for Stanford students (N=37). For Korean university students, we utilized an online form (N=50). Both undergraduate and graduate students were allowed to participate in the survey.

4.3 Data analysis methods

We analyze the responses in two ways: comparative analysis and correlation analysis. In comparative analysis, we show the overall trend or skew of the responses for each question, and compare the trends for Stanford and Korean students. We then attempt to find out the relationship between affective and ideological polarization. It is done by correlation analysis, in which we analyse the relationship between the responses to the questions.

4.3.1 Comparative analysis methods

We plot the responses as two types of graphs for comparative analysis: stacked bar charts and overlapping density plots (area chart).

Stacked bar charts illustrate the distribution of responses across the seven categories (Strongly Agree, Agree, Slightly Agree, Neutral, Slightly Disagree, Disagree, and Strongly Disagree). Each bar represents a question, and the segments within each bar represent the counts of respondents who selected each answer option.

Area charts show the distribution of responses from both Korean and Stanford students. This allows for a direct comparison of the mean tendencies and spreads of responses between the two groups.

4.3.2 Correlation analysis methods

We then visualized responses in two ways for correlation analysis: Pearson correlation heatmap and regression lines.

We used **Pearson correlation heatmaps** to show the calculated Pearson correlation coefficients, which reflects the correlation between the responses to the questions. That is, if a respondent agrees with a question, how likely are they to also agree with other questions? This is done separately for Stanford and Korean respondents, and the results are compared.

Regression lines were drawn based on the calculated affective and ideological polarization scores for each student. The lines show whether or not the ideological polarization influences affective polarization for the Korean and Stanford students, an argument we found from the literature review.

5 Data analysis

5.1 Comparative analysis

5.1.1 Stacked bar charts

The two following graphs show an overview of responses from Korean and Stanford students. An in-depth analysis is presented in the next section in which we investigate responses to each question separately.

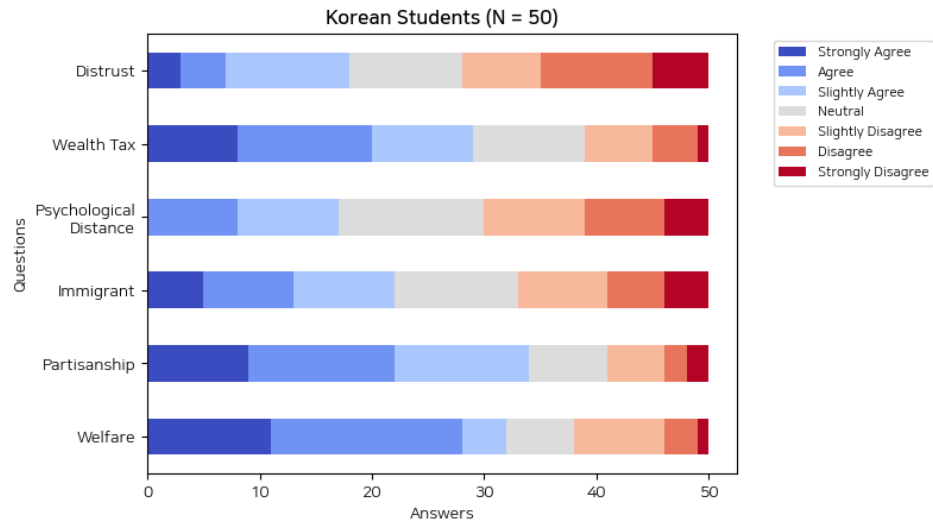


Figure 2.1: Bar chart for Korean students.

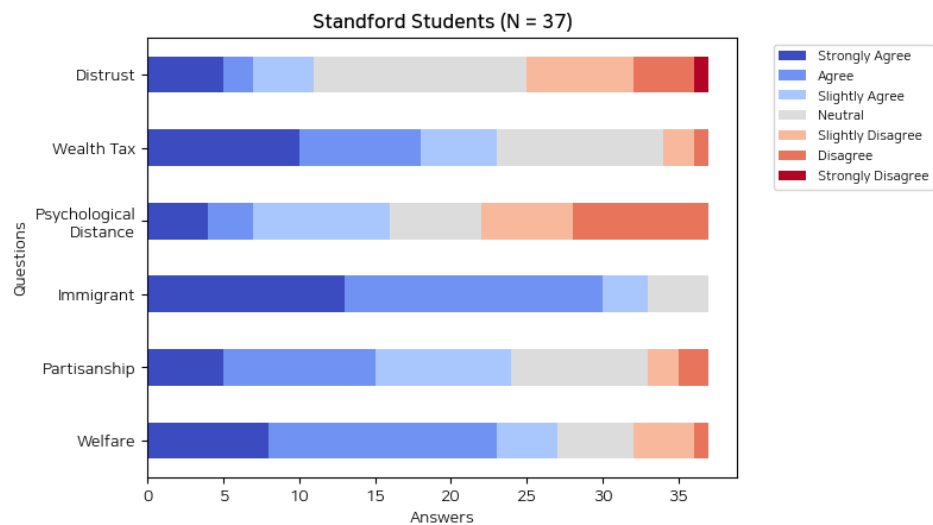


Figure 2.2: Bar chart for Stanford students.

5.1.2 Area charts

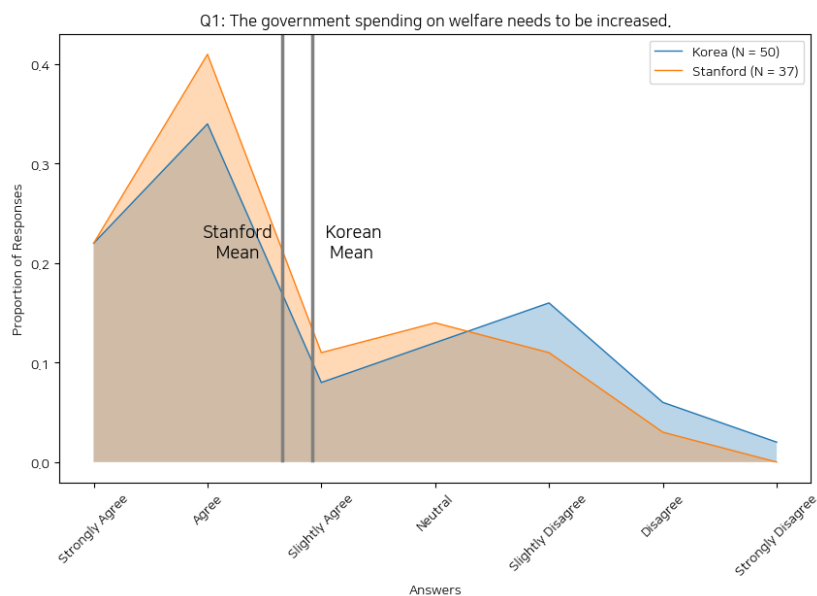


Figure 3.1: Area chart for question 1.

Question 1 asks whether or not students think the government should allocate more budget on welfare. Through this question, we aimed to assess the degree of ideological polarization regarding welfare issues.

In both countries, students lean more towards progressive policies that favor increased welfare spending. The distribution of the responses are similar among Stanford and Korean students.

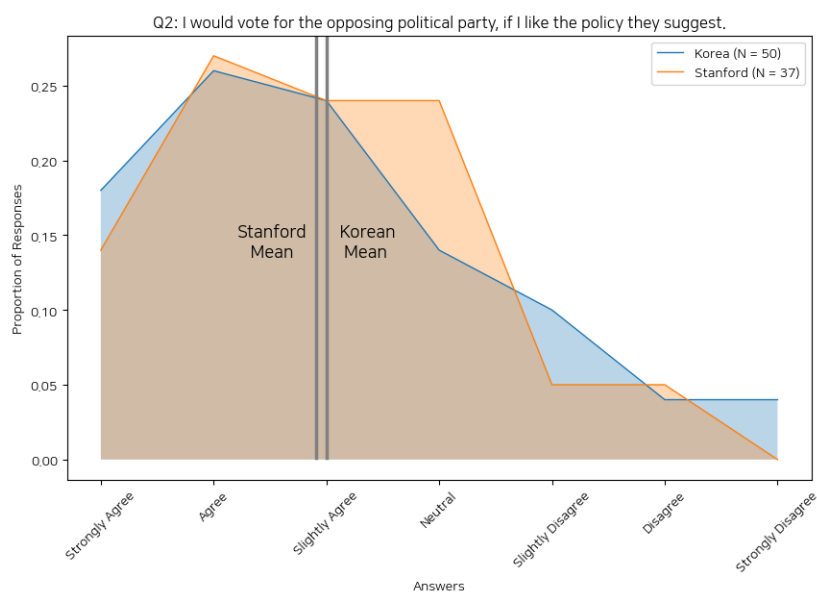


Figure 3.2: Area chart for question 2.

Question 2 can show whether people have strong partisanship toward the political party they

support. Those with strong partisanship and negative feelings toward the opposing political party can let these biases influence their decision-making, even when it contradicts their own interests. Our assumption was that affective polarization can lead individuals to reject politicians who suggest policies they agree with, simply because they are associated with the opposing party.

In both countries, the majority of students said they would vote for the opposing political party if they like the policy they suggest. The result from this question implies that the degree of affective polarization may be low in the two countries.

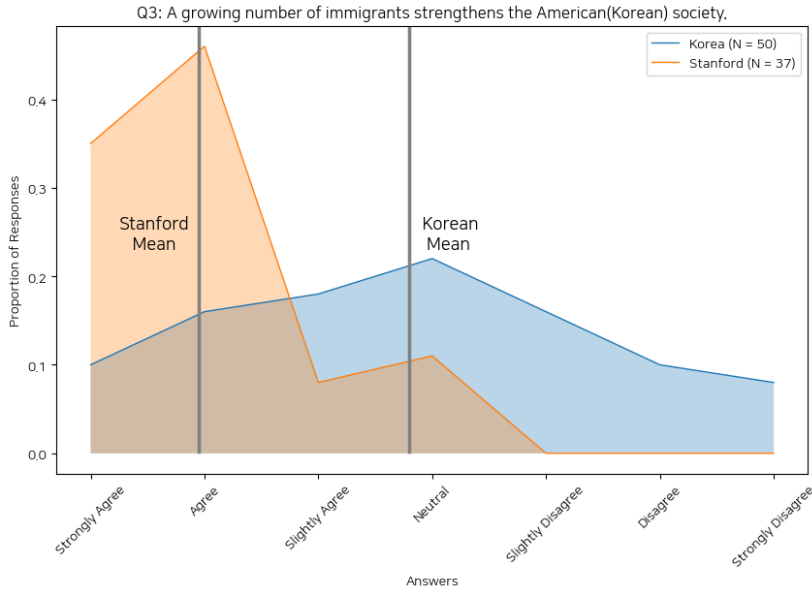


Figure 3.3: Area chart for question 3.

Question 3 asks students’ opinion on the impact of immigrants. The results reveal a distinct difference between Stanford and Korean university students. Stanford students mostly expressed agreement with the statement, and there was no disagreement at all. In contrast, the responses from Korean students resemble a normal distribution, ranging from strong agreement to strong disagreement.

While none of the two groups show ideological polarization on this issue, Stanford students seem to have a consensus on the positive impacts of immigrants. On the other hand, Korean students show no consensus on this issue. The difference could stem from the fact that the US is a “nation of immigrants”, while Korean students come from mostly monoethnic society with limited exposure to immigrants.

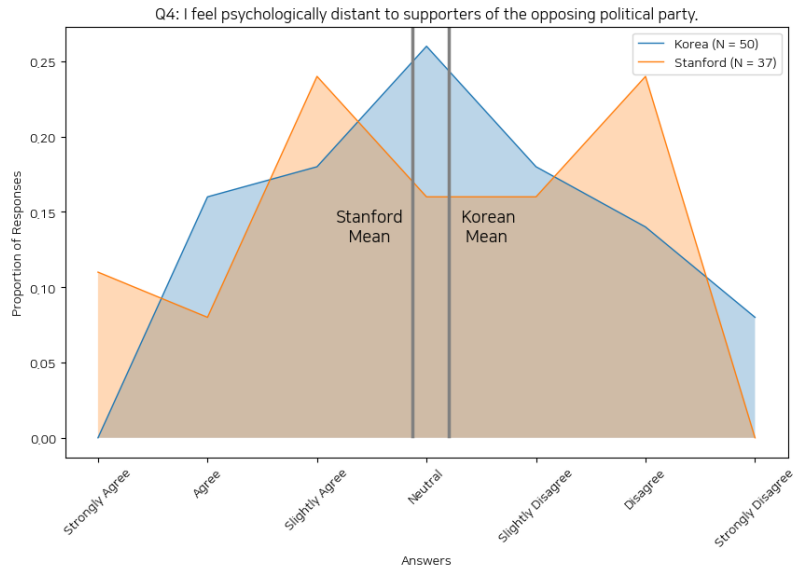


Figure 3.4: Area chart for question 4.

Question 4 investigates the psychological distance students feel toward supporters of the opposing political party. Psychological distance can be shown as feelings of distrust or dislike toward the supporters of the opposing party. It is also a key component of affective polarization because it can deepen partisan divides and hinder productive political discourse.

Stanford students showed distinct opinion differences, with responses forming two peaks in agreement and disagreement. On the other hand, Korean students' responses followed a normal distribution, peaking at neutral.

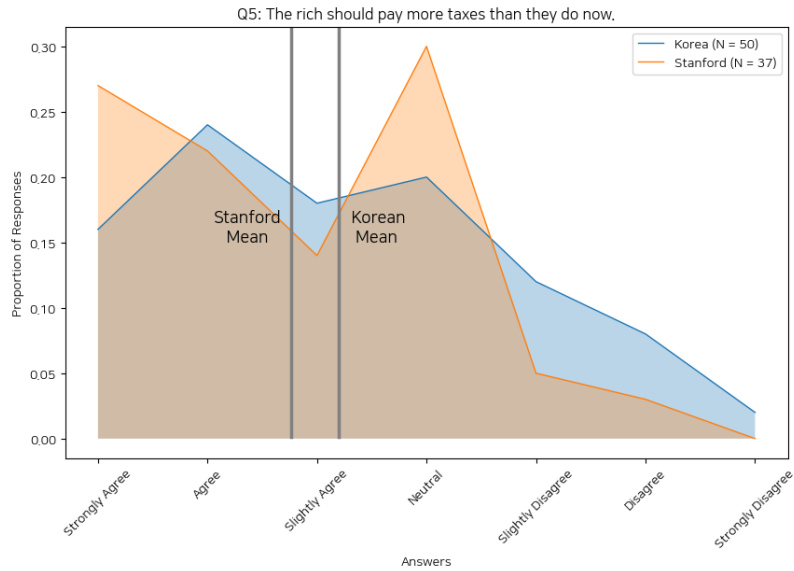


Figure 3.5: Area chart for question 5.

Question 5 examines the ideological differences regarding the wealth tax. This question was de-

signed to investigate whether respondents have polarized or non-polarized opinions on the issue of taxation.

Stanford students generally agreed with this statement, but there were two peaks at "Strongly agree" and "Neutral". Korean students also mostly agreed, but had fewer "Neutral" and more disagreement than Stanford students.

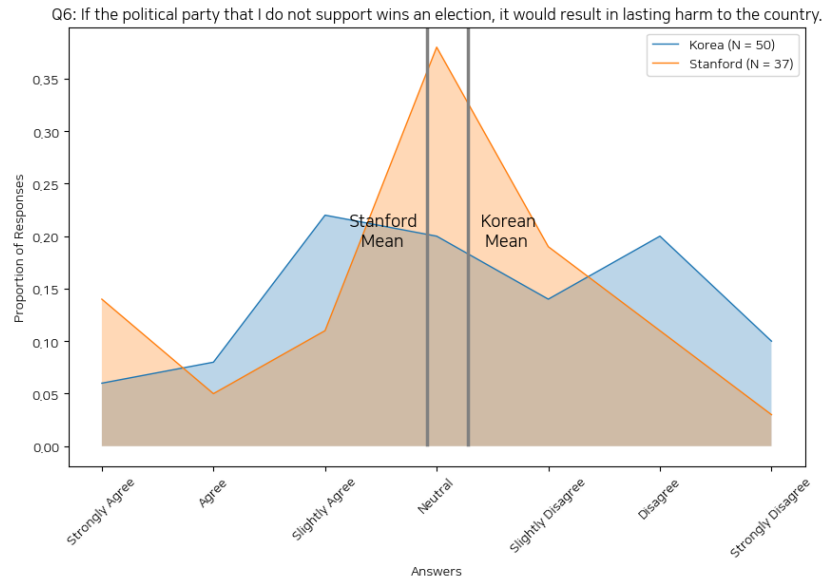


Figure 3.6: Area chart for question 6.

Finally, question 6 reveals partisanship and distrust toward the opposing party. Individuals who agree with this statement views the opposing party’s policies and leadership as harmful. This viewpoint highlights an ‘us versus them’ mentality, which often contributes to heightened affective polarization.

Stanford students predominantly chose neutral responses, followed by a slight inclination to disagree, with relatively few agreeing. In contrast, Korean students’ responses were more evenly distributed, with two small peaks at agreement and disagreement.

5.2 Correlation analysis

5.2.1 Heatmap

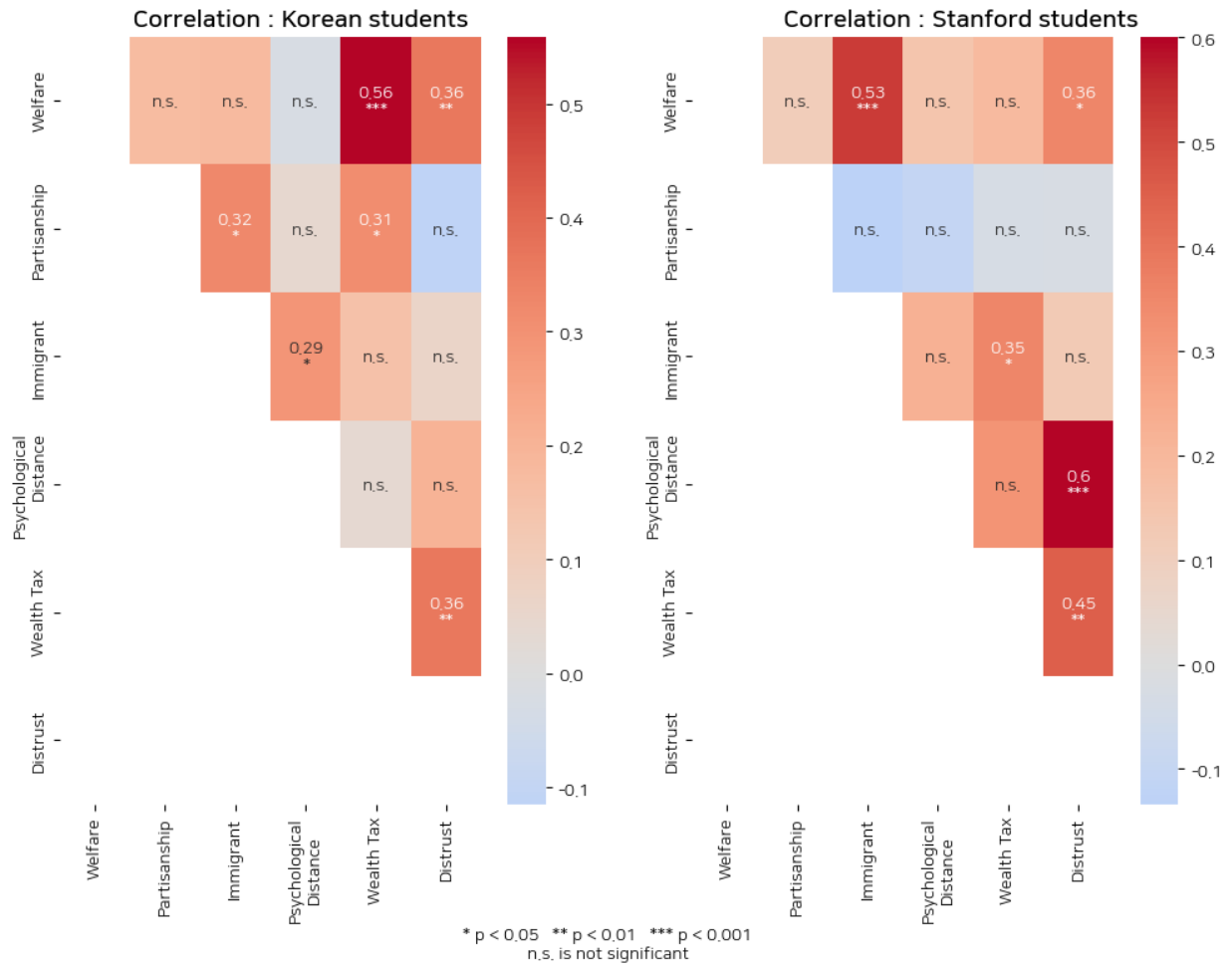


Figure 4.1: Heatmap showing correlation between responses for each question from Korean and Stanford students.

In Figure 4.1, Stanford and Korean students' responses show different correlation trends. For Korean students, there is a strong correlation between responses to welfare and wealth tax questions. This suggests that a Korean student who agrees with increasing government spending on welfare is also likely to agree that the rich needs to pay more tax.

On the other hand, Stanford students show no such correlation. Instead, responses to welfare is correlated to immigrants. A Stanford student who agrees with increasing government spending on welfare does not necessarily agree that the rich should pay more tax, unlike Korean students.

Stanford students also show a correlation between psychological distance and distrust. A Stanford student who feels psychologically distant to supporters of the opposite party is likely to also distrust

that party. This was not observed from Korean students.

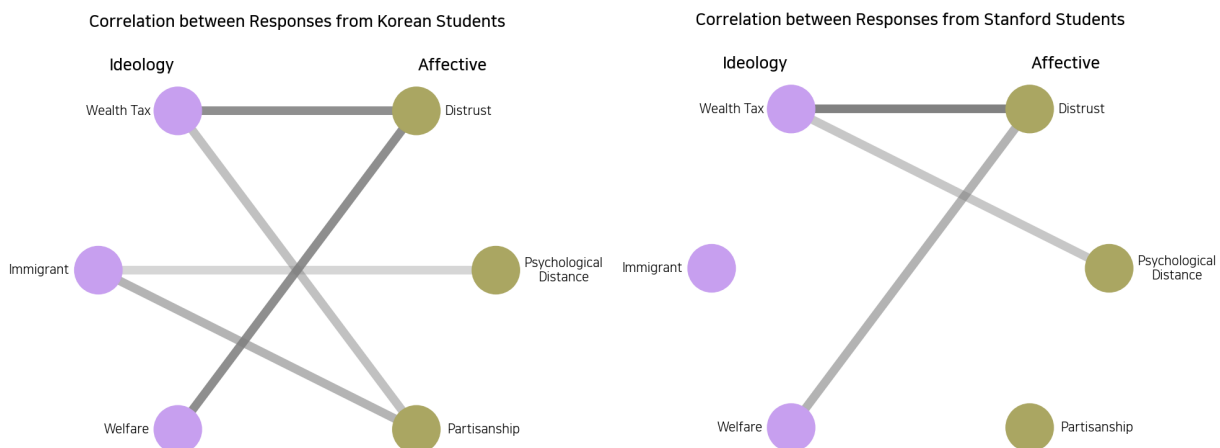


Figure 4.2: Diagram showing correlation between responses for each question from Korean and Stanford students. They depict the same information as the heatmap, except the correlations from the same category are omitted.

We investigated the correlation of responses that indicate the ideological and affective polarization for Stanford and Korean students, respectively. Referring to the literature that states that ideological polarization can foster affective polarization, we could see such relation through the Pearson correlation and regression method.

From Figure 4.2, wealth tax and welfare issues from ideological polarization side are related to distrust on the affective polarization side. Such phenomenon is common to both groups of students. However, this result may not lead to prove the causal relationship that is stated in the literature.

5.2.2 Regression line

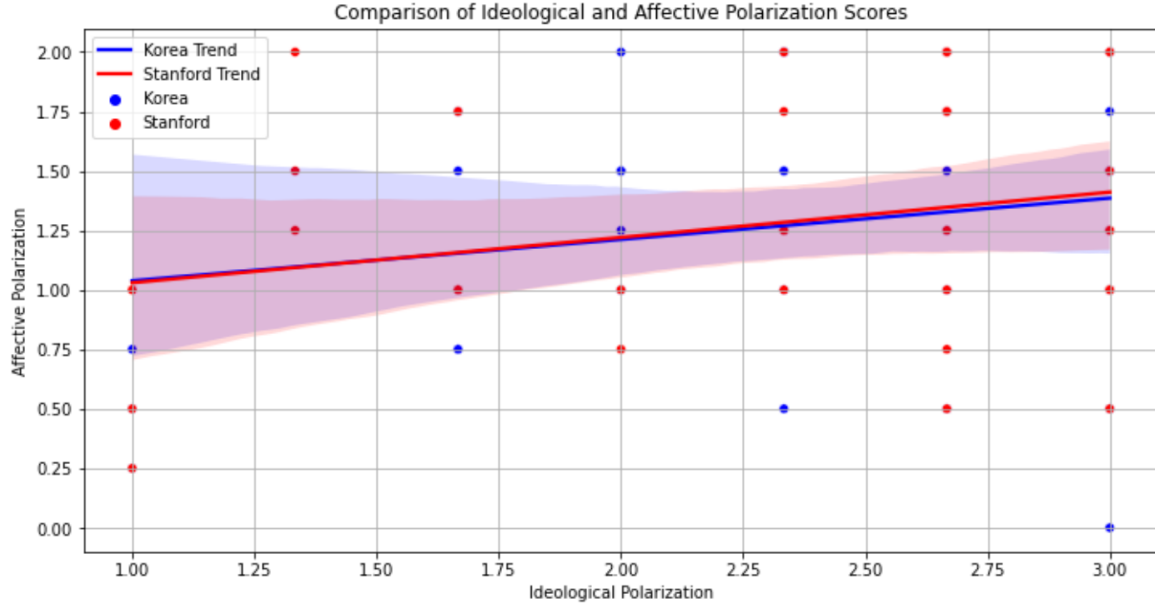


Figure 4.3: Regression showing correlation between ideological and affective polarization from Korean and Stanford students.

In Figure 4.3, we again see that ideological polarization is related to affective polarization to some extent, for both Stanford and Korean students. The gradient of the regression line for Korean students is approximately 0.17, while for Stanford students it is approximately 0.19. Positive gradients suggest that higher levels of ideological polarization are associated with higher levels of affective polarization. For both groups, an increase in ideological polarization is associated with an increase in affective polarization, although the effect is slightly stronger for Stanford students than Korean students.

6 Conclusion

6.1 Answering research questions

We answer our research questions as follows:

1. **What are the degrees of affective polarization and ideological polarization among Stanford and Korean university students?**

For Korean students, distrust is observed as the main feature of affective polarization. The degree of ideological polarization is not high, but the patterns of responses are different from that of Stanford students.

For Stanford students, psychological distance to supporters of opposing party is observed as the main feature of affective polarization. The degree of ideological polarization is again not high,

and they even show consensus regarding positive effects of immigrants.

In summary, distinct ideological polarization is not observed in both nations. On the other hand, there are indications of some level of affective polarization. However, they exhibit different features of affective polarization.

2. How are the two types of polarization related to each other in each group of students?

By employing Pearson correlation analysis and the regression line method, we found that ideological polarization fosters affective polarization to some extent among both Stanford and Korean students. Based on Social Identity Theory (SIT) and the results of the correlation analysis, it was observed that Korean students tend to associate welfare and taxation, and these two factors play a significant role in promoting affective polarization.

For Stanford students, welfare and immigration are more closely associated, and similar to the Korean context, welfare is a primary factor in fostering affective polarization. Notably, the relationship between ideological and affective polarization was found to be stronger among Stanford students compared to their Korean counterparts.

Some implications of this research is as follows. In order to find the main factor that leads to high degree of political polarization among students, we should investigate the ideological issues specific to the cultural or historical context of the society.

6.2 Limitations

Due to the necessity of conducting in-person surveys with Stanford students, only 37 participants could be included. This small number of samples led to several issues:

1. **Wide confidence intervals:** the confidence intervals were wide and high degree of uncertainty was indicated in the estimates. This reduces the precision and reliability of the results.
2. **High variability:** the small sample size increased the variability of the results. Sample may not be representative of the entire populations of Stanford or Korean students.

Additionally, due to the inability to obtain the IRB approval, we could not collect important personal data from the survey participants that could be key factors in polarization. Those factors include gender, political affiliation, exact age, education level, and income. Moreover, although we randomly selected survey participants, there is a possibility that the participants were biased and do not represent their respective groups.

If this research is conducted again at a larger scale with more respondents, we may be able to find out the core ideological issues that divide young students to two extremes. We may also be able to find out a stronger relation between ideological and affective polarization, contributing to overcoming political polarization among the young generation.

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