PUEY UNGPHAKORN INSTITUTE
FOR ECONOMIC RESEARCH

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by

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December 2022
(updated) September 2024
Discussion Paper
No. 194

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June 13, 2024

Abstract

In high-conflict, politically divided, and democratically fragile environments like Thailand, affective polarization and social distrust can undermine the foundations of a healthy democracy and hinder economic development. We conducted an original survey in 2021 ($N = 2{,}016$) during intense political turmoil, uncovering deep out-group animosity between political camps. The cleavages are particularly prominent, revealing distrust and clashes in social values between generations. Our findings indicate that perceived, rather than actual, ideological differences significantly drive out-group animosity. Individuals with extreme political identities who get news from one-sided media outlets that align with their political beliefs—i.e., echo chambers—tend to exaggerate polarization and exhibit greater negative affect and distrust toward the opposite group. Our results show that out-group animosity and the impact of perceived differences are particularly strong in the political domain and could significantly affect the policymaking process.

Keywords: perceived polarization, out-group animosity, media bias, echo chamber
JEL Codes: D72, D74, P48, Z13

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Competing interests: The authors declare none. This research received no specific grant from any funding agency, commercial or not-for-profit sectors.

Acknowledgement: We would like to thank two anonymous reviewers for their insightful comments and suggestions. This paper also benefits from discussions with Krislert Samphantharak, Sommarat Chantarat, Nada Wasi, Stithorn Thananithichot, Thanee Chaiwat, Chayanit Poonyarat, Wasimon Tosuratana, Rongbo Jin, Mary Pimrapaat Dusadeeisariyakul, and comments from seminar participants at PIER Research Exchange. We would also like to thank survey respondents as well as those who generously assisted in the dissemination of our survey, without whom this research project would not have been possible. All errors remain our own.

1 Introduction

Affective polarization (AP) refers to the phenomenon where individuals feel more negative emotions towards those in a rival group (the "out-group") compared to those in their own group (the "in-group"). These negative feelings can take various forms, such as avoiding social contact or forming relationships with out-group members (Harteveld et al., 2022). AP has been shown to have significant negative consequences for society, including undermining the cooperation among different ideological groups (Hetherington and Rudolph, 2015), eroding trust between groups (Lee, 2022), and dividing communities (Carlin and Love, 2013).

For this reason, a significant amount of work has been done in studying AP and its determinants. A few key factors have been consistently identified as factors associated with AP, including partisan identity (Tajfel and Turner, 2004) and media consumption patterns (see, for example, Iyengar et al., 2019; Lu et al., 2020).

In addition to these factors, false polarization—the phenomenon where individuals overestimate the ideological differences between the in-group and the out-group—has been shown to be a strong predictor of AP as well. In an experimental setting, Lee (2022) shows that the belief that members of society share common values fosters social trust, but perceptions of partisan divisions and polarization diminish individuals' trust in each other. Chambers and Melnyk (2006) find that perceptions of disagreement between groups predict negative evaluations of out-group members (e.g. disliking, trait stereotyping).

It is essential to consider that these studies on false polarization focus on the perceived difference between the *average* ideological position of the in-group and the out-group. Mason (2015) argues that one additional factor needs to be taken into account: the individual's position relative to the perceived in-group average. As an example, an individual might identify as a liberal but actually hold conservative values. He or she would perceive that the average conservative is more extreme than they are and feel less connected to the in-group. These "cross-cutting" individuals are expected to have lower levels of AP than those who are more ideologically aligned with their in-group. This, in essence, suggests that what determines AP is not necessarily false polarization, but the *perceived ideological difference* between the individual's position and the perceived out-group average.

The main goal of this paper is to investigate factors—notably perceived ideological differences and media consumption—that affect AP in the context of Thailand.

Using a rich set of data from an original survey conducted in August 2021, we propose another measure of false polarization that measures the perceived difference between the individual's *own* position and the perceived out-group average (i.e. the "perceived ideological difference"). We then show that this measure, in addition to political extremity and media consumption patterns, is a strong predictor of AP under several measures. Our alternative measures of AP indicate that this negative affect between groups will have consequential impacts in political domains.

Thailand is a particularly interesting case study of the impact that media and ideological differences have on affective polarization for several reasons. First, at least up until the time of the survey, Thailand has quite clear political polarization boundaries, with the "Red/Orange" and "Yellow" shirts representing the two main political factions.[1] Second, Thailand has a particularly interesting media landscape, where traditional media faces strict censorship. However, the widespread adoption of the internet and social media has created a platform that enables both media outlets and individuals to express their opinions more freely. Social media and online news outlets have become a significant source of political information for many Thais. This has led to the rise of echo chambers and filter bubbles, where individuals are exposed to information that aligns with their existing beliefs, potentially exacerbating political polarization.

This paper contributes to the literature in several ways. First, while most studies on AP have been conducted in the context of countries with more developed economies and democracies, particularly the United States, very little is known about AP in developing and semi-democratic countries. This paper aims to fill this gap by focusing on Thailand, a country with fragile democracy and obvious political polarization. Second, we contribute to the literature by proposing the use of "perceived ideological difference," an alternative measure that takes into account both false polarization and individual political alignment with respect to the out-group. This measure is, in some ways, more intuitive and straightforward, combining elements of existing measures such as "false polarization" (Westfall et al., 2015) and "sorting" (Mason, 2015).

The rest of the paper is organized as follows. Section 2 reviews relevant literature. Section 3 provides a summary of political polarization and the role of media in Thailand. Section 4 describes the survey, main variables of interest, and the model used in this study. Section 5 presents descriptive statistics as well as brief discussions on the survey results. Section 6 presents the main results

[1] However, the "Red/Orange" coalition between the Pheu Thai Party and Move Forward Party (MFP) ceased to exist following the 2023 election, when Pheu Thai joined forces with the "Yellow" conservative royalists and military-aligned groups to establish a new government. While maintaining its populist policy stance, Pheu Thai has also effectively rebranded itself as a "neo-conservative" party especially on contentious issues such as constitutional and monarchy reforms.

of the paper as well as robustness checks. Finally, section 7 discusses the overall findings, lessons learned, and opportunities for further studies.

2 Literature review

We divide literature review into four parts. First, we discuss literature related to the relationship between false polarization and AP. To do this, we first delve into different theoretical perspectives on the causal relationship direction between false polarization and AP. We then present empirical evidence supporting each direction. Secondly, we examine the influence of media on both AP and false polarization. Next, we review literature on the role of partisan identity in driving AP. Lastly, while the majority of research on AP has been conducted in the United States, we discuss literature on AP and its connection to ideological divisions in other contexts.

2.1 Relationship between false polarization and out-group animosity

While there is an abundance of research documenting the rise in false polarization and AP (Iyengar et al., 2012; Mason, 2015; Abramowitz and Webster, 2018), the causal relationship between the two remains a topic of ongoing research and debate.

On one hand, some theories suggest that false polarization may drive AP. For example, Stone (2020) argues that feelings are based on our beliefs about the other party. Cognitive errors often cause us to interpret the other party's actions as more self-serving than they truly are, which can lead to increasingly negative feelings over time. This process tends to snowball, amplifying bias-driven hostility.

On the other hand, Information Seeking Theory and Processing Theory suggest that AP can lead to false polarization. In particular, individuals may engage in information-seeking behavior to serve their cognitive and affect needs (Wilson, 1981). Based on their affect, individuals may selectively expose themselves to a preferred channel of information and filter only information that fits their beliefs. Moreover, negative affects can create perverse incentive for individuals to selectively share posts that are more negative about the out-group (Rathje et al., 2021), resulting in a greater spread of negative information about the out-group and reinforcing biases.

Given the competing theories regarding the direction of causality between false polarization and AP, we turn to empirical evidence to understand the relationship between the two. A number of studies done in the U.S. have established causality through experiments, showing that clos-

ing the gap between perceived and actual ideological distances can reduce out-group animosity. For instance, Webster and Abramowitz (2017) conduct an experiment by asking participants about their feelings (using a "feeling thermometer") toward an opposing party's hypothetical candidate. By varying the extremity of the candidate's position, they find that participants' feelings are more negative when the candidate is perceived to be more extreme. In another survey experiment that manipulates the perception of polarization among Americans through different news articles, Lee (2022) finds that the perception of polarization could reduce trust in the society. Lastly, a recent large-scale experiment by Duong et al. (2023) shows that perception gap interventions (i.e., showing that the out-group is not as extreme as perceived) are effective in reducing AP, especially when the evidence is endorsed by members of the in-group.

There are fewer studies that show causality in the reverse direction, where AP leads to false polarization or information updating. Based on two sets of nationally representative panel data in 1992–1996 and 2008–2009, Armaly and Enders (2021) provide evidence that AP Granger-causes perceived polarization, rather than the other way around. However, this finding needs to be interpreted with caution, as the authors do not control for *current* perceived polarization. In another study, Druckman et al. (2021) find that respondents' affects before COVID-19 influenced their interpretation of information and belief updating. Those with strong animosity toward the other party attribute the U.S. government's response to COVID-19 to the Trump administration, viewing it as a partisan issue. While not directly showing how AP influences perception gap, the study highlights how affects impact belief updating.

Overall, while the evidence proving the causal relationship in the direction of false polarization to AP is clear and straightforward, empirical evidence for the reverse causality remains limited. Challenges in manipulating feelings without affecting information may have prevented experimental studies from establishing a clear causal relationship. Our study takes the stance that perceived polarization leads to negative affects based on clear empirical evidence, while also acknowledging the possibility of reverse causality, which could impact the interpretation of our estimates.

2.2 The role of media

In recent years, the influence of partisan media, the internet, and social media on polarization has become increasingly evident. Driven by the need for engagement, media outlets often sensationalize news, emphasizing division and extremism. This is further exacerbated by political leaders who may find it advantageous to portray themselves as more extreme (Mason, 2015). The cycle

of sensationalism and extremism intensifies polarization, potentially leading to electoral outcomes or political developments that hinder the nation's progress (Bernhardt et al., 2008).

Moreover, Yang et al. (2016) find that online news consumption, which allows for the curation of personalized content from numerous sources, is correlated with higher perceived polarization. Likewise, social media algorithms reinforce users' existing biases by presenting content they have previously liked or interacted with, thereby contributing to opinion polarization (Lu et al., 2020).

As a result, studies have shown that an increase in AP is associated with the penetration of the internet and news consumption on social media. For example, Lelkes et al. (2017) and Levendusky (2013) have demonstrated that access to broadband internet correlates with higher intergroup hostility and individuals within echo chambers exhibit more hostility toward members of the out-group. In particular, social media usage is positively associated with higher AP in the U.S. and Japan, while the use of messaging apps, which lends itself to more openness, is negatively associated with AP (Sangwon Lee and Yamamoto, 2022).

In an experimental study during the highly polarized 2012 U.S. presidential election, Lau et al. (2017) manipulate media sources and the tones of political advertisements shown to participants. They find that participants exposed to ideologically diverse but negative political ads are more hostile towards candidates than participants exposed to more traditional ideologically neutral media.

In conclusion, media platforms play a dual role, shaping both perceived and affective polarization. This is achieved through the interplay of individual beliefs, selective exposure, and sensationalized content.

2.3 Partisan identity as the origin of AP

Another primary driver of AP, as discussed in the literature, is partisan identity. This identity is rooted in Social Identity Theory (Tajfel and Turner, 2004), which posits that a person's sense of belonging to various groups shapes their perceptions and behaviors. In-group biases (favorable attitudes toward one's own group) and out-group biases (negative attitudes toward other groups) emerge based on this sense of group membership. Stronger partisan identities—whether reinforced by actual ideological differences or perceived ideological differences with the out-group—can lead to heightened AP as measured by negative feelings, biases, and excessive stereotyping of the out-group.

Building upon Social Identity Theory, Mason (2015) argues that partisan sorting—a phenomenon where voters align themselves with parties based on ideology—strengthens partisan identity over

time. As ideological alignment with a party becomes more salient, negative affects against the out-group, such as anger or bias, also intensify.

2.4 Affective Polarization in other contexts

A number of recent studies have examined the relationship between AP and various socioeconomic factors in cross-country settings. Using cross-country trend analysis in 12 OECD countries over the past four decades, (Boxell et al., 2024) find non-white shares and elite polarization to have a positive and significant association with AP, while inequality, trade share of GDP, and internet penetration do not show a significant association with AP. Wagner (2021) uses Comparative Study of Electoral Systems (CSES) data that covers 55 countries with a variety in income, inequality, and democratic development, and finds that AP is associated with low satisfaction with democracy and high levels of political turnout. On the other hand, AP is particularly high in countries with less stable democracies such as Montenegro, Kenya, and Albania. In yet another study, Gidron et al. (2018) find that AP is higher in countries with high income inequality and "majoritarian" political institutions.

In addition to country-specific socioeconomic factors, another line of cross-country research examines the relationship between AP, ideological extremism, and perceived polarization. For instance, Reiljan (2020) discovers that inter-group hostility is not necessarily more pronounced in highly ideologically polarized countries. On the other hand, out-group hostility persists even towards centrist parties in Central Eastern Europe. Meanwhile, Riera and Madariaga (2023) observe that the link between AP and ideological polarization is stronger in older democracies with low party fragmentation and high elite-level ideological polarization, particularly when the left-right conflict dimension is prominent.

Recent studies by Ward and Tavits (2019) and Wagner (2021) have identified a positive association between AP and the perception of out-group extremism. Interestingly, Wagner (2021) reveals a strong association between AP and perceived ideological differences, while its correlation with actual ideological polarization is only moderate.

None of these aforementioned studies, however, have examined AP in Thailand, leaving a gap in the literature on AP in the context of a fragile democracy with intense political division. Our research extends this body of literature by studying AP specifically in Thailand, with a particular emphasis on the impact of media and perceived ideological differences.

3 Backgrounds on Thailand

3.1 Political polarization in Thailand

Our study focuses on Thailand, a developing and semi-democratic country with pronounced political polarization.

From the early 2000s when Thaksin Shinawatra became Prime Minister up until the 2019 general election, Thai politics were largely defined by a clash between two groups: the "Yellow" camp, composed of the wealthy and urban middle class, who were more conservative and well integrated economically and politically with the elites (Hewison, 2015; Volpe, 2015; Satitniramai, 2017) and aimed to preserve the status quo; and the "Red" camp, composed of the rural poor, the urban working class, and the youth, who were against inequality and unfair allocation of power and resources (Thabchumpon and Duncan, 2011; Taylor, 2012; Nishizaki, 2014) and advocated for reforms and redistribution of power.[2] It is important to note that political polarization in Thailand is not only driven by ideological differences, but also by cleavages along other dimensions. The clear divisions in social identity between Yellow and Red supporters are apparent across demographics, socioeconomic status, partisan affiliation, and democratic values (Sombatpoonsiri, 2020). Recent studies such as Chaturongkul (2021), call this "Thailand's ideological struggle."

In the 2019 general election, the "Orange" camp emerged. The Future Forward Party (and later as the Move Forward Party), a more liberal political group supported by the younger generation, won a significant number of parliamentary seats. Nonetheless, the tight control exerted by the conservative-leaning government under Prayuth Chan-o-cha, coupled with various legal mechanisms established by the military junta to stay in power, compelled the Red and Orange factions to form a coalition grounded in a shared commitment to democratic values. As a result, the political landscape in Thailand after the 2019 general election, though more complex, still exhibits a clear political divide between the Yellow and Red/Orange camps.

The polarization in Thailand is exacerbated by ideological conflicts between traditional Thai values of devotion to the three pillars of "nation, religion, and monarchy" (Premsrirat, 2013) and liberal democracy. The Thai Constitutional Court adapts liberal democratic principles to defend and reinforce the dominant Thai identity, defining the unique identity of Thai-style constitutionalism (Thananithichot, 2021; Leelapatana and Asanasak, 2022). Additionally, the use of polarizing

[2] A complete account of the history of political polarization in Thailand can be found in Kongkirati (2019).

frames by nonviolent movements in addressing taboo subjects, such as the monarchy, contributes to polarization by segmenting society into pro- and anti-monarchy sides (Jarernpanit, 2019).

3.2 The role of media in Thai Politics

It is important not to understate the role media have played in Thailand's political landscape over the past few decades. As political polarization grew deeper, the number of media networks with close ties to each political camp increased (McCargo, 2017). The extent of media polarization in Thailand became clear when Sondhi Limthongkul, a media mogul and the leader of the anti-Thaksin camp, launched his own satellite channel, ASTV (McCargo, 2000), while the pro-Thaksin camp launched its own channels, including PTV, Asia Update, and Voice TV (Pathmanand, 2016). Sombatpoonsiri (2020) notes that each faction utilized its own partisan television networks and media outlets to promote its own agenda and disparage the opposition. This media polarization has contributed to the deepening of political divides in Thailand.

Around the same time, social media platforms began to gain popularity.[3] Hoping to evade censorship and controlled narratives in traditional media outlets, many Thais turned to social media platforms to express their opinions and engage in political discussions. These online spaces allow for diverse viewpoints, including critical perspectives on the monarchy, government policies, and societal issues. Citizens increasingly rely on online sources for information and analysis (Sombatpoonsiri, 2020), shaping their perceptions of out-groups. By aiding mass mobilization, establishing partisan information bubbles, and bolstering feelings of self-righteousness and animosity towards the opposition group, social media has further exacerbated political polarization in Thailand.

This entire color-coded media landscape has ultimately created echo chambers in which the two sides only hear information that strengthens their partisan viewpoints (Grömping, 2014).

4 Methodology

Our main goal in this paper is to see how perception about members of the out-group associates with animosity against them. In this section, we describe the survey we conducted, which is our main data source. We then lay out the econometric model used to investigate the relationship of interest.

[3] Thailand is one of the most active countries in the world in terms of social media usage, with close to 70% social media penetration and 2.5 hours spent on social media per day (DataReportal, 2024).

4.1 Survey

The data used in this study were collected through an original online survey conducted during August and September of 2021. At the end of the survey period, we had a total of 2,016 respondents who completed the survey. The data used in this study were collected through an original online survey conducted during August and September of 2021.

We chose to conduct an online survey for several reasons. First, the COVID-19 pandemic has made face-to-face interviews difficult, if not impossible, to conduct. Second, an online survey allows us to reach a larger and more diverse group of respondents under similar budget and time constraints compared to face-to-face or phone interviews. Third, as the survey contains questions some might consider sensitive, an online survey can help reduce social desirability bias compared to interviewer-administered survey (Koivula et al., 2019).

The main variables used in the analysis and their definitions are discussed below. Descriptive statistics are provided in the next section. The full survey questionnaire is available in appendix A.

4.1.1 Political extremity

We first need to determine each respondent's political inclination. While political inclination, especially in the U.S. context, is typically delineated by asking individuals if they identify themselves as "liberals" or "conservatives",[4] within the Thai context, such terms could have different connotations. For example, the term "liberal" in the Thai context is often associated with the pro-democracy movement, which is not necessarily equivalent to the Western concept of liberalism. Moreover, the terms could mean different things to different people.

To mitigate potential misunderstandings, we have devised entirely new groups, which we have designated as "Passion Fruits" (henceforth Orange) and "Bananas" (henceforth Yellow). These groups could have been called the Reds and the Yellows, after the colors of the political movements that have dominated Thai politics in the past two decades, but one could argue that these political movements encompass a wider range of ideologies and beliefs.

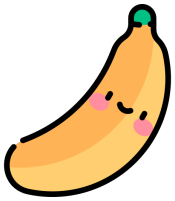
We list out values that each group adhere to, as shown in figure 1 and ask the respondent where

[4] In a multiparty setting like Thailand, another way to do this is to ask respondents which political parties they do and do not support (for example, Wagner, 2021; Ward and Tavits, 2019). However, this approach is not feasible in our context as (1) the political parties in Thailand do not have clear ideological lines, and (2) politics in Thailand is often more personality-driven and politicians often switch parties.

he/she stands on the scale of 1 (extreme Orange) to 6 (extreme Yellow).[5]

Passion Fruits
"Embrace the new and the different."

Passion Fruits emphasize individualism, freedom, and equality. Passion Fruits often agree with policies that promote social justice, human rights, and equality.



Bananas
"Embrace the old and the familiar."

Bananas emphasize tradition, stability, and the importance of maintaining the status quo. Bananas often agree with policies that have been in place for a long time and follow social norms.

Figure 1: Definitions of Orange and Yellow groups provided in the survey.

4.1.2 Demographics and socioeconomic security

This survey also collects respondents' demographic information such as age, gender, education, occupation, household income, and whether the respondent lives in a municipal or non-municipal area. We further ask respondents about their socioeconomic security status using a five-point Likert scale to assess their opinions and attitudes toward their concern and exposure to insecurity and adverse economic events.

4.1.3 Out-group animosity

We measure the feelings of respondents towards "members of the out-group" (henceforth MO) by directly asking how they feel along five different dimensions. So, the respondents who identified themselves as Yellow were asked about their feelings toward Orange which are their out-group members, and vice versa.

The first question asks about the overall feeling on a five-point Likert scale if the respondent dislikes MO. This will be our primary measure of out-group animosity. To help us understand what this positive or negative feelings towards the MO might mean in both non-political and political contexts, we asked four additional questions, namely, (i) Fairness: whether the respondent

[5]We opted against including a politically neutral option (i.e. having odd number of options) since we there is no "out-group" for politically neutral individuals. Our principal findings remain robust even when we exclude respondents who identify as "Mild Orange" or "Mild Yellow".

will offer legal help professionally to MO, (ii) Sympathy: whether the respondent will offer help when MO is under bodily harm, (iii) Policy: whether the respondent trusts in the competency of MO in policy making, and (iv) Exchange: whether the respondent is comfortable having political dialogue with MO.

4.1.4 Perceived ideological difference

We solicit respondents' positions on ideological/political issues by asking whether they agree or disagree with a set of contextual statements (e.g. "A military coup is acceptable.") using a five-point Likert scale. Additionally, we also ask the respondents what they *think* the average out-group's position on the issue is. From this set of questions, we are able to measure how much the respondent thinks the out-group's position differs from his/her own position.

4.1.5 Media consumption

The fact that media play a large role in shaping an individual's thoughts is well-documented in the literature (Levendusky and Malhotra, 2016; Prior, 2013), and we try to understand this role by including detailed questions on respondents' media consumption behavior. We provide a list of major news agencies that cover a wide political spectrum and ask respondents if they get news from these agencies. We then use this information to do two things.

First, we calculate the media's political inclination score following the notion that the media outlet and its consumers influence each other's behavior: news reported by an outlet that is mostly consumed by conservative readers tends to be more conservative in nature, and vice versa (Gentzkow and Shapiro, 2006; Ribeiro et al., 2018). The methodology is discussed in detail in appendix B.

Second, we use this information to construct a measure of media consumption behavior. More specifically, we count the number of news agencies that are found to be on the same side, neutral, and on the opposite side of the respondent's political inclination. These measures are then used in the regression analysis.

4.2 Model

In our analysis, we utilize regression models to explore potential drivers of out-group animosity. All variables were collected at the individual level. Our primary dependent variable is the self-reported feeling, Feeling_i, toward members of the out-group. Our main independent variable of interest is the perceived ideological difference of the respondent—the disparity between one's own

ideological stance and what they believe the out-group members' stances are. Additionally, we incorporate other independent variables identified as drivers of animosity in the literature. These include media consumption behavior, political extremity, and socioeconomic security. Other demographic characteristics, namely gender, age, income, region, occupation, and education level are included as control variables.

Our empirical specification is as follows:

$$\text{Feeling}_i = \beta \text{PerceivedDiff}_i + \Gamma' \mathbf{X}_i + \varepsilon_i,$$

where $\mathbf{X}_i$ are controls and other independent variables of interest.

The second part of our analysis focuses on various alternative measures of out-group animosity, with the same independent variables as mentioned above. These alternative measures were meant to examine the domains of affects that the perceived ideological difference are associated with. As mentioned earlier, these include Fairness, Sympathy, Policy, and Exchange.

5 Descriptive statistics

During the time of the survey, Thailand was experiencing a period of political unrest.[6] This period witnessed a rise in youth-led protests—associated with the Orange group—calling for a new democratic constitution and reforming the monarchy. The government intermittently imposed a nationwide state of emergency, restricting fundamental rights, especially the freedom of expression. As we shall discuss, this political context at the time of the survey could be one of the key drivers of our results.

5.1 Political extremity

The summary statistics for the political extremity are shown in Table 1. We can observe that our sample is heavily skewed toward the Orange group (71 percent), compared to the Yellow group (29 percent). In terms of political extremity, the respondents are evenly distributed across the categories of Mild, Moderate, and Extreme. Nonetheless, the levels of extremity are not evenly distributed within the two camps. The majority of the Orange respondents fall on the Extreme end of the spectrum, while the majority of Yellow respondents are Mild. This discrepancy may

[6] In fact, the political unrest and the seemingly irreconcilable differences between the two sides were the main motivation for this study.

arise due to response bias, affecting the distribution of extremity among respondents within each group.

Table 1: Summary statistics for political extremity variable.

	Overall	Orange	Yellow
Mild	671 (33.28%)	370 (25.95%)	301 (51.02%)
Moderate	695 (34.47%)	511 (35.83%)	184 (31.19%)
Extreme	650 (32.24%)	545 (38.22%)	105 (17.80%)
N	2,016	1,426 (70.73%)	590 (29.27%)

These observations could arise due to two reasons: (1) the nature of our survey being conducted online, which may have attracted Orange respondents who tend to be younger and more digitally literate, and (2) under political suppression by the government, Orange respondents may find our anonymous survey as a safe space to express their views and discontent.

5.2 Demographics and socioeconomic security

Table 2 shows the summary statistics for demographic and socioeconomic security variables. We find that our survey respondents' demographic characteristics differ from that of the population in most respects. As mentioned earlier, our online survey introduces a selection bias that skews our sample towards younger and digitally literate individuals. Still, there is much we can learn about political affinities, viewpoints, and actions of the individuals in our sample. In section 6.3, we assess robustness of our analysis by reweighing our sample to match the population distribution.

Overall, the majority of our respondents are between 30–59 years of age, with a significant proportion employed in both governmental and private sectors, and residing predominantly in Bangkok and other urban areas. Our sample also has higher income per capita and educational level than the population average, with around 94 percent holding at least a vocational certificate or a bachelor's degree. We also find that most of respondents have high socioeconomic security status, in line with the high income and education level of the sample.

The composition of the Orange and Yellow groups does not exhibit statistically significant differences based on respondents' location, income, and educational attainment. One notable exception is age, where we find a significant difference. Yellow respondents generally has a higher proportion of age over 40, while Orange tends to be younger, with more respondents under 40. This pattern also coincides with the difference in occupation distribution, where retirees are more common in Yellow, and students are more prevalent in Orange.

Table 2: Summary statistics for demographic and socioeconomic variables.

		Country	Overall	Orange	Yellow	Diff.
Age group	< 30	0.362	0.138***	0.181	0.036	0.145***
			(0.345)	(0.385)	(0.185)	(0.013)
	30–39	0.144	0.264***	0.319	0.131	0.189***
			(0.441)	(0.466)	(0.337)	(0.019)
	40–59	0.308	0.489***	0.412	0.676	−0.265***
			(0.500)	(0.492)	(0.468)	(0.023)
	≥ 60	0.186	0.109***	0.088	0.158	−0.069***
			(0.311)	(0.284)	(0.365)	(0.017)
Occupation	Government employee	0.051	0.278***	0.282	0.267	0.016
		(0.219)	(0.448)	(0.450)	(0.443)	(0.022)
	Private sector employee	0.227	0.294***	0.308	0.261	0.047*
		(0.418)	(0.456)	(0.462)	(0.440)	(0.022)
	Business owner	0.104	0.170***	0.160	0.193	−0.033*
		(0.305)	(0.375)	(0.367)	(0.395)	(0.019)
	Freelance	0.194	0.071***	0.075	0.063	0.012
		(0.395)	(0.257)	(0.263)	(0.243)	(0.013)
	Student	0.055	0.042**	0.053	0.013	0.041***
		(0.228)	(0.200)	(0.225)	(0.112)	(0.008)
	House work	0.062	0.037***	0.031	0.050	−0.019*
		(0.241)	(0.189)	(0.175)	(0.219)	(0.010)
	Retired / Out of work	0.035	0.108***	0.090	0.153	−0.063***
		(0.185)	(0.311)	(0.286)	(0.360)	(0.017)
Gender	Female	0.512	0.509	0.471	0.602	−0.132***
			(0.500)	(0.499)	(0.490)	(0.024)
	Male	0.488	0.427***	0.452	0.368	0.084***
			(0.495)	(0.498)	(0.483)	(0.024)
	LGBTQ+	–	0.063	0.077	0.030	0.048***
			(0.243)	(0.267)	(0.169)	(0.010)
Location	Bangkok	0.130	0.738***	0.743	0.726	0.017
		(0.336)	(0.440)	(0.437)	(0.446)	(0.022)
	Municipal area	0.336	0.176***	0.175	0.176	−0.001
		(472)	(0.381)	(0.380)	(0.381)	(0.019)
	Non-municipal area	0.534	0.086***	0.081	0.098	−0.016
		(0.498)	(0.281)	(0.273)	(0.297)	(0.014)
Income	Income per capita (THB)	11,527	50,713***	49,461	53,740	−4, 279
		(13,863)	(53,465)	(49,266)	(62,402)	(2,881)
Education	High school or lower	0.825	0.060***	0.053	0.075	−0.021*
		(0.380)	(0.237)	(0.225)	(0.263)	(0.012)
	Vocational / Bachelor's	0.158	0.359***	0.367	0.339	0.028
		(0.366)	(0.480)	(0.482)	(0.474)	(0.023)
	Master's	0.014	0.470***	0.468	0.475	−0.007
		(0.118)	(0.499)	(0.499)	(0.500)	(0.024)
	Doctoral	0.003	0.112***	0.112	0.112	−0.000
		(0.052)	(0.315)	(0.315)	(0.315)	(0.015)
Socioeconomic	Socioeconomic security index	–	0.740	0.723	0.780	−.056***
			(0.183)	(0.005)	(0.007)	(.009)

Note: The total number of observations is 2,016. The numbers of Orange and Yellow respondents are 1,426 and 590, respectively. Numbers reported are mean of each category's indicator variable, except for income. We use administrative population data from Ministry of Interior (2021) for age group and gender, and rely on survey data by National Statistical Office (2021) for other variables. Standard deviations and standard errors are shown in the parentheses. Markers *, **, and *** denote statistical significance at 5, 1, and 0.1 percent confidence levels respectively. The second column tests whether the sample average is equal to the country's average, while the fifth column tests whether the difference between Orange and Yellow averages is equal to zero.

The fact that political affiliation is associated with age is consistent with the theory of generation, which posits that individuals from the same generation often share common political experiences, economic and social conditions, and historical contexts that influence their views, values, and actions (Mannheim, 1952). These factors could shape the perspectives of people within the same age cohort, contributing to their distinct ideological leanings.

5.3 Out-group animosity

Table 3 shows summary statistics of five measures of out-group animosity. Note that some values reported are flipped, so higher values indicate a greater degree of out-group animosity.

Table 3: Summary statistics for out-group animosity scores.

Category	Affective polarization measures	Overall	Orange	Yellow	Diff.
Overall	You dislike MO.	0.428	0.430	0.425	0.005
		(0.279)	(0.285)	(0.264)	(0.014)
Non-political: Fairness	[Flipped] If you are a lawyer and you realize that MO is innocent, you would represent him/her.	0.347	0.322	0.410	−0.088***
		(0.288)	(0.285)	(0.284)	(0.015)
Non-political: Sympathy	[Flipped] You would offer help to MO if he/she was in an accident.	0.139	0.119	0.189	−0.069***
		(0.208)	(0.197)	(0.227)	(0.011)
Political: Policy	[Flipped] You could trust MO in policy making.	0.633	0.669	0.544	0.124***
		(0.280)	(0.272)	(0.278)	(0.014)
Political: Exchange	[Flipped] You feel comfortable exchanging political ideas with MO.	0.384	0.372	0.414	−0.042**
		(0.301)	(0.302)	(0.297)	(0.015)

Note: Standard deviations and standard errors are shown in the parentheses. Markers *, **, and *** denote statistical significance at 5, 1, and 0.1 percent confidence levels respectively. For all questions, values are reported such that higher values indicate higher degree of out-group animosity.

Among the five measures, out-group animosity is highest when considering the Policy question for both sides, but it is lowest on the Sympathy question. This suggests that, aside from policy making, out-group animosity does not seem to be readily translated into other contexts.

While there is no significant difference in out-group animosity as measured by the first question, we find that Yellow consistently exhibits a slightly higher degree of out-group animosity toward Orange when asked about specific situations.[7] The only exception to this is the Policy measure where Orange shows a higher degree of distrust toward Yellow in policy making.

[7] At first glance, it is plausible that demographic difference (such as age or education) could contribute to this disparity. On a closer inspection, however, these difference still exist even after we control for age and education.

5.4 Perceived ideological difference

Figure 2 shows the perceived ideological difference between the two groups. In the left panel, we show the actual responses of the Orange group (represented by solid orange dots), Orange's perception of the Yellow group (indicated by yellow X markers), and Yellow's actual position on the issue (depicted by solid yellow dots). In the right panel, we show the same information but for the Yellow group. The average *perceived* ideological difference is shown by the arcs. Note that some of the reported values are flipped so that the views that are closer to Orange values are closer to zero, and the views that are closer to Yellow values are closer to one.

Several observations can be made from this figure. First, the Orange group's response is, on average, less than the Yellow group's response for all questions (indicated by the solid orange dots being more towards the left than the solid yellow dots). This helps confirm the "sidedness" we assign to the questions. Second, consistent with the notion of "false polarization" (Fernbach and Van Boven, 2022) where respondents perceive the MO to be more extreme than the MO actually are, the Orange group's perception of the Yellow group is consistently more extreme than the Yellow group's actual response. This is indicated by the yellow X markers being more towards the right than the solid yellow dots. Third, the Yellow group's perception of the Orange group is more accurate than the Orange group's perception of the Yellow group, as indicated by the orange X markers being relatively close to orange dots on the right panel. While we noted earlier that the definition of "liberals" and "conservatives" in the Thai context is not as clear-cut as in the U.S. context, this finding is consistent with Graham et al. (2012) who find that liberals' perception of conservatives tend to be more extreme than conservatives' perception of liberals.[8] Lastly, Yellow does not exhibit false polarization. On the contrary, in seven out of nine questions, Yellow's perception of the Orange group is less extreme than the Orange group's actual response.

5.5 Media Consumption

The media inclination score is shown in table 4. We label 8 media outlets with negative coefficients and p-values less than 0.1 as leaning towards Orange, and 4 media outlets with positive coefficients and p-values less than 0.1 as leaning towards Yellow. The remaining 20 media outlets are labeled as neutral. Most of the media outlets' political inclination calculated using our method are consistent

[8] Another potential explanation could be the larger portion of "extreme" individuals in the Orange group. When we exclude "extreme" respondents, the disparity between the two groups' perception of each other become less pronounced, but still present.

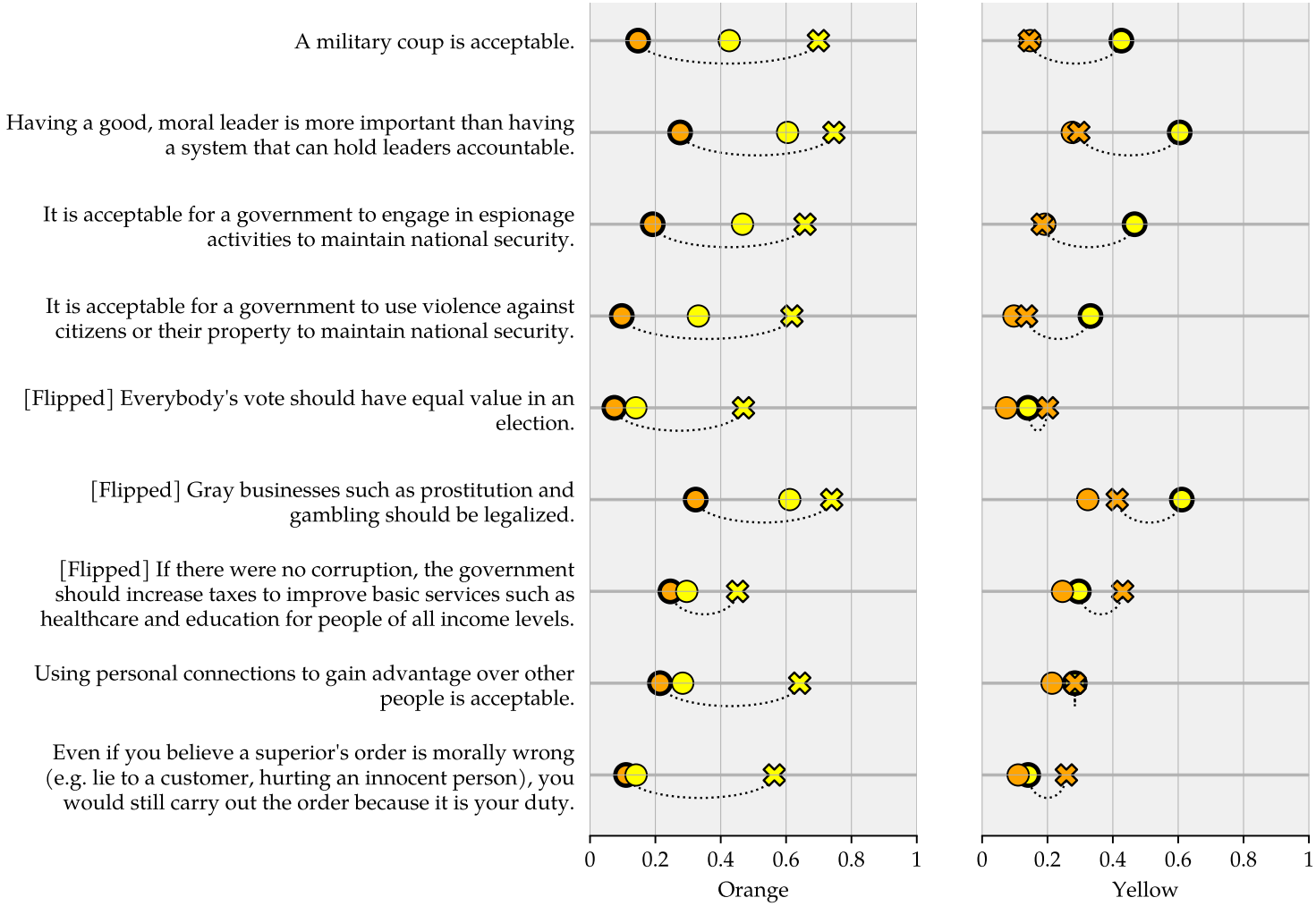


Figure 2: Perceived ideological difference for each question in the survey. Solid dots represent the average actual responses of each group, and X markers represent the group's average perceived responses of the out-group. The average perceived ideological difference for each group is shown by the dotted arcs in respective panels. Some questions are flipped so that the views that are closer to Orange values are closer to zero, and the views that are closer to Yellow values are closer to one.

with the findings in McCargo (2017).[9]

Table 4: Media inclination score for each major media outlet in Thailand.

Media	Coefficient	SE	p-Value
The Standard†	−0.805	(0.146)	0.000
Matichon†	−0.734	(0.192)	0.000
Prachathai†	−0.709	(0.234)	0.002
BBC Thai†	−0.662	(0.157)	0.000
The Reporter†	−0.579	(0.186)	0.002
VoiceTV†	−0.527	(0.158)	0.001
Khao Sod†	−0.466	(0.221)	0.035
Workpoint†	−0.272	(0.156)	0.081
The Matter	−0.231	(0.204)	0.257
Kom Chud Luek	−0.179	(0.230)	0.438
Thairath	−0.094	(0.147)	0.523
Channel 3	−0.093	(0.124)	0.455
Bangkok Post	−0.092	(0.193)	0.633
ThaiPBS	−0.078	(0.131)	0.550
AmarinTV	−0.064	(0.156)	0.683
ThaiPublica	−0.054	(0.210)	0.796
The Momentum	−0.045	(0.215)	0.835
The101.world	0.005	(0.241)	0.983
PPTV	0.008	(0.157)	0.960
Isara	0.058	(0.170)	0.731
TNN	0.151	(0.149)	0.311
News18	0.152	(0.266)	0.568
MCOT	0.154	(0.160)	0.337
Spring News	0.209	(0.238)	0.380
Prachachat	0.218	(0.217)	0.316
Daily News	0.317	(0.235)	0.176
Naew Na	0.352	(0.303)	0.246
BLUESKY	0.391	(0.352)	0.267
Nation∗	0.383	(0.149)	0.010
ThaiPost∗	0.434	(0.224)	0.053
Manager∗	0.606	(0.173)	0.000
Top News∗	1.416	(0.164)	0.000

Note: Media outlets indicated with negative coefficients and p-values less than 0.1 (indicated with †) are those we labeled as leaning towards Orange. Those with positive coefficients and p-values less than 0.1 (indicated with ∗) are labeled as leaning towards Yellow. The remaining media outlets are labeled as neutral.

Once we have the media inclination score, we can then calculate the media consumption intensity and see how many media outlets the respondents follow are inclined toward their own side ("same-side media") versus the opposing side ("opposing-side media").

Table 5: Summary statistics for media consumption intensity.

	Overall	Orange	Yellow	Diff.
Same side	3.032	3.670	1.490	2.181***
	(2.447)	(2.509)	(1.372)	(0.087)
Neutral	4.150	4.319	3.741	0.578***
	(3.540)	(3.554)	(3.474)	(0.171)
Opposing side	1.158	1.062	1.388	−0.326***
	(1.458)	(1.231)	(1.878)	(0.084)

Note: Standard deviations and standard errors are shown in the parentheses. Markers *, **, and *** denote statistical significance at 5, 1, and 0.1 percent confidence levels respectively.

Table 5 shows media consumption behavior. We find that Orange inclines to consume more same-side media and less opposing-side media than Yellow.

[9] McCargo (2017) study a subset of the media outlets listed above. Most findings are consistent, except for Bangkok Post which is found to be anti-Thaksin, and Thairath, which is found to be pro-Thaksin. We label both of these outlets neutral. BLUESKY, a media strongly associated with the Yellow Shirt movement, is labeled as neutral in our study. Despite its large coefficient, the p-value is quite large. This could be due to the media's declining popularity in recent years.

6 Results

This section examines the hypothesis that perceived ideological differences and that out-group animosity have strong association, and that perceived ideological differences might be the main driver of affective polarization.

First, to motivate our analysis, we present a heat map that displays the average levels of out-group animosity based on both self-reported ideological stances and the perceived ideological positions of the out-group in figure 3.

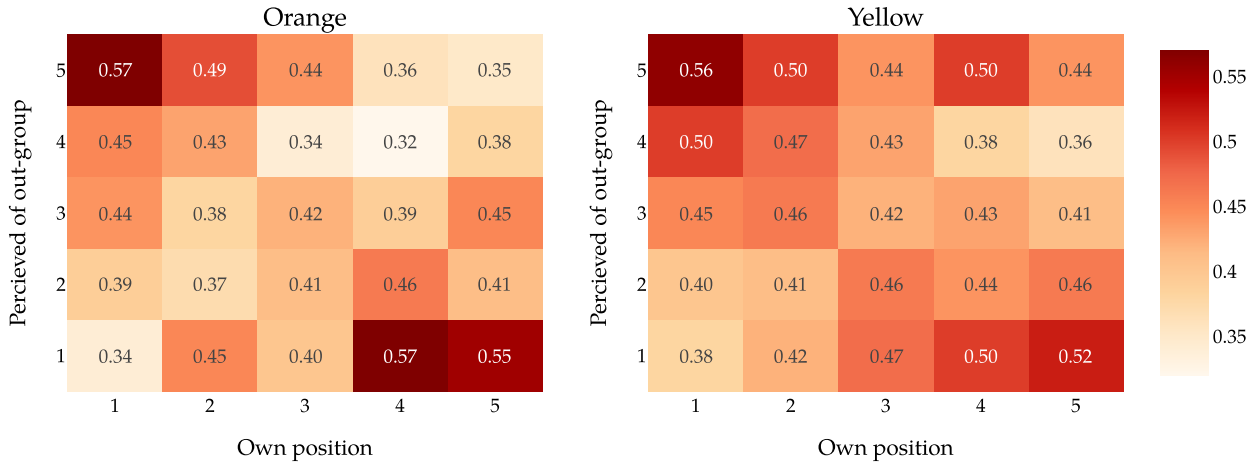


Figure 3: The heat map displays out-group animosity scores of Yellow (left panel) and Orange (right panel) based on their own ideological values (x-axis) and the perceived ideological values of the out-group (y-axis). Each cell represents the level of out-group animosity, averaged across all contextual questions.

Along the 45-degree line from bottom left to top right, the self-reported ideological values are equal to perceived ideological positions of the out-group and there is no perceived ideological differences. Towards the top left and bottom right corners, perceived ideological differences are greatest. The figure reveals the highest degree of animosity in these corners, while on the diagonal where perceived ideological differences are minimal, animosity is lowest.

This figure exhibits a striking correlation between out-group animosity and perceived ideological differences. However, in order to account for other potential confounding factors that may be driving out-group animosity, we turn to regression analysis and include additional related variables. These variables, discussed in Section 4.2 serve as control variables and have been identified in the literature as drivers of affective polarization.

In the regression analysis, we first look at overall out-group animosity as measured by the first

question ("You dislike MO") as it will give us an overall picture of feeling towards the out-group (Section 6.1). We then turn to different contextual measures of out-group animosity (Section 6.2).

6.1 Overall out-group animosity

Table 6 presents our key findings. In our regressions, we find that perceived ideological difference is the largest driver of out-group animosity. Specifically, the more individuals perceive that MO thinks differently from themselves, the stronger their negative feelings toward MO.

Importantly, this result remains robust after accounting for various control variables. Notably, the effect of perceived ideological difference still persists even when we incorporate the *actual* ideological difference (shown in the specification (4)), supporting the hypothesis that it is the perception of difference, rather than the mere actual difference, that fuels out-group animosity, and consistent with findings in Armaly and Enders (2021).

Table 6: Factors associated with the overall measure of out-group animosity.

	(1)	(2)	(3)	(4)
Perceive ideological difference	0.264***	0.230***	0.229***	0.227***
	(0.028)	(0.030)	(0.030)	(0.031)
Actual ideological difference				0.015
				(0.097)
Political extremity	–	–	–	–
Moderate	0.019	0.011	0.012	0.012
	(0.016)	(0.016)	(0.016)	(0.016)
Extreme	0.093***	0.080***	0.078***	0.077***
	(0.018)	(0.018)	(0.018)	(0.018)
Political side	–	–	–	–
Yellow indicator	0.079***	0.102***	0.105***	0.104***
	(0.016)	(0.017)	(0.017)	(0.018)
Media: same side		0.013**	0.013**	0.013**
		(0.004)	(0.004)	(0.004)
Media: neutral		−0.006*	−0.006*	−0.006*
		(0.003)	(0.003)	(0.003)
Media: opposing side		−0.011	−0.012	−0.012
		(0.007)	(0.007)	(0.007)
Socioeconomic security index			−0.087*	−0.087*
			(0.039)	(0.039)
Constant	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes
Adjusted R^2	0.111	0.119	0.121	0.121
N	1,707	1,707	1,707	1,707

Note: Standard errors are shown in the parentheses. Markers *, **, and *** denote statistical significance at 5, 1, and 0.1 percent confidence levels respectively.

Furthermore, our findings indicate that respondents with stronger political extremism demonstrate higher levels of out-group animosity. This aligns with existing literature on social identity

and affective polarization, which shows people who have strong political identity tend to harbor greater dislike toward the out-group on average (for example, Mason, 2015; Iyengar et al., 2019). Note that the effect does not seem to be linear and is more prominent among the most extreme individuals. Moreover, Yellow seems to exhibit a higher degree of out-group animosity even after controlling for other factors. While a number of studies have found in non-Thai context that conservatives are likely to be disliked more intensely by liberals than vice versa (Harteveld et al., 2022; Reiljan, 2020; Gidron et al., 2023), it is challenging to compare our results directly with these studies as the two sides of the political spectrum in Thailand are not directly comparable. To the best of our knowledge, this is the first study to suggest to compare animosity between the two sides in Thailand. We do acknowledge that this finding should be taken with caution as our sample is not nationally representative.

Given that existing literature stresses the importance of media in shaping ideological beliefs, we also consider media consumption behavior as one of the key variables in our analysis. Our finding shows, in line with existing literature (Lelkes et al., 2017; Sangwon Lee and Yamamoto, 2022), consumption of same-side media and selective information exposure is associated with an increase in out-group animosity. On the other hand, while the literature suggests that consumption of opposing-side media is associated with a decrease in out-group animosity, we find the association in that direction but it is not statistically significant. Lastly, consumption of neutral media is associated with a decrease in out-group animosity.

Lastly, we find that the socioeconomic security index is negatively associated with out-group animosity. That is, the more secure one feels about their socioeconomic status, the less negative feeling they have towards the out-group. This is in line with existing literature on affective polarization, where socioeconomic security is found to be associated with affective polarization (Gidron et al., 2018; Iversen and Soskice, 2015). Hence, improving overall socioeconomic security and reducing income inequality may lead to lower out-group animosity.

6.2 Other measures of out-group animosity

We now turn to results for other measures of out-group animosity in both the non-political sphere (which includes Fairness and Sympathy questions) and political sphere (which includes Policy and Exchange questions). The results are reported in table 7.

Among the five contextual measures, we find perceived ideological differences to have the highest negative association with the Policy measure (whether the respondent trusts MO on policy

Table 7: Factors associated with various measures of out-group animosity.

		Non-political		Political	
	Feeling	Fairness	Sympathy	Policy	Exchange
	(1)	(2)	(3)	(4)	(5)
Perceive ideological differences	0.229***	0.111***	−0.014	0.347***	0.145***
	(0.030)	(0.032)	(0.022)	(0.027)	(0.033)
Political extremity	–	–	–	–	–
Moderate	0.012	0.022	0.011	0.057***	0.016
	(0.016)	(0.018)	(0.012)	(0.015)	(0.018)
Extreme	0.078***	0.028	0.003	0.110***	0.013
	(0.018)	(0.020)	(0.014)	(0.017)	(0.020)
Political side	–	–	–	–	–
Yellow indicator	0.105***	0.114***	0.051***	0.017	0.065***
	(0.017)	(0.019)	(0.013)	(0.016)	(0.020)
Media: same side	0.013**	0.003	−0.001	0.009*	0.001
	(0.004)	(0.005)	(0.003)	(0.004)	(0.005)
Media: neutral	−0.006*	−0.004	−0.007***	−0.005*	−0.003
	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)
Media: opposing side	−0.012	−0.020**	0.002	−0.012*	−0.022**
	(0.007)	(0.007)	(0.005)	(0.006)	(0.007)
Socioeconomic security index	−0.087*	−0.134**	−0.115***	−0.082*	0.014
	(0.039)	(0.042)	(0.029)	(0.035)	(0.043)
Constant	Yes	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.121	0.068	0.072	0.252	0.062
N	1,707	1,654	1,714	1,713	1,694

Note: Standard errors are shown in the parentheses. Markers *, **, and *** denote statistical significance at 5, 1, and 0.1 percent confidence levels respectively.

decisions.) This finding underscores that trust is significantly impacted, potentially serving as a critical obstacle to effective policy making. Despite potential agreement on policies and shared common ground, low trust in policy decisions can hinder consensus-building between opposing camps. Individuals may reject proposals from the opposing side due to distrust, even if they align with their own preferences. Moreover, the reluctance to exchange ideas ("Exchange") poses obstacles to democratic processes and economic policy development. Without open communication, finding common ground becomes more difficult.

In non-political settings, individuals with high perceived differences may let their biases affect their interactions with out-group members, as indicated by the negative association with the Fairness measure. Conversely, the Sympathy measure exhibits a positive correlation with out-group animosity, suggesting that perceived ideological differences do not directly contribute to bodily harm.

Examining other control variables, we find that extremity only affects the Policy measure, while socioeconomic security index has negative influences in the non-political sphere (Fairness and Sympathy).

6.3 Robustness checks

Since our survey is conducted online and is non-probabilistic, our results are likely to suffer from selection and non-response biases. The descriptive statistics presented in section 5 confirm that our respondents are likely to be highly educated and have higher incomes than the general population. Moreover, with 53 percent response rate, our sample is likely to be more politically active. To address this, we conduct several robustness checks; the results are shown in table 8.

First, to address the issue of non-response bias where individuals with extreme views are more likely to finish the survey, we exclude the extreme observations from our analysis for our first robustness check (results shown in column (1)). Second, we deliberately exclude a "neutral" political stance from the survey as mentioned in section 4.1. To the extent that individuals who are weakly Orange and weakly Yellow would have placed themselves in the neutral category, we exclude these individuals from our analysis for our second robustness check column (results shown in column (2)). Third, to address the issue of sampling bias, we reweigh the sample to match the population in terms of age and income per capita (results shown in column (3)). Lastly, the survey includes internal consistency check questions, asking the same question about gray businesses in two different places. Roughly 29% of the respondents did not answer consistently. We exclude

these individuals for our last robustness check (results shown in column (4)).

In all robustness checks, we find that perceived ideological difference remains the main contributor to out-group animosity, and consuming same-side media is associated with more negative feelings towards the out-group. Moreover, the effect of political identity (i.e., identify as Yellow) on out-group animosity remains significant in all robustness checks.

While factors such as political extremity, consumption of neutral media, and socioeconomic security index, are found to be statistically insignificant in some cases, their signs remain the same across all specifications.

Table 8: Robustness checks: factors associated with Out-group animosity

	No Extreme (1)	No Moderate (2)	Re-Weight (3)	Concistency (4)
Perceive ideological differences	0.243***	0.205***	0.229***	0.224***
	(0.036)	(0.039)	(0.030)	(0.035)
Political extremity	–	–	–	–
Moderate		0.031	0.012	−0.002
		(0.016)	(0.016)	(0.020)
Extreme	0.057***		0.078***	0.073***
	(0.017)		(0.018)	(0.022)
Political side	–	–	–	–
Yellow indicator	0.124***	0.099***	0.105***	0.114***
	(0.025)	(0.019)	(0.017)	(0.022)
Media: same side	0.014*	0.012	0.013**	0.017**
	(0.006)	(0.006)	(0.004)	(0.005)
Media: neutral	−0.002	−0.003	−0.006*	−0.009*
	(0.003)	(0.003)	(0.003)	(0.003)
Media: opposing side	−0.026**	−0.014	−0.012	−0.006
	(0.009)	(0.008)	(0.007)	(0.008)
Socioeconomic security index	−0.094	−0.087	−0.087*	−0.106*
	(0.050)	(0.050)	(0.039)	(0.048)
Constant	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes
Adjusted R^2	0.114	0.072	0.121	0.127
N	1,082	1,049	1,707	1,234

Note: Standard errors are shown in the parentheses. Markers *, **, and *** denote statistical significance at 5, 1, and 0.1 percent confidence levels respectively.

6.4 Counterfactual exercise

With the important role perceived ideological differences play, it is natural to ask, what would happen to out-group animosity if we know what others really think—that is, if perceived ideological differences were to be the same as actual ideological differences.

We proceed with this exercise by first calculating actual ideological differences. This is done by replacing the value of what the respondent *thinks* the out-group's stance is with the out-group's

actual stance. We find that while the actual differences average 0.300, perceived differences averages 0.420, a 12 percentage points error. This is in a similar range as the 17 percentage points error found by Westfall et al. (2015) using nationally representative U.S. data.

Using a back-of-the-envelope calculation, we can see that if perceived polarization drops by 12 so that it is equal to actual differences, overall out-group animosity as measured by feeling (0.229) would decrease by around 2.7 percentage points, from 0.428 to 0.401. On the policy making dimension, realizing the out-group's actual position would decrease distrust from 0.633 to 0.591, or by around 4 percentage points.

In summary, aligning perceived ideological differences with actual ideological differences could significantly reduce out-group animosity and distrust.

7 Discussion

In this study, we explore the impact of perceived ideological differences on out-group animosity within the semi-democratic context of Thailand. Our findings reveal that affective responses are closely tied to the perception of ideological differences. Specifically, our findings suggest that perceived ideological differences lead to high levels of distrust in policies and discourage exchanges of political ideas. This hinders consensus-building between opposing groups, even when there is potential agreement and shared common ground. Additionally, these effects may extend beyond politics, influencing family dynamics and other non-political settings. However, to gain a more realistic understanding, it is crucial to explore alternative measures beyond survey data, such as behavioral or implicit measures (see Iyengar et al., 2019, for discussions), leaving room for further studies.

Our study also sheds light on the role of media and echo chambers in out-group animosity within a dual media landscape where traditional media faces heavy censorship, while online and social media serve as alternative platforms for uncensored news and opinions. We find that confirmation bias and echo chambers play a significant role: the more people seek information that aligns with their existing beliefs, the more negative affects toward the out-group they report.

There are some limitations to our study. First, our sample was collected online using the snowballing method with specific quota criteria to ensure representation across various occupations. However, this approach introduces sampling and non-response bias. To mitigate these biases, we conducted various robustness checks ,including reweighing the sample based on age and income

levels and excluding respondents with various extremity levels The results from these exercises provide reassurance that our findings are not solely driven by a specific subgroup of respondents. Nonetheless, it is essential to acknowledge that if the sample differs intrinsically from the overall population, our results may not be universally applicable. To address this, further study could focus on sampling a more representative sample, reaching more older population without access to the internet.

Another limitation is that our survey is a one-time cross-sectional data and lacks experimental manipulation. Consequently, our ability to clearly establish causality is limited. To address this, we have drawn upon existing literature to support our hypotheses and incorporated a comprehensive set of control variables to mitigate potential confounding factors. However, for more robust causal inference, future research should consider experimental manipulation or panel data. Additionally, collecting a longitudinal dataset with continuous measurements of affective polarization (AP), ideological stances, extremity, and relevant variables would enhance our understanding of AP over time in the context of Thailand.

In conclusion, our study provide a valuable insights that misunderstandings—more so than actual differences in ideology—are the drivers of out-group animosity. These findings are contextualized within an evolving democratic environment and a dual media landscape characterized by stringent censorship in traditional Thai media. By recognizing the impact of exaggerated perceptions, echo chambers, and partisan sorting processes, members of the society can work toward bridging gaps in understanding between divided political camps and foster more constructive discourse.

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A Survey Questions

The following is the translation of the online survey form.

This questionnaire will be used in a research project called "Think Differently, Wisely". We would like to thank you for participating in this survey. All questions are aimed at collecting your general information and attitudes. We will not ask for your name, address, or any personal information, and all your responses will be kept confidential. We will only process your responses in aggregate to benefit research on social conflicts, which may lead to the design of policies that benefit both you and the broader community.

When filling out this questionnaire, please choose the answer that most closely matches your feelings. If you do not understand or find the question irrelevant to you, you may choose "Prefer not to answer."

A.1 Social Quality

1. How much do you agree with the following statements: (*1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neither agree nor disagree, 4 = Somewhat agree, 5 = Strongly agree*)
   (a) You feel secure when you are with your family.
   (b) You feel safe in your society.
   (c) You are satisfied with your household's financial situation.
   (d) You and your family members care and love each other.
   (e) You feel that Thai people are united and harmonious.
   (f) You have the freedom to choose and determine your own life path.
   (g) You can drive changes in your society.
2. In the past 12 months, how often did you or your family experience the following situations: (*1 = Never, 2 = Rarely, 3 = In some months, 4 = Every month or more often*)
   (a) Go without food
   (b) Feel that your residence is unsafe from external factors such as crime or natural disasters
   (c) Did not receive medication or medical treatment when needed
   (d) Lack of income
3. How much can you trust majority of people in the society: (*1 = Not at all trustworthy, 2 = Not very trustworthy, 3 = Moderately trustworthy, 4 = Quite trustworthy, 5 = Completely trustworthy*)
4. How much you can trust the following people: (*1 = Not at all trustworthy, 2 = Not very trustworthy, 3 = Moderately trustworthy, 4 = Quite trustworthy, 5 = Completely trustworthy*)
   (a) Family members
   (b) Neighbor / Members of the community
   (c) Close friend
   (d) Acquaintance

(e) Foreigner

5. How much can you trust the following organization or institution: (*1 = Not at all trustworthy, 2 = Not very trustworthy, 3 = Moderately trustworthy, 4 = Quite trustworthy, 5 = Completely trustworthy*)

   (a) Religious institutions such as temples, churches, mosques
   (b) The military
   (c) The media
   (d) The police
   (e) The judiciary (lower courts, appellate courts, Supreme Court, excluding the Constitutional Court)
   (f) The Constitutional Court
   (g) The government
   (h) Political parties
   (i) Civil servants
   (j) The Election Commission
   (k) The National Anti-Corruption Commission
   (l) Large corporations
   (m) Banks
   (n) The central bank (Bank of Thailand)

6. How important are the following things to you: (*1 = Not important at all, 2 = Not very important, 3 = Moderately important, 4 = Quite important, 5 = Very important*)

   (a) Family
   (b) Work
   (c) Friends
   (d) Politics
   (e) Religion
   (f) Personal time and relaxation
   (g) Social activities

7. How worried are you about the following situations: (*1 = Not worried at all, 2 = Slightly worried, 3 = Quite worried, 4 = Very worried*)

   (a) Unemployment/cannot find a job
   (b) Cannot provide good education for children
   (c) Home or residence being unsafe

8. Have you ever participated in any of the following activities: (*1 = Yes, 2 = No, but might consider, 3 = No, and do not intend to*)

   (a) Signed a petition for changing a policy or law you consider inappropriate
   (b) Provided feedback on local policy-making

(c) Contacted government agencies to file complaintsalign with the excel file.

(d) Participated in a protest

(e) Donated to political or social campaigns

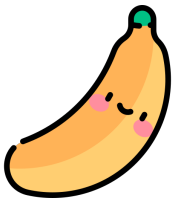
(f) Encouraged others to participate in any activities listed above

A.2 Political stance and feelings towards members of the opposing group

The following are the definitions of the two groups in the questionnaire:

Passion Fruits
"Embrace the new and the different."

Passion Fruits emphasize individualism, freedom, and equality. Passion Fruits often agree with policies that promote social justice, human rights, and equality.



Bananas
"Embrace the old and the familiar."

Bananas emphasize tradition, stability, and the importance of maintaining the status quo. Bananas often agree with policies that have been in place for a long time and follow social norms.

1. Which group do you most closely identify with? (*1 = Extreme Passion Fruit, 2 = Moderate Passion Fruit, 3 = Neutral, but leaning towards Passion Fruit, 4 = Neutral, but leaning towards Banana, 5 = Moderate Banana, 6 = Extreme Banana*)

2. How much do you agree with the following statements: (*1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neither agree nor disagree, 4 = Somewhat agree, 5 = Strongly agree*)

   (a) I dislike a member of the other group.

   (b) If you are a lawyer and you realize that a member of the other group is innocent, you would represent him/her.

   (c) You would offer help to a member of the other group if he/she was in an accident.

   (d) You could trust a member of the other group in policy making.

   (e) You feel comfortable exchanging political ideas with a member of the other group.

A.3 Values and opinions on public matters

1. How important are the following values to you, and how important do you think these values are to people in the other group? (*1 = Not important at all, 2 = Not very important, 3 = Moderately important, 4 = Quite important, 5 = Very important*)

   (a) Democracy

   (b) Human equality

   (c) Virtue and morality

   (d) Respect for individual privacy

(e) Non-violence towards people and property

(f) Equal opportunities for all

(g) Equal treatment by rules of law

(h) Freedom of expression without infringing on others' rights (Those who value this will disagree with some laws that restrict certain expressions)

(i) Religion as a moral anchor

(j) Obedience to elders or those in higher positions

2. How much do you agree with the following statements, and how much do you think people in the other group agree with the following statements? (*1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neither agree nor disagree, 4 = Somewhat agree, 5 = Strongly agree*)

   (a) A military coup is acceptable.

   (b) Having a good, moral leader is more important than having a system that can hold leaders accountable.

   (c) It is acceptable for a government to engage in espionage activities to maintain national security.

   (d) It is acceptable for a government to use violence against citizens or their property to maintain national security.

   (e) Everybody's vote should have equal value in an election.

   (f) Gray businesses such as prostitution and gambling should be legalized.

   (g) If there were no corruption, the government should increase taxes to improve basic services such as healthcare and education for people of all income levels.

   (h) Using personal connections to gain advantage over other people is acceptable.

   (i) Even if you believe a superior's order is morally wrong (e.g. lie to a customer, hurting an innocent person), you would still carry out the order because it is your duty.

3. How much do you agree with the following statements: (*1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neither agree nor disagree, 4 = Somewhat agree, 5 = Strongly agree*)

   (a) Evading import taxes, and selling goods online without paying VAT are acceptable.

   (b) Environmental conservation is the responsibility of all parties, including the government, private sector, and citizens, regardless of their income level.

   (c) The state should legalize gambling and prostitution.

A.4 Demographics

1. How old are you? (*1 = Under 20 years, 2 = 20–29 years, 3 = 30–39 years, 4 = 40–49 years, 5 = 50–59 years, 6 = 60 years or older*)

2. How do you describe your current gender identity? (*1 = Female, 2 = Male, 3 = LGBTQ+, 4 = Prefer not to say*)

3. What is your highest level of education? (*1 = Less than primary education, 2 = Primary education, 3 = Secondary education / Vocational Certificate, 4 = Associate Degree / Higher Vocational Certificate, 5 = Bachelor's Degree, 6 = Master's Degree, 7 = Doctoral Degree*)

4. How many people are in your household? (A household refers to people who live together regularly) (*1 = Live alone, 2 = 2 people, 3 = 3 people, 4 = 4 people, 5 = 5 people, 6 = More than 5 people*)

5. What is your household's total income level? (*1 = Less than 10,000 Baht per month, 2 = 10,000–25,000 Baht per month, 3 = 25,001–50,000 Baht per month, 4 = 50,001–80,000 Baht per month, 5 = 80,001–120,000 Baht per month, 6 = 120,001–200,000 Baht per month, 7 = 200,001–500,000 Baht per month, 8 = More than 500,000 Baht per month*)

6. Please choose the occupation that best describes you (*1 = Government official / State employee / State enterprise employee, 2 = Full-time employee / Private company employee, 3 = Business owner / self-employed in agriculture and fishing, 4 = Business owner / self-employed not in agriculture and fishing, 5 = Casual laborer / General laborer / Freelance worker, 6 = Student, 7 = Unpaid work at home such as family business, housewife, 8 = Retired government official, 9 = Retired (not a retired government official), 10 = Unemployed*)

7. If you own a business, does your business have employees? (*1 = No employees, 2 = No more than 5 employees, 3 = More than 5 employees*)

8. In which region did you mostly live before the age of 18? (*1 = Bangkok and surrounding areas, 2 = Central region, 3 = Northern region, 4 = Northeastern region, 5 = Southern region*)

9. Did you mostly live in or outside a municipal area before the age of 18? (*1 = In a municipal area, 2 = Outside a municipal area, 3 = In Bangkok or its surrounding areas*)

10. In the past 12 months, where did you spend most of your time? (*1 = Bangkok and surrounding areas, 2 = Central region, 3 = Northern region, 4 = Northeastern region, 5 = Southern region*)

11. In the past 12 months, did you mostly live in or outside a municipal area? (*1 = In a municipal area, 2 = Outside a municipal area, 3 = In Bangkok or its surrounding areas*)

12. How much do family members differ in their political views? (*1 = Completely the same views, 2 = Somewhat different views, 3 = Mostly different views*)

13. How often do you exchange political views with the following people: (*1 = Never, 2 = Rarely, 3 = Once a month, 4 = Once a week or more*)

    (a) With friends who share the same views

    (b) With friends who have different views

    (c) With family members who share the same views

    (d) With family members who have different views

    (e) Expressing political views on social media

14. Which political party did you vote for in the 2019 election?

15. How often do you follow news and current events through the following channels: (*1 = Not at all / None, 2 = Less than once a month, 3 = Monthly, 4 = Weekly, 5 = Daily*)

    (a) Newspapers

    (b) Television

    (c) Radio

(d) SMS (text messages)
(e) Email
(f) Friends/colleagues/family through direct conversation
(g) Friends/colleagues/family online, such as LINE
(h) Various websites (visited directly, excluding forwarded links)
(i) Facebook
(j) Twitter
(k) LINE Today from various news agencies

16. Which news outlets do you follow?
17. How did you learn about this survey? (*1 = Email, 2 = Facebook, 3 = LINE, 4 = Twitter*)

B Media inclination score

Following findings in Gentzkow and Shapiro (2006) and Ribeiro et al. (2018), we postulate that a media outlet that is consumed more by Orange (Yellow) group leans more towards Orange (Yellow). We then run the following multiple binary logistic regression model:

$$\pi(\mathbf{X}_i) = \frac{e^{\mathbf{X}_i\beta}}{1+e^{\mathbf{X}_i\beta}} = \frac{e^{(\beta_0+\beta_1 x_{i,1}+\ldots+\beta_{32}x_{i,32})}}{1+e^{(\beta_0+\beta_1 x_{i,1}+\ldots+\beta_{32}x_{i,32})}},$$

where $\mathbf{X}_i$ is the vector of 32 indicator variables. $x_{i,j}$ indicating whether respondent i consumes media j. The outcome variable y_i is the indicator variable for the political inclination of respondent i, where $y_i = 1$ if respondent i leans more towards Yellow, and 0 otherwise. We define $\pi(\mathbf{X}_i)$ as the probability of respondents i having political view leaning toward Yellow as a function of $\mathbf{X}_i$. The likelihood function for multiple binary logistic regression of sample size n is given by:

$$\mathcal{L}(\beta; \mathbf{y}, \mathbf{X}) = \prod_{i=1}^{n} \pi(\mathbf{X}_i)^{y_i}(1-\pi(\mathbf{X}_i))^{1-y_i} = \prod_{i=1}^{n} \left(\frac{e^{\mathbf{X}_i\beta}}{1+e^{\mathbf{X}_i\beta}}\right)^{y_i} \left(\frac{1}{1+e^{\mathbf{X}_i\beta}}\right)^{1-y_i}.$$

We maximize this log-likelihood function to estimate the regression coefficients, $\hat{\beta}$, and the media's political inclination score for each outlet j is given by $\hat{\beta}_j$. The positive and statistically significant coefficient $\hat{\beta}_j$ suggests that media outlet j is more likely to be consumed by the Yellow group. Conversely, the negative and statistically significant coefficient indicates that the media outlet is more likely to be consumed by the Orange group.

To the best of our knowledge, our study is among the first to utilize this framework to comprehensively analyze media inclination score for Thai media outlets. There are a few other studies,

such as McCargo (2017), that qualitatively analyzes media partisanship, but splits media outlets into pro-Thaksin and anti-Thaksin factions with limited number of media outlets at the time.