Moral Stances and the Preservation of Political Trust during the Pandemic

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This is an early draft to be presented at the APSA 2022 Annual Meeting

on 9/15~18 at Montréal, Canada.

Comments are welcome, but please do not cite without the consent of the author.

Abstract

It is critical for social scientists to understand how their fellow citizens' political preferences change and radicalize under pressure and chaotic phenomena. One of the scenarios to observe is whether, and if so, how confidence in democratic governance is preserved in the face of the COVID-19 pandemic. Further understanding of the public's political attitudes toward political leaders, such as the rally 'round the flag effect' and the consolidation or destabilization of trust in the government are critical aspects to assess how democracy could function and consolidate. Governments' political legitimacy hinges on whether they are seen to deliver. The mainstream media are reaffirming their authority as reliable sources for facts and opinions, bringing expertise and explanations to the table. More people are also on social media in this COVID-19 crisis atmosphere, consuming 'alternative' and dubious content. Being steeped in social media all the time explains more than the indirect effect of the media, especially among people who already show sympathies for radical thinking. As we are now moving to strategies that differ per population group (depending on e.g., age, occupational sector) with the aim of gradually regaining more freedom of movement, we have reached a tipping point. Departing from local observation and close investigation, this study asks fundamental but unanswered questions that are critical to the sustenance of democracy: How Taiwan voters formed their trust toward the government when opinion polarization was severe between partisan voters? How are moral stances related to such attitudes and opinions about government measures? This study is built upon an analysis of web survey data collected in 2022 when the pandemic crisis escalated. This study utilizes multiple correspondence analysis to explore the latent associations between pairs of variables, particularly social media use, opinions about vaccine policies, moral stances, and political trust. The results are expected to show the patterns that meet democratization scholars' expectations and those that go beyond existing theoretical reasoning.

Keywords: moral values, opinion formation, partisanship, Covid-19 measures

Introduction

Describing the electorate with facts has been praised as a noble tradition in electoral studies and public opinion research since Campbell, Converse, Miller, and Stock's *The American Voter* (1960). Understanding voters by description remains a critical goal for political scientists to understand how their fellow citizens form their opinion and political preferences. Voters' choices have become more subjective to issues and events they have not experienced before. From dramatic heatwaves to the misfortunate attack of the Covid-19 pandemic, factors that influence voters' decisions are emerging and seem to outnumber the conventional wisdom that partisanship explains everything.

From the Columbia school, which emphasizes the critical role of social networks (Lazarsfeld et al., 1944) to the Michigan school of thoughts which emphasizes the decisive role of partisanship (Converse, 1964), decades of scholars have been employing the two sets of factors from our discipline to explain and describe voters' profiles. When we listen to or read voters' narratives or campaign language, are we sure that they are all partisan languages borrowed from the partisan elites or news media? Or are some generated from their reasoning? What kind of foundation could serve as a reasoning generator, particularly for those who are less partisan? Incorporating another dimension of human nature or another set of variables for comparison may help answer this inquiry.

With the strike of the Omicron outbreak in mind, the observation of voters must deal with more factors that are not so political that will benefit describing voters in a non-campaign season. This study employs Jonathan Haidt's (2012) *The Righteous Mind: Why Good People Are Divided by Politics and Religion*, where Haidt provides a framework of moral stances to describe voters. It adopted its measurement of five moral foundations and conducted a series

of web surveys to capture voters' moral landscape. Unlike what Haidt did by simply adding the item score and jumping to interpret the meaning behind the distribution of the liberal and the conservative's moral stances for the American public, this study added political preference questions into the survey. It used an exploratory approach to examine how those moral stances "pair" with their vote choice and issue stances. The goal here is not simply to find an explanatory variable that could covary with vote choice but more eagerly to find different reasoning "hired" by other camps of voters. If Haidt is correct, voters should employ one or few moral stances when they form a reason to vote, act, or cast their preferences. These moral stances may not need to replace partisanship but could work together. With all such theoretical and empirical inquiries in mind, there are two research questions emerging: How Taiwan voters formed their trust toward the government when opinion polarization was severe between partisan voters? And how are moral stances related to such attitudes and opinions about government measures?

An Overview of the Omicron Outbreak in Taiwan in 2022

[This section was not able to complete before the conference but below are key points to note.]

- The outbreak of Omicron (BA.2.3.7) in April 2022: 50,000 cases/day in May.
- In June, news and social media introduced and circulated the concept of "super immunity,"— 3 vaccine shots plus infection will make me more able, if not life-long, resistant to the Covid-19 infection to comfort citizens from panic. But it was proved to be misinformation by the Central Epidemic Command Center (CECC) of the Nation Health Command Center in July.
- In July, Omicron (BA.4+BA.5) entered the communities and reached 50,000 cases/day in September.
- The central government continued to step "forward" to deregulate and encourage travel.

Concepts of Moral Foundations

This project uses Jonathan Haidt's (2012) five moral stance framework drawn from Richard Shweder's theory of morality (Shweder & Haidt, 1993). The critical arguments proposed in *The Righteous Mind* are (1) that our first intuitions tend to drive our later reasoning and (2) our moral stances are the foundations of such intuitions. In other words, regular politicians' and citizens' political talk and narratives are products of selective interpretation of one's moral tastes. Therefore, the author argues that citizens are good people but will divide themselves based on their political ideology and religion, firmly based on their moral states and stances.

Using survey methods, Haidt's team categorized a few attitudes into five "foundations of morality," including the Care/Harm Foundation (F1), the Fairness/Cheating Foundation (F2), the Loyalty/Betrayal Foundation (F3), the Authority/Subversion Foundation (F4), and the Sanctity/Degradation Foundation (F5). To Haidt, this frame has covered almost all moral stances that one could find in the U.S. Later research seems to endorse this framework's completeness, such as validation via confirmatory factor analysis in New Zealand (Davies et al., 2014), France (Métayer & Pahlavan, 2014) and Turkey (Yilmaz et al., 2016). However, MFQ scores seem inconsistent across three minority ethnic groups in China (Du, 2019).

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¹ To clarify the concepts, fairness means reciprocity in F2, loyalty refers to in-group loyalty in F3, and sanctity refers to purity in F5.

	Care/ harm	Fairness/ cheating	Loyalty/ betrayal	Authority/ subversion	Sanctity/ degradation
Adaptive challenge	Protect and care for children	Reap benefits of two-way partnerships	Form cohesive coalitions	Forge beneficial relationships within hierarchies	Avoid contaminants
Original triggers	Suffering, distress, or neediness expressed by one's child	Cheating, cooperation, deception	Threat or challenge to group	Signs of dominance and submission	Waste products, diseased people
Current triggers	Baby seals, cute cartoon characters	Marital fidelity, broken vending machines	Sports teams, nations	Bosses, respected professionals	Taboo ideas (communism, racism)
Characteristic emotions	Compassion	anger, gratitude, guilt	Group pride, rage at traitors	Respect, fear	Disgust
Relevant virtues	Caring, kindness	Fairness, justice, trustworthiness	Loyalty, patriotism, self-sacrifice	Obedience, deference	Temperance, chastity, piety, cleanliness

Table 1. The five foundations of morality (Haidt, 2012, p. 147)

While moral foundation theory serves as the base reference for studying political psychology (Graham et al., 2013; Haidt, 2012), the scope of literature on moral psychology is cross-disciplinary, ranging from body, thinking, decision-making, beliefs, judgment, behavior, and feeling at the individual (or biological) level to social identity, intergroup conflict, and culture at the aggregate level (Brandt et al., 2011; K. Gray & Graham, 2018; Mikulincer & Shaver, 2011). Social psychologists have presented possible consequences when the morality concept comes to the aggregated level, such as collective behavior. Good people with a righteous mind could divide themselves via the mechanism of moral convictions, consequences of intolerance toward outgroups, and protect their reasoning connected to their ethical beliefs (Brandt et al., 2011). In a study using panel survey data, Sikorski (2020) demonstrates that political candidates with moral flaws such as scandals can trigger a scandal-spillover effect that erodes their supporters' trust and result in leaving of their supporters. Using experiment design, Hassell and Wyler (2018) further suggest that a politician with a moral flaw could generate

negative descriptive narratives. Social conviction and "blame" against their candidate that seem to embarrass the supporters could instead mobilize them. Stolerman and Lagnado (2020) recently investigated how moral stances mediate the influence of party identification and human rights attitudes, suggesting that the individualizing moral foundations (care and fairness) seem closely related to human rights attitudes. However, while applying MFQ to their study, they also raised doubts about the validity of the MFQ scales and the scope of application.

This study explores how the moral stances measured by MFQ are associated with voters' attitudes during a non-election season and a pandemic outbreak. Special attention will be paid to the extent to which MFQ is associated with the following variables:

Opinions about vaccine policies, attitudes toward democracy, news consumption, evaluation of political leaders, and trust in government and its policies.

Methodology and Method

The data-driven, exploratory approach elucidated by data science is considered helpful for its potential to generate meaningful knowledge, at least serving as the pre-stage of theory development by providing latent correlations that have not been addressed in the existing literature and models (Brillinger, 2011; Evans & Aceves, 2016; E. Gray et al., 2015; King, 2016; Monroe et al., 2015). Exploratory data analysis (EDA) has been an approach to analyzing data by summarizing their main characteristics, often through visual means. It regained scholarly attention when social media and government data became widely available (Tukey, 1977). The EDA approach emphasized by researchers prioritizes what a body of data, regardless of its size, can tell us and helps us formulate hypotheses that can lead to new data collection, new experimental designs, and the increased interpretability of the phenomenon of interest by reducing data dimensionality and identifying key factors (Lindstrom, 2016; Tukey,

1977). Principal component analysis (PCA) is one method derived from the EDA approach and has become popular across disciplines. However, it is a powerful tool for exploring concepts by reducing the dimensions drawn from variables; it has been neglected by political scientists, as it is limited to continuous variables, which are rarely available in a nonlaboratory context.

The correspondence analysis (CA) method applies factor analysis to categorical data, the most common data obtained by survey research. CA includes traditional binomial CA and multiple correspondence analysis (MCA), which can address various dimensions. MCA was developed in Europe before World War II. Linguistic science was the first discipline in the U.S. to adopt this method to its field (Glynn, 2014; Glynn & Robinson, 2014). In psychology, CA is a multidimensional scaling (MDS) variant that adapts general methodology to crosstabulation table data. In general, MDS results are most valuable when a researcher wants to determine "whether there is any underlying systematic structure that exists across the object set so that he or she can look directly at the 'cloud' of points produced in the solution" (in this paper, the object set refers to the collection of targeted survey questions) (Jacoby & Giuk, 2018, p. 376).

By analyzing the correlation matrix, MCA transforms numbers in the contingency table into dimensions by calculating the distance between the number of variable categories (e.g., the survey question options). This method calculates multiple variables and variable categories (Abdi & Valentin, 2006; Blasius & Greenacre, 2014; Greenacre & Blasius, 2006; Le Roux & Rouanet, 2009). Therefore, the information and meanings presented in MCA factor maps are much richer than those in a pie or bar chart with single variables and go beyond conventional chi-square tests of the relation between two selected variables. Today, MCA has developed into "homogeneity analysis" and "dual scaling" (Nishisato 2004; De Leeuw and Mair 2009; Blasius and Greenacre 2014). This method matters because as EDA gains popularity, this

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Conventional data analysis begins with creating a concept and selecting or creating measurements. One challenge in this procedure is that the linkage between subjectively created pictures and specified measurements is often weak and lacks validation. The EDA approach, which arose in response to recent requests for the application of scaling methods (Hare & Poole, 2018), suggests a reversed attempt: list whatever variables we think are appropriate for a concept and conceptualize the reduced dimension emerging from the net of these variables and their categories.

To explore how Taiwan voters' trust toward the government is associated with their attitudes toward vaccines and related policies, their behavior of media use and their moral stances, a variety of variable items needs to be collected. I, therefore, designed two waves of surveys to create a web panel, where variables are combined from two independent online surveys by the same group of randomly opt-in participants.

Data and Items for the MCA Analysis

The data was collected by Smilepoll (www.smilepoll.tw), a web panel host operated by an academic team in Taiwan. The first survey of attitudes under the pandemic (No. 1436) was deployed from 2022.6.27 to 2022.7.26 (N=895; response rate=85.9%). It overlaps the second survey (No. 1437), from 2022.7.4 to 2022.8.2 (N=918; response rate=87.5%), to maximize the number of participants. The combined dataset has 738 observations. After eliminating observations with missing values, the final number of observations for the MCA analysis is 654. ² Appendix 2 provides a basic scratch of the sample regarding gender, age, education level, and residence location. Note that the purpose of the analysis is not to refer to Taiwan's voters;

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² For replication purposes, the dataset used in this study is open to access at https://bit.ly/3RYiobz

one should not simply interpret the latent relationship found in this sample as universally available across generations, partisanship, jobs, location, etc. The dataset is best treated as a "sample" (like a rock dug out of a seashore cliff). The relationships, like the chemical elements, could also be found in another sample if we keep collecting samples and validating them.

The survey questionnaire for attitudes toward vaccines and the government during the pandemic includes six parts. The survey options were designed using a Likert-style 5-point scale. Still, they were recoded into (variable) <u>categories</u> for the MCA analysis: 0 for disagreeing or "no," 1 for agreeing or "yes," and 2 for neutral or middle choices. The variable labels are appended to the survey items to correspond to the analysis results in the next section.

1. Personal Health

- Are you healthier than last year? [health]
- I have been lonely the past few weeks. [lonely]

2. Attitudes about Vaccines

- I think the vaccines produced by the biotech industry are effective. [vaceffective]
- In general, I am confident that vaccines are safe. [vacsafe]

3. Media Use and Influence

- How much attention do you usually pay to news about the pandemic? [newsatt]
- Vaccine plus infection will make me more resistant to the disease. [immunestar]

4. Attitudes toward Government's Measures

- I am confident that the government decides in the community's best interests regarding vaccines. [bestint]
- The government should grant freedom of movement to those who have received at least three covid vaccines. [freemove]

• The government should make looser regulations for this wave of the Omicron pandemic.

[regless]

5. Evaluation of the Pandemic Future

- Sooner or later, I will get infected (Covid19) anyway. [noescape]
- Covid19 has been weakened (like flu). [flulike]
- I am worried about seeing crowds on the street, in movie theaters, and restaurants.
 [massworry]
- The situation of the pandemic seems irrelevant to me. [irrelevant]
- The Covid19 pandemic is a threat to Taiwan's democracy. [hurtdem]

6. Attitudes toward Political Figures

- President Tsai Ying-wen is a trustworthy political figure. [evaTsai]
- Chen Shi-Chung, the director of the Central Epidemic Command Center (CECC) of the Nation Health Command Center Director, is a trustworthy political figure. [evaChen]
- Su Cheng-Chang, the Premier of the Executive Yuan, is a trustworthy political figure. [evaSu]
- Which political party would you support most? (KMT, DPP, TPP, others, Independent) [camp]

The survey questionnaire for moral stances was built upon the Moral Foundations Questionnaire by Jesse Graham, Jonathan Haidt, and Brian Nosek (www.MoralFoundations.org) (Zhang et al., 2016), recategorized by Haidt's five moral foundations, annotated with variable names corresponding to the original question number that the next section will show in the analysis reports. For example, "F1_7" refers to the 7th question

in MFQ as one measurement for the first moral foundation.³ The second half of Appendix 1 details the original order of the questions, the coding scheme, and the Chinese translation.

1. The Care/Harm Foundation

When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:⁴

- Whether or not someone suffered emotionally [F1_1]
- Whether or not someone cared for someone weak or vulnerable [F1 7]
- Whether or not someone was cruel [F1 12]

Please read the following sentences and indicate your agreement or disagreement:⁵

- Compassion for those who are suffering is the most crucial virtue. [F1 17]
- One of the worst things a person could do is hurt a defenseless animal. [F1_23]
- It can never be right to kill a human being. [F1_28]

2. The Fairness/Cheating Foundation

When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

- Whether or not some people were treated differently than others [F2_2]
- Whether or not someone acted unfairly [F2_8]
- Whether or not someone was denied his or her rights [F2 13]

³ In the original MFQ respondents can add up the scopes of the 6 survey questions for each moral foundation and contrast his/her scores of moralities (from 0-30 for each foundation) to that of the average American public. This paper adoptions the measurement only for exploratory purposes.

⁴ [0] = not at all relevant (This consideration has nothing to do with my judgments of right and wrong); [1] = not very relevant; [2] = slightly relevant; [3] = somewhat relevant; [4] = very relevant; [5] = extremely relevant (This is one of the most important factors when I judge right and wrong).

⁵ [0] = Strongly disagree; [1] = Moderately disagree; [2] = Slightly disagree; [3] = Slightly agree; [4] = Moderately agree; [5] = Strongly agree.

Please read the following sentences and indicate your agreement or disagreement:

- When the government makes laws, the number one principle should be ensuring that everyone is treated fairly. [F2_18]
- Justice is the most important requirement for society. [F2_24]
- I think it's morally wrong that rich children inherit much money while poor children inherit nothing. [F2_29]

3. The Loyalty/Betrayal Foundation

When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

- Whether or not someone's action showed love for his or her country [F3_3]
- Whether or not someone did something to betray his or her group [F3_9]
- Whether or not someone showed a lack of loyalty [F3_14]

Please read the following sentences and indicate your agreement or disagreement:

- I am proud of my country's history. [F3_19]
- People should be loyal to their family members, even when they have done something wrong. [F3_25]
- It is more important to be a team player than to express oneself. [F3_30]

4. The Authority/Subversion Foundation

When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

- Whether or not someone showed a lack of respect for authority [F4_4]
- Whether or not someone conformed to the traditions of society [F4_10]
- Whether or not an action caused chaos or disorder [F4_15]

Please read the following sentences and indicate your agreement or disagreement:

- Respect for authority is something all children need to learn. [NA]⁶
- Men and women each have different roles to play in society. [F4_26]
- If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty. [F4_31]

5. The Sanctity/Degradation Foundation

When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

- Whether or not someone violated standards of purity and decency [F5_5]
- Whether or not someone did something disgusting [F5_11]
- Whether or not someone acted in a way that God would approve of [F5_16]

Please read the following sentences and indicate your agreement or disagreement:

- People should not do things that are disgusting, even if no one is harmed. [F5_21]
- I would call some acts wrong on the grounds that they are unnatural. [F5_27]
- Chastity is an important and valuable virtue. [F5_32]

Findings

MCA allows a researcher to explore latent concepts embedded within the dataset and latent relationships among variable <u>categories</u>—not a conventional understanding of the relations between variables. The first step of MCA analysis is identifying the number of dimensions embedded within the dataset. In this case, as shown in Figure 1 below, four concepts explain the majority of the variance of the dataset. But the first dimension, to be shown in later pictures as the X-axis, is the most important one.

⁶ For a double-check mistake by the author, this question did not appear in the online survey for the present study.

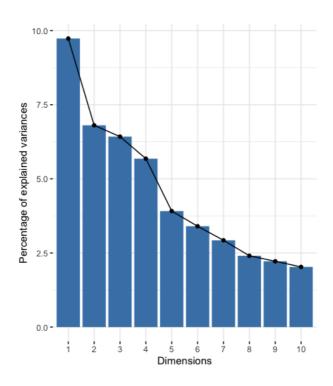


Figure 1. Scree plot of the MCA analysis

Next, we will pay attention to "distance"—the closeness between and among the variable categories (the "triangles") in the 2-D space. As the first dimension is the most important one, it will be contrasted with the second, third, and fourth dimensions, as shown in Figures 2 to 4 below. Each "triangle" plotted on the 2-D plain is a variable <u>category</u> or an option of a survey question, and their closeness could suggest a potential relationship. The numbers _0, _1, or _2 at the end of the labels for each triangle indicated that the choices correspond to the coding scheme. While such closeness among variable categories could be due to dimension reduction to a 2-D plain, we should not simply believe the relationships exist by sight.

Therefore, a series of Chi-square tests must be applied to these possible relationships as a check.⁷

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⁷ The two axes of Figure 1 refer to the first two latent concepts behind the variations between all pairs of variables of this sample. As this study is not determined to discover and propose latent concepts and label them, let's skip this effort and focus on the relative distance between variable categories. The proportion printed on the axes indicates how the data points or "the triangles" closer to the axis contributed to the formation of this concept. Future studies focusing on developing moral foundations are encouraged to take this approach.

For this study, attention is paid to the variable categories of the six groups and how they are related to each other and possibly those from the MFQ moral attitudes. The two circles drawn on the "map" indicate a group of relationships associated with this study's interest. The first (upper) group of highlighted variable categories suggests that the following variables are associated with each other: trust in the vaccines, deregulation orientation for pandemic policies, partisan support for DPP, and optimistic attitudes toward the pandemic situation in Taiwan.

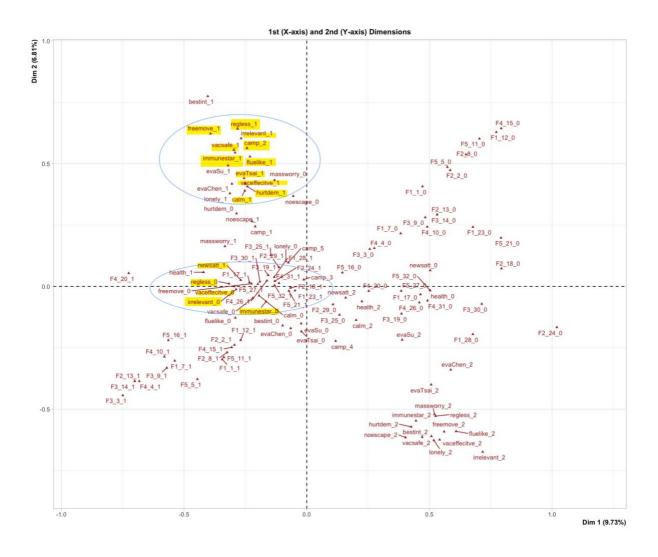


Figure 2. Relative latent association between variable categories shown on plain composed of the 1^{st} and 2^{nd} dimensions

Finding 1. Partisan voters associated with DPP hold consistent attitudes toward vaccines and deregulation.

- Trust in the effectiveness (vaceffective_1) and safety (vacsafe_1) of vaccines is statistically significantly associated with President Tsai Ying-wen (evaTsai_1), support for DPP (camp_2), a perception that Covid19 has been weakened to a type of flu (flulike_1), and belief in the statement of "super immunity" (immunestar_1).
- Feeling that the pandemic has become irrelevant to personal life (irrelevant_1) is associated with support for the ruling party DPP (camp_2) and that the government should reduce the force of regulation (regless_1).

These results do not suggest that social polarization occurred or worsened due to partisanship. Still, they do imply that the spread out of Omicron in 2022's Taiwan could have deepened the gap between partisans, or partisanship may have started hurting the unity of the civil society under the threat of Omicron. In addition, selective perception and interpretation of news media information effectively function for those supporting the government: the misinformation of "super immunity" was well received among DPP supporters. The second (lower) circle of Figure 1 supplements the above observation but provides the following associations among news attention, deregulation, trust in vaccines, and if the pandemic remains irrelevant.

Finding 2. Negative attitudes toward vaccines are associated with conservative perceptions about the pandemic threat.

• Low trust in the effectiveness (vaceffective_0) and safety (vacsafe_0) of vaccines is statistically significantly associated with the feeling that the pandemic situation remains tight and relevant to personal life (irrelevant_0).

Figures 3 and 4 are other snapshots of the MCA results, plotted onto the 2D figures using the 1st and the 3rd dimensions and the 1st and the 4th dimensions, respectively. The following findings will apply the same strategies of pattern identification and summarize the latent relationship between pairs of variables.

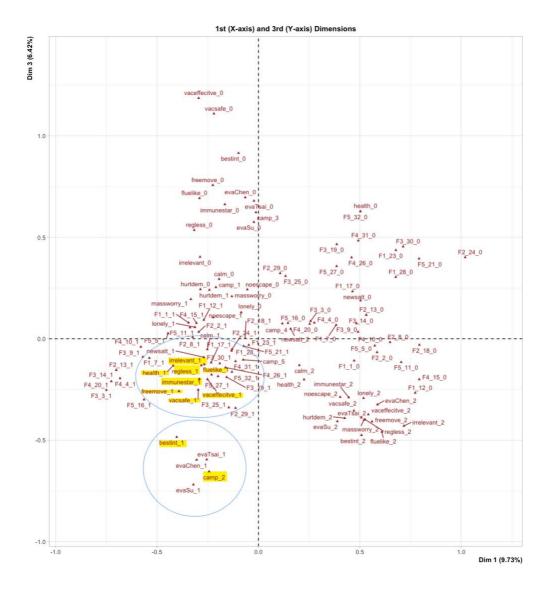


Figure 3. Relative latent association between variable categories shown on plain composed of the 1^{st} and 3^{rd} dimensions

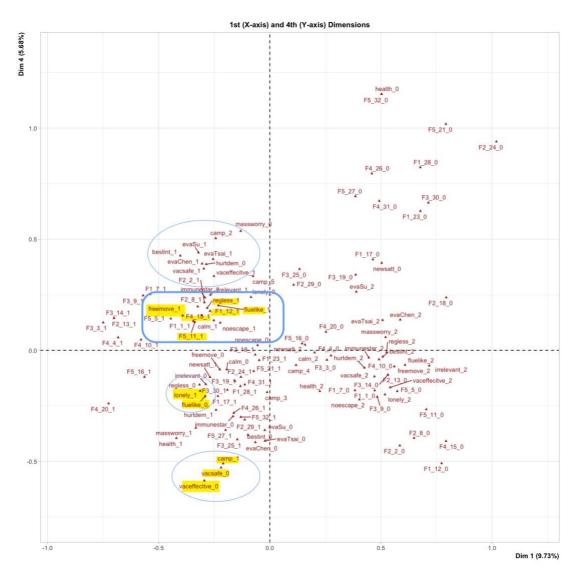


Figure 4. Relative latent association between variable categories shown on plain composed of the I^{st} and 4^{th} dimensions

Finding 3. Perceptions about the (ir)relevance of the pandemic are associated with one's personal mental and physical health.

• Feeling healthy (health_1) is associated with attention to news about the pandemic (newsatt_1), perceptions about the irrelevance of the pandemic to personal life (irrelevance_1), and the adoption of the "super immunity" statement (immunestar_1). The latter two are also associated with each other.

• Feeling lonely (lonely_1) is associated with a view of the inevitability of getting infected (noescape_1). This sense of inevitability is related to the idea that Covid-19 has been weakened to be like a type of flu (flulike_1) and feeling calm (calm_1).

This finding suggests that this study's respondents' mental and physical health plays a critical role in their concerns about the pandemic. The image and information about the seriousness of Omicron circulated in social media and broadcasted via mass media could lead citizens, particularly those who feel lonely, to set aside the need for awareness to keep fighting.

Finding 4. Greater attention to pandemic-related news concerns complex views about vaccines and conservative attitudes toward deregulation.

- Greater attention to pandemic-related news (newsatt_1) is associated with confidence in the effectiveness of vaccines (vaceffective_1), but its association with vaccine safety (vacsafe_0) is not statistically significant.
- Greater attention to pandemic-related news (newsatt_1) is associated with Not supporting deregulation policies (regless_0).

This finding furthers the role of media use during the outbreak of Omicron. Paying much attention to consuming knowledge and information—including receiving misinformation and getting updated or corrected, could lead to confusion and concerns about the vaccines in the first place. But the respondents who did so seemed to have better confidence in their decisions about vaccinating. Such conservativeness could be reflected in their concerns about the government's policies of deregulation of travel and back-to-school policies.

The last set of findings bridges the attitudes toward the pandemic to the moral stances this study was intended to do in the first place. Whereas the amount of information drawn from the above MCA maps of variable categories is heavy, I found that only a few moral stance measurements are statistically linked to political attitudes.

Finding 5. Some moral stances or attitudes are associated with attitudes toward the pandemic.

- That "one should not be cruel" (F1_12_1), an element of the Care/Harm foundation measurements, is found to be associated with a view of the inevitability of getting infected (noescape_1), that Covid-19 has been weakened to be like a type of flu (flulike_1), and that the government should grant citizens the freedom to move after receiving three or more vaccines (freemove_1).
- That "one should not do something disgusting" (F5_11_1), an element of the Sanctity/Degradation foundation measurements, is associated with supporting deregulation policies (regless_1).

Respondents who hold "no cruel" moral attitudes seemed to see Omicron as not a malicious virus. In contrast, those with the "no disgusting actions" moral stance will likely see policies that stop well-vaccinated people from free moves as disgusting measurements. While it is hard to interpret such associations directly, the world-known locking-down Shang-Hai, the largest commercial city in China, could serve as a reference here. The shocking news about the bitterness and suffering of people locked down in their homes and communities and having difficulty reaching food and essential resources from March to May 2022 could have imprinted on Taiwan voters' minds. News like such could trigger respondents' moral stances, at least

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⁸ Jackson, P., & Abdul Jalil, Z. (2022, June 1). Shanghai lockdown: China eases Covid restrictions after two months. BBC News. https://www.bbc.com/news/world-asia-china-61647687

give hints to them to re-evaluate the seriousness of the Omicron crisis and turn to support governmental measures with more "holy" concerns.

Discussion and Conclusion

This study attempts to contribute to the stream of descriptive research on public opinion and political communication by employing moral foundation theory, multiple correspondence analysis (MCA), and a web-survey panel to explore how moral stances are associated with vote choices sensitive political issues. The two research questions – how Taiwan voters formed their trust toward the government when opinion polarization was severe between partisan voters and how moral stances are related to such attitudes and opinions about the government measures – are partially answered. The findings help depict, if not explain, what voters think and make sense of pandemic policies during the first phase of the outbreak of Omicron in Taiwan between May and July.

First, unlike the situation in 2020 when the pandemic broke out worldwide as Taiwan remained intact, citizens felt proud surrounding the flag raised by the CECC commander Chen Shih-Chung and President Tsai Ying-Wen, the sudden outbreak of Omicron in the spring of 2022 confused Taiwan citizens. The legacy of success buttressed DPP's supporters for the central government. It led them to support the policies consistently and then make sense of the information that could help the Tsai administration's pandemic measures (mostly deregulation based on the vaccine rate has reached the expectation). The findings show that the trust in the government about the measures has been weakened among those non-DPP supporters. The results do not show that non-DPP supporters turned to identify other political parties or that other party identifier all united to fight against the central government. The divided society is

not found in the analysis. However, it is interesting to think about how DPP supporters stood together against the wind of doubting the government's policies.

Second, this study provides indirect clues about how selective interpretation functions for citizens and how moral stances come into the stage. That the "super immunity" misinformation was well perceived and supported by DPP supporters indicated how mass media and social media facilitate the adoption of pandemic information for partisan purposes. As the outbreak of Omicron may hurt the credibility of the central government and the public's perception about the effectiveness of vaccines, the idea of "super immunity" helps build excuses for supporters to keep their faith on the one hand and comfort the anxiety of the public on the other. Plus, the two-month-long lockdown of Shang-Hai provided a sharp contrast to Taiwan's "open the gate" policies, granting DPP supporters reasons to keep standing with the central government, evidenced by their consistent positive evaluation of the three political leaders. The Shang-Hai case, portrayed as a negative image of China's pandemic policies, also triggered some not-so-partisan voters' moral stances. They may not team up with DPP immediately, but they could support the government's liberal policies to lower travel, tracking, self-quarantine constraints, etc. To them, such liberalization gives a great holy sense to being a Taiwanese citizen.

Third, this study further suggests that news "consumption" provides alternative effects to channel away voters' trust in the central government's measures. Respondents who paid greater attention to the pandemic news could feel more conservative than their DPP cohorts about the necessity of deregulation measures that may lead the public to underestimate the seriousness of the Omicron (such as "escaping" from the protection of injected vaccines) and its long-term side effects (such as multisystem inflammatory syndrome in children or MIS-C). Respondents with such concerns felt that compared to their counterparts supporting the central governments.

Omicron is still relevant to their lives. One explanation is that the policies affect not only the economy but family lives, especially those parents who must suffer from income security and attention drained by homeschooling, family members who felt ill and assisting their children in participating in virtual classes. The deregulation policies could have drawn their family lives into chaos, a reason commonly seen in the past year's quarrels between parent organizations and the Ministry of Education. This study so far has provided a canvas painted with such complexity and difficulty of making progress in the pandemic era.

Methodologically, this study contributes to the literature by demonstrating how the exploratory approach using conventional cross-sectional surveys could successfully assist in identifying latent explanatory variables. We use the chi-square test to check if two variables are associated as expected. This approach does help identify an explanatory variable (X) for a response variable (Y) because we hope that the chosen X should have a statistically significant correlation with Y. We would abandon this X if it does not pass the test of independence. However, the MCA approach emphasizes this goal. Still, it focuses on how one side of X and many other Xs have associated with one side of Y. This approach contributes more to exploring potential X that the light of theory has not touched. Here the five moral foundations are less relevant to this case, but integrity is. The primary limit of MCA is that we cannot see through multiple dimensions of the data-verse but only could use 2-D or 3-D tools for mining the pairs of variable categories. Note that the closeness of two points on a 2-dimensional plot may not reflect if the relationship is genuinely close or far in a multidimensional structure. Therefore, users of MCA need to interpret analysis with care.

Finally, for pragmatists and positivists, identifying an actual problem by first accurately describing it is a noble goal. Failing to draw a picture of reality before explaining a phenomenon could exaggerate a problem or mislead the followers. As the beginning of the

series of studies focusing on depicting the moral landscape of voters from a variety of democracies, this study has shown the society of public opinion research using conventional survey methods a relatively clean and straightforward approach to describing voters. The analysis of this study has generated rich information that requires more studies to complete the puzzle. Future research is encouraged to consider this challenge and explore operational concepts, such as generational confront as has portraited in Lukianoff and Haidt Field (2018), to better understand our fellow voters, including both part and less-partisans.

References

- Abdi, H., & Valentin, D. (2006). Multiple correspondence analysis. In N. J. Salkind (Ed.), *Encyclopedia of Measurement and Statistics* (pp. 651–657). SAGE Publications. http://www.pub.utdallas.edu/~herve/Abdi-MCA2007-pretty.pdf
- Achen, C. H., & Wang, T. Y. (2017). The Taiwan Voter. University of Michigan Press.
- Blasius, J., & Greenacre, M. (Eds.). (2014). *Visualization and Verbalization of Data*. CRC Press.
- Brandt, M. J., Wetherell, G., & Crawford, J. T. (2011). Moralization and intolerence of ideological outgroups. In M. Mikulincer & P. R. Shaver (Eds.), *The Social Psychology of Morality: Exploring the Causes of Good and Evil* (1 edition, pp. 239–256). American Psychological Association.
- Brillinger, D. R. (2011). Data analysis, exploratory. In B. Badie, D. Berg-Schlosser, & L. Morlino (Eds.), *International Encyclopedia of Political Science* (pp. 530–537). SAGE Publications.
- Campbell, A., Converse, P., Miller, W., & Stock, D. (1960). *The American Voter*. New York: Wiley.
- Converse, P. E. (1964). The nature of belief systems in mass publics. In D. Apter (Ed.), *Ideology and Discontent* (pp. 206–261). New York: Free Press.
- Davies, C. L., Sibley, C. G., & Liu, J. H. (2014). Confirmatory factor analysis of the moral foundations questionnaire. *Social Psychology*, 45(6), 431–436. https://doi.org/10.1027/1864-9335/a000201
- Du, J. (2019). Validation of the Moral Foundations Questionnaire with three Chinese ethnic groups. *Social Behavior and Personality: An International Journal*, *47*(8), 1–12. https://doi.org/10.2224/sbp.8009

- Evans, J. A., & Aceves, P. (2016). Machine translation: Mining text for social theory. *Annual Review of Sociology*, 42(1), 21–50. https://doi.org/10.1146/annurev-soc-081715-074206
- Glynn, D. (2014). Correspondence analysis: Exploring data and identifying patterns. In D. Glynn & J. A. Robinson (Eds.), *Corpus Methods for Semantics: Quantitative studies in polysemy and synonymy* (pp. 443–485). John Benjamins Publishing Company.
- Glynn, D., & Robinson, J. A. (Eds.). (2014). *Corpus Methods for Semantics: Quantitative Studies in Polysemy and Synonymy*. John Benjamins Publishing Company.
- Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S. P., & Ditto, P. H. (2013).

 Moral foundations theory: The pragmatic validity of moral pluralism. In *Advances in experimental social psychology* (Vol. 47, pp. 55–130). Elsevier.
- Gray, E., Jennings, W., Farrall, S., & Hay, C. (2015). Small big data: Using multiple data-sets to explore unfolding social and economic change. *Big Data & Society*, 2(1), 2053951715589418. https://doi.org/10.1177/2053951715589418
- Gray, K., & Graham, J. (Eds.). (2018). *Atlas of Moral Psychology* (1 edition). The Guilford Press.
- Greenacre, M., & Blasius, J. (2006). *Multiple Correspondence Analysis and Related Methods*. CRC Press.
- Haidt, J. (2012). The Righteous Mind: Why Good People Are Divided by Politics and Religion. Vintage.
- Hare, C., & Poole, K. T. (2018). Psychometric methods in political science. In F. P. Irwing (Ed.), *The Wiley Handbook of Psychometric Testing: A Multidisciplinary Reference on Survey, Scale, and Test Development* (First Edition, pp. 904–931). Wiley.

- Hassell, H. J. G., & Wyler, E. E. (2018). Negative descriptive social norms and political action: People aren't acting, so you should. *Political Behavior*, 1–26. https://doi.org/10.1007/s11109-018-9450-z
- Jacoby, W. G., & Giuk, D. J. (2018). Multidimensional scaling: An Introduction. In F. P. Irwing (Ed.), The Wiley Handbook of Psychometric Testing: A Multidisciplinary Reference on Survey, Scale, and Test Development (First Edition, pp. 375–412).
 Wiley.
- King, G. (2016). Preface: Big data is not about the data! In *Computational Social Science:*Discovery and Prediction. Cambridge University Press.
- Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1944). *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. New York: Duell, Sloan and Pearce.
- Le Roux, B., & Rouanet, H. (2009). Multiple Correspondence Analysis. SAGE Publications.
- Leeuw, J. de, & Mair, P. (2009). Simple and canonical correspondence analysis using the R package anacor. *Journal of Statistical Software*, *31*(5). https://doi.org/10.18637/jss.v031.i05
- Lerner, J. S., & Tetlock, P. E. (2003). Bridging individual, interpersonal, and institutional approaches to judgment and decision making: The impact of accountability on cognitive bias. In S. L. Schneider & J. Shanteau (Eds.), *Emerging Perspectives on Judgment and Decision Research* (pp. 431–457). Cambridge University Press.
- Lindstrom, M. (2016). Small Data: The Tiny Clues That Uncover Huge Trends. St. Martin's Press.
- Lukianoff, G., & Haidt, J. (2018). The Coddling of the American Mind: How Good Intentions and Bad Ideas Are Setting Up a Generation for Failure. Penguin Press.
- Métayer, S., & Pahlavan, F. (2014). Validation of the moral foundations questionnaire in French. *Revue internationale de psychologie sociale*, *Volume 27*(2), 79–107.

- Mikulincer, M., & Shaver, P. R. (Eds.). (2011). *The Social Psychology of Morality:*Exploring the Causes of Good and Evil (1 edition). American Psychological Association.
- Monroe, B. L., Pan, J., Roberts, M. E., Sen, M., & Sinclair, B. (2015). No! Formal theory, causal inference, and big data are not contradictory trends in political science. *PS:**Political Science & Politics, 48(01), 71–74.

 https://doi.org/10.1017/S1049096514001760
- Nishisato, S. (2004). Dual scaling. In D. W. Kaplan (Ed.), *The SAGE Handbook of Quantitative Methodology for the Social Sciences* (1 edition, pp. 3–24). SAGE Publications, Inc.
- Shweder, R. A., & Haidt, J. (1993). The future of moral psychology: Truth, intuition, and the pluralist way. *Psychological Science*, *4*(6), 360–365.
- Sikorski, C. von, Heiss, R., & Matthes, J. (2020). How political scandals affect the electorate.

 Tracing the eroding and spillover effects of scandals with a panel study. *Political Psychology*, *41*(3), 549–568. https://doi.org/10.1111/pops.12638
- Stolerman, D., & Lagnado, D. (2020). The moral foundations of human rights attitudes.

 *Political Psychology, 41(3), 439–459. https://doi.org/10.1111/pops.12539
- Tukey, J. W. (1977). Exploratory Data Analysis. Addison-Wesley Pub. Co.
- Yilmaz, O., Harma, M., Bahçekapili, H. G., & Cesur, S. (2016). Validation of the moral foundations questionnaire in Turkey and its relation to cultural schemas of individualism and collectivism. *Personality and Individual Differences*, 99, 149–154. https://doi.org/10.1016/j.paid.2016.04.090
- Zhang, H., Hook, J. N., & Johnson, K. A. (2016). Moral foundations questionnaire. In *Encyclopedia of Personality and Individual Differences* (pp. 1–3). Springer, Cham. https://link.springer.com/referenceworkentry/10.1007/978-3-319-28099-8_1252-1

Appendix 1: Survey Questionnaires and the Corresponding Variable Names and Translation for Taiwanese Respondents

I. Questions for the Pandemic Survey (Data Collection Period: 2022.06.27~2022.07.26

Variable	Variable Wording and Translation	Variable Options
health	Are you healthier than last year?	0 = worse
	你的健康狀況跟去年此時比起來如何?	1 = better
		2 = same
	I have been lonely past weeks.	0 = disagree
lonely	我過去幾週來已經覺得很孤獨了	1 = agree
		2 = hard to say
vaceffecitve	In general, I think the vaccines produced by the biotech	0 = disagree
	industry. 整體來說,我覺得生醫界研發出來的疫苗是有效的.	1 = agree
	<u> </u>	2 = neutral
vacsafe	In general, I am confident that vaccines are safe.	0 = disagree
	整體來說,我相信生醫界研發出來的疫苗是安全的。	1 = agree
		2 = neutral
newsatt	How much attention you usually pay to news about the	0 = little
	pandemic?	1 = much
	你多常關注疫情相關的報導?	2 = sort of
immunestar	Vaccine plus infection will make me more resistence to the	0 = disagree
	infection.	1 = agree
	打完該打的疫苗後,再染疫,身體會有更多的抗體	2 = neutral
bestint	When it comes to vaccines, I am confident that the	0 = disagree
	government decides in the best interests of the community.	1 = agree
	在疫苗政策方面,我相信政府有根據全體最大利益做出決定	2 = neutral
freemove	The government should grant freedom of movement to those	0 = disagree
	who have received at least 3 covid vaccines.	1 = agree
	政府應該讓已經被確認接種過三劑以上疫苗的民眾自由行動,不	2 = neutral
	再加以任何限制。	
regless	The government should make looser regulation for this wave	0 = disagree
	of Omicron pandenmic.	1 = agree
	關於這波 Omicron 的疫情,我覺得政府管制措施可以少一點(例如開放邊境及餐廳內用)。	2 = neutral
noescape	Sooner or later I will get infected (Covid19) anyway.	0 = disagree
	我被新冠病毒傳染到是早晚的事。	1 = agree
		2 = neutral
flulike	Covid19 has been weakened (like a flu).	0 = disagree
	新冠病毒已經演變弱化(流感化)了。	1 = agree
		2 = neutral
massworry	I am worried to see crowds on street, movie theaters, and	0 = disagree
•	restaurants.	1 = agree
	大街上、電影院、餐廳出現人潮,我覺得很擔憂。	2 = neutral
irrelevant	The situation of the pandamic seems irrelevant to me.	0 = disagree
	這波 Omicron 疫情有多嚴重,對我來說不是那麼重要了。	1 = agree
		2 = neutral

hurtdem	Coronacrisis is threat to Taiwan's democracy.	0 = disagree
	新冠疫情威脅到了台灣的民主。	1 = agree
		2 = neutral
evaTsai	The president Tsai Ying-wen is a trustworthy political figure.	0 = disagree
	請問你同不同意他(她)是值得信賴的呢?我國的總統(蔡英	1 = agree
	文)	2 = neutral
evaChen	Chen Shih-Chung, the director of the Central Epidemic	0 = disagree
	Command Center (CECC) of Nation Health Command	1 = agree
	Center Director, is a trustworthy political figure.	2 = neutral
	請問你同不同意他(她)是值得信賴的呢?我國的防疫中心指揮	
	官(陳時中)	
evaSu	Su Cheng-Chang, the Premier of the Exective Yuan, is a	0 = disagree
	trustworthy political figure.	1 = agree
	請問你同不同意他(她)是值得信賴的呢?我國的行政院長(蘇	2 = neutral
	貞昌)	
camp	Which political party would you support most?	1=KMT
	下列哪個政黨,算是你最支持的呢?	2=DPP
		3=TPP
		4=independent
		5=other parties

II. Original Moral Foundations (Data Collection Period: 2022.07.04~2022.08.02)

considerations	relevant to your	thinking? Plea	se rate each s	tatement using th	are the following his scale: nents of right and
[1] = not very r	elevant				
[2] = slightly re					
[3] = somewha					
[4] = very relev	ant				
[5] = extremely	y relevant (This	is one of the r	nost importar	nt factors when l	I judge right and
wrong)					
1. Whet	ther or not someo	ne suffered em	otionally [F1	11	
	ther or not some		-		2. 31
	ther or not some of	-		- -	
	ther or not someo				•
	ther or not someo		-	•	
			-	ity and decency [[13_3]
	ther or not someo	•		11-1- FF1	1 71
	ther or not someo			or vuinerable [F.	1_/]
	ther or not someo				F2 01
	ther or not someo		•		
	ether or not some				4_10]
	ether or not some		-	g [F5_11]	
12. Who	ether or not some	one was cruel	[F1_12]		
13. Who	ether or not some	one was denie	d his or her rig	ghts [F2_13]	
14. Who	ether or not some	one showed a	lack of loyalty	/ [F3_14]	
15. Who	ether or not an ac	tion caused cha	aos or disorde	r [F4_15]	
16. Who	ether or not some	one acted in a	way that God	would approve of	of [F5_16]
Part 2. Please i	read the followin	g sentences an	d indicate vou	r agreement or a	disagreement:
[0]	[1]	[2]	[3]	[4]	[5]
Strongly	Moderately	Slightly	Slightly	Moderately	Strongly
disagree	disagree	disagree	agree	agree	agree
17. Com	nnassian fan thas	a vyha ana ayffa	mina ia tha ma	act amacial vintua	ID1 171
	npassion for those		_		
	=			one principle sil	ould be ensuring
	veryone is treated	•			
	n proud of my con				
	ect for authority i	_		-	_
•	ple should not do	_		ven if no one is i	narmed. [F5_4]
	better to do good			. d.f 1	im al [E1 02]
	of the worst thin				imal. [F1_23]
24. Just	ice is the most in	iportant require	ement for soci	iety. [F2_24]	

25. People should be loyal to their family members, even when they have done
something wrong. [F3_25]
26. Men and women each have different roles to play in society. [F4_26]
27. I would call some acts wrong on the grounds that they are unnatural. [F5_27]
28. It can never be right to kill a human being. [F1_28]
29. I think it's morally wrong that rich children inherit much money while poor children
inherit nothing. [F2_29]
30. It is more important to be a team player than to express oneself. [F3_30]
31. If I were a soldier and disagreed with my commanding officer's orders, I would
obey anyway because that is my duty. [F4_31]
32. Chastity is an important and valuable virtue. [F5_32]

Note:

1. Questions 6 and 22 are just used to catch people who are not paying attention. They don't count toward your scores.

In the analysis stage, all response values of 0, 1, and 2 were recorded to 0, and values of 3, 4, and 5 were rerecorded to 1. The labels shown in the MCA plot will correspond to specific variables category or respondent's choice.

2. For example, F5_32_1 refers to agreeing on the statement of the 32nd question and element of the fifth foundation.

當你判斷一件事的對與錯時,那些是你在乎的?下面所列出的原則請你用 $0\sim5$ 的等級來表示它們對你會考慮的重要程度。

- 0毫不相關(這與我判斷是非,全無關係)
- 1相關不大
- 2 有點相關
- 3一定程序上相關
- 4相常相關
- 5 絕對相關 (這是我判斷是非的時候最重要的考慮因素)

這事件裡有沒有人在情感上受到傷害

這事件裡有沒有人受到差別待遇

這事件裡的當事人在行為上有沒有展現愛國心

當事人有沒有不尊重權威

當事人有沒有做出不聖潔或違反善良風俗的事

當事人的數學能力好不好*

當事人有沒有展現過關懷弱勢或受到傷害的人

當事人做的事有沒有展現公平

當事人有沒有背叛他/她的團隊或組織

當事人的言行有沒有遵循社會的傳統價值

當事人有沒有做令人看了渾身不舒服甚至是作噁的事

當事人有沒有做令人覺得殘忍的事

當事人的權利有沒有被侵犯甚至是剝奪

當事人的言行有沒有展現忠誠

當事人有沒有做出破壞秩序甚至造成混亂的事

當事人的言行有沒有遵循上帝(或是不同宗教的神與佛)的教誨

接下來的這些話,請你勾選你同意與不同意的程度.0表示非常不同意,5表示非常同意。

「對受害者展現同情是最重要的美德。」

- 「政府制定法律時,最重要的原則是保證每個人都受到公平對待。」
- 「我對自己國家的歷史感到驕傲。」

N/A (未施測)

- 「儘管沒有傷害到別人,但也不應該做出令人作噁的事。」
- 「為善勝於作惡。」*
- 「傷害毫無抵抗能力的動物是件極為糟糕的事。」
- 「這個社會最應該要求就是正義。」
- 「對於自己的家人,就算他們做錯了什麼,也要對他們展現忠誠。」
- 「男人與女人有各自不同的社會職責要扮演。」
- 「如果一個人行為不符合自然現象,我會覺得那個行為是不對的。」
- 「殺人無論如何都是不對的。」
- 「有錢人家的孩子繼承很多錢而貧困的孩子繼承不到任何東西,是很不道德的。」
- 「團隊合作比展現自我更重要。」
- 「如果我是個軍人,即使心裡不太同意長官的命令,也會照辦,因為服從是我的義務。」
- 「一個人的貞潔/貞操是一種重要、珍貴的美德。」
- 註:有*的兩題為原問卷中用於測試受訪者是否專注用的題目,不計入加總與分析

Appendix 2: Descriptive Profile of the Web Survey Panel for the Present Study

