Quarto_Paper_MaC

Democracy and social media: Between the dialogue and the strategy

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Abstract

This study analyzes the role of traditional news media and social media in public deliberation within democratic systems. Using the concepts of Understanding Orientation (consensus-oriented, communicative rationality) and Strategic Orientation (goal-oriented, instrumental rationality), proposed by Jürgen Habermas, this study looks at the public space in a digital context to explore how the news media can either contribute to the existence of rational communication in the public debate or, conversely, promote interventions of a strategic nature. To estimate the influence of traditional news media and social media on the orientation to engage in dialogue with others within a framework of rationality and equality, this study relies on a two-wave online panel survey conducted in Chile before and after the constitutional referendum, held on September 4, 2022, a period of intense political polarization. The first wave (T1) received 2,117 responses, and the second wave (T2) received 903 responses. Results show that Understanding Orientation is a predictor of political situations linked to public deliberation, such as Political Participation and Political Interest. However, news consumption in both traditional news outlets and social media is not associated with the presence of Understanding Orientation, but rather with Strategic Orientation. These results support a more pessimistic view of the contribution of the news media and social media to creating a rational public sphere, where reason should predominate in interactions between citizens to strengthen democracy.

Literature Review

In recent decades, the concept of deliberative democracy has increasingly appeared in theoretical discussions (Dahl, 1989; Delli Carpini and Jacobs, 2004; Habermas, 1996; Rawls, 1971) and empirical studies on the formation of public opinion (Fishkin, 2005). As Page (1996) stated, “public deliberation is essential to democracy.”

The expansion of the deliberative democracy concept broadens the idea of political participation, which for decades was restricted to electoral participation. The vote-centric view of politics considers the political system a mere aggregator of individual preferences, assuming that citizens form opinions in isolation and express them periodically in elections to determine majority positions (Delli Carpini and Jacobs, 2004). In contrast, deliberative democracy processes opinions before voting occurs in democratic systems (Delli Carpini and Jacobs, 2004). Through dialogue and reasoning, citizens can build agreements. However, this facet of citizenship does not compete with electoral democracy; rather, they complement each other.

Fishkin (2005), who has conducted both theoretical reflection and extensive empirical research, argues that deliberative democracy must reconcile deliberation with democratic values, political equity, and avoid majority dictatorship. This requires an attitude of listening to others (Burkhalter et al., 2002). Listening is central, but so is the ability to speak and argue in the public sphere under equal conditions.

Regarding the characteristics of deliberation, Moy and Gastil (2006) assert that for deliberation to occur, certain conditions must be met: openness to political conflict, absence of conventional forms of domination, clear and responsible arguments, and mutual understanding. They argue that not all media stimulate democratic deliberation; for example, written media facilitate it through face-to-face interactions, while television complicates it by making rational arguments harder to present and for recipients to grasp as intended.

Not all conversations, however, constitute democratic deliberation. Many face-to-face conversations are merely social interactions without a clear objective or problem to resolve (Moy and Gastil, 2006; Schudson, 1997). The key difference between democratic deliberation and other forms of conversation lies in its conflictual nature, the use of rational arguments, and the goal of reaching a consensus (Moy and Gastil, 2006).

Since the mid-20th century, research has demonstrated the relationship between democratic deliberation and interpersonal conversations. Interpersonal conversation is a privileged space for dialogue, where several characteristics converge to facilitate reaching agreements, such as: a) participants being in the same spatiotemporal context, b) use of multiple symbolic signals, c) specific orientation toward others, and d) the possibility of feedback (Thompson, 1998). The importance of interpersonal communication in deliberation was first found in research by the Columbia School, which analyzed the role of personal conversations in shaping undecided voters' choices. These findings were later extended by other authors who have continued studying the importance of interpersonal communication (Delli-Carpini, Cook, & Jacobs, 2004; Habermas, 1962; Rawls, 1971; Rojas et al., 2005).

Alongside interpersonal conversation, the relationship between deliberation and the media has also been intensely studied (Habermas, 1962; Moy and Gastil, 2006; Page, 1998). The debate began with Katz and Lazarsfeld (1955), who measured how the media influenced personal conversations and found that the effect varied according to audience characteristics. Later, Habermas gave a central role to the media—particularly the press—in constructing the public sphere, stating that the media fueled rational debate among private individuals, constituting a public sphere for discussing issues of common interest (1962). This debate, now including digital media and social media, continues to evolve. Moy and Gastil (2006) argue that consuming news through the media opens up political conflicts that are part of deliberation, and Mais (XXX) claims that the media can promote deliberation, despite skepticism about their impact.

Digitalization, especially the emergence of social media, has renewed interest in political deliberation studies, raising questions about differences between the effects of traditional media and new digital platforms. Social media have significant potential to boost political participation by reducing organization time, lowering economic costs of participation, helping build collective identities (Dalton, Sickle, and Weldon, 2009), reaching critical masses, forming groups with common interests, accessing vast amounts of information, and increasing social capital (Ellison et al., 2014; Valenzuela, Park, and Kee, 2009). These characteristics make social media a space of constant interaction, though these interactions do not necessarily lead to political deliberation and may also foster other forms of personal interaction. Since 2016, doubts have increased about the beneficial effects of social media on public deliberation. The proliferation of fake news, echo chambers, election campaigns using micro-targeting techniques to understand voters, and opaque algorithms have heightened skepticism about these platforms' contribution to democracy (Chambers, 2023). In this context, Volker (2019) explains that the quality of deliberation on social media depends on various factors and their interaction: a) infrastructure quality, b) political context, c) legal framework, and d) discourse participants.

Public Sphere and Action Orientations

One of the most important authors on the relationship between public opinion, deliberation, and democracy is Jürgen Habermas. In 1962, he published The Structural Transformation of the Public Sphere, a seminal text in the debate on this topic. One of Habermas' central concepts is the "public sphere."

In this work, Habermas describes the public sphere as a space where individuals use reason to discuss public issues in accessible places. His research focuses on three European countries—France, Germany, and England—and highlights a new social structure that emerged in the 18th century in bourgeois gathering places, where debates were fueled mainly by print media publications (Habermas, 1991). The public sphere not only allows individuals to use reason to debate public issues but also acts as a hinge between the public sphere (where state action occurs) and the private sphere (where work, intimate relationships, and family life reside) (Habermas, 1991).

One of the most significant consequences of the public sphere's emergence is the equality it creates between people, transcending origin and economic status. When differences are addressed through reason, only the strength of arguments and persuasion matters. Social differences tend to fade in the public sphere, where the principle of equality is affirmed through the use of reason. In his work, Habermas takes a critical view of the public sphere's evolution since the late 19th century. He argues that public space is no longer driven by reason but has become dominated by manipulation and the public representation of interests, a phenomenon he calls "representative publicity." He also criticizes the media for no longer fostering rational dialogue among citizens, having instead succumbed to commercial logic, interest defense, and cultural consumption (Habermas, 1991; Thompson, 1998).

Despite his pessimistic view of the public sphere's function in the 20th century, Habermas later revised and modified some of his initial positions (Calhoun, 1992; Habermas 2006, 2022, 2023). In these later works, he reexamines various aspects of his proposal, most notably reassessing the idea of the public sphere's decline throughout the 20th century and the media's role in this process. He argues that two key actors are necessary for the public sphere to function: media professionals who generate mediated public opinion and politicians who occupy the center of the public sphere. Additionally, he asserts that the public sphere can function properly as long as media professionals maintain independence from surrounding actors and feedback occurs between media publications and civil society (Habermas, 2006).

In his most recent writings, Habermas (2022, 2023) further explores the media's role, stating that one of their tasks is to generate "competing public opinions" (p.157) to meet the standards of public deliberation. He argues that the media's space is the only venue where effective opinions can reach a broad audience (Habermas, 2022). He also highlights that political messages' effectiveness varies depending on individuals' interest, education, and economic situation.

Social media's influence on the public sphere is also analyzed. Habermas takes a pessimistic view of these platforms, arguing that they lack the editorial and professional controls that journalists face, leading to an unregulated process with a centrifugal effect that drives citizens apart rather than fostering consensus (Habermas, 2022).

Consistent with his description of the public sphere, Habermas proposed two orientations for social interactions: a) strategic (goal-oriented) and b) communicative (understanding-oriented). The first seeks to manipulate others to achieve predefined objectives, while the second seeks to establish relationships through language and reason, aiming to reach consensus, which all actors in the situation deem legitimate.

Habermas's proposal contrasts with a long-standing tradition that views reason as operating solely instrumentally—or strategically—in social life (Coleman, XXX; Dewey, 1988; Weber, XXX). Habermas offers a counterproposal, suggesting that face-to-face interactions can involve reason and achieve significant levels of understanding. Achieving agreements, according to Habermas, is essential for societies' symbolic and normative interactions. His proposal underscores the importance of rationally established decision-making processes, as adherence to norms shaped by collective participation leads to final decisions being considered legitimate by all affected parties.

Strategic and understanding-oriented interactions play roles in different moments of social life. Strategic orientation is appropriate for decisions emphasizing technical efficiency, while understanding orientation is essential in situations involving normative aspects or when actors seek to harmonize their objectives with others in a shared definition of from the situation in which they find themselves (Habermas, 2003).

As in his proposal of the public sphere, in the description of the orientations of conversation, the use of reason—or its absence—plays a fundamental role. In his work, Habermas seeks to expand the instrumental action or rational action oriented towards ends, as defined by Max Weber, by incorporating a rational action in which language plays a central role, which he calls communicative action (Habermas, 2003). Although both actions have a basis in rationality, their differences are significant. Instrumental action is non-social—it does not involve other actors—and aims to use means as rationally as possible to achieve a desired state of affairs in the world. Finally, Habermas argues that there are social actions that are not instrumental, which occur when actors are not driven by selfish calculations but seek, through language, to reach a consensus with others. In this way, success orientation is typical of strategic actions, and understanding orientation happens in communicative actions (Habermas, 2003).

This proposal by Habermas has undergone few empirical tests. One of them is the work of Rojas (2008), who studied how the orientations of conversations impact relevant variables of the democratic system, such as political interest and political efficacy, in addition to establishing the determining variables of strategic orientation and understanding orientation (Rojas, 2008). In this latter analysis, the influence of news consumption in traditional media—TV, newspapers, and radio—on the two described forms of orientation was studied.

Although it has its differences, Habermas's proposal brings him closer to other authors who have also highlighted the importance of deliberation in democratic life (Dahl, 1989; Delli Carpini and Jacobs, 2004; Fishkin, xxxx; Page, 1996).

Incorporating the effect of traditional media and social media in the current public debate Considering the relationship established by previous research between deliberation and the characteristics of Jürgen Habermas's concept of understanding orientation, our first research hypothesis is:

This point needs to be correctly address H1: Understanding orientation is positively related to interpersonal confidence.

Regarding the relationship between media consumption and the previous findings on the link between traditional media and social media with different forms of democratic deliberation, we propose:

H2a: News consumption in traditional media is positively related to understanding orientation.

H2b: Exposure to news on social media is negatively related to understanding orientation.

Political Variables

In addition to media and social media, there are other variables that the literature shows influence democratic deliberation processes, such as political interest and the perception of political efficacy.

Political interest is considered the basis for holding democratic political beliefs (Rebenstorf, 2004) and one of the central variables for explaining political participation (Sherrod et al., 2010; Torney-Purta, 2001). "Political interest is a necessary precondition for the desired characteristics of a responsible and democratic citizen" (Rebenstorf, 2004). In the same vein, Gil de Zúñiga and Diehl (2018). Unlike the civic obligations imposed by the state—which are normative in nature—high levels of social capital are associated with voluntary political engagement behaviors (Delli Carpini and Keeter, 1996). Moreover, members of audiences with lower social capital tend to avoid news consumption more frequently (Prior, 2007), while high levels of social capital are related to high news consumption (Boulainne and Shehata, 2022). Given the precondition status that political interest holds for the development of civic behaviors, we propose:

H3: Political interest is positively related to understanding orientation.

Political efficacy is another key variable for understanding the level of commitment to the political system and participation. It is understood as the perception of individuals' abilities to understand the political process and the influence they have on authorities' decisions (Prats and Meunier, 2021). Political efficacy creates a self-selection effect, where individuals' perceptions influence their willingness to participate politically (Gamson, 1968; Prats and Meunier, 2021; Schulz, 2005). Efficacy has two distinct dimensions: external efficacy and internal efficacy. External efficacy refers to individuals' perception of their ability to influence authorities' decisions through various methods, such as elections or public protests. Meanwhile, internal efficacy studies individuals' perception of their competence in understanding the functioning of the political system (Parent, Vandebeek, and Gemino, 2005). Considering the background on the behavior of efficacy and its relationship with participation, we propose the following hypothesis:

H4: Political efficacy (internal and external) is positively related to understanding orientation.

Methodology

Data

The data for this study was obtained from a national survey conducted in Chile under the supervision of the Millennium Nucleus for the Study of Politics, Public Opinion, and Media in Chile (Nucleo MEPOP). The complete survey consisted of three waves, but this study only utilizes data from the first and third waves. Wave 1 was conducted between August 25 and September 8, while Wave 3 was conducted between [insert dates]. The total sample size for this analysis was 950 individuals, specifically those who participated in both Wave 1 and Wave 3.

It is important to note that the survey instrument did not necessarily include the same questions across all three waves. As a result, the analyses presented in this paper are cross-sectional in nature. While the dependent variable was constructed from responses in Wave 3, all independent variables were drawn from Wave 1. The survey design employed quotas based on gender, age, and socioeconomic level, ensuring alignment with national distributions.

Variables

Understanding orientation:

Following the previously mentioned literature, understanding orientation was measured by asking respondents to indicate how much they agree or disagree with the following statements:

Under1: "In political conversations, it is essential to listen carefully to what others have to say."

Under2: "When I talk about politics, learning is more important to me than convincing."

Under3: "Through my conversations, I promote solidarity with others."

Under4: "At its core, politics aims to reach agreements through conversation."

Under5: "When I talk about politics, I feel connected to the people I talk with."

Under6: "Through conversation, political interests can be directed toward the common good."

Under7: "Talking about politics allows me to understand why others see things differently."

Under8: "Political conversations are important for protecting people's rights."

All responses were measured on a 5-point Likert scale, where 1 indicated strong disagreement and 5 indicated strong agreement. A factor was constructed using the eight responses (α = 0.86).

Strategic Orientation

Similarly, to measure strategic orientations, all respondents were asked to indicate how much they agree or disagree with the following statements:

Strate1: "Saying one thing while thinking another is fundamental when talking about politics."

Strate2: "I talk about politics if I gain something from it."

Strate3: "In political conversations, form is more important than content."

Strate4: "When talking about politics, it is sometimes better not to express what you truly think."

Strate5: "People are tired of being asked to talk in order to reach political agreements."

Strate6: "The head of the household decides and does not need to reach an agreement with other family members."

Strate7: "Instead of so much discussion, it's better for someone to just say how things are."

Strate8: "Trying to reach agreements through conversation is a waste of time; it's better if someone decides what to do and gets it done."

All responses were measured on a 5-point Likert scale, where 1 indicated strong disagreement and 5 indicated strong agreement. A factor was constructed using the eight responses (α = 0.75).

Interpersonal Confidence

To measure interpersonal trust, respondents were asked: "Generally speaking, do you think most people can be trusted, or do you think you need to be careful when dealing with others?" Those who answered that most people can be trusted were coded as 1, and all others were coded as 0 (mean = 0.13).

Political Efficacy

In line with the literature, political efficacy was divided into three distinct dimensions. First, external efficacy—i.e., beliefs about system responsiveness—was measured using the following statements:

extef1: "Politicians don't really care about what voters think."

extef2: "Politicians waste a lot of taxpayers' money."

extef3: "People like me have no influence over what is decided in parliament or government."

Similarly, internal efficacy—self-competence beliefs—was measured with the following statements:

intef1: "In general, I don't find it difficult to take a stance on political issues."

intef2: "People like me are qualified to participate in political discussions."

intef3: “People like me have political opinions that are worth listening to.”

Finally, following recent literature, an additional set of questions was used to measure online political efficacy—i.e., the belief that, because of the Internet, it is possible to have more influence on politics and public issues:

ope1: “Using the internet, people like me have more political power.”

ope2: “Using the internet, I can have more say over what the government does.”

ope3: “Using the internet, it is easier for me to understand politics.”

ope4: “Using the internet, public officials care more about what I think.”

All responses were measured on a 5-point Likert scale, where 1 indicated strong disagreement and 5 indicated strong agreement. A factor was created for each of the dimensions (external efficacy: α = 0.74; internal efficacy: α = 0.74; online political efficacy: α = 0.84).

Political Interest

To measure political efficacy, respondents were asked to indicate their level of interest in the following areas:

polint1: Politics

polint2: The constituent process

polint3: The exit plebiscite

All responses were measured on a 5-point Likert scale, where 1 indicated low interest and 5 indicated high interest (α = 0.88).

Media Exposure

To measure media exposure, respondents were asked to indicate how frequently they informed themselves using different channels. Specifically, we used three sets of questions: one related to traditional media, i.e., broadcast TV, cable TV, print media, and radio (α = 0.74); another focused on digital media, i.e., online versions of traditional media, digital-only outlets, news podcasts, and social media platforms of digital media (α = 0.76); and a third set focused solely on social media, i.e., Facebook, Twitter, Instagram, WhatsApp, YouTube, and TikTok (α = 0.84). All questions were measured on a 5-point Likert scale, where 1 indicated low frequency and 5 indicated high frequency.

Incidental Exposure in social media

To measure incidental exposure on social media, respondents were asked to answer a set of questions, indicating how frequently they encounter the following:

Do you come across opinions and/or messages with which you agree?

Do you come across opinions and/or messages with which you disagree?

Do you come across news/information about public or political matters even though you're not looking for current news?

Do you come across political news or news about the plebiscite purely by accident?

Do you come across posts and information about the elections simply because other people in your network shared the news?

Each of these questions was measured using a 5-point Likert scale, where 1 represents "never" and 5 represents "very often." A scale was created using these questions (α = 0.75) through Confirmatory Factor Analysis (CFA).

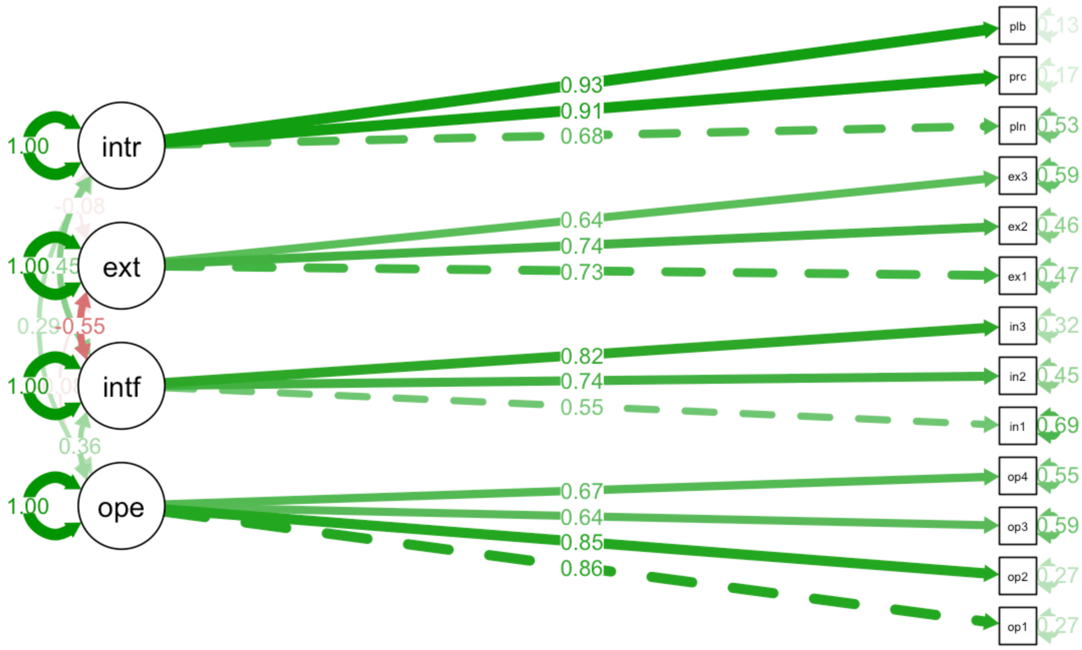
Sociodemographic Variables

Additionally, we controlled the models by incorporating various sociodemographic variables. These included education level, sex (mean = 0.45, where 0 = male and 1 = female), socioeconomic status (range: 1 to 5, mean = 3.2), and age (range: 18 to 84, mean = 44.91).

Analysis

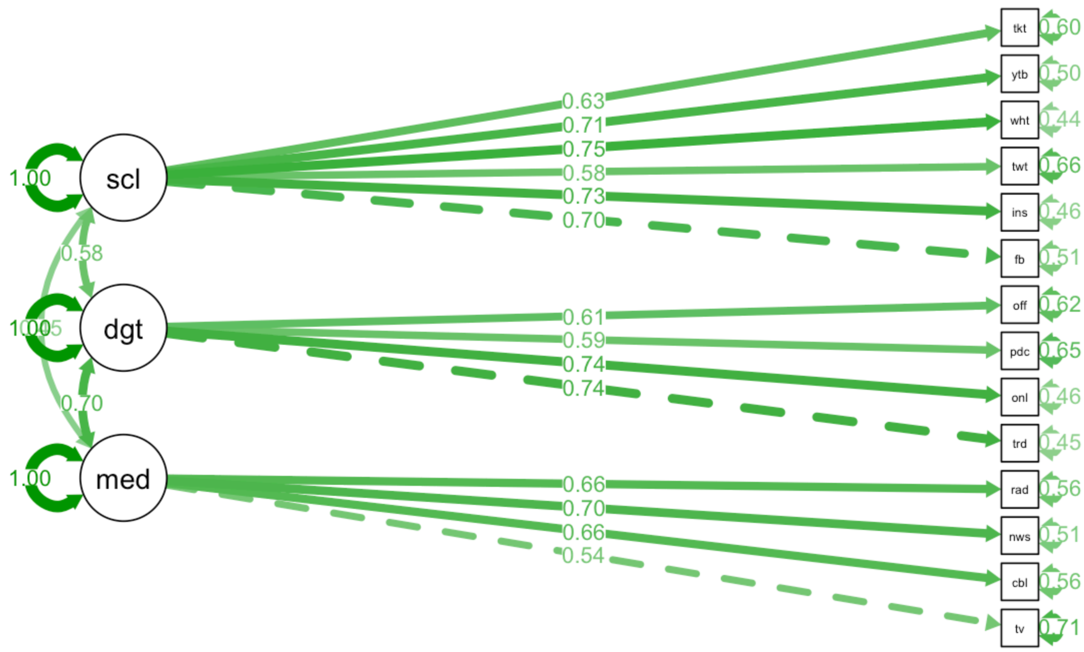
To test our hypothesis, the analysis was divided into two parts. First, different factors were created for the variables described in the previous section using Confirmatory Factor Analysis (CFA). We chose this technique because the selection of variables was theoretically grounded and supported by previous literature. Figures 1, 2 and 3 present the measurement models for the nine factors we developed.

Figure 1 Measurement Model for Political Efficacies



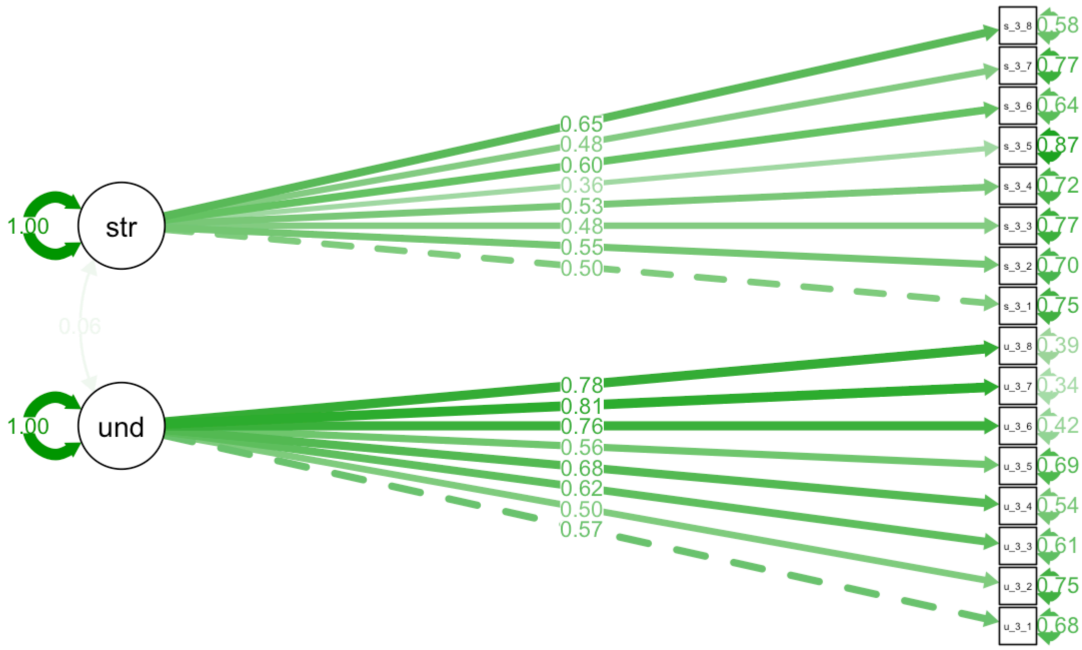
Note: Own elaboration.

Figure 2 Measurment model for Media Exposure



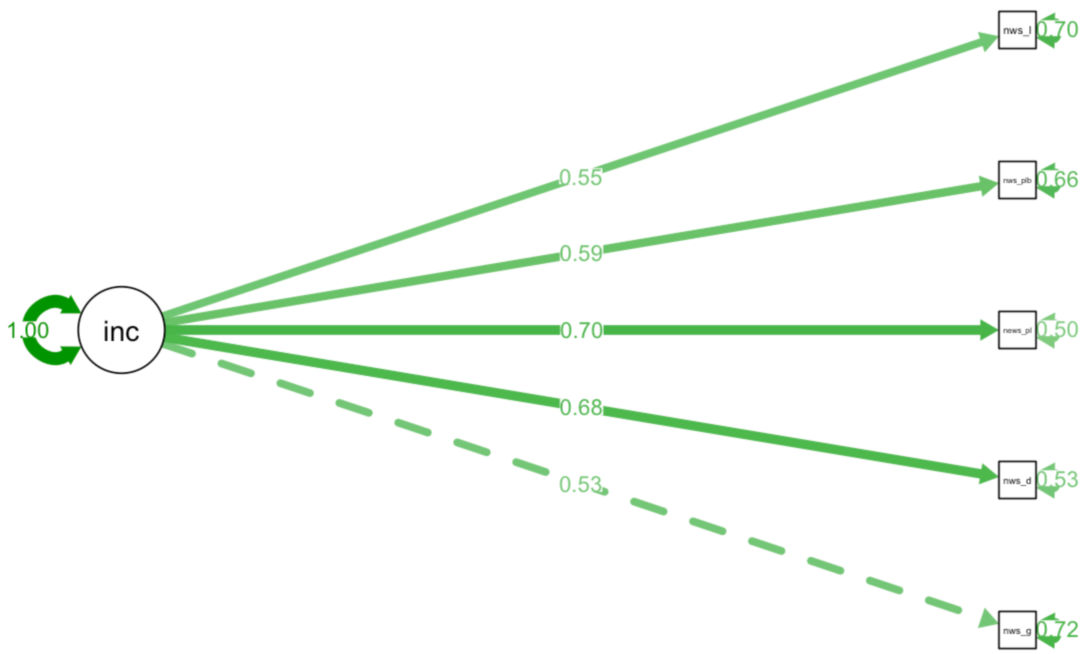
Note: Own elaboration.

Figure 3 Measurment model for understanding and strategic orientations



Note: Own elaboration.

Figure 4 Measurment model for incidental exposure



The second part of the analysis explored which variables might be related to the propensity for having an understanding or strategic orientation toward political interactions, using traditional OLS regressions. We recognize that, given the nature of our data and the design of the analysis, Structural Equation Modeling (SEM) could be a more appropriate method to test these interactions. The advantage of SEM is that it allows us to create latent factors from observable variables—as we did—and simultaneously test the interactions between variables in the model. Thus, to ensure the robustness of our results, we also applied SEM for the two orientations under studied. These results, which are presented in the appendix, are consistent with the findings described in the following section.

Results

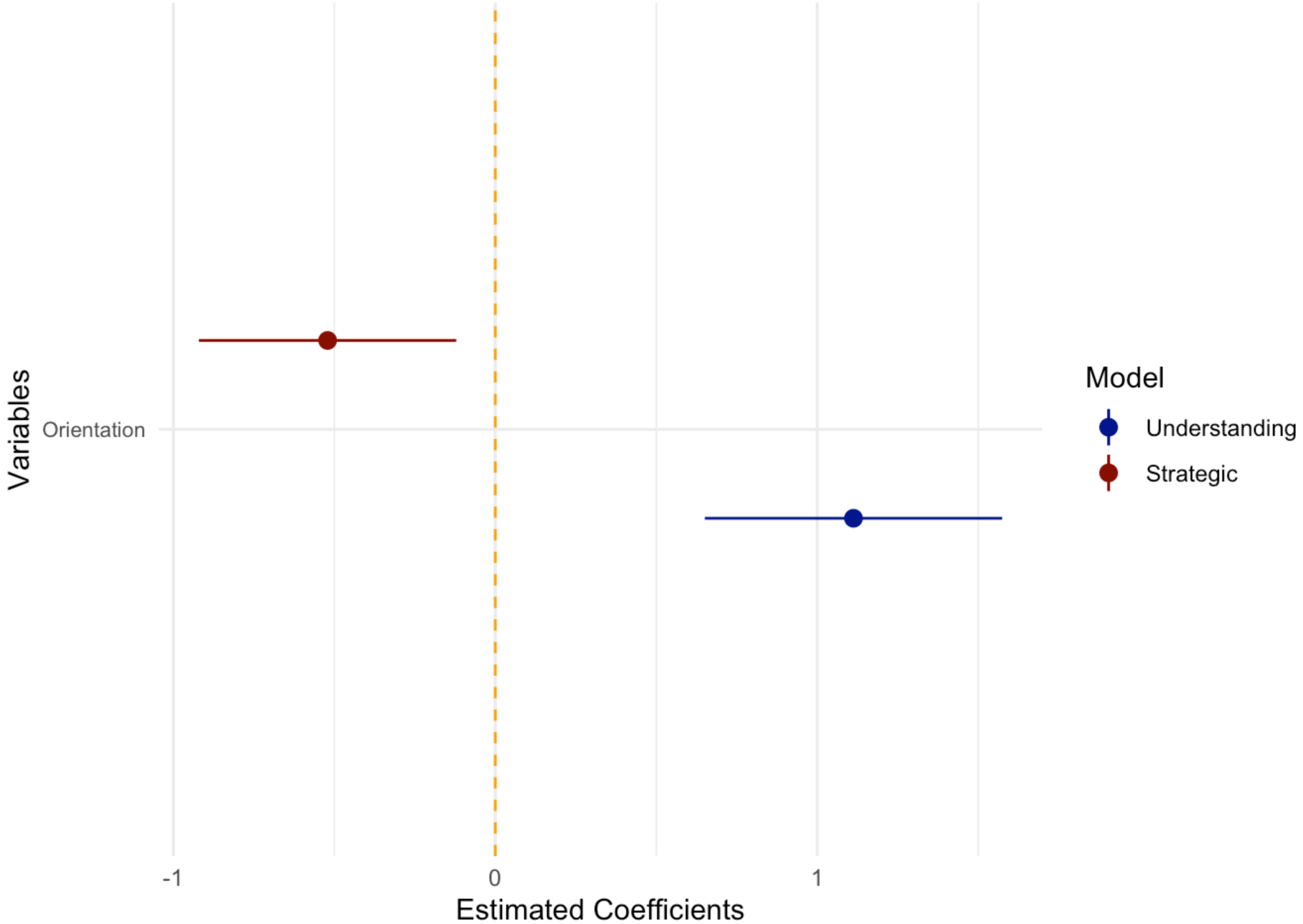
Table 1 presents a parsimonious model that examines the relationship between understanding and political orientations, and interpersonal confidence.

Table 1 Logistic Regression for Interpersonal Confidence

```
Call:
glm(formula = intercon ~ under + ses + sex + age_num, family = binomial,
    data = merged_data)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
-0.9302  -0.5658  -0.4480  -0.3222   2.6612
```

```
Coefficients:
              Estimate Std. Error z value  Pr(>|z|)    
(Intercept) -1.2708473  0.6405523  -1.984    0.0473 *  
under        1.1124624  0.2806836   3.963 0.0000739 ***
ses         -0.1676500  0.1085913  -1.544    0.1226    
sex         -0.5656042  0.2735393  -2.068    0.0387 *  
age_num     -0.0008476  0.0094649  -0.090    0.9286    
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 436.83  on 571  degrees of freedom
Residual deviance: 410.18  on 567  degrees of freedom
AIC: 420.18

Number of Fisher Scoring iterations: 5


Call:
glm(formula = intercon ~ strate + ses + sex + age_num, family = binomial, 
    data = merged_data)

Deviance Residuals: 
    Min       1Q   Median       3Q      Max  
-0.8008  -0.5626  -0.4777  -0.3828   2.5329  

Coefficients:
             Estimate Std. Error z value Pr(>|z|)  
(Intercept) -1.389568   0.641570  -2.166   0.0303 *
strate      -0.520942   0.242999  -2.144   0.0320 *
ses         -0.140746   0.106699  -1.319   0.1871  
sex         -0.633852   0.272466  -2.326   0.0200 *
age_num      0.002727   0.009379   0.291   0.7712  
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 436.83  on 571  degrees of freedom
Residual deviance: 423.26  on 567  degrees of freedom
AIC: 433.26

Number of Fisher Scoring iterations: 5
```

Figure 5 Coefplot for Interpersonal Confidence



Tables 2, 3 and Figure 6 show the models for understanding and political orientations.

Table 2 OLS Regression for Understanding Orientation.

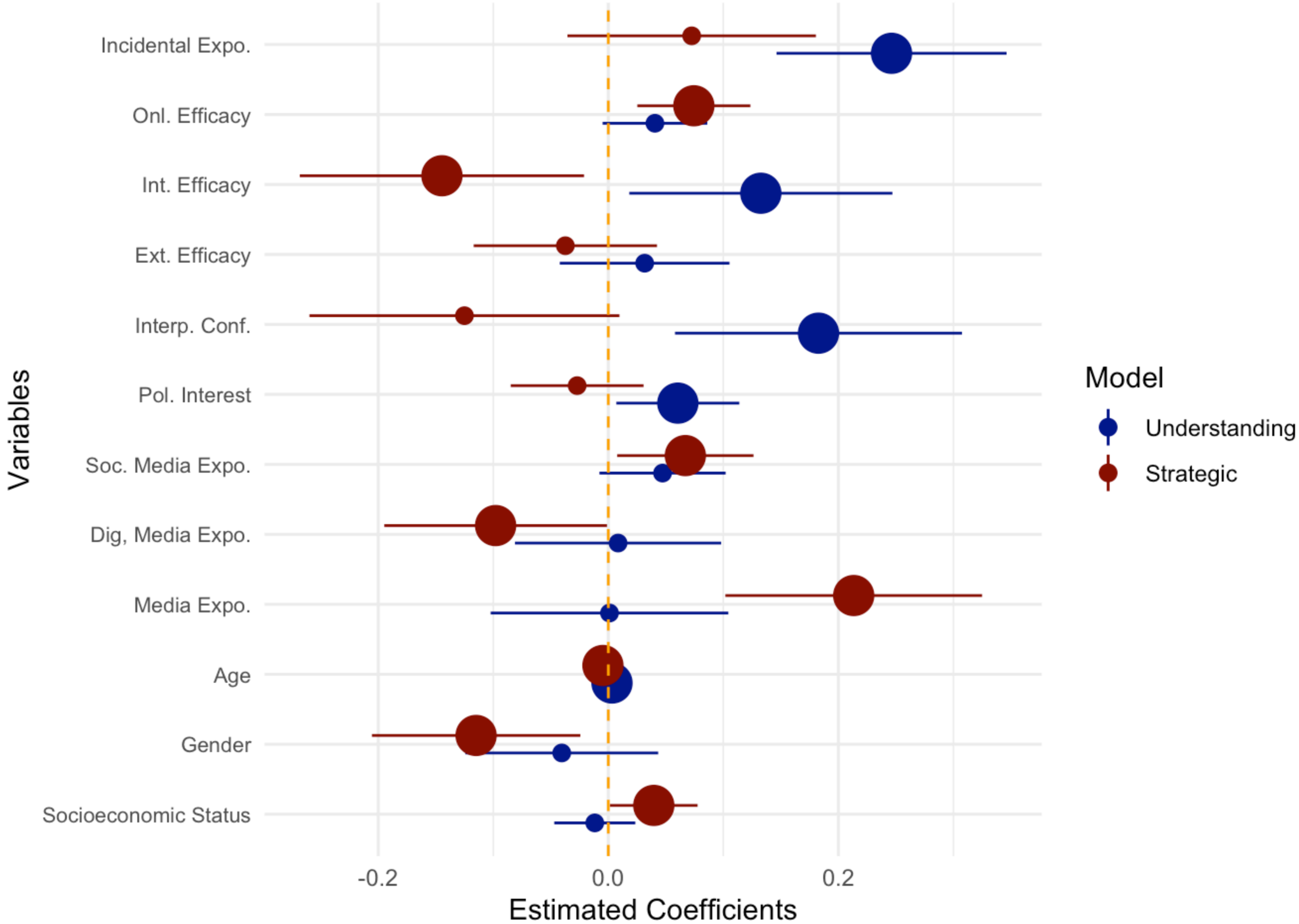
```
Call:
lm(formula = under ~ ses + sex + age_num + media + digital +
    social + interest + extef + intef + ope + incidental + intercon,
    data = merged_data)

Residuals:
     Min       1Q   Median       3Q      Max
-1.73714 -0.29316  0.05356  0.32274  1.21323

Coefficients:
             Estimate Std. Error t value  Pr(>|t|)
(Intercept) -0.111403   0.107786  -1.034   0.30179
ses         -0.011753   0.017988  -0.653   0.51377
sex         -0.040468   0.042775  -0.946   0.34452
age_num      0.003207   0.001620   1.980   0.04820 *
media        0.001029   0.052705   0.020   0.98443
digital      0.008477   0.045709   0.185   0.85293
social       0.047132   0.027989   1.684   0.09275 .
interest     0.060410   0.027272   2.215   0.02715 *
extef        0.031588   0.037632   0.839   0.40161
```

```
intef        0.132558   0.058340   2.272   0.02346 *
ope          0.040529   0.023219   1.745   0.08145 .
incidental   0.246139   0.050998   4.826 0.0000018 ***
intercon     0.182660   0.063632   2.871   0.00425 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.49 on 559 degrees of freedom
Multiple R-squared:  0.2074,    Adjusted R-squared:  0.1904
F-statistic: 12.19 on 12 and 559 DF,  p-value: < 0.00000000000000022
```

Table 3 OLS Regression for Strategic Orientation.

```
Call:
lm(formula = strate ~ ses + sex + age_num + media + digital +
    social + interest + extef + intef + ope + incidental + intercon,
    data = merged_data)

Residuals:
     Min       1Q   Median       3Q      Max
-1.67627 -0.36757  0.01682  0.30267  1.92092

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.151338   0.116429   1.300 0.194195
ses          0.039529   0.019430   2.034 0.042378 *
sex         -0.114899   0.046205  -2.487 0.013182 *
age_num     -0.004664   0.001750  -2.666 0.007906 **
media        0.213269   0.056931   3.746 0.000198 ***
digital     -0.097934   0.049374  -1.984 0.047798 *
social       0.066958   0.030233   2.215 0.027183 *
interest    -0.027087   0.029458  -0.920 0.358225
extef       -0.037340   0.040649  -0.919 0.358706
intef       -0.144597   0.063018  -2.295 0.022130 *
ope          0.074347   0.025081   2.964 0.003164 **
incidental   0.072459   0.055087   1.315 0.188931
intercon    -0.125020   0.068734  -1.819 0.069461 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.5293 on 559 degrees of freedom
Multiple R-squared:  0.1224,    Adjusted R-squared:  0.1036
F-statistic: 6.498 on 12 and 559 DF,  p-value: 0.00000000006643
```

Figure 5 Coefplot for understanding orientation and strategic orientation.



Appendix

Appendix 1 SEM for Understanding Orientation

```
lavaan 0.6.16 ended normally after 69 iterations

  Estimator                                         ML
  Optimization method                           NLMINB
  Number of model parameters                       102

  Number of observations                           572

Model Test User Model:

  Test statistic                              1991.961
  Degrees of freedom                               668
  P-value (Chi-square)                           0.000

Model Test Baseline Model:

  Test statistic                              9457.615
  Degrees of freedom                               735
  P-value                                        0.000
```

```
User Model versus Baseline Model:

  Comparative Fit Index (CFI)                    0.848
  Tucker-Lewis Index (TLI)                       0.833

Loglikelihood and Information Criteria:

  Loglikelihood user model (H0)             -30419.686
  Loglikelihood unrestricted model (H1)     -29423.706

  Akaike (AIC)                               61043.372
  Bayesian (BIC)                             61486.984
  Sample-size adjusted Bayesian (SABIC)      61163.179

Root Mean Square Error of Approximation:

  RMSEA                                          0.059
  90 Percent confidence interval - lower         0.056
  90 Percent confidence interval - upper         0.062
  P-value H_0: RMSEA <= 0.050                    0.000
  P-value H_0: RMSEA >= 0.080                    0.000

Standardized Root Mean Square Residual:

  SRMR                                           0.063

Parameter Estimates:

  Standard errors                             Standard
  Information                                 Expected
  Information saturated (h1) model          Structured

Latent Variables:
                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
  ope_a1 =~
    ope1              1.000                               1.109    0.854
    ope2              1.001    0.045   22.234    0.000    1.110    0.854
    ope3              0.758    0.047   16.143    0.000    0.841    0.645
    ope4              0.774    0.045   17.068    0.000    0.858    0.674
  intef_a1 =~
    intef1            1.000                               0.676    0.548
    intef2            1.391    0.118   11.791    0.000    0.941    0.744
    intef3            1.473    0.122   12.109    0.000    0.996    0.826
  extef_a1 =~
    extef1            1.000                               0.916    0.725
    extef2            0.984    0.076   13.010    0.000    0.901    0.737
    extef3            0.943    0.077   12.214    0.000    0.864    0.639
  interest_a1 =~
    polint            1.000                               1.003    0.686
    procint           1.360    0.070   19.441    0.000    1.364    0.909
```

```
    plebint           1.401    0.072   19.530    0.000    1.405    0.932
  media_a1 =~
    tv                1.000                               0.805    0.541
    cable             1.201    0.114   10.506    0.000    0.966    0.662
    newspaper         1.137    0.106   10.778    0.000    0.915    0.699
    radio             1.178    0.112   10.511    0.000    0.948    0.662
  digital_a1 =~
    tradonline        1.000                               1.013    0.734
    online            1.026    0.067   15.397    0.000    1.039    0.744
    podcast           0.694    0.055   12.625    0.000    0.703    0.593
    officialsm        0.888    0.068   13.014    0.000    0.899    0.612
  social_a1 =~
    fb                1.000                               1.111    0.705
    insta             1.035    0.066   15.746    0.000    1.150    0.740
    twitter           0.827    0.065   12.676    0.000    0.919    0.585
    whatsapp          1.099    0.070   15.777    0.000    1.222    0.741
    youtube           0.970    0.064   15.065    0.000    1.077    0.704
    tiktok            0.852    0.063   13.614    0.000    0.947    0.631
  under_a1 =~
    under_w3_1        1.000                               0.571    0.562
    under_w3_2        1.046    0.107    9.741    0.000    0.598    0.494
    under_w3_3        1.152    0.100   11.480    0.000    0.658    0.620
    under_w3_4        1.432    0.119   12.054    0.000    0.818    0.668
    under_w3_5        1.154    0.108   10.676    0.000    0.659    0.559
    under_w3_6        1.566    0.120   13.047    0.000    0.894    0.761
    under_w3_7        1.637    0.122   13.431    0.000    0.935    0.803
    under_w3_8        1.586    0.120   13.189    0.000    0.906    0.776

Regressions:
                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
  under_a1 ~
    ses              -0.008    0.020   -0.420    0.674   -0.015   -0.018
    sex              -0.011    0.048   -0.233    0.816   -0.019   -0.010
    age_num           0.005    0.002    2.631    0.009    0.008    0.114
    media_a1          0.020    0.058    0.342    0.733    0.028    0.028
    digital_a1        0.002    0.052    0.038    0.969    0.004    0.004
    social_a1         0.067    0.032    2.060    0.039    0.130    0.130
    interest_a1       0.074    0.031    2.359    0.018    0.130    0.130
    intercon          0.221    0.072    3.064    0.002    0.387    0.129
    extef_a1          0.002    0.042    0.042    0.966    0.003    0.003
    intef_a1          0.158    0.069    2.291    0.022    0.187    0.187
    ope_a1            0.057    0.027    2.089    0.037    0.111    0.111

Covariances:
                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
  ope_a1 ~~
    intef_a1          0.272    0.044    6.170    0.000    0.363    0.363
    extef_a1         -0.083    0.053   -1.565    0.118   -0.081   -0.081
    interest_a1       0.325    0.056    5.801    0.000    0.292    0.292
    media_a1          0.090    0.047    1.921    0.055    0.101    0.101
    digital_a1        0.304    0.060    5.070    0.000    0.270    0.270
```

```
    social_a1         0.349    0.064    5.461    0.000    0.283    0.283
  intef_a1 ~~
    extef_a1         -0.339    0.046   -7.419    0.000   -0.547   -0.547
    interest_a1       0.309    0.044    7.059    0.000    0.455    0.455
    media_a1          0.087    0.031    2.792    0.005    0.159    0.159
    digital_a1        0.162    0.039    4.144    0.000    0.237    0.237
    social_a1         0.061    0.039    1.578    0.114    0.081    0.081
  extef_a1 ~~
    interest_a1      -0.072    0.046   -1.560    0.119   -0.079   -0.079
    media_a1          0.036    0.041    0.858    0.391    0.048    0.048
    digital_a1        0.004    0.051    0.076    0.939    0.004    0.004
    social_a1         0.134    0.054    2.461    0.014    0.131    0.131
  interest_a1 ~~
    media_a1          0.144    0.043    3.365    0.001    0.179    0.179
    digital_a1        0.298    0.054    5.477    0.000    0.293    0.293
    social_a1         0.250    0.056    4.480    0.000    0.224    0.224
  media_a1 ~~
    digital_a1        0.570    0.068    8.354    0.000    0.699    0.699
    social_a1         0.402    0.060    6.703    0.000    0.449    0.449
  digital_a1 ~~
    social_a1         0.658    0.074    8.864    0.000    0.584    0.584

Variances:
                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
   .ope1              0.458    0.047    9.845    0.000    0.458    0.271
   .ope2              0.458    0.047    9.830    0.000    0.458    0.271
   .ope3              0.995    0.066   15.187    0.000    0.995    0.584
   .ope4              0.884    0.059   14.879    0.000    0.884    0.545
   .intef1            1.065    0.070   15.294    0.000    1.065    0.700
   .intef2            0.716    0.061   11.808    0.000    0.716    0.447
   .intef3            0.462    0.054    8.509    0.000    0.462    0.318
   .extef1            0.756    0.070   10.852    0.000    0.756    0.474
   .extef2            0.685    0.065   10.466    0.000    0.685    0.458
   .extef3            1.083    0.082   13.251    0.000    1.083    0.592
   .polint            1.132    0.072   15.664    0.000    1.132    0.529
   .procint           0.390    0.050    7.765    0.000    0.390    0.173
   .plebint           0.297    0.050    5.893    0.000    0.297    0.131
   .tv                1.566    0.105   14.948    0.000    1.566    0.707
   .cable             1.198    0.091   13.156    0.000    1.198    0.562
   .newspaper         0.877    0.071   12.302    0.000    0.877    0.512
   .radio             1.149    0.087   13.143    0.000    1.149    0.561
   .tradonline        0.881    0.071   12.480    0.000    0.881    0.462
   .online            0.869    0.071   12.185    0.000    0.869    0.446
   .podcast           0.911    0.061   14.889    0.000    0.911    0.648
   .officialsm        1.347    0.092   14.668    0.000    1.347    0.625
   .fb                1.246    0.088   14.116    0.000    1.246    0.502
   .insta             1.095    0.081   13.494    0.000    1.095    0.453
   .twitter           1.626    0.105   15.456    0.000    1.626    0.658
   .whatsapp          1.222    0.091   13.459    0.000    1.222    0.450
   .youtube           1.183    0.084   14.142    0.000    1.183    0.505
   .tiktok            1.358    0.090   15.058    0.000    1.358    0.602
```

```
   .under_w3_1        0.706    0.044   15.875    0.000    0.706    0.684
   .under_w3_2        1.106    0.068   16.189    0.000    1.106    0.756
   .under_w3_3        0.694    0.045   15.509    0.000    0.694    0.616
   .under_w3_4        0.832    0.055   15.099    0.000    0.832    0.554
   .under_w3_5        0.957    0.060   15.894    0.000    0.957    0.688
   .under_w3_6        0.580    0.042   13.782    0.000    0.580    0.420
   .under_w3_7        0.481    0.038   12.778    0.000    0.481    0.355
   .under_w3_8        0.542    0.040   13.467    0.000    0.542    0.397
    ope_a1            1.231    0.103   11.916    0.000    1.000    1.000
    intef_a1          0.457    0.071    6.455    0.000    1.000    1.000
    extef_a1          0.839    0.099    8.498    0.000    1.000    1.000
    interest_a1       1.006    0.111    9.092    0.000    1.000    1.000
    media_a1          0.648    0.105    6.185    0.000    1.000    1.000
    digital_a1        1.027    0.111    9.267    0.000    1.000    1.000
    social_a1         1.235    0.136    9.089    0.000    1.000    1.000
   .under_a1          0.265    0.039    6.863    0.000    0.812    0.812
```

Appendix 2 SEM for Strategic Orientation

```
lavaan 0.6.16 ended normally after 65 iterations

  Estimator                                         ML
  Optimization method                           NLMINB
  Number of model parameters                       102

  Number of observations                           572

Model Test User Model:

  Test statistic                              1977.587
  Degrees of freedom                               668
  P-value (Chi-square)                           0.000

Model Test Baseline Model:

  Test statistic                              8440.118
  Degrees of freedom                               735
  P-value                                        0.000

User Model versus Baseline Model:

  Comparative Fit Index (CFI)                    0.830
  Tucker-Lewis Index (TLI)                       0.813

Loglikelihood and Information Criteria:

  Loglikelihood user model (H0)             -31514.243
  Loglikelihood unrestricted model (H1)     -30525.449

  Akaike (AIC)                               63232.485
  Bayesian (BIC)                             63676.098
```

```
  Sample-size adjusted Bayesian (SABIC)      63352.292

Root Mean Square Error of Approximation:

  RMSEA                                          0.059
  90 Percent confidence interval - lower         0.056
  90 Percent confidence interval - upper         0.062
  P-value H_0: RMSEA <= 0.050                    0.000
  P-value H_0: RMSEA >= 0.080                    0.000

Standardized Root Mean Square Residual:

  SRMR                                           0.065

Parameter Estimates:

  Standard errors                             Standard
  Information                                 Expected
  Information saturated (h1) model          Structured

Latent Variables:
                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
  ope_a2 =~
    ope1              1.000                                1.110    0.854
    ope2              0.999    0.045   22.209    0.000    1.108    0.853
    ope3              0.758    0.047   16.131    0.000    0.841    0.644
    ope4              0.776    0.045   17.141    0.000    0.861    0.677
  intef_a2 =~
    intef1            1.000                                0.680    0.551
    intef2            1.388    0.117   11.843    0.000    0.944    0.746
    intef3            1.458    0.120   12.142    0.000    0.991    0.822
  extef_a2 =~
    extef1            1.000                                0.918    0.727
    extef2            0.978    0.075   13.008    0.000    0.898    0.734
    extef3            0.944    0.077   12.239    0.000    0.866    0.640
  interest_a2 =~
    polint            1.000                                1.002    0.685
    procint           1.361    0.070   19.402    0.000    1.363    0.909
    plebint           1.403    0.072   19.486    0.000    1.406    0.933
  media_a2 =~
    tv                1.000                                0.809    0.543
    cable             1.205    0.113   10.642    0.000    0.974    0.667
    newspaper         1.131    0.104   10.878    0.000    0.914    0.698
    radio             1.163    0.110   10.559    0.000    0.940    0.657
  digital_a2 =~
    tradonline        1.000                                1.013    0.733
    online            1.024    0.067   15.361    0.000    1.037    0.743
    podcast           0.694    0.055   12.606    0.000    0.702    0.592
    officialsm        0.892    0.068   13.055    0.000    0.903    0.615
  social_a2 =~
    fb                1.000                                1.114    0.707
```

```
    insta             1.030    0.065   15.741    0.000    1.147    0.737
    twitter           0.823    0.065   12.663    0.000    0.917    0.583
    whatsapp          1.098    0.069   15.833    0.000    1.223    0.742
    youtube           0.968    0.064   15.108    0.000    1.078    0.704
    tiktok            0.851    0.062   13.651    0.000    0.948    0.631
  strate_a2 =~
    strate_w3_1       1.000                               0.647    0.510
    strate_w3_2       1.082    0.119    9.073    0.000    0.700    0.564
    strate_w3_3       0.987    0.121    8.128    0.000    0.639    0.472
    strate_w3_4       1.042    0.123    8.452    0.000    0.674    0.501
    strate_w3_5       0.646    0.103    6.291    0.000    0.418    0.334
    strate_w3_6       1.234    0.132    9.343    0.000    0.799    0.594
    strate_w3_7       1.020    0.123    8.270    0.000    0.660    0.484
    strate_w3_8       1.363    0.139    9.810    0.000    0.882    0.656

Regressions:
                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
  strate_a2 ~
    ses               0.054    0.025    2.157    0.031    0.084    0.102
    sex              -0.148    0.061   -2.440    0.015   -0.229   -0.114
    age_num          -0.006    0.002   -2.840    0.005   -0.010   -0.137
    media_a2          0.301    0.081    3.737    0.000    0.376    0.376
    digital_a2       -0.135    0.068   -1.983    0.047   -0.211   -0.211
    social_a2         0.087    0.041    2.110    0.035    0.150    0.150
    interest_a2      -0.034    0.039   -0.861    0.389   -0.052   -0.052
    intercon         -0.167    0.089   -1.875    0.061   -0.258   -0.086
    extef_a2         -0.069    0.054   -1.285    0.199   -0.098   -0.098
    intef_a2         -0.205    0.088   -2.330    0.020   -0.215   -0.215
    ope_a2            0.115    0.036    3.207    0.001    0.197    0.197

Covariances:
                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
  ope_a2 ~~
    intef_a2          0.274    0.044    6.173    0.000    0.363    0.363
    extef_a2         -0.083    0.053   -1.564    0.118   -0.081   -0.081
    interest_a2       0.325    0.056    5.799    0.000    0.292    0.292
    media_a2          0.091    0.047    1.928    0.054    0.101    0.101
    digital_a2        0.304    0.060    5.070    0.000    0.270    0.270
    social_a2         0.350    0.064    5.462    0.000    0.283    0.283
  intef_a2 ~~
    extef_a2         -0.342    0.046   -7.443    0.000   -0.549   -0.549
    interest_a2       0.310    0.044    7.076    0.000    0.456    0.456
    media_a2          0.088    0.031    2.809    0.005    0.160    0.160
    digital_a2        0.163    0.039    4.146    0.000    0.237    0.237
    social_a2         0.061    0.039    1.566    0.117    0.081    0.081
  extef_a2 ~~
    interest_a2      -0.073    0.047   -1.564    0.118   -0.079   -0.079
    media_a2          0.036    0.042    0.864    0.388    0.048    0.048
    digital_a2        0.004    0.051    0.078    0.937    0.004    0.004
    social_a2         0.134    0.055    2.458    0.014    0.131    0.131
  interest_a2 ~~
```

```
    media_a2          0.145    0.043    3.374    0.001    0.179    0.179
    digital_a2        0.298    0.054    5.475    0.000    0.293    0.293
    social_a2         0.250    0.056    4.476    0.000    0.224    0.224
  media_a2 ~~
    digital_a2        0.571    0.068    8.377    0.000    0.697    0.697
    social_a2         0.406    0.060    6.734    0.000    0.450    0.450
  digital_a2 ~~
    social_a2         0.659    0.074    8.873    0.000    0.585    0.585

Variances:
                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
   .ope1              0.457    0.046    9.833    0.000    0.457    0.271
   .ope2              0.462    0.047    9.911    0.000    0.462    0.273
   .ope3              0.996    0.066   15.187    0.000    0.996    0.585
   .ope4              0.879    0.059   14.848    0.000    0.879    0.542
   .intef1            1.060    0.070   15.254    0.000    1.060    0.696
   .intef2            0.711    0.061   11.711    0.000    0.711    0.444
   .intef3            0.471    0.054    8.668    0.000    0.471    0.324
   .extef1            0.752    0.070   10.806    0.000    0.752    0.472
   .extef2            0.691    0.065   10.571    0.000    0.691    0.462
   .extef3            1.079    0.082   13.217    0.000    1.079    0.590
   .polint            1.134    0.072   15.670    0.000    1.134    0.531
   .procint           0.392    0.051    7.753    0.000    0.392    0.174
   .plebint           0.294    0.051    5.790    0.000    0.294    0.129
   .tv                1.560    0.104   14.969    0.000    1.560    0.705
   .cable             1.183    0.090   13.142    0.000    1.183    0.555
   .newspaper         0.879    0.071   12.429    0.000    0.879    0.513
   .radio             1.163    0.087   13.345    0.000    1.163    0.568
   .tradonline        0.882    0.071   12.487    0.000    0.882    0.462
   .online            0.873    0.071   12.220    0.000    0.873    0.448
   .podcast           0.912    0.061   14.892    0.000    0.912    0.649
   .officialsm        1.341    0.092   14.635    0.000    1.341    0.622
   .fb                1.241    0.088   14.092    0.000    1.241    0.500
   .insta             1.103    0.081   13.543    0.000    1.103    0.456
   .twitter           1.630    0.105   15.470    0.000    1.630    0.660
   .whatsapp          1.218    0.091   13.440    0.000    1.218    0.449
   .youtube           1.181    0.084   14.136    0.000    1.181    0.504
   .tiktok            1.356    0.090   15.053    0.000    1.356    0.601
   .strate_w3_1       1.191    0.079   15.124    0.000    1.191    0.740
   .strate_w3_2       1.054    0.073   14.539    0.000    1.054    0.682
   .strate_w3_3       1.424    0.092   15.457    0.000    1.424    0.777
   .strate_w3_4       1.356    0.089   15.207    0.000    1.356    0.749
   .strate_w3_5       1.395    0.086   16.278    0.000    1.395    0.889
   .strate_w3_6       1.169    0.083   14.123    0.000    1.169    0.647
   .strate_w3_7       1.421    0.093   15.354    0.000    1.421    0.765
   .strate_w3_8       1.029    0.079   13.048    0.000    1.029    0.570
    ope_a2            1.232    0.103   11.923    0.000    1.000    1.000
    intef_a2          0.462    0.071    6.488    0.000    1.000    1.000
    extef_a2          0.842    0.099    8.518    0.000    1.000    1.000
    interest_a2       1.004    0.111    9.078    0.000    1.000    1.000
    media_a2          0.654    0.105    6.240    0.000    1.000    1.000
```

```
    digital_a2        1.025    0.111    9.257    0.000    1.000    1.000
    social_a2         1.241    0.136    9.117    0.000    1.000    1.000
   .strate_a2         0.334    0.060    5.562    0.000    0.798    0.798
```

Working with W1

Appendix 3. OLS for Understanding Orientation just using W1.

```
Call:
lm(formula = under_1 ~ ses + sex + age_num + media_1 + digital_1 +
    social_1 + interest_1 + intercon + extef_1 + intef_1 + ope_1,
    data = data_justw1_na)

Residuals:
     Min       1Q   Median       3Q      Max
-2.49417 -0.36644  0.04804  0.40449  1.86981

Coefficients:
             Estimate Std. Error t value             Pr(>|t|)
(Intercept) -0.112761   0.078035  -1.445              0.14869
ses         -0.007048   0.013548  -0.520              0.60299
sex          0.010200   0.030837   0.331              0.74086
age_num      0.002752   0.001143   2.408              0.01617 *
media_1      0.034251   0.038221   0.896              0.37034
digital_1    0.056332   0.035766   1.575              0.11549
social_1    -0.004627   0.023972  -0.193              0.84699
interest_1   0.197071   0.020292   9.712 < 0.0000000000000002 ***
intercon     0.084182   0.047030   1.790              0.07368 .
extef_1     -0.074802   0.025581  -2.924              0.00351 **
intef_1      0.081919   0.042773   1.915              0.05567 .
ope_1        0.099274   0.018039   5.503         0.0000000445 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.5604 on 1365 degrees of freedom
Multiple R-squared:  0.2616,    Adjusted R-squared:  0.2556
F-statistic: 43.96 on 11 and 1365 DF,  p-value: < 0.00000000000000022
```

Appendix 4. OLS for Strategic Orientation just using W1.

```
Call:
lm(formula = strate_1 ~ ses + sex + age_num + media_1 + digital_1 +
    social_1 + interest_1 + intercon + extef_1 + intef_1 + ope_1,
    data = data_justw1_na)

Residuals:
     Min       1Q   Median       3Q      Max
-1.13516 -0.30497  0.02747  0.27601  1.54873
```

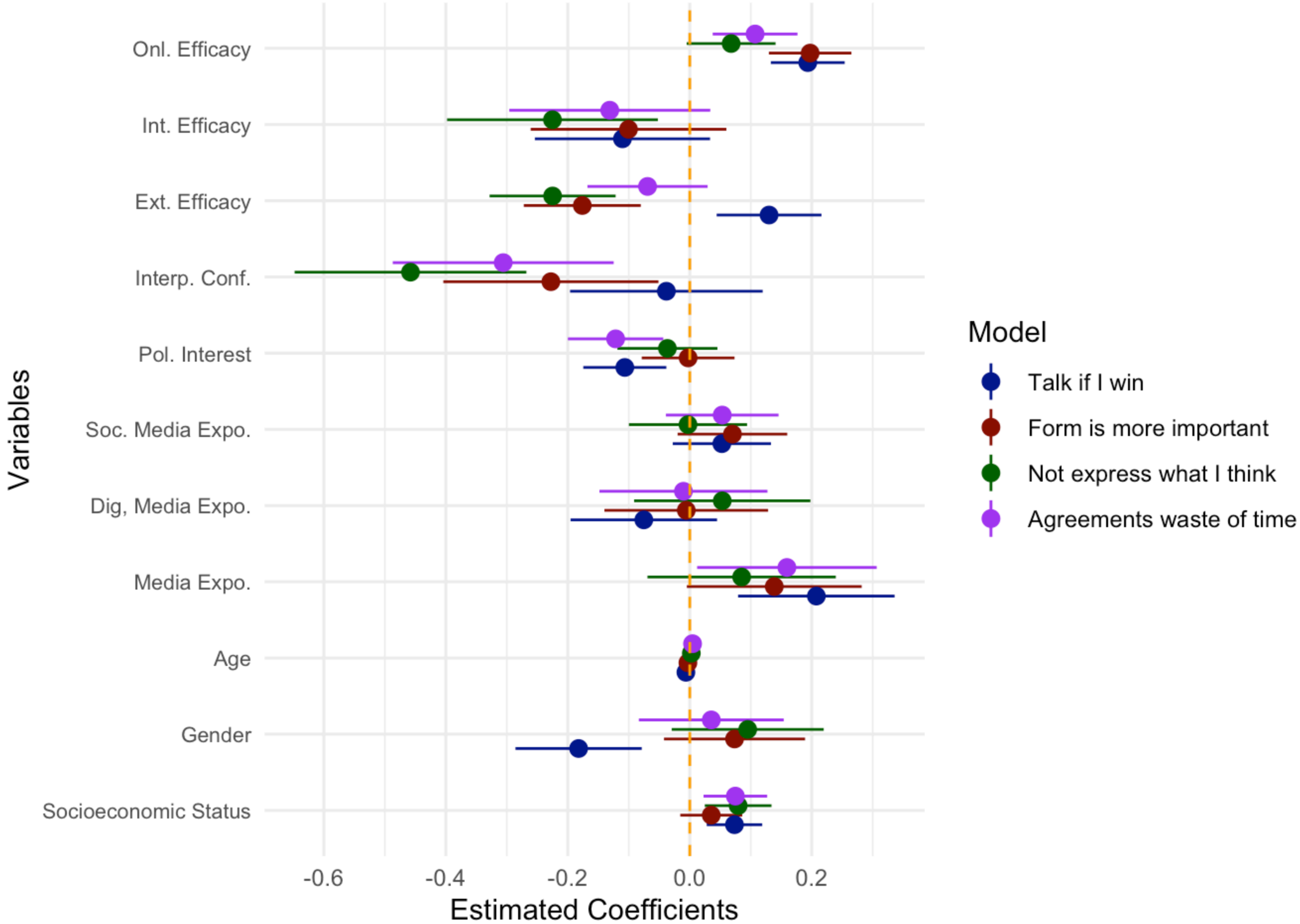
```
Coefficients:
              Estimate Std. Error t value     Pr(>|t|)    
(Intercept) -0.0752466  0.0588454  -1.279     0.201214    
ses          0.0299412  0.0102160   2.931     0.003437 ** 
sex          0.0064777  0.0232537   0.279     0.780620    
age_num     -0.0002269  0.0008618  -0.263     0.792387    
media_1      0.0723703  0.0288224   2.511     0.012157 *  
digital_1   -0.0015713  0.0269711  -0.058     0.953551    
social_1     0.0218022  0.0180770   1.206     0.227999    
interest_1  -0.0198537  0.0153017  -1.297     0.194684    
intercon    -0.1190581  0.0354647  -3.357     0.000809 ***
extef_1     -0.0489088  0.0192902  -2.535     0.011342 *  
intef_1     -0.0623574  0.0322543  -1.933     0.053405 .  
ope_1        0.0752496  0.0136028   5.532 0.0000000379 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.4226 on 1365 degrees of freedom
Multiple R-squared:  0.06843,	Adjusted R-squared:  0.06092 
F-statistic: 9.115 on 11 and 1365 DF,  p-value: 0.0000000000000006786
```

Appendix 5. OLS for Strategic Orientation just using W1, no factor.

```
Call:
lm(formula = strate1 ~ ses + sex + age_num + media_1 + digital_1 + 
    social_1 + interest_1 + intercon + extef_1 + intef_1 + ope_1, 
    data = data_justw1_na)

Residuals:
    Min      1Q  Median      3Q     Max 
-1.7723 -0.8411 -0.4247  0.7983  3.6886 

Coefficients:
             Estimate Std. Error t value             Pr(>|t|)    
(Intercept)  2.021428   0.159284  12.691 < 0.0000000000000002 ***
ses          0.073236   0.027653   2.648              0.00818 ** 
sex         -0.182289   0.062943  -2.896              0.00384 ** 
age_num     -0.006388   0.002333  -2.738              0.00626 ** 
media_1      0.207450   0.078017   2.659              0.00793 ** 
digital_1   -0.075383   0.073006  -1.033              0.30199    
social_1     0.052556   0.048931   1.074              0.28298    
interest_1  -0.106521   0.041419  -2.572              0.01022 *  
intercon    -0.038388   0.095996  -0.400              0.68930    
extef_1      0.129939   0.052215   2.489              0.01295 *  
intef_1     -0.110383   0.087306  -1.264              0.20633    
ope_1        0.193417   0.036820   5.253          0.000000173 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.144 on 1365 degrees of freedom
```

```
Multiple R-squared:  0.07612,	Adjusted R-squared:  0.06867 
F-statistic: 10.22 on 11 and 1365 DF,  p-value: < 0.00000000000000022

Call:
lm(formula = strate2 ~ ses + sex + age_num + media_1 + digital_1 + 
    social_1 + interest_1 + intercon + extef_1 + intef_1 + ope_1, 
    data = data_justw1_na)

Residuals:
    Min      1Q  Median      3Q     Max 
-2.6277 -1.1027  0.1110  0.7694  3.2126 

Coefficients:
             Estimate Std. Error t value             Pr(>|t|)    
(Intercept)  2.729928   0.177930  15.343 < 0.0000000000000002 ***
ses          0.035149   0.030890   1.138              0.25537    
sex          0.073360   0.070312   1.043              0.29697    
age_num     -0.003071   0.002606  -1.178              0.23884    
media_1      0.138490   0.087150   1.589              0.11227    
digital_1   -0.005785   0.081552  -0.071              0.94346    
social_1     0.069923   0.054659   1.279              0.20103    
interest_1  -0.002738   0.046268  -0.059              0.95282    
intercon    -0.227711   0.107234  -2.123              0.03389 *  
extef_1     -0.176242   0.058327  -3.022              0.00256 ** 
intef_1     -0.100461   0.097527  -1.030              0.30315    
ope_1        0.197286   0.041131   4.797           0.00000179 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.278 on 1365 degrees of freedom
Multiple R-squared:  0.05068,	Adjusted R-squared:  0.04303 
F-statistic: 6.625 on 11 and 1365 DF,  p-value: 0.00000000007123


Call:
lm(formula = strate3 ~ ses + sex + age_num + media_1 + digital_1 + 
    social_1 + interest_1 + intercon + extef_1 + intef_1 + ope_1, 
    data = data_justw1_na)

Residuals:
     Min       1Q   Median       3Q      Max 
-2.52100 -1.22181  0.06647  1.07819  2.87355 

Coefficients:
             Estimate Std. Error t value             Pr(>|t|)    
(Intercept)  2.483483   0.191686  12.956 < 0.0000000000000002 ***
ses          0.079257   0.033278   2.382             0.017372 *  
sex          0.094929   0.075748   1.253             0.210338    
age_num      0.002498   0.002807   0.890             0.373719    
media_1      0.084965   0.093887   0.905             0.365640    
```

```
digital_1    0.053219   0.087857   0.606             0.544784    
social_1    -0.002932   0.058885  -0.050             0.960302    
interest_1  -0.036705   0.049845  -0.736             0.461623    
intercon    -0.457867   0.115524  -3.963            0.0000777 ***
extef_1     -0.224895   0.062837  -3.579             0.000357 ***
intef_1     -0.225144   0.105067  -2.143             0.032300 *  
ope_1        0.067779   0.044311   1.530             0.126338    
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.377 on 1365 degrees of freedom
Multiple R-squared:  0.03809,	Adjusted R-squared:  0.03034 
F-statistic: 4.914 on 11 and 1365 DF,  p-value: 0.0000001663


Call:
lm(formula = strate4 ~ ses + sex + age_num + media_1 + digital_1 + 
    social_1 + interest_1 + intercon + extef_1 + intef_1 + ope_1, 
    data = data_justw1_na)

Residuals:
    Min      1Q  Median      3Q     Max 
-2.1544 -1.2661  0.1892  0.6979  3.1543 

Coefficients:
             Estimate Std. Error t value             Pr(>|t|)    
(Intercept)  2.035952   0.182648  11.147 < 0.0000000000000002 ***
ses          0.074693   0.031709   2.356              0.01864 *  
sex          0.035224   0.072176   0.488              0.62561    
age_num      0.004519   0.002675   1.689              0.09138 .  
media_1      0.159179   0.089461   1.779              0.07541 .  
digital_1   -0.010405   0.083715  -0.124              0.90110    
social_1     0.053166   0.056109   0.948              0.34352    
interest_1  -0.121590   0.047495  -2.560              0.01057 *  
intercon    -0.305882   0.110078  -2.779              0.00553 ** 
extef_1     -0.069278   0.059874  -1.157              0.24745    
intef_1     -0.131184   0.100113  -1.310              0.19029    
ope_1        0.107057   0.042221   2.536              0.01134 *  
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.312 on 1365 degrees of freedom
Multiple R-squared:  0.03572,	Adjusted R-squared:  0.02795 
F-statistic: 4.597 on 11 and 1365 DF,  p-value: 0.0000006762
```



Alternative models, by adding observable variables.

Appendix 6. OLS for Understanding Orientation and Strategic Orientation just using W1 and by adding observable variebles (not CFA).

```
Call:
lm(formula = undersum ~ ses + sex + age_num + mediasum + digitalsum +
    socialsum + polint + intercon + extefsum + intefsum + opesum,
    data = data_justw1_na)

Residuals:
    Min      1Q  Median      3Q     Max
-3.7224 -0.5300  0.0645  0.6093  2.5387

Coefficients:
             Estimate Std. Error t value             Pr(>|t|)
(Intercept)  2.031871   0.173197  11.732 < 0.0000000000000002 ***
ses         -0.032482   0.019858  -1.636             0.102139
sex          0.021778   0.045585   0.478             0.632907
age_num      0.005033   0.001706   2.950             0.003237 **
mediasum     0.051037   0.024502   2.083             0.037437 *
digitalsum   0.071047   0.029310   2.424             0.015479 *
socialsum   -0.001829   0.025080  -0.073             0.941880
```

```
polint       0.165386   0.018309   9.033 < 0.0000000000000002 ***
intercon     0.151221   0.069699   2.170             0.030208 *
extefsum    -0.088821   0.024367  -3.645             0.000277 ***
intefsum     0.104214   0.028288   3.684             0.000239 ***
opesum       0.160797   0.023436   6.861      0.0000000000103 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.8301 on 1365 degrees of freedom
Multiple R-squared:   0.25, Adjusted R-squared:  0.244
F-statistic: 41.37 on 11 and 1365 DF,  p-value: < 0.00000000000000022


Call:
lm(formula = stratesum ~ ses + sex + age_num + mediasum + digitalsum +
    socialsum + polint + intercon + extefsum + intefsum + opesum,
    data = data_justw1_na)

Residuals:
     Min       1Q   Median       3Q      Max
-2.06854 -0.63264  0.04264  0.56253  3.05127

Coefficients:
             Estimate Std. Error t value             Pr(>|t|)
(Intercept)  2.023230   0.179134  11.294 < 0.0000000000000002 ***
ses          0.070436   0.020539   3.429             0.000623 ***
sex          0.003422   0.047148   0.073             0.942158
age_num     -0.001025   0.001765  -0.581             0.561427
mediasum     0.089545   0.025342   3.534             0.000424 ***
digitalsum   0.014408   0.030314   0.475             0.634656
socialsum    0.025342   0.025940   0.977             0.328763
polint      -0.039613   0.018936  -2.092             0.036632 *
intercon    -0.267352   0.072089  -3.709             0.000217 ***
extefsum    -0.048023   0.025202  -1.905             0.056926 .
intefsum    -0.050356   0.029258  -1.721             0.085456 .
opesum       0.129347   0.024239   5.336          0.000000111 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.8585 on 1365 degrees of freedom
Multiple R-squared:  0.06881,   Adjusted R-squared:  0.06131
F-statistic:  9.17 on 11 and 1365 DF,  p-value: 0.0000000000000005238
```