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.

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 ($\alpha = 0.86$).

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 ($\alpha = 0.75$).

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: $\alpha = 0.74$; internal efficacy: $\alpha = 0.74$; online political efficacy: $\alpha = 0.84$).

Political Interest

To measure political efficacy respondents were asked to ….

Media Exposure

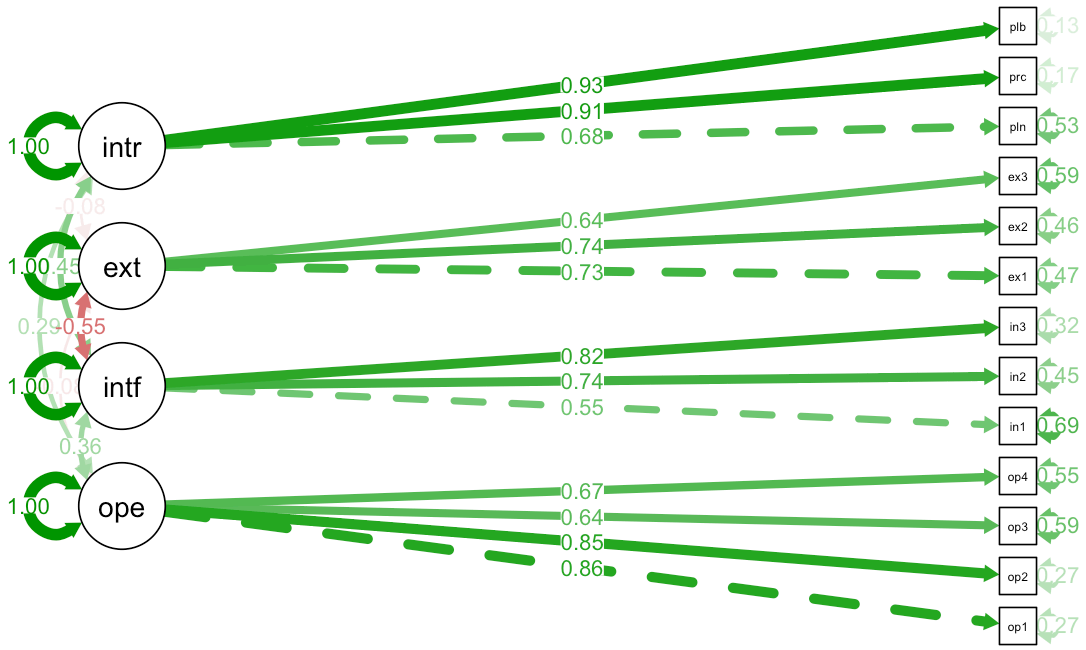
Sociodemographic Variables

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

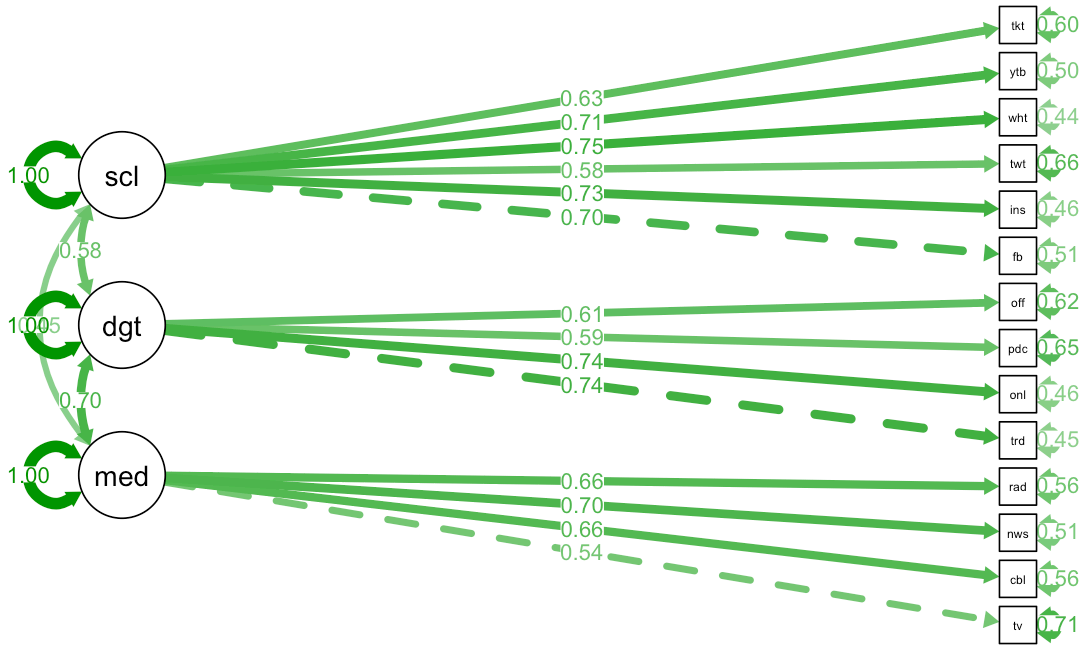
To test our hypothesis, the analysis was divided into two parts. First, different factors were created for the variables described in the previous section using Confirmatory Factor Analysis (CFA). We chose this technique because the selection of variables was theoretically grounded and supported by previous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

Figure 1 Measurement Model for Political Efficacies



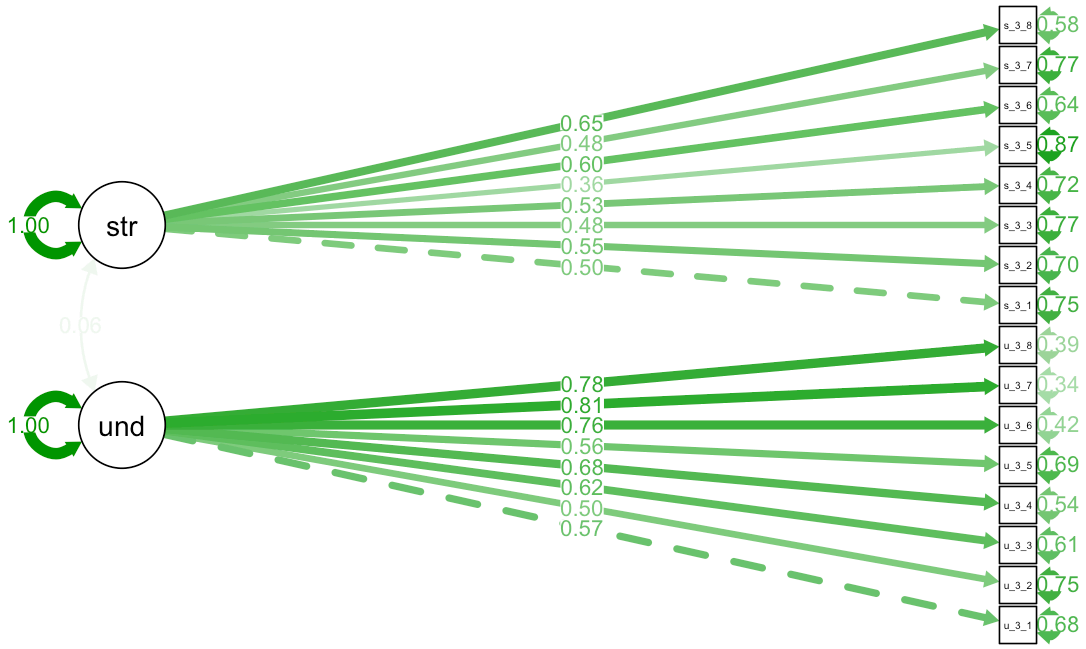
Note: Own elaboration.

Figure 2 Measurment model for Media Exposure



Note: Own elaboration.

Figure 3 Measurment model for understanding and strategic orientations



Note: Own elaboration.

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 OLS Regression for Understanding Orientation.

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

Residuals:
     Min       1Q   Median       3Q      Max
-1.77865 -0.31052  0.03956  0.35621  1.21686
```

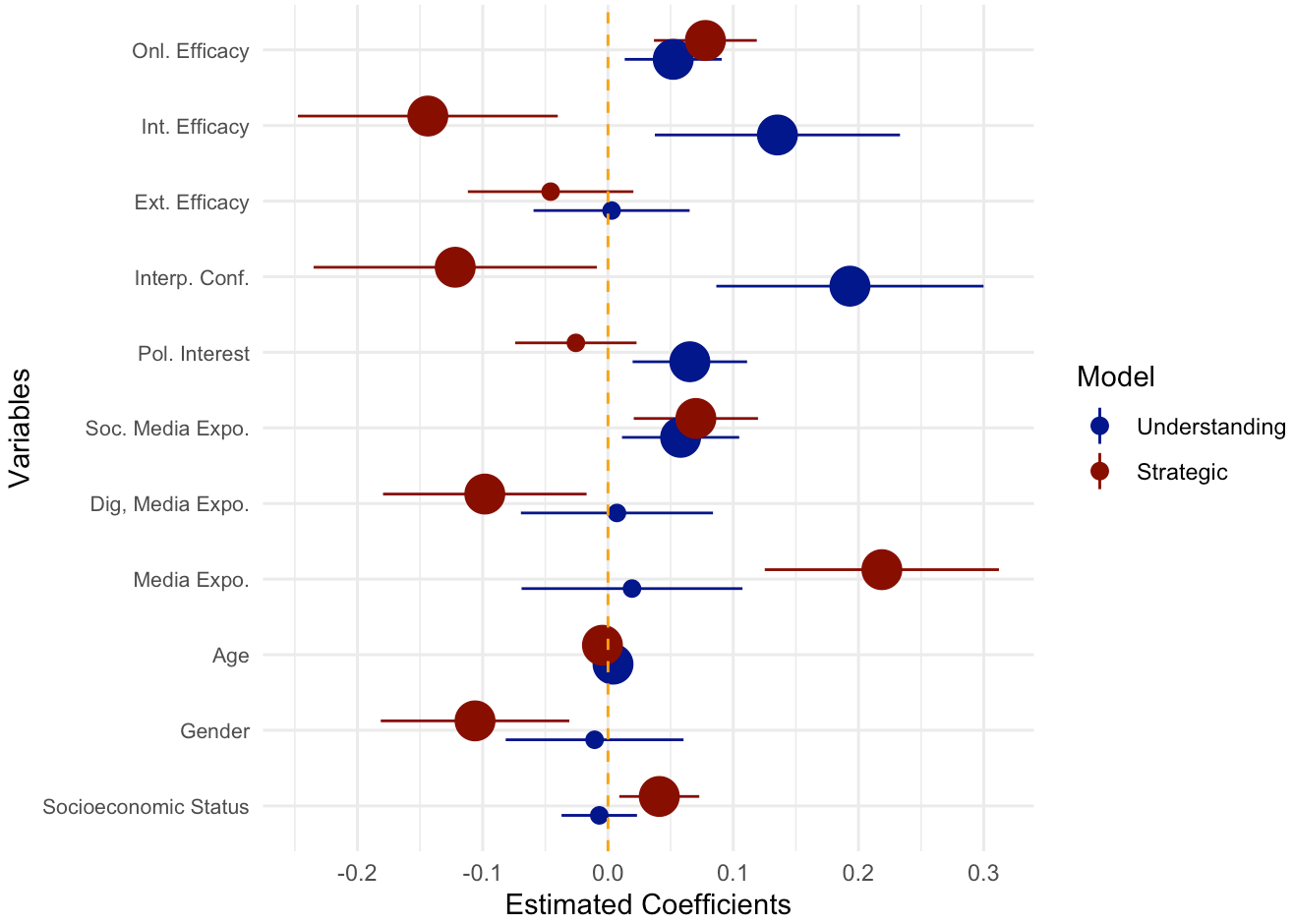
```
Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.177903   0.109009  -1.632  0.10324
ses         -0.006956   0.018314  -0.380  0.70421
sex         -0.010693   0.043162  -0.248  0.80442
age_num      0.004015   0.001643   2.444  0.01483 *
media        0.019171   0.053607   0.358  0.72077
digital      0.007140   0.046609   0.153  0.87831
social       0.057963   0.028449   2.037  0.04207 *
interest     0.065331   0.027790   2.351  0.01907 *
intercon     0.193120   0.064848   2.978  0.00303 **
extef        0.002854   0.037890   0.075  0.93998
intef        0.135245   0.059487   2.274  0.02337 *
ope          0.052075   0.023551   2.211  0.02743 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.4996 on 560 degrees of freedom
Multiple R-squared:  0.1744,    Adjusted R-squared:  0.1582
F-statistic: 10.76 on 11 and 560 DF,  p-value: < 0.00000000000000022
```

Table 2 OLS Regression for Strategic Orientation.

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

Residuals:
     Min       1Q   Median       3Q      Max
-1.62600 -0.35308  0.02019  0.30218  1.96623

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.131761   0.115549   1.140 0.254645
ses          0.040941   0.019413   2.109 0.035391 *
sex         -0.106134   0.045751  -2.320 0.020710 *
age_num     -0.004426   0.001741  -2.542 0.011302 *
media        0.218610   0.056823   3.847 0.000133 ***
digital     -0.098328   0.049405  -1.990 0.047050 *
social       0.070146   0.030155   2.326 0.020367 *
interest    -0.025639   0.029457  -0.870 0.384471
intercon    -0.121941   0.068739  -1.774 0.076610 .
extef       -0.045799   0.040164  -1.140 0.254646
intef       -0.143806   0.063056  -2.281 0.022947 *
ope          0.077746   0.024964   3.114 0.001938 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.5296 on 560 degrees of freedom
```

```
Multiple R-squared:  0.1197,    Adjusted R-squared:  0.1024
F-statistic: 6.922 on 11 and 560 DF,  p-value: 0.00000000005173
```

Figure 4 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)
```

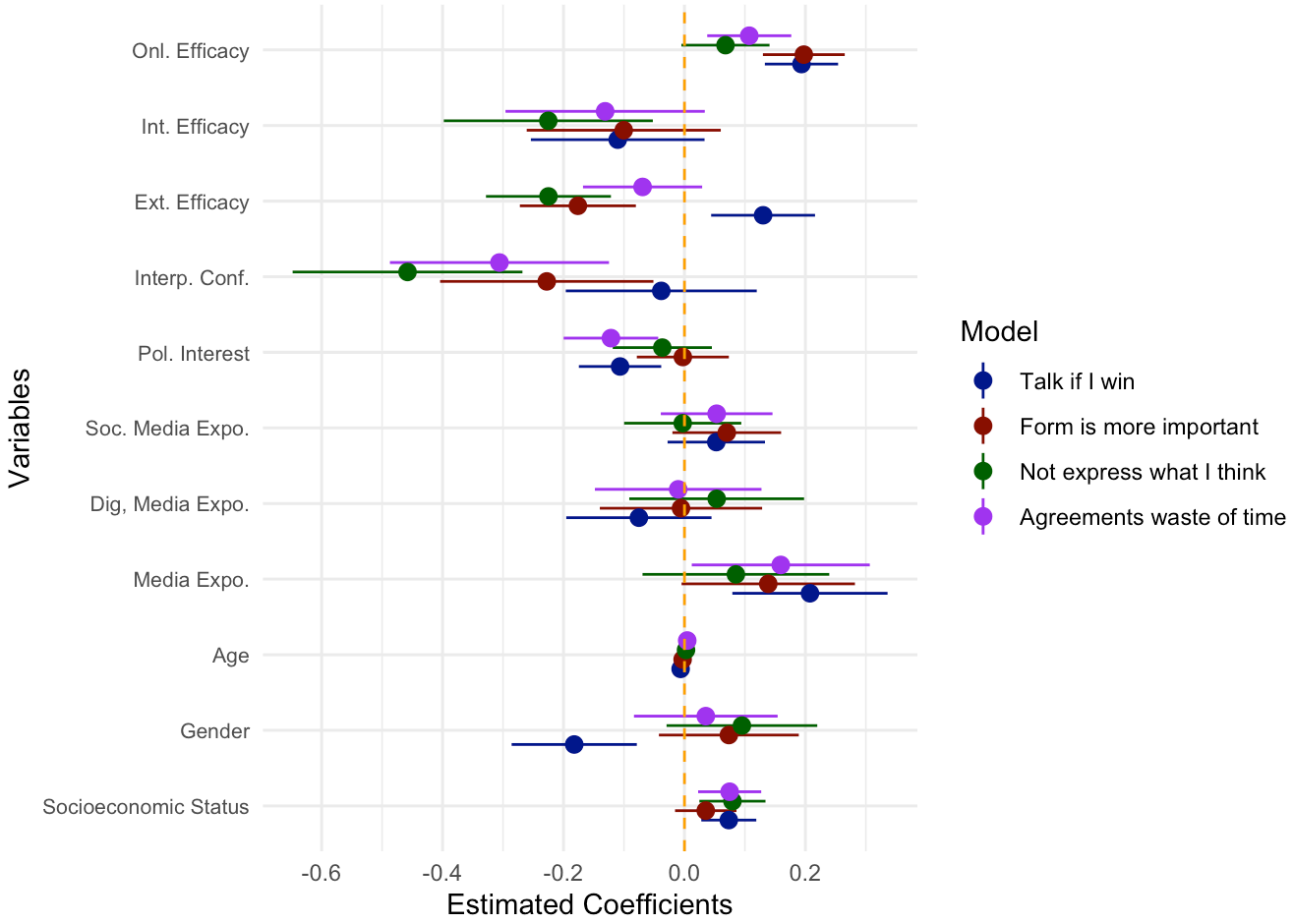
```
Residuals:
     Min       1Q   Median       3Q      Max 
-1.13516 -0.30497  0.02747  0.27601  1.54873 

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
```