At its core, politics is a process of forming and expressing preferences. These preferences are manifested most visibly in democratic elections.

Prior research has traditionally evaluated attitude formation through a "one size fits all" approach when it comes to positive and negative attitudes/beliefs toward an individual or political party.

This study builds upon Holbrook, Krosnick, Visser, Gardner, and Cacioppo (2001), "Attitudes toward Presidential Candidates and Political Parties: Initial Optimism, Inertial First Impressions, and a Focus on Flaws" in the American Journal of Political Science by exploring alternative models of attitude formation.

Research Questions

• How are overall attitudes toward presidential candidates shaped by individual favorable and unfavorable beliefs toward the candidates?
• Do asymmetric nonlinear models better explain attitude formation?
• How can measures of ambivalence take into account asymmetric nonlinear models?
• Are asymmetric nonlinear ambivalence measures better predictors of voter turnout?

Beyond Voting Behavior and Political Participation

Preview of Results: Differences in the "weight" and number of favorable and unfavorable feelings toward a candidate or party matter in explaining overall attitudes. Therefore, measures of ambivalence that do not take into account these factors may be limited.

Why I’m Interested: Results have implications beyond voting behavior and political participation. Research on ambivalence can inform many areas of my own higher education research, such as:

• College choice
• Academic major choice
• Career choice
Traditional Model of Attitude Formation

\[ A = \beta_0 + \beta_1(F - U) \]

- \( A \) is the overall attitude toward a candidate,
- \( F \) is the number of favorable beliefs articulated by an individual about a candidate,
- \( U \) is the number of unfavorable beliefs articulated about a candidate.
- \( \beta_0 \) = Intercept, or the attitude of a person with no favorable or unfavorable beliefs
- \( \beta_1 \) = Impact of each favorable or unfavorable belief

Source: Kelley and Michener (1974)

An Asymmetric Nonlinear Approach

\[ A = \beta_0 + \beta_1(F)^m - \beta_2(U)^n \]

- \( A \) is the overall attitude toward a candidate,
- \( F \) is the number of favorable beliefs articulated by an individual about a candidate,
- \( U \) is the number of unfavorable beliefs articulated about a candidate.
- \( \beta_0 \) = Intercept, or the attitude of a person with no favorable or unfavorable beliefs
- \( \beta_1 \), \( \beta_2 \) = Impact of each favorable/unfavorable belief
- \( m/n \) = Rate of depreciation in the marginal utility of additional beliefs as the total amount of beliefs increases

Source: Holbrook, et al. (2001)

Data Sources

American National Election Studies (ANES)
Time Series Studies in Election Years from 1972 through 2004, plus 2012
Sample = 47,992 counts of favorable/unfavorable beliefs toward candidates and parties

"Is there anything in particular about [candidate] that might make you want to vote [for/against] him? What is that? Anything else?"
Up to 5 answers were recorded.

SLM and ANM Parameter Estimates

SLM: Symmetric Linear Model
- Attitude toward candidate (0 to 100 scale) = \( 57.3 + 7.9(F - U) \)

ANM: Asymmetric Nonlinear Model
- Attitude toward candidate (0 to 100 scale) = \( 54.4 + 20.0(F)^{0.35} - 12.5(U)^{0.59} \)

Similar to findings in Holbrook, et al. (2001), the ANM predicted respondents’ attitudes significantly better than the SLM (\( R^2 = .51 \) and \( R^2 = .46 \), respectively).

Notes: All models included additional covariates, including respondent demographics, party affiliation, measures of political knowledge and internal efficacy, and year fixed effects.
Predicted Impact of Beliefs Toward Candidates and Parties

Implications for the Measurement of Ambivalence

The extent to which individuals perceive both positive and negative features of some issue, topic, or object at one time.

\[
\text{Ambivalence} = \frac{F + U}{2} - |F - U|
\]

A positive score is generally thought of as reflecting ambivalence, whereas a zero signifies indifference. Source: Thompson, Zanna, and Griffin (1995)

But if positive feelings have significantly greater strength and negative feelings have lesser depreciation values than positive ones (as the ANM reveals), should a person holding five favorable and five unfavorable feelings toward a candidate still be considered extremely ambivalent?

Visualizing Ambivalence

Predicting Voter Turnout

Using the traditional new weighted measures of ambivalence, I estimate actual voter turnout using the same ANES data for 1976 through 1988 and self-reported voter turnout from 1972 through 2004. The table shows logistic regression coefficients of select covariates across four models.
Implications and Next Steps

* Research examining ambivalence as a factor in attitude formation may need to be revisited.
* Research on ambivalence as an outcome might also need to take into account asymmetric nonlinear models, such as the one proposed here.

- How is this measure influenced by data collection method?
  - The overall trends in the ANM hold in 2012 for both internet and face-to-face interviews; favorable feelings initially have more impact on overall attitudes.
  - However, the size of the impact of favorable or unfavorable options were much greater for internet surveys than those for face-to-face interviews.
  - For internet surveys, the positivity offset previously witnessed in all models across all years (an intercept >50) completely disappears. For 2012, the intercept = 48.2 for internet surveys.
  - How can this research influence research in other areas? (e.g. higher education)

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