

Lab 2 Exercise: Item Response Theory

Political behavior research has always been concerned with the ideological capacities of the mass public. Though any particular ideology is debatable, having a coherent, constrained belief system is normatively important for at least two reasons. First, belief system constraint may suggest that individuals' political attitudes are organized by and stem from an adherence to higher order principles and values. Empirically, this manifests as specific attitudes being predictable. Second, adherence to particular ideological principles – liberal or conservative ones, in the American context – may be necessary for the mass public to accurately understand and interpret the elite behavior and communications.

In this lab, the goal is to construct a measure of ideological thinking. We'll assume for the sake of the exercise that such a latent variable might be conceived of as a cumulative in nature. In particular, we'll investigate whether certain attitudes are indicative of ideological thinking in different (i.e., more or less difficult) ways. The items to be used to construct the ideological thinking scale are listed below.

We might further want to try and examine the correlates of ideological thinking. Possibilities might include political knowledge, political participation, the strength of partisan and ideological identities, and education. The variables necessary to construct political knowledge and participation scales are listed below, as are a host of potential sociodemographic control variables. Data come from the 2012 American National Election Study, a stratified probability sample of the American mass public.

Specific questions to answer in completing the exercise include:

1. Can we construct an ideological thinking scale that conforms to the double monotonicity model using the data provided?
2. What about political knowledge and political participation?
3. How reliable are each of the three scales?
4. What would you say to a reviewer who claimed that these scales were just counts of certain behaviors?
5. What are the correlates of ideological thinking? Can we account for much variance in the observed scale?
6. Finally, how might an analysis in the parametric IRT tradition result in different inferences? Focus on political participation. What's "better": a Rasch model, a 2-parameter model, or a 3-parameter model? Why?

Variable coding/wording for 2012 ANES variables

- Ideological thinking items: 1 – yes, 0 – no
 1. Individual correctly identifies the more conservative party (**conservparty**)
 2. Individual displays ideologically consistent partisan identification (**ideoparty**)
 3. Individual displays ideologically consistent vote choice (**ideovote**)
 4. Individual displays ideologically consistent candidate evaluations (**ideoeval**)
 5. Individual displays ideologically consistent ideological group (e.g., liberal, conservative) evaluations (**ideotherm**)
 6. Individual correctly places the parties on the liberal-conservative ideological scale with respect to each other (**partyplace**)
 7. Individual correctly places the candidates on the liberal-conservative ideological scale with respect to each other (**candplace**)

- Political knowledge items: 1 – correct, 0 – incorrect
 1. **preztimes**: “Do you happen to know how many times an individual can be elected President of the United States under current laws?”
 2. **deficit**: “Is the U.S. federal budget deficit – the amount by which the government’s spending exceeds the amount of money it collects – now bigger, about the same, or smaller than it was during most of the 1990s?”
 3. **senterm**: “For how many years is a United States Senator elected – that is, how many years are there in one full term of office for a U.S. Senator?”
 4. **medicare**: “What is Medicare?” (originally 4 response options)
 5. **leastspend**: “On which of the following does the U.S. federal government currently spend the least?” (originally 4 response options)
 6. **speaker**: “John Boehner. What job or political office does he NOW hold?”
 7. **vicepres**: “Joe Biden. What job or political office does he NOW hold?”
 8. **primemin**: “David Cameron. What job or political office does he NOW hold?”
 9. **chiefjust**: “John Roberts. What job or political office does he NOW hold?”
 10. **repparty**: “Do you happen to know which party had the most members in the House of Representatives in Washington BEFORE the election last month?”
 11. **senparty**: “Do you happen to know which party had the most members in the U.S. Senate BEFORE the election last month?”

- Political participation items: 1 – yes, 0 – no
 1. During the campaign, did you talk to any people and try to show them why they should vote for or against one of the parties or candidates? (**talk**)

2. Did you go to any political meetings, rallies, speeches, dinners, or things like that in support of a particular candidate? (**rally**)
 3. Did you wear a campaign button, put a campaign sticker on your car, or place a sign in your window or in front of your house? (**sign**)
 4. Did you do any (other) work for one of the parties or candidates? (**otherwork**)
 5. During an election year people are often asked to make a contribution to support campaigns. Did you give money to an INDIVIDUAL CANDIDATE running for public office? (**donateind**)
 6. During an election year people are often asked to make a contribution to support campaigns. Did you give money to a POLITICAL PARTY running for public office? (**donatepty**)
 7. During an election year people are often asked to make a contribution to support campaigns. Did you give money to ANY OTHER GROUP running for public office? (**donateoth**)
- Strength of partisan attachments (**pidstrength**)
 0. Independent
 1. Lean
 2. Weak
 3. Strong
 - Strength of ideological attachments (**ideostrength**)
 0. Moderate
 1. Lean
 2. Weak
 3. Strong
 - Church attendance (**church**)

0-4, where 0 – never attend, 4 – more than once a week
 - Education (**edu**)

0-4, where 0 – no high school, 4 – postgrad
 - Race: Black (**black**)
 0. Non-black/African American
 1. Black/African American
 - Race: Hispanic (**hispanic**)
 0. Non-Hispanic

1. Hispanic

- Age (**age**)

Age in years

- Female (**female**)

0. Male

1. Female

- Residence in the South (**south**)

0. Not South

1. South