1. QUESTION WORDING APPENDIX

1.1. *Political Knowledge*

1. How long is one term for the President of the United States?
   - Eight years
   - Six years
   - Four years
   - Two years

2. The FDA is part of the national government primarily responsible for regulating
   - Food quality
   - The national parks
   - Electricity production and energy
   - Pollution and the environment

3. Who is the Vice President of the United States?
   - Leon Panetta
   - William Daley
   - Hillary Clinton
   - Joe Biden

4. The federal debt is
   - Much smaller than it was 20 years ago
   - The difference between imports and exports with foreign countries
   - The annual difference between spending and tax revenues
   - The accumulated borrowing of the federal government that has not been repaid

5. How many times can an individual be elected President of the United States under current laws?
   - Any number of terms
   - Three times
   - Twice
   - Once

6. What do we call the first ten amendments to the Constitution?
   - The Articles of Confederation
   - The inalienable rights
   - The Bill of Rights
   - The Declaration of Independence

7. Is the U.S. federal budget deficit, the amount by which the governments spending exceeds the amount of money it collects, now bigger, about the same, or smaller than it was during most of the 1990s?
   - Smaller
   - About the same
   - Bigger

8. Who signs bills to become laws?
   - The President
   - The Vice President
   - The Chief Justice of the Supreme Court
   - The Secretary of State

9. Which party is generally more supportive of creating a way for immigrants who are in the U.S. illegally to eventually become citizens?
   - The Republican Party
   - The Democratic Party
10. In what month do we vote for President?
    - November
    - October
    - February
    - January
11. What are the two parts of the U.S. Congress?
    - The Senate and the Supreme Court
    - The House of Lords and the House of Commons
    - The House of Representative and the Supreme Court
    - The Senate and House of Representatives
12. Which party is generally more supportive of restricting access to abortion?
    - The Republican Party
    - The Democratic Party
13. Which of these political parties is considered most conservative?
    - Green Party
    - Republican Party
    - Democratic Party
14. The NRA is an organization that advocates for
    - Clean elections
    - A cleaner environment
    - The rights of gun owners
    - Women's rights
15. Compared to 30 years ago, is the difference in incomes between the top 20% of households and the bottom 20% of households now bigger, smaller, or the same?
    - The difference is now the same as 30 years ago
    - The difference is now smaller than 30 years ago
    - The difference is now bigger than 30 years ago
16. The EPA is part of the national government primarily responsible for regulating
    - Food quality
    - The national parks
    - Electricity production and energy
    - Pollution and the environment
17. Which party is generally more supportive of reducing the size of the defense budget?
    - The Republican Party
    - The Democratic Party
18. Which party is generally more supportive of increasing taxes on higher income people to reduce the federal budget deficit?
    - The Republican Party
    - The Democratic Party
19. Which party is generally more supportive of allowing drilling for oil in the Arctic National Wildlife Refuge?

- The Republican Party
- The Democratic Party

20. Who is the Commander in Chief of the military?
    - The Attorney General
    - The President
    - The Secretary of Defense
    - The Vice President

21. The First Amendment to the United States Constitution guarantees all of these rights EXCEPT
    - Right to remain silent
    - Right to the free exercise of religion
    - Right to free speech
    - Right to peaceably assemble

22. *Roe v Wade* is a case decided by the Supreme Court that relates to
    - Executive power
    - Campaign finance
    - Birth control
    - Abortion

23. Social Security is
    - Funded by the personal income tax
    - Operated by state government
    - The responsibility of the Department of Defense
    - The benefit program for senior citizens

24. What is Medicare?
    - A private, non-profit organization that runs free health clinic
    - A private health insurance plan sold to individuals in all 50 states
    - A program run by state governments to provide health care to poor people
    - A program run by the U.S. federal government to pay for old people's health care

25. How many senators are elected from each state?
    - It depends on the population of the state
    - Four
    - Two
    - One

26. How many votes are required in Congress to override a presidential veto?
    - A simple majority of both houses of Congress
    - A simple majority of one house of Congress
    - A two-thirds majority of both houses of Congress
    - A two-third majority of one house of Congress

27. The Secretary of State
    - Serves a two-year term
    - Serves the state governments
    - Is nominated by the president
    - Heads the armed services

28. Near the end of an election campaign, a poll shows that an issue that no candidate has mentioned is of great concern to voters. What is most likely to happen?

- Some candidates will drop out of the race
- Candidates will start talking about the issue
- Newspapers will not report the results of the poll
- The election will be postponed

29. Liberals are generally said to
    - Support pro-life policies
    - Oppose all tax increases
    - Support military spending
    - Support government programs to give government assistance the needy

30. Which party is generally more supportive of reducing the size and scope of the federal government?
    - The Republican Party
    - The Democratic Party

31. The ability of a minority of senators to prevent a vote on a bill is known as
    - Suspension of the rules
    - Enrollment
    - A veto
    - A filibuster

32. Conservatives are generally said to
    - Support pro-choice policies
    - Support tax cuts
    - Oppose military spending
    - Support government programs to give government assistance to the needy

33. Which of these regions of the country is generally considered to be most supportive of Republican candidates
    - Midwest
    - South
    - West Coast
    - New England

34. The presiding officer in the House of Representatives is
    - The Majority Leader
    - The Sergeant at Arms
    - The Vice President of the United States
    - The Speaker

35. Which of these countries is NOT a permanent member of the U.N. Security Council
    - United Kingdom
    - France
    - India
    - China

36. Which party has a majority of seats in the U.S. House of Representatives?
    - Neither
    - Democrats
    - Republicans

37. What state holds the first *primary* election in Presidential primaries?
    - Florida

- Nevada
- South Carolina
- New Hampshire

38. Who is the Speaker of the House of Representatives?
- Mitt Romney
- Eric Holder
- Harry Reid
- John Boehner

39. Most cases are considered by the Supreme Court
- In even-numbered years
- At the request of Congress
- Upon order of the president
- With the approval of at least four justices

40. How many Justices typically serve on the U.S. Supreme Court
- Eleven
- Nine
- Eight
- Seven

41. What job or political office is now held by Ben Bernanke?
- None of these
- Minority Whip of the U.S. House
- Chief Justice of the United States Supreme Court
- Majority leader of the U.S. Senate
- Chairman of the Federal Reserve

42. Whose responsibility is it to nominate judges to the Federal Courts
- The state governors
- The Supreme Court
- Congress
- President

43. Who is the Chief Justice of the U.S. Supreme Court?
- Larry Thompson
- Anthony Kennedy
- David Cole
- John Roberts

44. The U.S. Senate
- Votes to confirm nominees to the U.S. Supreme court chosen by the House of Representatives
- Plays no role in choosing the members of the U.S. Supreme Court
- Chooses members of the U.S. Supreme Court
- Votes to confirm nominees to the U.S. Supreme court chosen by the President

45. Which party has a majority of seats in the U.S. Senate?
- Neither
- Democrats
- Republicans

46. Which of *the states listed below* has the greatest number electoral college votes in U.S. Presidential Elections?
    - Puerto Rico
    - Nevada
    - North Dakota
    - Washington D.C.

47. *Citizens United v the FEC* is a case decided by the Supreme Court that relates to
    - Executive power
    - Campaign finance
    - Birth control
    - Abortion

48. 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?
    - None of these
    - Eight years
    - Six years
    - Four years
    - Two years

49. Who is the Prime Minister of the United Kingdom?
    - Richard Branson
    - Tony Hayward
    - Nick Clegg
    - David Cameron

50. The President of Afghanistan is named
    - Bashar al-Assad
    - Hosni Mubarak
    - Hamid Karzai
    - Nouri al-Maliki

51. The House of Representatives has how many voting members?
    - Four hundred and forty-one
    - Four hundred and thirty-five
    - Two hundred
    - One hundred

52. The President of the Senate is
    - The Majority Leader
    - The Sergeant at Arms
    - The Vice President of the United States
    - The senior senator of the majority party

53. On which of the following federal programs is the **most** money spent each year?
    - Medicare
    - Education
    - Subsidies to farmers
    - Aid to foreign countries

54. What do all constitutional governments have?

- Separation of church and state
- A bill of rights
- A President as the head of government
- Limits on political power

55. On which of the following does the U.S. federal government spend the **least** money?
    - Social Security
    - National defense
    - Medicare
    - Foreign aid

56. The head of the Department of Justice is
    - Kathleen Sebelius
    - Eric Holder
    - Timothy Geithner
    - Hillary Clinton

57. The president may NOT
    - Declare war
    - Pardon criminals without justification
    - Appoint federal officials when Congress is in recess
    - Refuse to sign legislation passed by Congress

58. Which of these is NOT primarily the responsibility of the Federal government in Washington?
    - Interstate commerce
    - Negotiating treaties with foreign countries
    - Education
    - National defense

59. Who is the current president of Mexico?
    - Vincente Fox
    - Hugo Chavez
    - Dilma Rousseff
    - Felipe Calderon

60. Which of the following actions does the United States federal government commonly take to finance a budget deficit?
    - Expanding public-works projects
    - Borrowing from the public
    - Imposing import quotas
    - Printing more money

61. Common Cause is an organization that advocates for
    - Women's rights
    - Clean elections
    - A cleaner environment
    - The rights of gun owners

62. The Byrd Rule is relevant
    - During the confirmation of cabinet members
    - For national party conventions
    - During Congressional debates over non-budgetary policies

- For the Reconciliation process
63. The Majority Leader of the House of Representative is
    - Nancy Pelosi
    - Kevin McCarthy
    - Eric Cantor
    - John Boehner
64. On which of the following does the U.S. federal government spend the **most** money each year?
    - Education
    - Medicare
    - Interest on the national debt
    - National defense

1.2. *Political interest*

1. How interested would you say you are in politics and current affairs?
   - Not at all interested
   - Not very interested
   - Somewhat interested
   - Very interested
2. How often would you say you discuss politics and current affairs?
   - Every day
   - Several times a week
   - Once a week
   - Several time sa month
   - Once a month
   - Less than once a month
   - Never
3. How frequently do you pay attention to news about national and international issues?
   - Every day
   - Several times a week
   - Once a week
   - Several time sa month
   - Once a month
   - Less than once a month
   - Never

2. NOTES ON SOFTWARE AND COMPUTATION

The software for administering our CAT algorithm consisted of two major components: a survey application and an item selection application. These were developed independently so that the process of computerized adaptive item selection could be decoupled from the specific survey delivery mechanism and used more widely in the future by researchers engaged in surveys of any mode.

The item select application (ISA) is an R package that can be used by researchers on nearly any platform to efficiently select items given item parameters and prior individual responses. This package, along with documentation and vignettes designed around the simulations in this paper, will be included in the replication archives for this paper at the time of publication.

The ISA provides a simple interface through which researchers can input item-level parameters and individuals' responses and quickly receive information about which item is associated with the minimum posterior variance. This code should enable researchers to set up their own protocols for implementing CAT algorithms for item selections during in-person or phone interviews. Since this code is open source and available to the public, it will also facilitate implementation of the technique by survey firms for all modes, including web-based surveys.[1]

For this paper, the ISA was hosted on an online server using the Rook library in R using a cloud-based web-server.[2] The required code as well as instructions for duplicating our procedure will also be available in our replication files. While some additional expertise on interfacing with web APIs is necessary for following this procedure, these files and documentation should significantly reduce the required investment for implementing CAT on any survey platform.

Finally, we are in the process of developing infrastructure to enable future researchers to use a survey design tool of their choice (e.g., Qualtrics) and integrate it with our ISA at a limited cost and with only a limited amount of technical expertise. The aim of this software development is to make CAT algorithms accessible and extendable to researchers with a wide array of technical skills.

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[1]While R libraries exist to perform many of the calculations necessary for doing item selection, we found that they gave us erratic results that were difficult to explain. In addition, they were not well suited to being run in a multicore (or multi-machine) environment. We wrote our own CAT library that is both optimized for multicore machines and provides consistently correct results.

[2]http://cran.r-project.org/web/packages/Rook/