

A Knowledge Gap or a Guessing Game?

*By Jeffery J. Mondak and
Mary R. Anderson*

Gender and political knowledge



Jeffery J. Mondak is LeRoy Collins Professor of Political Science, and Mary R. Anderson is a doctoral student in political science, Florida State University.

Although most research on public opinion focuses on what citizens think about politicians and policies, a second matter—what people *know*—is also vitally important. Students of public opinion laud the notion of an informed citizenry, while simultaneously bemoaning its apparent absence.

Criticism of the American electorate as uninformed also is common in popular circles, from Jay Leno's on-the-street interviews with people who know neither the address of the White House nor the name of the vice president, to the many pundits who mocked the purported ineptitude of Florida voters in 2000 and 2002. Such commentary may make for effective satire, but what do we as observers of public opinion actually know regarding what people know about politics?

The study of political knowledge has made great strides in the past dozen years. Although numerous scholars have offered invaluable contributions, two works have been especially influential. John Zaller's 1992 book, *The Nature and Origins of Mass Opinion*, called attention to the fact that differences in knowledge yield dramatic effects on the structure of public opinion.

Michael X. Delli Carpini and Scott Keeter followed four years later with *What Americans Know about Politics and Why It Matters*, an exhaustive study on the levels, sources, distribution, and consequences of knowledge about politics. Together, these two works were instrumental in pushing political knowledge to the fore in research on public opinion and political behavior.

As is often the case, the rapid advance in our understanding of the significance of political knowledge has made more glaring those subsidiary questions that remain shrouded in mystery. One such ques-

tion, the gender gap in political knowledge, is our focus here.

Study after study has found that men know more about politics than women. The gap persists even after we account for the effects of differences in educational opportunities, income, political involvement, and other such variables, and it is much larger than the divide between men and women on related matters such as political efficacy and interest in politics. Why is the gender gap in political knowledge so large?

The answer, according to our research, is that much of the observed knowledge gap is merely an illusion. Our thesis holds that there are systematic differences in how men and women go about answering knowledge questions, and these differences artificially inflate knowledge scores for men relative to those for women.

Political knowledge is measured using data from survey batteries that quiz respondents on matters of American civics and current affairs. Many surveys include a handful of such items, and a few have posed quite lengthy batteries. Knowledge questions typically employ short-answer or multiple-choice formats, and reliable individual-level knowledge scales can be constructed by summing correct responses to as few as five or six items.

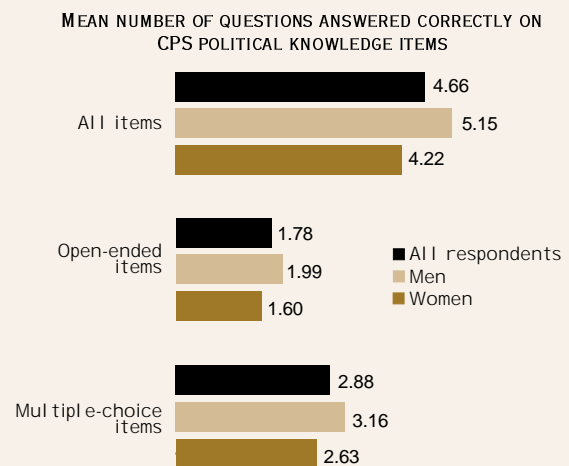
Numerous analysts, including Delli Carpini and Keeter, have demonstrated that men consistently fare better on these quizzes than women. In their recent book, *The Pri-*

vate Roots of Public Action: Gender, Equality, and Political Participation, Nancy Burns, Kay Lehman Schlozman, and Sidney Verba present a rich, detailed analysis of the role of gender in various aspects of political behavior. Their report includes discussion of gender differences on ten knowledge items asked as part of the 1990 Citizen Participation Study (CPS). Burns and her co-authors note that men outscored women by nearly one full point on the ten-item battery.

Five of the CPS knowledge items used an open-ended format, and five employed a two-category multiple-choice design. They asked about such things as the names of United States Senators, the focus of the Fifth Amendment to the Constitution, and the meaning of the term "civil liberties." Because item format can affect respondents' prospects for answering the questions correctly, Figure 1 displays results both for the full ten-item battery and for its two five-item components.

The data reveal that men outscored women on both portions of the civics quiz, albeit by a greater margin on the

Figure 1
A Deceptive Difference?



Note: Respondents were asked five open-ended and five multiple-choice knowledge items. **Source:** Survey by Sidney Verba, Kay Lehman Schlozman, Henry E. Brady, and Norman Nie, with funding from the Spencer Foundation, the Ford Foundation, the National Science Foundation, and the Hewlett Foundation, March-June, 1990.

multiple-choice items than on the open-ended questions. The differences were statistically significant, and they remained so even when other variables were taken into account.

Gender differences also appear in other aspects of political behavior. Since men generally express greater interest in national politics than women do, the sheer existence of a gender gap in political knowledge is perhaps not surprising.

What is curious, though, is the magnitude of the gap. In standardized comparisons (such as ones that depict the ratio of a gender disparity to the standard deviation for the overall scale), the gender difference with respect to political knowledge often is twice the size of the corresponding gap for interest in politics.

This point—that the gender gap in political knowledge is uniquely large—has proved perplexing. Several teams of researchers have posited explanations, but the efforts thus far have not been successful. Why are our explanations incomplete?

Although the political knowledge questions used in such studies appear on public opinion surveys, the items have more in common with high school civics exams than with measures of presidential approval and opinion about the economy. With this in mind, we began assessment of the gender gap in knowledge by reviewing what research in the field of educational testing had to say about threats to validity in test construction.

The message we found in the testing literature was clear: when measuring

knowledge, “don’t know” responses should be discouraged. In other words, test takers should be instructed to answer all items—even if they are not sure of the correct answers.

The purpose of this recommendation is to avoid the contaminating influence of a guessing response set. If test takers are permitted to answer don’t know, differences in the propensity to guess—differences associated with traits such as risk-taking, competitiveness, and self-confidence—will lead some individuals to do better than others for reasons unrelated to knowledge.

The CPS multiple-choice items provide an example. Each of these five items has only two substantive choice

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options, meaning that the respondent who guesses blindly has a 50-50 chance of answering correctly. Aggregated over the full battery and over many respondents, the expected score for those who guess is 2.5, versus a score of zero for those who answer don’t know.

The distortion is all the more severe if respondents are partially informed. For instance, if respondents are 70% sure that they know the answer, the mean for those who offer “educated guesses” rises to 3.5 while it remains zero for those still too hesitant to answer.

If guessing is the problem, then why is the solution to do away with the don’t know response? After all,

doesn’t this merely encourage more guessing? Rather than abolishing the don’t know, why not abolish guessing?

The answer is that we have no conclusive means to prevent guessing. Indeed, any attempt to do so most likely would make the problem worse. If test takers were instructed not to answer unless they were absolutely sure they were correct, shy individuals who were 99% certain might select don’t know, while their more assertive but less informed counterparts went ahead and guessed.

Guessing cannot be eliminated. Consequently, the best way to level the playing field—that is, to stave off a guessing response set—is for all test takers to answer every item.

What are the implications of guessing effects for the measure of political knowledge, and, more importantly, for the gender gap in knowledge?

Two observations support the hypothesis that guessing effects contribute to the gender gap.

First, don’t know rates on political knowledge items are quite high. On the CPS items, for instance, rates on four of the five open-ended items exceeded 50%, and even one of the multiple-choice items garnered a rate of over 27%.

Second, research on standardized testing has demonstrated that, given a don’t know option, men are more prone to guessing than women are. To invoke a stereotype, men approach knowledge items much as they approach driving; either this way or that

must be right, so what's the point of stopping to ask for directions?

What we are suggesting is that some portion of the observed gender gap in knowledge is merely an illusion. Any heightened inclination of men to guess will contribute to the gap. We offer three empirical markers as evidence in support of our thesis.

First, disproportionate guessing by male respondents should produce greater effects on multiple-choice items than on open-ended knowledge questions. When we ask respondents to name the two US Senators from their state, the educated guess might yield a correct answer, but the blind guess will not. In contrast, even the blindest of guesses will be right half of the time on two-category multiple-choice questions. Thus, respondents have the most to gain by guessing on closed-ended items.

Consistent with this reasoning, recall from Figure 1 that the gender gap on the five closed-ended CPS items was over 35% larger than the gap for the corresponding open-ended questions.

The second marker concerns how men and women respond when they do not answer knowledge items correctly. On the five open-ended CPS knowledge items, women offered 8.11 don't know responses per incorrect answer, versus a ratio of 7.17 to one for men. On the multiple-choice items the don't know-to-incorrect answer ratio was 0.44 to one for women and 0.32 to one for men.

These data suggest that women are more likely than men to concede political ignorance. The differences are not of staggering magnitude; nonetheless, the relative reluctance of men to

say don't know puts chance to work in their favor.

Our third test is the most direct. By our reasoning, the optimal measure of political knowledge would be one on which no respondents answered don't know, and the ideal comparison would involve a

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contrast between our optimal measure and one on which don't know responses were permitted.

We tested the needed indicators on the 1998 National Election Study (NES) Pilot Survey. Respondents answered four multiple-choice knowledge items. However, respondents were assigned randomly to two different survey protocols. On the first, consistent with NES convention, respondents were encouraged to answer don't know. On the second, don't know responses were strongly discouraged, and those few that were recorded were randomly assigned to the substantive choice categories.

If guessing effects operate equally among men and women, then our experiment would have produced no impact on the knowledge gap. Mean knowledge scores for both men and women would have risen when would-be don't know responses were converted to a mix of right and wrong answers, but the gap between men and women would have remained steady.

Conversely, if elimination of don't know responses leveled the field by inducing identical guessing effects—

i.e., every person answered every question—for all respondents, then our thesis suggests that the knowledge gap should have shrunk.

In multivariate tests, we identified a gender gap of 0.50 points on the baseline four-point scale, meaning that men fared a half-question better than women, on average, when don't know responses were permitted. This gap was reduced by over 50%, to 0.23 points, when all don't know answers

were eliminated. Thus, the evidence suggests that the true gender gap in political knowledge may be of only roughly half the magnitude indicated in past research, with the other half the consequence of imperfect measures.

We are conducting further research on the measurement of political knowledge, and especially on the implications of guessing effects for the gender gap. Thus far, however, the evidence we have compiled supports two general conclusions.

First, on a methodological note, to avoid error produced by differential propensities to guess, it is best to discourage, not encourage, don't know responses on knowledge items.

Second, because men and women vary in their tendencies to guess, conventional knowledge scales have overstated the gender gap in knowledge. A modest gender gap does exist, one that is of a magnitude on par with the gap in political interest, but the curiously large disparity in knowledge seen so often in past research appears to be illusory. ●