Mis-measuring Political Knowledge? Do People Know More—or Even Less—about Politics than Commonly Thought?

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Abstract

It has long been widely accepted that the public knows very little about politics, but, over the past couple of decades, a number of prominent revisionist studies have claimed that it actually knows appreciably more than we have been thinking. The reasons lie in a mix of respondent behavior, the selection and design of knowledge questions, and the coding of the responses to open-ended ones. In a nutshell, incorrect and Don't-Know responses may conceal knowledge; the questions may be too difficult, missing too much of what people do know; and the coding may count partially correct responses as incorrect. But while there may be some truth to such claims, this accounting neglects the other side of the ledger. Correct responses may reflect lucky guessing, shrewd inference, or mere belief (suspicion as distinct from knowledge), the questions may be too easy, missing too much of what people don't know; and the respondents may be more knowledgeable than the citizenry from which they have been drawn. Here we provide a more comprehensive view.

Conventional survey measurements suggest that most people know relatively little about politics (Delli Carpini and Keeter 1996; Luskin 1987; Kinder 1998; Price 1999). It is hard to quantify this impression—our title's "commonly thought"—very precisely, but the modal view would seem to be in the ballpark of the averages of roughly 40-45% correctly answering the knowledge items assembled by Delli Carpini and Keeter (1996) and Jerit and Barabas (2012, 2014).[1] These percentages may not seem that low, but these are mostly easy, closed-ended items, mostly confined to two, three, or four response options. If everybody guessed blindly, knowing nothing at all, 25%-50% could be expected to answer correctly by chance. Evidence of this sort is why the "Panglossian impulse" (Luskin 2002) largely retreated from "denial" to "extenuation," conceding that most people do not know much about politics but arguing that its policy attitudes and votes are not much affected (as in Lupia 1994, Popkin 1991).

Over the past couple of decades, however, some prominent revisionist studies have been walking back this concession, arguing instead that conventional survey measurements significantly understate the public's knowledge of politics. The questions, they claim, do too little to embolden the timid and engage the apathetic, who may say they don't know when in fact they do know (Mondak 2001, Prior and Lupia 2008); may miss fugitive knowledge (what respondents know but are unable to recall in the moment) (Prior and Lupia 2008); may generate partially correct responses, which may be scored as incorrect (Gibson and Caldeira 2009, Debell 2013); and being textual, may miss visual knowledge (Prior 2013). They may also be difficult or immaterial, asking about information too inconspicuous or unimportant to be noticed or readily recalled (Lupia 2015; Boudreau and Lupia 2011; Prior and Lupia 2008).

There may be something to these claims. These are indeed ways in which the public's political knowledge may be underestimated. But they represent only one side of the ledger. In

other ways, the public's political knowledge is probably overestimated. Most questions are closed-ended, yielding correct responses that may be lucky guesses or shrewd inferences, rather than knowledge (Luskin 2002, Luskin and Bullock 2011, Bullock et al. 2015; Prior, Sood, and Khanna 2015). Most do little if anything to discourage guessing or inference (Luskin and Bullock 2011, Sood and Cor 2016). Some, indeed, actively encourage guessing and inference, by explicitly pressing respondents to guess, by presenting the question as one of opinion rather than fact, or by providing background information. Respondents may learn from earlier portions of the questionnaire, acquiring new knowledge they would not have had but for taking the survey. In online surveys, especially, they may "cheat," consulting others or googling the answer (Clifford and Jerit 2016). The questions may be too easy, asking preponderantly about information that anyone paying the least attention should know. And the respondents may simply be more knowledgeable than the population from which they are drawn (Krupnikov and Levine 2014).

This paper assays these various upward and downward biases, based principally on the existing evidence, supplemented here and there with results from (A) an original compilation of **xxxx** knowledge items from **yyyy** surveys (by a mix of academic organizations and well-regarded commercial polling firms) and three original online surveys—of (I) the alumni (n = 339) and (II) staff (n = 175) of a large private university in the western U.S., both in the fall of 2010, and (III) of the U.S. population, via Amazon's Mechanical Turk (MTurk) platform, in April, 2017 (n = **xxxx**). These do not have national probability samples, but we use them, alongside existing studies, to consider the effects of question design and format.[2] Appendix A describes these surveys in greater detail.

Political Knowledge

So what is "political knowledge"? Deeper questions about what it means to "know" something aside, "knowledge" is a matter of stored cognition—of mental representations of the phenomenal world. These include simple perceptions of objects and attributes, the linguistic expressions of which are nouns and adjectives, but also, relevantly for "political knowledge," higher-order cognitions linking objects and attributes—expressible linguistically as (possibly complex) sentences. But not all stored cognition is knowledge. Some is mere belief, less confidently held than knowledge. To count toward knowledge, a cognition must be both confidently held and factually correct, roughly consistent with the traditional philosophical understanding of knowledge as "justified correct belief" (as discussed, e.g., in Sosa 1991).

We should also note the possibilities of misinformation—confidently held, factually incorrect belief—and of mere (unconfidently held) incorrect belief. Here we are concerned only to distinguish knowledge from either ignorance or misinformation, leaving the parallel issue of distinguishing misinformation from ignorance to another day.

Aggregating up from individual cognitions to those holding them, we take an individual's *knowledge* of a given domain to refer to the quantity of what he or she knows within that domain, as a proportion of all its elements (as in Luskin, Helfer, and Sood 2016). For *political knowledge*, the domain is everything political or politically relevant, a finite but ineffably large number of things, some of which no one need actually know. We need not actually be able to count the relevant cognitions; this is the conceptual variable we are aiming at.

Several points about knowledge in this sense need highlighting. First, it is not about the knowing of this specific item or that, nor about the thrust of what is known (for instance, the extent to which it tends to favor this side or that in policy, partisan, or ideological debate). It is a matter of "how much," not "what." For many questions, to be sure, the "what" should matter. It

figures to have main effects on "variables of direction" like policy attitudes and vote choice. But the "how much" should also matter. It figures to have main effects on "variables of extent" like engagement and turnout and conditioning effects on variables of direction (heightening the effects of some influences and attenuating the effects of others).

Second, the universe of knowable, politically-relevant information is vast and varied. It includes, among other topics, political and governmental institutions, constitutional and statutory provisions, regulations, policy proposals, policy-relevant facts (like the current levels or sources of greenhouse gases), office-holders' and -seekers' traits and resumes, and both their and political parties' positions on both specific policies and the summary left-right dimension. Some topics, and some specific pieces of information about them, are more salient (more readily encountered), catchier (more readily noticed and retained, if encountered), or more important (more capable of rationally altering other beliefs, attitudes, or behaviors) than others. We say "rationally," because "importance" in the sense we intend, refers to the attitudinal effects that knowing something *should* logically have, *ceteris paribus*. In the real world, learning a piece of fluff or a red herring (that Mike Pence is married with three children or that Donald Trump spends most of his time away from the White House) may affect some people's attitudes more than learning something greater consequence (the cost of a wall the length of the U.S.-Mexico border or the details of Trump's antagonism toward NATO and the EU or accommodations to Russia).

Third, knowledge is a matter of *existing*—pre-measurement—cognition. Questionnaires are reactive instruments, occasioning as well as measuring cognition (and affect)—a venerable caution (Webb et al. 1966), too little remembered. Respondents learn from questionnaires, picking up stray information and making inferences as they make their way through them. they

may store as fresh knowledge, usable in answering subsequent items. They make additional inferences, based on both prior and in the process of answering the knowledge items. But to judge how much people know, not to mention what effects that knowledge may have, in the world outside the survey, we need to focus on what they *already* know, i.e., what they would know, had they never been interviewed.

Fourth, knowledge is not mere, unconfident belief. Suspecting or being inclined to believe something true is not the same as knowing it. The effects may generally share the same sign, but are likely to be fainter, and in any case need separate examination. The beliefs with which we are concerned here are knowledge: not only correct but confidently held.

Fifth, "partial knowledge," an idea that comes into play in addressing the relationship between the coded responses to open-ended items and the underlying cognition, can be defined, as in Luskin and Bullock (2010), as either partially retrieved or partial---"The respondent knows some but not all of the relevant information."

Conventional Measurement

The conventional picture is that painted by conventional measures. The conventional formula is the proportion of the questionnaire's knowledge questions the respondent answers correctly (what Luskin, Helfer, and Sood (2016) term "observed" political knowledge). This differs from actual political knowledge, as just defined (what Luskin, Helfer, and Sood 2016 term "true" political knowledge) in both numerator and denominator. The denominator is just the number of knowledge items on the questionnaire, a mere, highly non-random sliver of all that is relevant and knowable. The numerator tallies items answered correctly, as distinct from actually known.

Naturally, the details—the questions asked, how they are asked, how the responses are

scored—vary from measure to measure. Yet they resemble each other enough to justify speaking of "conventional measurement." To begin with, the questions must perforce be easy enough for the question-writers to think of and know the answers to. At least a few of them must be still easier—easy enough for many respondents to know—lest the variation across respondents be mainly noise (from lucky versus unlucky guessing). The item sample thus skews strongly toward the most salient and catchiest elements of the vastly larger universe of what is out there to be known.

In practice, moreover, a few questions (on certain topics, in certain formats) are hardy perennials. These include: closed-ended civics-book questions about institutional structures and rules, like the length of a U.S. Senator's term or the sizes of the congressional majorities required to override a presidential veto; open-ended questions about the positions held by important political figures; effectively closed-ended questions about partisan control of portions of government (iconically, which party has the majority in the U.S. House of representatives); closed-ended questions about policy-relevant facts; and closed-ended questions about the positions of candidates and parties on policy or ideological dimensions.

Most knowledge questions are closed-ended (see Table 1). Many, especially those concerning policy-relevant or biographical facts, are multiple choice (MC). On MC items, the most common numbers of response categories are two (as in true/false) or four, with three and five also reasonably common. Open-ended items are almost always coded dichotomously, as either correct or incorrect, according to the coder's reckoning of their proximity to a response indicating full knowledge. DKs, in whatever format, are almost always coded as incorrect.

Other features are less universal but still very common. Knowledge questions tend to be asked late in the questionnaire, after a great many other questions. Many overtly or subtly

encourage substantive (non-DK) responses—by offering no DK response option; by explicitly urging respondents who feel they don't know to venture a substantive response; by probing initial, volunteered DKs to coax out substantive responses; or by being posed as questions of opinion rather than fact. Many are informative as well as interrogatory, offering prefatory information intended to explain or contextualize question referents many respondents might not otherwise recognize or comprehend.

There is also much commonality in the design and provenance of the samples to which these measures are applied. Most studies claiming much in the way of external validity rest on data from limited number of sources, the longest-standing of them being the American National Election Study (ANES) and the General Social Survey (GSS). For much of the modern survey era, these employed face-to-face interviewing. More recently, these traditional stalwarts have been joined by the Comparative Study of Electoral Systems (CSES), Cooperative Congressional Election Study (CCES), National Annenberg Election Survey (NAES), European Social Survey (ESS), and Pew Research Center surveys, among others. Both these newer sources and ANES and GSS now sometimes involve telephone interviewing or online questionnaires.

Bias(es) in Measuring Political Knowledge

A given measure's individual-level *error* in measuring knowledge is the difference between the individual's true and observed knowledge. It may be positive (upward) for this individual and negative (downward) for that one, larger for this individual and smaller for that one. In the aggregate, this varies with the study, which fixes the measure and the sample of individuals. The measure's *overall bias* is its *expected error*, averaging across individuals and studies. The "expectation" in this definition marks the distinction between "error" and "bias." The "overall" is to indicate that this is a net quantity—the bottom line of the *line-item biases*

from particular sources.

These sources may be direct or indirect. The direct sources include *respondent behavior*, *coding*, *item sampling*, and *unit sampling*. The first three are matters of measurement *per se*—of the difference between observed and true knowledge for given individuals, the fourth a matter of the individuals whose knowledge is being measured. The indirect sources include *question design* and *survey mode*, the first affecting respondent behavior, the second both respondent behavior and unit sampling. A number of these sources subsume several important tributary sources. Respondent behavior includes reticence, ennui, failed retrieval, guessing, inference, and cheating.

The revisionist studies claiming that the public knows more than conventional measurement suggests focus on sources whose line-item biases appear to be distinctly negative. But these downward biases may be more than counterbalanced by upward ones, from other sources. Let us therefore have a closer and more comprehensive look, source by source.

Respondent Behavior

Responses to knowledge items are hardly the same as the cognition behind them. Some respondents who know the answer may nonetheless say DK or respond incorrectly (at least as coded); some who do not may nonetheless respond correctly. So not all DKs or even incorrect responses reflect ignorance, and not all correct responses reflect knowledge.[3] These opposing errors may arise in any of six principal ways, the first three concealing knowledge; the second three veiling ignorance.

Reticence. Some respondents may say DK despite knowing for fear of responding incorrectly. On the face of it, this seems unlikely to be very common. The response menus for closed-ended items include the correct answer. It does not take much confidence to choose it.

Even on open-ended items, how many of those who actually *know* the correct answer can plausibly be timid enough say that they don't ? Mere suspicion may be withheld, but knowledge? Not, the evidence suggests, very often. Probing initial professions of ignorance with something in the vein of "aw, give it a shot!" produces only about 3% more correct responses (Sturgis, Allum, and Smith 2007, Luskin and Bullock 2011). Offering a dollar for every correct response only increases the percentage answering correctly by 3.6%, as can be calculated from Prior and Lupia (2008)'s Table 1. (See also Bullock et al. 2015 and Prior, Sood, and Khanna 2015.)

Ennui. Other respondents may say DK despite knowing the answer because they are too bored or unmotivated to venture a substantive response (as suggested by Mondak **xxxx** and Prior and Lupia 2008). This also seems unlikely to be very common. The truly unmotivated are unlikely to have agreed to be interviewed in the first place. Most respondents seem to enjoy being interviewed, but those bored by the experience may drop out before they even get to the knowledge questions, which are usually toward the end. And how much motivation does it take to answer a question to which one *knows* the answer? Again, the evidence suggests, not much. Rewarding correct responses should help overcome disengagement as well as timidity. But again the increase calculable from Prior and Lupia (2008) is only 3.6%.

Failed retrieval. Yet other respondents may "blank on" correct answers they know perfectly well, unable to recall them in the moment. They too fall back on DK, despite knowing. We have all experienced this "tip-of-the tongue" phenomenon, as it is sometimes known in psychology (Roger and McNeill 1966). But how often does it occur in this context? Never, it is safe to say, on closed-end items. The correct answer is right there, among the alternatives. Even on open-ended-items, the evidence suggests, it does not happen very often. Providing $1 for

every correct answer, another 24 hours to recall it (or look it up!), or both only boosts the percentages answering correctly by about 3.6%--5.6% in Prior and Lupia' (2008) online survey. As Table 2 shows, however, a closed-ended versions of questions asking which country had the most World War II casualties (the Soviet Union) and the leading cause of death among American women (heart disease) produce only slightly more correct responses than open-ended ones.

Probing the DKs to open-ended questions asking respondents to identify Mitch McConnell and Angela Merkel were then asked a parallel closed-ended question giving them four options for the position held by McConnell/Merkel.

A third approach is to discourage DK responses, urging respondents to think harder (and perhaps capture fugitive knowledge) and venture an answer even if unsure (perhaps overcoming their reticence). Thus Table 3 compares the results from the closed-ended deficit trend items, under Presidents Reagan, Clinton, George W. Bush, and Obama, asking DK-discouraging versus DK-encouraging versions. It is on closed ended-items that DK-discouragement can be expected to make some real difference to the percentage of the sample responding DK (Luskin and Bullock 2011), but on only one of these items in only one of the two samples (Reagan in the alumni sample) was the percentage correct in the DK-discouraging version greater than in the DK- encouraging version.

Guessing. Blind guessing is hard and therefore rare on open-ended items. On closed-ended items, however, it requires only picking a response option at random (most simply but not necessarily from a uniform distribution) from the menu provided. Why, as many respondents must ask themselves, give it a shot. In face-to-face and telephone interviews, they wish to oblige the interviewer. In any format, they prefer not to appear ignorant. Small wonder, therefore, that blind guessing seems to be rampant, especially in the absence of explicit encouragement to say

DK (Luskin and Bullock 2011; Clifford and Jerit 2016).[4]

Inference. Respondents who don't know the answer to the question being asked may make an educated (or mis-educated) guess from what they do know. This is not blind guessing, but neither is it knowledge. On closed-ended items, it may be simply a process of elimination. A respondent who does not know the correct option to be correct will nonetheless choose it if he or she knows remaining $C - 1$ of C options to be incorrect and will at least have a higher probability of choosing it he or she knows at least one but fewer than $C - 1$ of the remaining options to be incorrect. This sort of inference simply reduces the choice set. Other, more taxing inferences make use of side information. The reasoning may be stereotypic. Asked about what happened to the federal deficit during the Obama administration, some people, regarding Democrats as generally insouciant about deficits, may correctly infer, without actually knowing, that it increased. Or the reasoning may be hedonic. Some Republicans, preferring to think ill of Democratic administrations and frowning on a ballooning deficit, may also infer correctly, without actually knowing, that the deficit increased under Obama.[5]

Cheating. Respondents in online surveys may ask people around them or research the answer online (as suspected by Luskin and Bullock 2011 and now multiply confirmed, by, e.g., Clifford and Jerit 2016; Vezzoni and Ladini 2016). A good many respondents thus answer correctly without having previously known the answer. We suspect this effect is larger for open-ended items, which largely stymy guessing and inference but not research.

Question Design

Open- versus Closed-endedness. Closed-ended knowledge items *provide* the right answer; the respondent merely has to pick it out of a lineup. But someone who knows the answer to an open-ended question may be unable to retrieve it quickly enough to answer an

open-ended version of the same question. Closed-ended items occasion less fugitive knowledge but also more guessing and inference. On balance, to judge from the evidence already reviewed, that should mean more DKs and fewer correct responses.

Names versus Images. The conventional open-ended items asking respondents to identify political figures describe those figures by name. But it has been argued that more people may recognize their photos than their names. Images, after all, are more easily encoded, stored, and recalled (Grimes 1991; Lang 1995; Lang, Potter, and Bolls 1999) than words, and television, a heavily visual medium, provides the bulk of many people's political information. Accordingly, Prior (2013) finds that that questions asking respondents to identify photos instead of names may yield more correct answers. This may or may not be true. In our own Studies **XX** and **XX**, an average of 30-35% fewer respondents could identify five public figures (Nicholas Sarkozy, **xxxx**) from their photos than from their names. **[More details from the table.]** Perhaps one reason for this difference is that Prior's questions were closed-ended, our open-ended—and thus closer to the conventional open-ended items asking respondents to identify political leaders. Note, too, in any case, that this variation in question format would seem to apply mainly or only to questions like these—about political figures. But a great deal of consequential political knowledge—of policy-relevant facts, for example—is of sorts that cannot be readily asked about with photos. Even if asking about political leaders' names rather than their photos misses some knowledge, the downward bias in most whole knowledge indices, composed largely of other sorts of items, is likely to be small.

Table 2 presents the results for both the photo and text versions of these questions and, as always, for both samples. The short of it is that very few additional people (between 6 and 13%) identify McConnell correctly, though quite a few additional people (between 22 and 53%)

(Table 2 about here)

identify Merkel correctly. The percentages for Merkel are larger for the photo version and in the alumni sample. Of course some of these additional correct answers are lucky guesses or fresh inferences (educated guesses). In the more representative staff sample, the percentage for Merkel is higher than the 25% expectable from random guessing from a uniform distribution (there were four response options) only for the photo version. In the alumni sample, it exceeds 25% for both versions, but that is a highly unrepresentative sample. In all, there does some to be some fugitive knowledge in Merkel's case.

Priming. Purely interrogative vs partly Informational). If the latter, neutral vs hinting.

Matter of opinion (AFAYK etc.)

Question Order.

DK Orientation.

Knowledge questions may be DK-discouraging (as recommended by (Mondak 2000, 2001), DK-neutral (the modal practice), or DK-encouraging (as recommended by Luskin and Bullock 2011). Discouraging DKs may encourage those needing encouragement to venture answers they actually know and provide others the time to retrieve back-shelf knowledge. In thise ways, it therefore produces more correct (and incorrect) responses, as well of course as fewer DKs. On the other hand, it also produces more guessing, some of it lucky (Luskin and Bullock 2011, p. 551; Sturgis, Allum, and Smith 2008, p. 97), and more on-the-spot inference, which even when correct, does not represent knowledge. Luskin and Bullock (2011, p. 551) find

that "on average, discouraging DKs does nearly twice as much harm (5.7%) [increase attributable to lucky guessing] as good (2.8%) [increase attributable to hidden knowledge]."

Coding

The response options for closed-ended knowledge items are constructed to make one correct, and the others incorrect. But the responses to open-ended knowledge items may be partially correct, furnishing some but only some of the elements of a fully correct answer. A response identifying Mitch McConnell simply as a "politician" seems to contain a sliver of information, though it is only a sliver and may be mere inference from the questionnaire's being largely about politics. A response identifying McConnell as a U.S. Senator contains more information but still misses his being from Kentucky, his being a Republican, and, most importantly, his being the Majority Leader in the Senate. Such partially correct responses typically reflect "partial knowledge" (defined as above). Simply coding them as incorrect underestimates knowledge, although simply coding them as correct would overestimate it.

Just as some of the responses to open-ended items coded as incorrect contain one or more important elements of the answer, some of those coded as correct miss one or more of its important elements. They may also intermix *in*correct elements. The binary, right-wrong coding of partially correct responses cuts both ways.

Item sampling

In principle, the questionnaire items could be either harder or easier than the population of knowable items from which they are drawn.

The most salient and catchiest (not necessarily, as we shall argue, the most important) items figure to be the most frequently known.

Some have claimed is that survey knowledge items stray too far from the headlines,

concern information of too little use to the average citizen, or both both (Lupia 2006; 2015; Boudreau and Lupia 2011).

For one, the common stock of conventional political knowledge batteries—where the parties stand on major issues or which party the incumbent politicians belong to or their stances on the issues—can hardly be flayed for straying too far from the mainstream. For two, belying their irrelevance, not only is the correlation between conventional measures and important dependent variables such as frequency of voting, political interest hefty, but also their impact on voting "correctly" (Lau and Redlawsk 1997), and voting in line with economic interests (Gomez and Wilson 2001). For three, evidence from large, diverse batteries of political knowledge questions—over 300 items by Barabas et al. (2014) and hundreds of items by Delli Carpini and Keeter (1996)—suggest, that knowledge of various politically relevant facts is highly correlated. In fact, Delli Carpini and Keeter (1993; 1996) make precisely the opposite empirical argument—that a small number of items, which have since then become conventional, can indeed reliably measure political knowledge.

Flaxman, Goel and Rao (2016) analyzed passively collected data from 2 million people who installed the Bing toolbar, finding just about 4% of the people read ten or more substantive news articles and two opinion pieces in 3 months. Even after accounting for deficiencies of sampling, these are striking numbers that give little heart to the idea of a public whose public affairs knowledge we are underestimating.

Matter of interpretation. More reasonably, there are compelling reasons to think that we *vastly* overestimate public's level of political knowledge. As both Luskin, Helfer, and Sood (2016) and Lupia (2017) write, the domain of potentially knowable items is exceedingly vast, with even a true savant knowing no more than a vanishingly small fraction of the knowable

items. The reason an average political knowledge battery has an average person answering half or more of the items correctly is only because we are sampling from the extremum—the easy, salient (but not always important) items.

Unit Sampling

The respondents may be more or less knowledgeable than the (unit) population from which they are drawn. In practice, all probability samples of non-captive human populations are corroded by nonresponse. Not everyone drawn into the sample can be contacted; not everyone who is contacted agrees to participate. And it is the least well educated, least affluent, and most socially marginal—all attributes negatively associated with political knowledge—who are the most elusive. Survey samples therefore tend to be more politically knowledgeable than the populations from which they are drawn.

Survey panels likely exacerbate this issue. Over time, there is very likely some biased attrition, with people persisting on political panels the ones more interested in politics, and some persuasion—people becoming more interested in politics because of taking tens of political surveys. Many of the respondents in online panels have participated in hundreds of studies (Hillygus, Jackson, and Young 2014), and likely learned the knowledge items conventionally posed on them. Additionally, as Ahler and Goggin (2017) suggest, taking tens of political surveys may cause people to learn the knowledge items conventionally posed on them without ever learning more about public affairs more generally.

Coding

We have examined the responses to the open-ended items about McConnell, Merkel, Reid, and Napolitano. In no case were more than 4% of the total responses (including DKs) partially correct, and most of those were some notable distance from being fully correct. In the

alumni survey, one respondent identified Merkel simply as "Germany," which probably presents partial knowledge. Other responses, however, ranged from the "tea party candidate in Arizona" to the "president of Canada." There was a bit more partial knowledge showing in the McConnell responses. About ten respondents identified him (only) as serving in the Senate or Congress, although one thought he was the "British Prime Minister."[6] Similarly, about a dozen respondents identified Harry Reid only as a Senator or a Congressman. Two others thought he was a "newscaster," and one was sure that his photo was one of Orin Hatch. For Janet Napolitano, the most common of the relatively few partially correct responses identified as a Supreme Court nominee or Justice, evidently confusing her with Sonia Sotomayor.

Discussion

There is a pertinacious Panglossian strain in the study of mass politics. At first it was simply supposed, then explicitly contended (as one side of a debate over the point), that many if not indeed most people knew quite a lot about politics. Then, in the face of overwhelming evidence that very few in fact knew very much, the claim became that, yes, not many people know very much, but that their ignorance makes little difference. Most manage to approximate their "full-information" votes and opinions anyway. Now in the face of growing evidence of widespread individual-level and aggregate departures from "full-information" or "authentic" votes and opinions, we seem to have rotated back to the original claim—that many if indeed not most people know quite a lot about politics. Or at least a lot more than commonly thought. The evidence here provides little comfort for that view.

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Tables

Table 1: Correct Response Encouraging Features in Knowledge Items in Academic Surveys

Design Features	Combined	2012	2016
Explicit DK/Not sure	0	0	0
DK Probe	.12	.07	.19
Substantive Response Encouraging Wording	.14	.14	.14
DYT	.06	.05	.06
WWYS	.06	.07	.05
WIPO	.02	.02	.02
Number of substantive response options*			
2	.55	.54	.56
3	.10	.10	.10
4	.15	.19	.10
5	.03	.03	.02
7	.02	.03	0
Open	.15	.10	.21
DKE preamble	.39	.41	.38
DKD preamble	0	0	0

Note: Proportion of knowledge items in the ANES 2012 and 2016 with specific survey question features.

Asterix refers to the correct coding of the survey items with seven response options. Those are coded dichotomous.

Table 2: Text Vs. Visual

Item	Text	Photo	Diff.	*p*
Alumni				
Nicolas Sarkozy	.848	.310	.538	.000
Janet Napolitano	.505	.174	.331	.000
Harry Reid	.511	.226	.285	.000
Angela Merkel	.772	.323	.449	.000
Mitch McConnell	.326	.090	.236	.000
Average	.592	.225	.368	.000
N	184	155		
Staff				
Nicolas Sarkozy	.724	.205	.519	.000
Janet Napolitano	.494	.103	.392	.000
Harry Reid	.379	.218	.161	.023
Angela Merkel	.563	.205	.358	.000
Mitch McConnell	.161	.077	.084	.094
Average	.464	.162	.303	.000
N	87	78		
MTurk				
Mitch McConnell	.265	.270	-.005	.849
Chuck Schumer	.210	.202	.008	.759
Angela Merkel	.568	.433	.135	.000
Vladimir Putin	.835	.699	.136	.000
John Roberts	.364	.160	.204	.000
Nancy Pelosi	.329	.283	.046	.108
Average	.428	.341	.087	.000
N	544	515		

Table 3: MC vs. OE

Items	CE	OE	Diff.	*p*
Alumni				
Country w/ the Most WW II Casualties	.582	.574	.007	.892
Leading Cause of Female Mortality	.679	.587	.092	.080
Average	.630	.581	-.050	.199
N	184	155		
Staff				
Country w/ the Most WW II Casualties	.461	.416	.045	.566
Leading Cause of Female Mortality	.737	.607	.130	.076
Average	.599	.511	-.087	.111
N	76	89		
MTurk				
Mitch McConnell, Text	.149	.133	.017	.458
Angela Merkel, Text	.142	.149	-.007	.756
Mitch McConnell, Photo	.185	.235	-.050	.063
Angela Merkel, Photo	.158	.329	-.171	.000
Average	.159	.211	-.053	.000
N	697	362		

Table 4: MC Probe for OE DKs

Items	Correct before probing	Correct after probing	Diff.	*p*	DKs	DKs after probe	N
NES 2000							
Lott	.091	.095	.004	.916	.456	.371	528
Rehnquist	.121	.125	.004	.925	.417	.343	528
Blair	.333	.357	.025	.438	.412	.338	528
Reno	.524	.560	.036	.267	.246	.153	528
Average	.270	.284	.014		.383	.301	528
NES 2004							
Hastert	.098	.110	.012	.394	.523	.412	1,066
Cheney	.831	.860	.029	.072	.105	.041	1,066
Blair	.612	.649	.038	.080	.206	.114	1,066
Rehnquist	.295	.311	.017	.423	.325	.216	1,066
Average	.459	.483	.024		.290	.196	1,066
NES 2008							
Pelosi	.264	.326	.062	.000	.616	.416	2,102
Cheney	.546	.676	.130	.000	.369	.118	2,102
Roberts	.083	.120	.038	.000	.650	.493	2,102
Brown	.034	.043	.009	.148	.735	.549	2,102
Average	.232	.291	.059		.593	.394	2,102

***Note*:** The entries are proportions responding correctly. In 2000 the items were part of the post-election wave with 1,555 respondents. Don't Know probes were given to a random selection of respondents. In 2004 the items were part of the post-election wave with 1,066 respondents. In 2008 the items were part of the post-election wave with 2,102 respondents. In 2004 and 2008 all respondents were probed.

Table 5: MC Probe for OE DKs

	OE		OE+MC			Diff. C			
Items	**C**	**DK**	**C**	**MC DK**	**C/GC**	**OE+MC – OE**	***p***	**OE+MC/GC – OE**	***p***
Alumni									
Angela Merkel, Photo	.323	.303	.484	.426	.480	.161	.004	.157	.007
Angela Merkel, Text	.772	.141	.832	.500	.828	.060	.151	.056	.224
Mitch McConnell, Photo	.090	.458	.148	.857	.146	.058	.116	.056	.178
Mitch McConnell, Text	.326	.288	.342	.849	.333	.016	.741	.007	.971
Average	.378	.298	.452	.658	.447	.074		.069	
Staff									
Angela Merkel, Photo	.205	.436	.372	.559	.363	.167	.022	.158	.044
Angela Merkel, Text	.563	.264	.621	.591	.605	.057	.443	.042	.682
Mitch McConnell, Photo	.077	.526	.128	.756	.103	.051	.294	.026	.779
Mitch McConnell, Text	.161	.299	.195	.720	.180	.034	.555	.019	.893
Average	.252	.381	.329	.656	.313	.077		.061	

Note: OE DK only includes people who didn't offer a response. On each of the questions, a dozen or less respondents wrote down 'I do not know' or 'Don't know.' Only people who didn't offer a response were shown a MC follow-up. *n for* AREP Photos = 155; *n for* AREP Text = 184; *n for* SREP Photos = 78; *n for* SREP Text = 87.

Table 6: MC Probe for MC DK

Items	Correct before probing	Correct after probing	Diff.	DKs	DKs after probe	*N*	Wave
***NAES* 2004**							
Candidate to make Bush tax cuts permanent	.651	.654	.003	.102	.097	21,141	7/8/04-10/24/04
Kerry repeal Bush tax cuts for which income	.335	.339	.004	.244	.229	31,940	4/19/04-10/25/04
Kerry eliminating tax cut for over $200,000	.438	.443	.005	.334	.323	2,151	1/30/04-10/25/04
Candidate to repeal all Bush tax cuts	.017	.017	.000	.440	.428	2,061	1/16/04-2/17/04
NAES 2008							
R cand. who opposed Bush tax cuts	.300	.307	.007	.377	.370	5,200	1/14/08-1/27/08, 1/30/08-2/6/08
R cand. who opposed Bush tax cuts	.315	.320	.005	.248	.243	6,824	2/7/08-3/4/08
D cand. eliminate some Bush tax cuts	.013	.013	.000	.246	.246	3,817	1/14/08-1/29/08
D cand. eliminate some Bush tax cuts	.409	.411	.002	.168	.166	20,895	1/30/08-5/22/08
Cand. eliminate Bush tax cuts	.651	.654	.002	.135	.133	28,325	5/23/08-11/3/08
D. cand.: favor tax cuts for working families and seniors	.193	.200	.007	.338	.331	14,150	2/26/08-5/22/08
Cand.: favor tax cuts for working families and seniors	.408	.414	.006	.311	.305	12,996	5/23/08-9/2/08
Cand.: more middle-class tax cuts	.587	.589	.002	.073	.071	15,628	9/2/08-11/3/08
Cand. check to people who don't pay taxes	.497	.506	.009	.239	.230	3,928	10/15/08, 10/20/08-11/3/08
Cand. favors eliminating estate tax	.317	.322	.005	.348	.343	12,206	5/23/08-8/30/08
R cand. favor abolishing IRS	.289	.296	.007	.430	.424	2,566	1/14/08-1/24/08
R cand. favor abolishing IRS	.347	.347	.000	.414	.414	1,687	1/31/08-2/6/08
R cand. favor abolishing IRS	.351	.357	.006	.281	.275	6,824	2/7/08-3/4/08

Cand. freeze home foreclosures and mortgage rates	.257	.261	.004	.240	.236	19,453	2/5/08-5/22/08
Cand. Everyone mandated to have Insurance	.558	.560	.002	.073	.071	23,461	1/14/08-1/24/08, 1/30/08-5/22/08
Cand. whose health plan mandates children health insurance	.622	.625	.004	.145	.141	28,325	5/23/08-11/3/08
Cand. provide family money to buy health insurance	.229	.233	.004	.373	.369	2,814	4/30/08-5/18/08
Cand. provide family money to buy health insurance	.200	.202	.002	.394	.392	569	5/19/08-5/22/08
Cand. provide family money to buy health insurance	.187	.189	.003	.311	.308	19,419	5/23/08-9/23/08, 10/2/08-10/5/08
Cand. provide family money to buy health insurance	.581	.584	.003	.140	.137	6,876	10/6/08-11/3/08
Cand. proposes taxing employer benefits	.544	.549	.005	.196	.191	6,876	10/6/08-11/3/08
Cand. favor school vouchers	.282	.284	.002	.335	.333	1,753	9/11/08-9/17/08
D cand. who opposed Iraq War	.361	.364	.003	.193	.189	3,817	1/14/08-1/29/08
D cand. who opposed Iraq War	.515	.517	.002	.108	.106	20,895	1/30/08-5/22/08
Cand. who opposed Iraq War	.792	.793	.001	.055	.054	28,325	5/23/08-11/3/08
R cand. who first advocated Iraq Surge	.508	.519	.011	.331	.320	5,751	1/14/08-2/6/08
R cand. who first advocated Iraq Surge	.541	.549	.008	.241	.234	6,824	2/7/08-3/4/08
Cand. who first advocated Iraq Surge	.461	.463	.002	.221	.219	12,206	5/23/08-8/30/08
Cand. who first advocated Iraq Surge	.778	.780	.003	.105	.103	15,628	9/2/08-11/3/08
Cand. favor closing Guantanamo	.427	.436	.009	.294	.285	28,325	5/23/08-11/3/08
R cand.(s) Immigration Plan	.451	.462	.011	.250	.239	1,678	1/30/08-2/5/08
R cand.(s) Immigration Plan	.449	.449	.000	.270	.270	256	2/6/08
R cand.(s) Immigration Plan	.438	.445	.007	.216	.209	6,824	2/7/08-3/4/08
D cand.(s) favor driver license for illegals	.175	.178	.004	.238	.235	19,731	2/4/08-5/22/08

D cand.(s) favor driver license for illegals	.311	.315	.003	.273	.270	13,254	5/23/08-9/3/08
Cand.(s) favor overturning Roe Vs. Wade	.405	.408	.003	.201	.198	28,325	5/23/08-11/3/08
Cand.(s) support federal stem cell funding	.094	.096	.001	.233	.232	7,611	10/3/08-11/3/08
R cand.(s) amendment to ban same sex-marriage and abortion	.344	.350	.005	.284	.279	1,977	1/22/08-1/29/08
R cand.(s) amendment to ban same sex-marriage and abortion	.448	.452	.005	.200	.196	5,768	2/11/08-3/4/08
McCain: Suspend Gas Tax in summer	.460	.463	.002	.280	.278	14,846	4/28/08-8/26/08
Clinton: Suspend Gas Tax in summer	.617	.620	.004	.220	.216	6,057	4/28/08-6/8/08
Obama: Suspend Gas Tax in summer	.486	.488	.002	.266	.264	14,846	4/28/08-8/26/08
Cand.(s) favor lifting ban on oil drilling	.571	.572	.001	.125	.124	15,070	6/24/08-9/23/08
Cand.(s) favor cap and trade	.108	.112	.004	.485	.481	18,215	5/23/08-9/22/08

***Note*:** Questions were asked with different response options throughout the survey period. Appendix E contains a list of questions and the dates they were fielded.

Table 7: MC vs. Probabilities

	MC		Probability	Difference			
Items	**C**	**GC**	**p = 10**	**C**	***p***	**GC**	***p***
Alumni							
Robert Gates	.500	.481	.276	.224	.000	.205	.000
Stephen Breyer	.517	.500	.288	.229	.000	.212	.000
Affordable Care Act (Future Increase)	.392	.195	.049	.343	.000	.146	.000
Affordable Care Act (Upper Income Tax)	.335	.254	.123	.213	.000	.131	.003
Average	.456	.357	.184	.252	add	.173	add
N	176		163				
Staff							
Robert Gates	.304	.274	.174	.129	.077	.100	.176
Stephen Breyer	.316	.295	.186	.130	.079	.109	.143
Affordable Care Act (Future Increase)	.342	.127	.093	.249	.000	.034	.659
Affordable Care Act (Upper Income Tax)	.291	.207	.105	.186	.005	.102	.109
Average	.313	.226	.140	.174		.086	
N	79		86				
MTurk							
Affordable Care Act (Future Increase)	.237	.108	.104	.133	.000	.005	.881
Affordable Care Act (Upper Income Tax)	.260	.180	.044	.216	.000	.136	.000
Global Warming	.255	.040	.373	-.118	.000	-.332	.000
Executive order (Temporary ban)	.777	.718	.602	.176	.000	.117	.000
Average	.382	.262	.281	.102		-.019	
N	557		502				
Angela Merkel, Text	.170	.166	.104	.066	.771	.062	.969
Mitch McConnell, Text	.144	.137	.044	.100	.159	.093	.321
Angela Merkel, Photo	.187	.182	.373	-.186	.000	-.191	.000
Mitch McConnell, Photo	.150	.143	.602	-.451	.000	-.459	.000
Average	.273	.209	.280	-.008		-.071	
N	1059						

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Table 8: Reasons for Correct Responses

		Reasons				
Items	**Correct**	**Knowledge**	**Cheating**	**Guessing**	**Inference**	**Expressive**
MTurk						
Obama Budget Deficit (Increased)	.562	.397	.007	.033	.119	.006
G. W. Bush Budget Deficit (Increased)	.729	.535	.011	.037	.142	.003
Affordable Care Act (Upper Income Tax)	.135	.063	.000	.019	.050	.003
Executive order (Temporarily ban)	.407	.372	.003	.006	.026	.001
Average	.458	.342	.005	.024	.084	.003

Notes**:** n = 697. Data are from MTurk. First column is the proportion of respondents giving a correct answer. Columns 2-6 are the reasons that the individuals responding correctly gave for their responses.

Appendix A
Sample Characteristics by Study

	AREP (2010)	SREP (2010)	MTurk (2017)	National Sample (2010)	National Sample (2015)
Democrat	.72	.76	.55	.46	.42
Republican	.21	.18	.26	.39	.43
Independent	.08	.06	.18	.14	.15
Conservative	.15	.15	-	.39	.42
Liberal	.67	.70	-	.26	.30
HS or Less	0	.03	.11	.44	.41
Some College	0	.03	.36	.30	.31
College Degree	.23	.54	.40	.16	.17
Post-Graduate	.77	.37	.13	.09	.10
18-29 years old	.06	.13	.26	.17	.17
30-44 years old	.25	.34	.46	.20	.20
45-64 years old	.50	.52	.23	.26	.26
65+ years old	.20	.02	.05	.13	.14
Female	.61	.84	.54	.51	.51
White	.77	.71	.83	.74	.74
Black	.02	.01	.06	.13	.13
Latino/Hispanic	.07	.06	.07	.05	.05
Asian	.07	.18	.05	.16	.17
Other/Mixed	.07	.05	.05	.08	.08

Notes: AREP has no responses for “HS or Less” and “Some College”. MTurk did not include a Liberal-Conservative measure. Party identification and Liberal-Conservative measure for national samples are from the 2012 and 2016 ANES Time Series studies. All other demographics in the national samples are from the 2010 and 2015 ACS. PID includes leaners.

Appendix B
Alumni and Staff Surveys

In coding open-ended responses, all misspellings, modifications, synonyms, and identifiable abbreviations of a word were fully credited.

AREP and SREP

1. What job or office does each of the following currently hold?

    - Nicholas Sarkozy
      OE: France AND (President OR top dog OR Leader OR Head OR Prime Minister OR Chancellor)

    - Janet Napolitano
      OE: (Homeland OR DHS OR Security) AND (Director OR Secretary OR HEAD).

    - Harry Reid
      OE: Senate AND (Leader OR Head OR President OR Chief OR Chair OR Whip OR Nevada).

    - Angela Merkel
        - OE: German AND (Chancellor OR Leader OR Head OR President OR Chief OR Prime Minister)
        - CE: Prime Minister of Sweden, High Representative of the European Union for Foreign Affairs and Security Policy, **Chancellor of Germany**, President of Austria, or Couldn't say

    - Mitch McConnell
        - OE: Senate AND (Minority Leader OR Minority Whip OR Minority Speaker OR Republican Head OR Kentucky).
            - CE: Governor of South Dakota, U.S. Secretary of Agriculture, **U.S. Senate Minority Leader**, Chairman of the Republican National Committee, or Couldn't say

2. Is the person in the photo…?
    - CE: John Cornyn, **Robert Gates,** Arne Duncan, Anthony Kennedy, or Couldn't say
    - CE: John Boehner, **Stephen Breyer,** Ken Salazar, Tom Vilsack, or Couldn't Say

3. Which country suffered the largest number of casualties in World War II …?

- OE: USSR OR Russia OR Soviet Union
- CE: Germany, United Kingdom, United States, **Soviet Union,** or Couldn't Say

4. What is the most common cause of death among women in the U.S. …?
   - OE**:** Heart OR Cardiac OR Hypertension
   - CE**:** Breast Cancer, **Heart Disease,** Lung Cancer, Diabetes, or Couldn't Say

5. What has happened to the number of deportations of illegal immigrants during the Obama administration, compared to the George W. Bush administration? Has it …? **Increased,** Remained about the same, Decreased, or Couldn't say

6. Under the immigration law recently passed by Arizona, law enforcement officials …? Do not have to read illegal immigrants their rights when arresting them, **Can ask people they suspect of being illegal immigrants for their papers only when stopping them for other reasons,** Can impound vehicles of illegal immigrants, Can ask anyone they suspect of being an illegal immigrant for their papers, Can escort illegal immigrants back across the border, or Couldn't Say

7. The recently passed health care bill …? Provides coverage for people who are currently in the country illegally, Replaces private health insurance with a "single payer system", **Increases the Medicare payroll tax for upper-income Americans,** Does not reimburse routine mammograms for women younger than 50, or Couldn't say

8. The recently passed health care bill …? **Limits future increases in payments to Medicare providers,** Allows a government panel to make decisions about end-of-life care for people on Medicare, Replaces Medicare with a "public option", Cuts benefits to existing Medicare patients, or Couldn't say

9. Under which president was the law that used to forbid bank holding companies from owning other financial companies repealed? Jimmy Carter, Ronald Reagan, George H.W. Bush, **Bill Clinton,** George W. Bush, or Couldn't say

Appendix C

American National Election Time Series Study 2000, 2004, and 2008

NES 2000

Respondents were randomly assigned to either of the two conditions – DK probed, or not probed.

Now we have a set of questions concerning various public figures. We want to see how much information about them gets out to the public from television, newspapers and the like.

PROBE DON'T KNOWS WITH, "WELL, WHAT'S YOUR BEST GUESS?" DK KEY IS NOT ALLOWED FOR THIS QUESTION

1. Trent Lott: What job or political office does she NOW hold?
2. William Rehnquist: What job or political office does he NOW hold?
3. Tony Blair: What job or political office does he NOW hold?
4. Janet Reno: What job or political office does she NOW hold?

NES 2004

Respondent were asked an open-ended question about the position of an individual. Don't know responses were followed up with a probe.

Now we have a set of questions concerning various public figures. We want to see how much information about them gets out to the public from television, newspapers and the like.

PROBE DON'T KNOWS WITH, "WELL, WHAT'S YOUR BEST GUESS?" DK KEY IS NOT ALLOWED FOR THIS QUESTION

1. Dennis Hastert: What job or political office does she NOW hold?
2. Dich Cheney: What job or political office does he NOW hold?
3. Tony Blair: What job or political office does he NOW hold?
4. William Rehnquist: What job or political office does he NOW hold

NES 2008

Respondent were asked an open-ended question about the position of an individual. Don't know responses were followed up with a probe.

Now we have a set of questions concerning various public figures. We want to see how much information about them gets out to the public from television, newspapers and the like.

PROBE DON'T KNOWS WITH, "WELL, WHAT'S YOUR BEST GUESS?" DK KEY IS NOT ALLOWED FOR THIS QUESTION

1. The first name is Nancy Pelosi. What job or political office does she NOW hold?
2. Dich Cheney: What job or political office does he NOW hold?
3. Gordon Brown: What job or political office does he NOW hold?

4. John Roberts: What job or political office does he NOW hold?

Coding of responses:
Identifiable misspelling and synonyms of each of the terms were coded as correct
1. Pelosi: (‘speaker’ OR ‘head’ OR ‘leader’) and ‘house’ OR ‘congress’
2. Cheney: ‘vice-president’, ‘vp’
3. Brown: (‘prime minister’ OR ‘head’, ‘leader’) and (‘UK’ OR ‘England’ OR ‘Britain’ OR ‘English’)
4. Roberts: (‘Supreme’ OR ‘SC’ or ‘High’) and (‘Justice’ OR ‘CJ’ OR ‘Judge’)

Appendix D

National Annenberg Election Study 2004 and 2008

NAES 2004

Questions were closed-ended and followed up with a probe if the initial response was Don't know: Anyone come to mind?

1. To the best of your knowledge, {7/8/04−11/1/04: who favors | 11/3/04−11/16/04: during the presidential campaign, who favored} making the recent tax cuts permanent—George W. Bush, **John Kerry**, both, or neither?

2. John Kerry {4/19/04−11/1/04: says | 11/3/04−11/16/04: said} that he would eliminate George W. Bush's tax cuts on those making how much money—over $50,000 a year; over $100,000 a year; **over $200,000 a year**; or over $500,000 a year? {4/19/04−10/25/04: If don't know: Anything come to mind?}

   Only asked of people who **intend to vote in Democratic primary or voted.**

   Asked to pick up to five candidates -

3. Which candidate or candidates would repeal George W. Bush's tax cuts for the wealthiest Americans, that is, for those making over $200,000 a year, but keep the tax cuts for those Americans who are making less? Wesley Clark, Howard Dean, John Edwards, Richard Gephardt, **John Kerry**, Dennis Kucinich, Joe Lieberman, Carol Moseley Braun, Al Sharpton, Other

4. Which candidate or candidates would repeal all of George W. Bush's tax cuts? Wesley Clark, Howard Dean, John Edwards, Richard Gephardt, John Kerry, Dennis Kucinich, Joe Lieberman, **Carol Moseley Braun, Al Sharpton**, Other

NAES 2008

For questions that accept multiple responses – respondent can mark each option as yes, no, don't know, or no answer. Respondents answering Don't know on a question were probed with: Anything come to mind? If people still respondent Don't know this was accepted as the final answer.

Several questions with same stems but different response options were asked through the survey period. **Appendix Table D1** includes all the NAES 2008 questions used in this paper and when they were fielded.

General Knowledge

1. Who has the final responsibility to determine if a law is constitutional or not? Is it the president, the Congress, or the **Supreme Court**?

2. How much of a majority is required for the US Senate and House to override a presidential veto? **Two-thirds**

3. Do you happen to know which party has the most members in the United States House of Representatives? **Democratic Party**, Republican Party,

4. To the best of your knowledge, do you happen to know how Supreme Court justices are chosen? Are they nominated by a nonpartisan congressional committee, elected by the American people, **nominated by the president and then confirmed by the Senate**, or appointed if they receive a two-thirds majority vote of the justices already on the court?

Tax

1. Which Republican candidate or candidates running for president opposed some of the Bush tax cuts
    a. **Multiple Answers Accepted**: {1/14/08 – 1/27/08: Rudy Giuliani, Mike Huckabee, **John McCain**, or Mitt Romney | 1/30/08 – 2/6/08: Mike Huckabee, **John McCain**, or Mitt Romney}?
    {1/14/08 – 1/27/08: Giuliani}

    Huckabee

    McCain

    Romney

    b. Mike Huckabee, **John McCain**, both, or neither?

2. Which Democratic candidate or candidates running for president would eliminate the Bush tax cuts for people above a certain income level:
    a. **Hillary Clinton, John Edwards, or Barack Obama**?

    b. Hillary Clinton, Barack Obama, **both**, or neither?

3. Which candidate or candidates running for president would eliminate the Bush tax cuts for people above a certain income level: John McCain, **Barack Obama**, both, or neither?

4. Which Democratic candidate or candidates running for president promises to provide a $1,000 tax cut for working families and no federal income tax for seniors earning under $50,000 per year: Hillary Clinton, **Barack Obama**, both, or neither?

5. Which candidate or candidates running for president promises to provide a $1,000 tax cut for working families and no federal income tax for seniors earning under $50,000 per year: John McCain, **Barack Obama**, both, or neither?

6. Which candidate or candidates running for president would provide more tax cuts to the middle class: John McCain, **Barack Obama**, both, or neither?

7. Which candidate or candidates running for president proposes a tax cut plan that would provide a government check to millions of people who pay no federal income taxes: John McCain, **Barack Obama**, both, or neither?

8. Which candidate or candidates running for president favors completely eliminating the estate tax, that is the tax on property left by people who die: **John McCain**, Barack Obama, both, or neither?

9. Which Republican candidate or candidates running for president supports abolishing the Internal Revenue Service, getting rid of the income tax and payroll tax, and putting in place a flat national sales tax that he calls the Fair Tax: Rudy Giuliani, **Mike Huckabee**, John McCain, or Mitt Romney?

10. Which Republican candidate or candidates running for president supports abolishing the Internal Revenue Service:
    a. **Mike Huckabee**, John McCain, or Mitt Romney?

    b. **Mike Huckabee**, John McCain, both, or neither?

Financial Crisis

1. Which Democratic candidate or candidates running for president would freeze foreclosures on homes and mortgage interest rates: **Hillary Clinton**, Barack Obama, both, or neither?

Health Care

1. Which Democratic candidate or candidates running for president is proposing a health care reform plan that mandates that everyone have health insurance: {1/14/08 – 1/24/08, 1/30/08 – 2/3/08 : **Hillary Clinton** or Barack Obama | 2/4/08 – 5/22/08 : **Hillary Clinton**, Barack Obama, both, or neither}?

2. Which candidate or candidates running for president is proposing a health care reform plan that mandates that children have health insurance: John McCain, **Barack Obama**, both, or neither?

3. Money for health insurance –
    a. **Multiple Answers Accepted**: Which candidate or candidates would provide individuals $2,500 and families $5,000 to help them buy their own health insurance: **John McCain**, Hillary Clinton, or Barack Obama?

    b. Which candidate or candidates running for president would provide individuals $2,500 or families $5,000 to help them buy their own health insurance:
        i. **Multiple Answers Accepted**: **John McCain**, Hillary Clinton, or Barack Obama?

        ii. **John McCain**, Barack Obama, both, or neither?

    c. Which candidate or candidates running for president would provide uninsured individuals with a $2,500 credit or uninsured families with a $5,000 credit to help them buy their own health insurance: **John McCain**, Barack Obama, both, or neither?

4. Which candidate or candidates running for president proposes taxing the health benefits an employee receives from an employer: **John McCain**, Barack Obama, both, or neither?

Social Insurance

Which candidate running for president favors vouchers that would help parents pay the cost of charter or private elementary or secondary schools for their children: **John McCain**, Barack Obama, both, or neither?

Iraq

1. Which Democratic candidate or candidates running for president was opposed to giving President Bush authorization to wage war in Iraq:
    a. Hillary Clinton, John Edwards, or **Barack Obama**?
    b. {1/30/08 – 2/3/08: Hillary Clinton or **Barack Obama** | 2/4/08 – 5/22/08: Hillary Clinton, Barack Obama, both, or neither}?

2. Which candidate or candidates running for president opposed the war in Iraq: John McCain, **Barack Obama**, both, or neither?

3. Which Republican candidate running for president was the first to criticize former Secretary of Defense Donald Rumsfeld for conduct of the Iraq War and the first to advocate the increase in troops known as the surge:
    a. {1/14/08 – 1/29/08: Rudy Giuliani, Mike Huckabee, **John McCain**, or Mitt Romney | 1/30/08 – 2/6/08 : Mike Huckabee, **John McCain**, or Mitt Romney}?

    b. Mike Huckabee, **John McCain**, both, or neither?

Homeland Security/etc.

1. Which Democratic presidential candidates, if any, voted for a resolution in Congress which called on the Bush administration to designate a special Iranian military unit called the Revolutionary Guard, a foreign terrorist organization? **Clinton**

2. Which candidate or candidates running for president favors closing the base at which alleged enemy fighters are held at Guantanamo Bay: John McCain, **Barack Obama**, both, or neither?

Immigration

1. Which Republican candidate or candidates running for president has an immigration plan that would, as a first step, secure the nation's borders, then, once that is done, allow people who entered the country illegally to have the opportunity to become citizens under certain conditions, but deport those who have committed crimes while in the United States:
    1. {1/30/08 – 2/3/08: John McCain or Mitt Romney | 2/4/08 – 2/5/08 : **John McCain**, Mitt Romney, both, or neither}?

    2. Mike Huckabee, Mitt Romney, or **John McCain**?

    3. Mike Huckabee or **John McCain**?

2. Which Democratic candidate or candidates running for president favors allowing driver's licenses for undocumented or illegal immigrants: Hillary Clinton, **Barack Obama**, both, or neither?

3. Which candidate or candidates running for president favors allowing driver's licenses for undocumented or illegal immigrants: John McCain, **Barack Obama**, both, or neither?

Moral

1. Which candidate or candidates running for president favors overturning Roe v. Wade, the Supreme Court decision legalizing abortion: **John McCain**, Barack Obama, both, or neither?

2. Which candidate or candidates running for president supports federal funding for embryonic stem cell research: John McCain, Barack Obama, **both**, or neither?

3. Which Republican candidate or candidates running for president supports both a constitutional amendment prohibiting same sex marriages and a constitutional amendment outlawing abortion:

    a. Rudy Giuliani, **Mike Huckabee**, John McCain, or Mitt Romney?
    b. **Mike Huckabee**, John McCain, both, or neither?

Gas

1. Does John McCain support suspending the gas tax throughout the summer months this year, or not? **Yes**
2. Does Hillary Clinton support suspending the gas tax throughout the summer months this year, or not? **Yes**
3. Does Barack Obama support suspending the gas tax throughout the summer months this year, or not? **No**
4. Which candidate or candidates running for president favors lifting the federal ban on oil drilling off the coast of the United States: **John McCain**, Barack Obama, both, or neither?
5. Which candidate or candidates favors reducing pollution through a process called cap and trade: **John McCain**, Barack Obama, both, or neither?

Other

Multiple Answers Accepted:

1. Which Democratic candidate running for president did the most in the United States Senate to pass ethics reform: {1/22/08 – 1/29/08 : Hillary Clinton, John Edwards, or **Barack Obama** | 1/30/08 – 5/22/08 : Hillary Clinton or **Barack Obama**}?

Appendix Table D1

NAES 2008 Questions and Dates

Variable	Description	Topic	Dates
cbb04r	R. candidate who opposed some Bush tax cuts	Tax	1/14/08 - 1/27/08, 1/30/08 - 2/6/08
cbb05r	R. candidate who opposed some Bush tax cuts	Tax	2/7/08 - 3/4/08
cbb06r	D. candidate eliminate some Bush tax cuts	Tax	1/14/08 - 1/29/08
cbb07r	D. candidate eliminate some Bush tax cuts	Tax	1/30/08 - 5/22/08
cbb08r	Candidate eliminate Bush tax cuts	Tax	5/23/08 - 11/3/08
cbb09r	Dem. Candidate - favor tax cuts for working families and seniors	Tax	2/26/08 - 5/22/08
cbb10r	Candidate - favor tax cuts for working families and seniors	Tax	5/23/08 - 9/2/08
cbb11r	Candidate - more middle class tax cuts	Tax	9/2/08 - 11/3/08
cbb12r	Candidate check to people who don't pay taxes	Tax	10/15/08, 10/20/08 - 11/3/08
cbb13r	Candidate favors eliminating estate tax	Tax	5/23/08 - 8/30/08
cbb14r	R candidate favor abolishing IRS	Tax	1/14/08 - 1/24/08
cbb15r	R candidate favor abolishing IRS	Tax	1/31/08 - 2/6/08
cbb16r	R candidate favor abolishing IRS	Tax	2/7/08 - 3/4/08
cbd05r	Candidate freeze home foreclosures and mortgage rates	Housing	2/5/08 - 5/22/08
cca04r	Candidate everyone mandated to have insurance	Health Insurance	1/14/08 - 1/24/08, 1/30/08 - 5/22/08
cca05r	Candidate whose health plan mandates children health insurance	Health Insurance	5/23/08 - 11/3/08
cca06r	Candidate provide family money to buy health insurance	Health Insurance	4/30/08 - 5/18/08
cca07r	Candidate provide family money to buy health insurance	Health Insurance	5/19/08 - 5/22/08
cca08r	Candidate provide family money to buy health insurance	Health Insurance	5/23/08 - 9/23/08, 10/2/08 - 10/5/08
cca09r	Candidate provide family money to buy health insurance	Health Insurance	10/6/08 - 11/3/08
cca10r	Candidate proposes taxing employer benefits	Health Insurance	10/6/08 - 11/3/08
ccc02r	Candidate favor school vouchers	Education	9/11/08 - 9/17/08
cdb07r	D candidate who opposed Iraq War	Iraq	1/14/08 - 1/29/08
cdb08r	D candidate who opposed Iraq War	Iraq	1/30/08 - 5/22/08
cdb09r	Candidate who opposed Iraq War	Iraq	5/23/08 - 11/3/08
cdb11r	R Candidate who first advocated Iraq Surge	Iraq	1/14/08 - 2/6/08
cdb12r	R Candidate who first advocated Iraq Surge	Iraq	2/7/08 - 3/4/08
cdb13r	Candidate who first advocated Iraq Surge	Iraq	5/23/08 - 8/30/08

cdb14r	Candidate who first advocated Iraq Surge	Iraq	9/2/08 - 11/3/08
cdc03r	Candidate favor closing Guantanamo	Homeland Security	5/23/08 - 11/3/08
cdd06r	Rep. Candidate(s) Immigration Plan	Immigration	1/30/08 - 2/5/08
cdd07r	Rep. Candidate(s) Immigration Plan	Immigration	2/6/08
cdd08r	Rep. Candidate(s) Immigration Plan	Immigration	2/7/08 - 3/4/08
cdd10r	Dem. Candidate(s) favor driver license for illegals	Immigration	2/4/08 - 5/22/08
cdd11r	Dem. Candidate(s) favor driver license for illegals	Immigration	5/23/08 - 9/3/08
cea03r	Candidate(s) favor overturning Roe V. Wade	Moral Issues	5/23/08 - 11/3/08
ceb02r	Candidate(s) support federal stem cell funding	Moral Issues	10/3/08 - 11/3/08
ced01r	Rep. Candidate(s) amendment to ban same sex-marriage and abortion	Moral Issues	1/22/08 - 1/29/08
ced02r	Rep. Candidate(s) amendment to ban same sex-marriage and abortion	Moral Issues	2/11/08 - 3/4/08
cfa06r	McCain: Suspend Gas Tax over summer	Energy	4/28/08 - 8/26/08
cfa07r	Clinton: Suspend Gas Tax over summer	Energy	4/28/08 - 6/8/08
cfa08r	Obama: Suspend Gas Tax over summer	Energy	4/28/08 - 8/26/08
cfa11r	Candidate(s) favor lifting ban on oil drilling	Energy	6/24/08 - 9/23/08
cfb02r	Candidate(s) favor cap and trade	Energy	5/23/08 - 9/22/08

The demographic data, collected separately and merged with the survey responses, dated from between February and September, 2010.

[1]All three surveys also included fairly standard items gauging demographics like race, age, and gender and politically relevant attitudes and behaviors like party affiliation, political interest, and media consumption.

[1]It may sense to refer to "uncertain knowledge," although we should prefer to describe that as the product of two distinct variables—knowledge and (un)certainty. Uncertain, in any case, is not the same as partial. Open-ended questions yield some partially correct responses. One may be certain about everything one says/knows about, say, Eric Cantor but say/know only *x* of *y* key things about him—e.g., say/know for certain that he is a Republican congressman but not say/know that he is from Virginia or that he is the House Majority Leader.

[1]On open-ended items, they presumably choose an option whose probability of being correct is above that of any alternative they can think of and exceeds some threshold (higher for some people than others).

Appendix E
Mechanical Turk

In coding open-ended responses, all misspellings, modifications, synonyms, and identifiable abbreviations of a word were fully credited.

Pledging to Not Look Up Answers

At the beginning of the survey, a random two-thirds of the respondents were asked to commit to not look up the answers or to ask anyone about the answers. Rest one-third of the participants didn't see any message at the start.

Photo Vs. Text

Here's a set of photos. For each photo, can you tell me what position he or she holds? If you don't know, don't worry about it. Just leave the space blank, and move on to the next person.

OR

Here's a list of names. For each name, can you tell me what position that person holds? If you don't know, don't worry about it. Just leave the space blank, and move on to the next person.

What position does this person hold?

- Mitch McConnell
  OE: (Senate OR majority) AND (leader OR chief OR head OR president OR chair OR whip)

- Chuck Schumer
  OE: (Senate OR minority) AND (leader OR in charge)

- Angela Merkel
  OE: German AND (President OR Leader OR Prime Minister OR Chancellor OR Premier AND Ruler AND charge)

- Vladimir Putin
  OE: Russia AND (President OR Leader OR Head OR Chancellor OR Premier OR Prime Minister)

- John Roberts

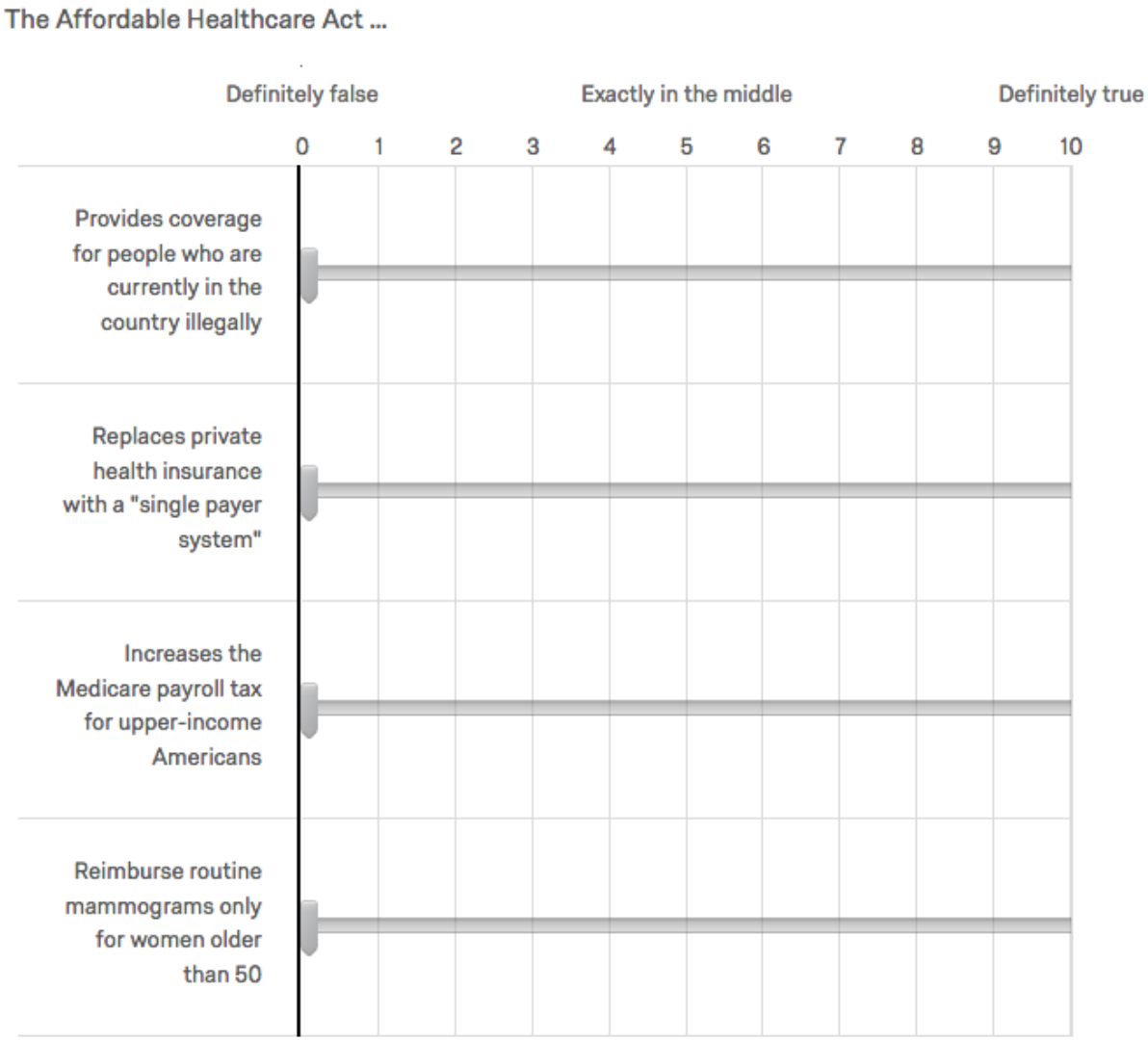
OE: Chief AND Justice

- Nancy Pelosi
  OE: Minority AND Leader

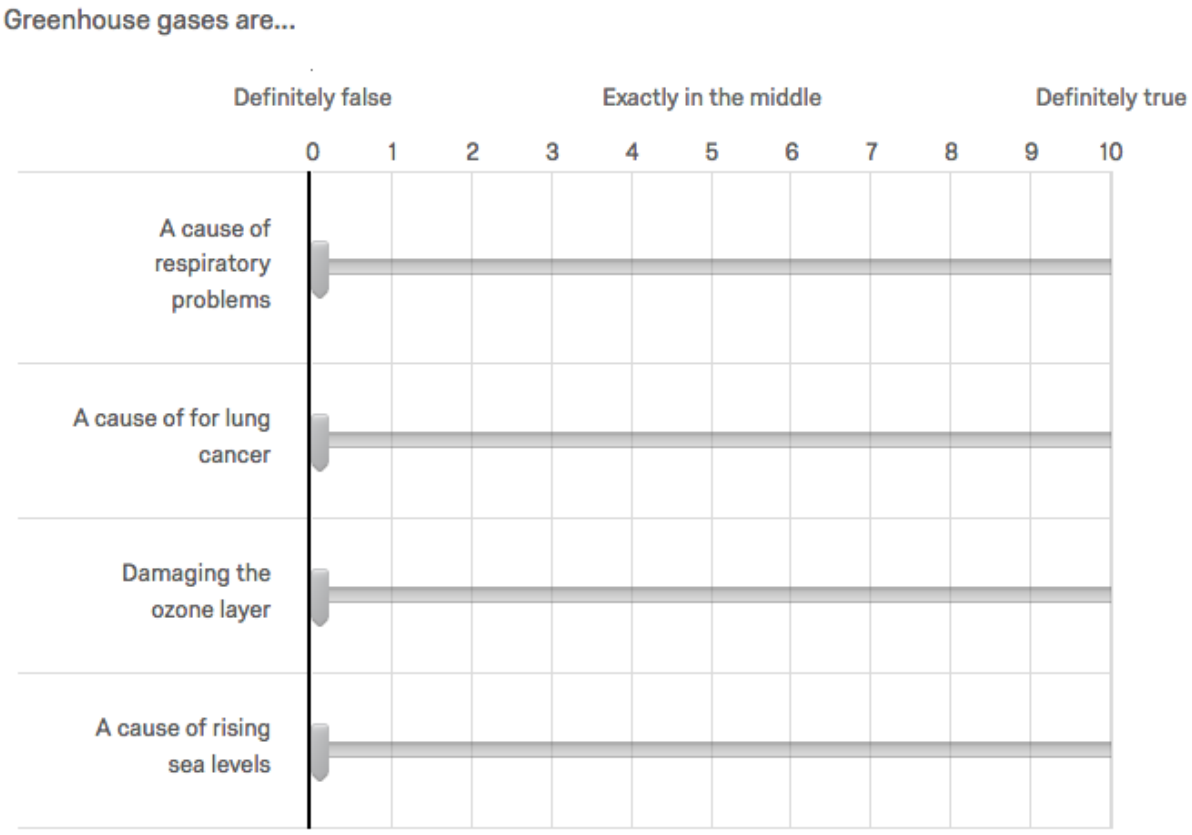
Reticence Vs. Guessing, Related Knowledge

One half of the survey respondents got a conventional closed-ended item with five options including the opportunity to mark Don't know. The other half of the respondents had to assess the truth of statements on a scale from definitely false (0) to definitely true (10).

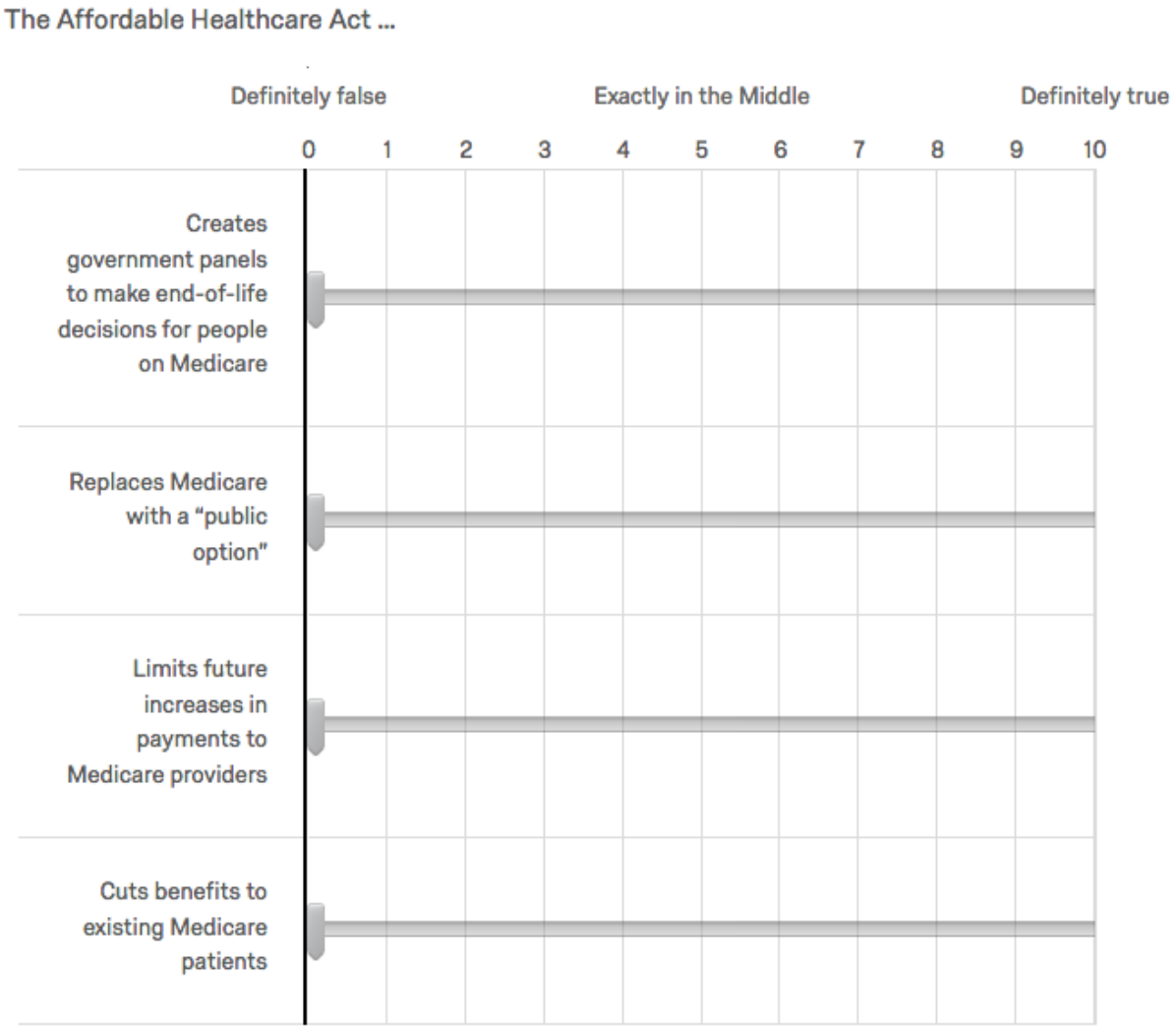
1. Does the Affordable Care Act ...?
   - CE: Provide coverage for people who are currently in the country illegally, Replace private health insurance with a "single payer system", **Increase the Medicare payroll tax for upper-income Americans**, Reimburse routine mammograms only for women older than 50, Don't know (5)
   - Scale: Rating each response option above from definitely false (0) to definitely true (10). Don't know was not included.



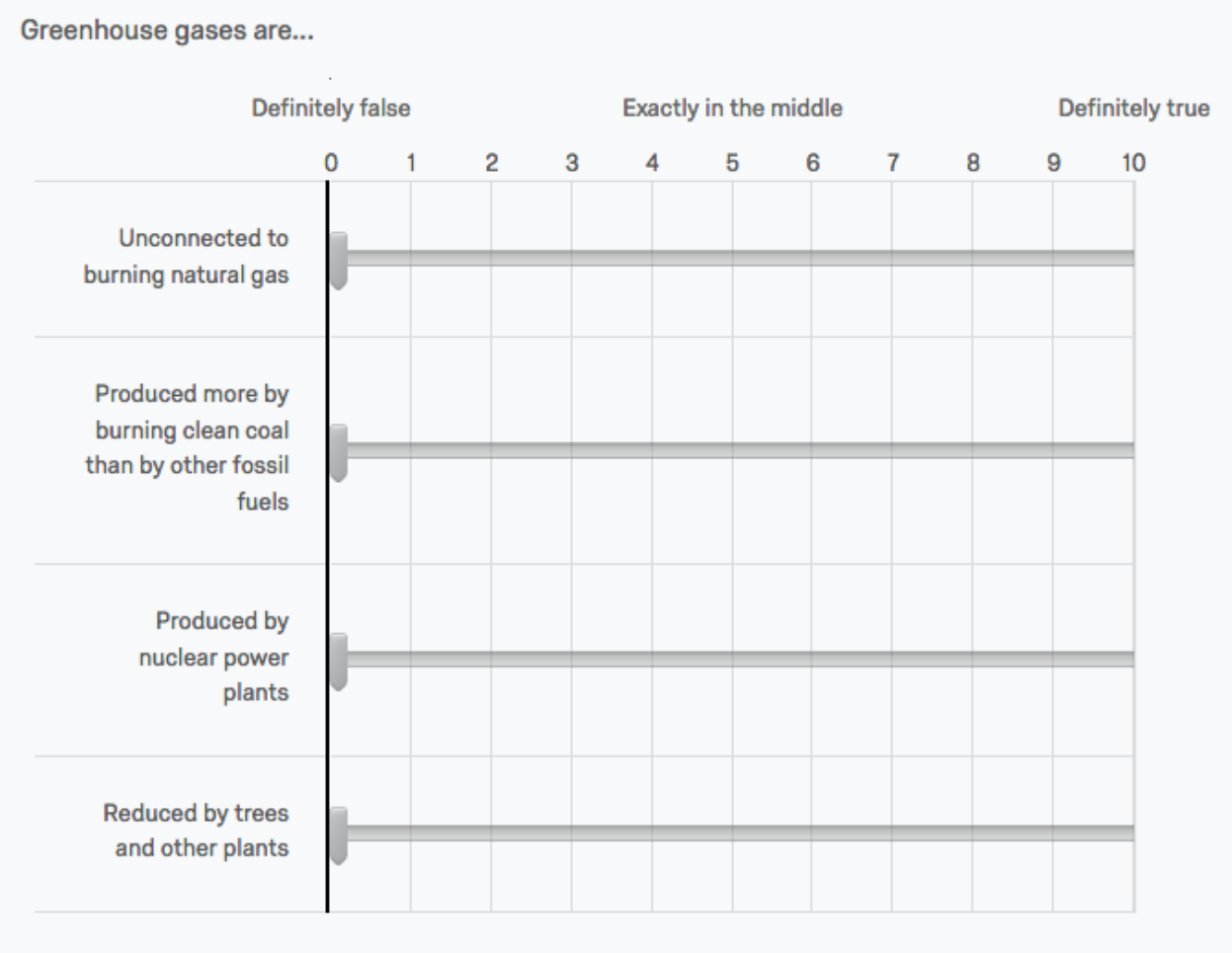
2. Are greenhouse gases ….?
    - CE: A cause of respiratory problems, A cause of for lung cancer, Damaging the ozone layer, **A cause of rising sea levels**, or Don't know
    - Scale: Rating each response option above from definitely false (0) to definitely true (10). Don't know was not included.



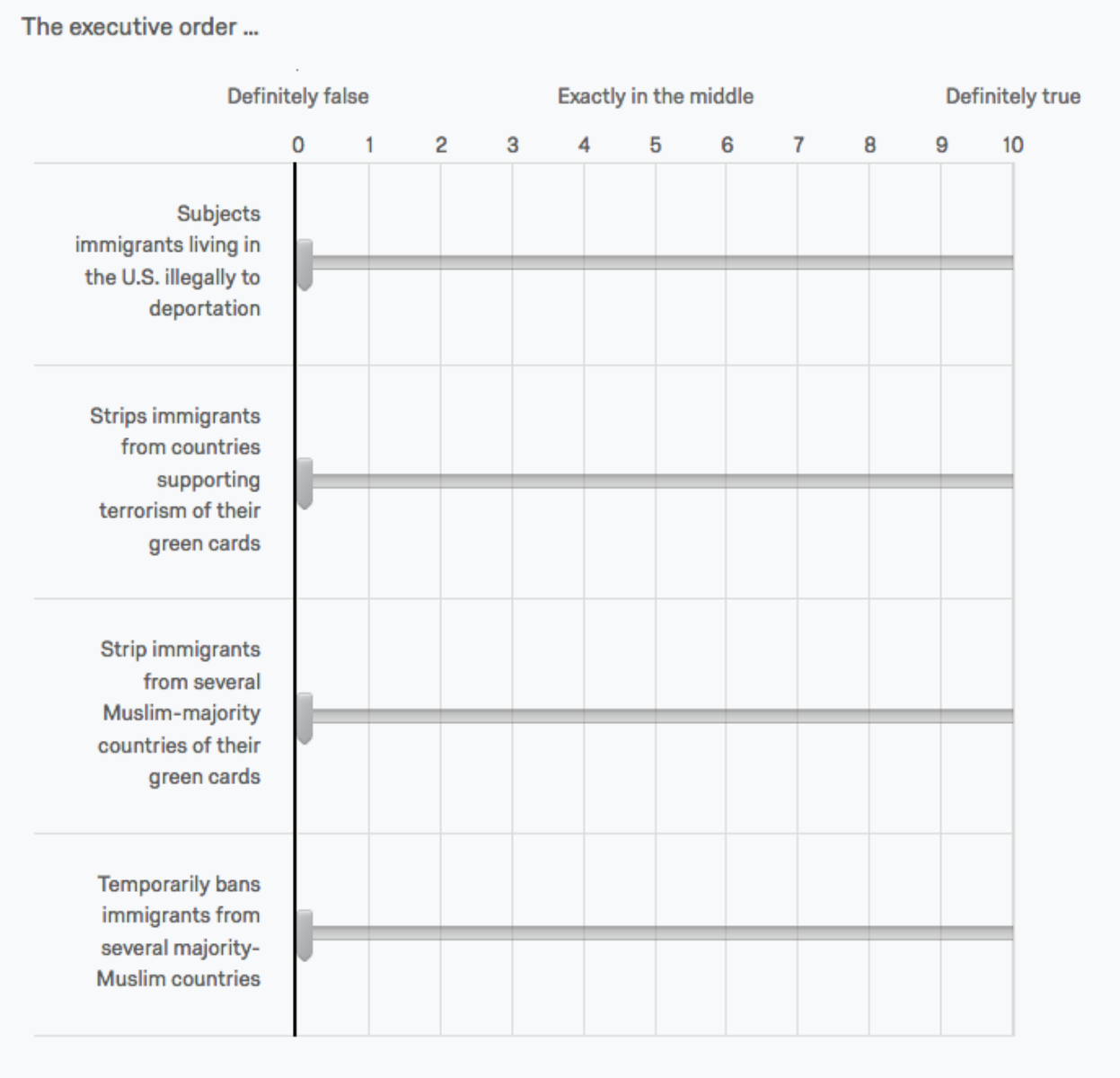
3. And does the Affordable Care Act …?
    - CE: Create government panels to make end-of-life decisions for people on Medicare, Replace Medicare with a "public option", **Limit future increases in payments to Medicare providers**, Cut benefits to existing Medicare patients, Don't know
    - Scale: Rating each response option above from definitely false (0) to definitely true (10). Don't know was not included.



4. Are greenhouse gases ....?
   Note: We decided not to use this question as we think there are two correct answers (which we highlight below). The mistake was a result of a last-minute edit, during which we switched 'produced by trees and other plants' to 'reduced by …'
   - CE: Unconnected to burning natural gas, **Produced more by burning clean coal than by burning other fossil fuels**, Produced by nuclear power plants, **Reduced by trees and other plants**, Don't know
   - Scale: Rating each response option above from definitely false (0) to definitely true (10). Don't know was not included.



5. Does President Trump's most recent executive order on immigration …?
    - CE: Subject immigrants living in the U.S. illegally to deportation, Strip immigrants from countries supporting terrorism of their green cards, Strip immigrants from several Muslim-majority countries of their green cards, **Temporarily ban immigrants from several majority-Muslim countries**, Don't know
    - Scale: Rating each response option above from definitely false (0) to definitely true (10). Don't know was not included.



If the close-ended questions 3, 4, and 5 were not answered with Don't know the respondents received one of two a follow- up question:

- OE: What made you choose that response?
- CE: What made you choose that response? I asked someone I know, I looked it up, I've read, seen, or heard that, It makes me feel good to think that, It makes sense, in view of other things I know, I just thought I'd take a shot

Inference

The following close-ended two deficit related questions were presented to all survey participants.

1. During the time Barack Obama was president, the federal deficit: **Increased**, Remained about the same, Decreased, Don't Know
2. During the time George W. Bush was president, the federal deficit: **Increased**, Remained about the same, Decreased, Don't Know

Both questions were followed by a probe. For one half of the respondents this probe was open and for the other one the probe was closed.

- OE: What made you choose that response?
- CE: What made you choose that response? I asked someone I know, I looked it up, I've read, seen, or heard that, It makes me feel good to think that, It makes sense, in view of other things I know, I just thought I'd take a shot

Notes

[1]Specifically, means of 45.8%, based on 585 items from 1942 through 1992 in Delli Carpini and Keeter (1996); of 41.3%, based on 205 items from 1993 through 2006 in Jerit and Barabas (2012); and of 46.4%, based on 335 items from 2010 through 2017 in Jerit and Barabas (2014).

[2]For what it is worth, some evidence does suggest that university staffs can be reasonable approximations of the local population (Kam, Wilking, and Zechmeister 2007) and that MTurk samples are reasonably representative—much more so than typical experimental samples (Berinsky, Huber, and Lenz 2012, Huff and Tingley 2015).

[3]Nor do all incorrect responses reflect misinformation, but separating misinformation from ignorance is a task for another day.

[4]The error due to blind guessing figures to be negatively correlated with knowledge. The more items the respondent knows, the fewer remain to be guessed. So the less he or she knows, the more his or her knowledge score is inflated.

[5]These are examples of correct inferences. In correct inferences, based on incorrect belief or faulty logic, pose as misinformation, rather than knowledge.