Companion to “Re( : )Measuring Political Sophistication”

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Abstract: The paper I will present on Thursday describes different ways in which political knowledge is measured and shows that some are better than others. This companion offers context: it defines sophistication, knowledge, and the relationship between the two, all in more detail than Thursday’s paper provides. It also summarizes the findings in Thursday’s paper. It borrows heavily from Luskin (1987), to which the reader is referred for more background information.
As a variable in studies of mass behavior, political sophistication is widely used but not well understood. The term refers, roughly, to the number and connectedness of one’s political thoughts. But it is now measured almost exclusively through knowledge-holding—that is, through counts of correct answers to factual questions. The current practice gives rise to a good deal of confusion, much of it epitomized by a common refrain: “What does it matter if a voter can’t name the Chief Justice of the Supreme Court?”

This is not a bad question under any circumstances. But it may reflect misunderstanding of the purpose of knowledge measures, which is not—or should not be—simply to measure one’s stock of knowledge. Rather, knowledge-holding is used as a proxy for political sophistication (hereafter just “sophistication”), which is a more complex variable. The chief purposes of this document are to provide a brief introduction to sophistication and to explain why it might plausibly be proxied by knowledge-holding. A secondary purpose is to provide a brisk introduction to some of the ways in which Robert Luskin and I have studied sophistication.

Sophistication lurked in the shadows of political science throughout the first half of the twentieth century. We saw it fleetingly in Bryce (1910), Lippmann (1922), Berelson, Lazarsfeld, and McPhee (1954), and Downs (1957). But it did not receive full consideration until The American Voter (1960) and Converse (1964) thrust it center stage. It remains there today because of the strong effects that have since been attributed to it. We now know the variable as a mover in campaign contributions (Delli Carpini and Keeter 1996), direct participation in campaigns (Leighley 1991), and turnout (Neuman 1986). It furthers and is furthered by interest in politics (Luskin 1990). It makes people more likely to judge political messages by their content rather than solely by their sources (Iyengar and Valentino 2000). The sophisticated are more likely to resist weak or specious counterarguments (Sniderman and Jackman 2004), more susceptible to priming effects (Krosnick and Brannon 1993); more likely to vote along party lines (Zaller 1992), and more likely to decide on a candidate months in advance of an election (Delli Carpini and Keeter 1996). They also have different, generally more liberal policy preferences (Althaus 2003, Delli Carpini and Keeter 1996) and they may choose different candidates (Bartels 1996, Luskin and Globetti 2003)—but I will return to this latter possibility at the end of this paper. To boot, many of these already-sizable effects have been underestimated because of poor measurement at the high end of sophistication scales (Bullock 2004).

The variable we use today is the one Campbell et al. and Converse discussed at length: the measurement has changed, but the concept remains the same. Now, as then, sophistication refers to the breadth, depth, and organization of political cognitions. The simplest cognitions are bits of memory, things that can be recalled: the fundamental distinction between cognitions and noncognitions is that only the former can be called into working memory. More complex cognitions link and contain simpler ones in much the way that sentences link and contain words. Beliefs—almost all of them—perform this linking function, as is clear when we consider the forms that beliefs typically take: $x$ is a $y$; $x$ causes $y$; if $x$, then $y$. In political science, it is typical to speak of preferences and attitudes, which for our purposes are beliefs.

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1 The citations here are to explicitly political articles. But in some cases, similar points were made earlier in apolitical contexts: for example, compare Iyengar and Valentino (2000) to the review in McGuire (1985), or Sniderman and Jackman (2004) to Petty, Wells, and Brock (1976).

2 The terms used here have little currency in psychology. Our “sophistication” is often replaced by expertise, with which it is synonymous (Anderson 2000, but see Krosnick 1990 for a more catholic
The political dilettante who knows a little about many things is said to possess breadth but not depth. The specialist who knows much about only one thing possesses depth but not breadth. In practice, though, the distinction between breadth and depth has been abandoned: it is now more common to speak of “differentiation” or “scope,” which encompass both qualities. The assumption is that breadth and depth are highly correlated in politics. It is hard, by these lights, to find someone who knows a fair amount about one thing and nothing about other things.

Organization is the extent to which one’s cognitions are associated. Associations between cognitions are the previously mentioned “complex cognitions” that link simpler ones; they are the “beams and girders of cognitive organization” (Luskin 1987). There is no absolute distinction between cognitions and associations: as Scott (1963, 266) has it, “though a structure constitutes a relation among elements, it may itself form an element in some more superordinate structure.”

In principle, cognitions can be organized—that is, associated—without the aid of high-order abstractions like (but by no means limited to) “liberal” and “conservative.” In practice, abstraction and sophistication are inextricably intertwined. Campbell et al. suggest why this taxonomic approach to association between cognitions should be so common:

...any cognitive structure that subsumes content of wide scope and high diversity must be capped by concepts of a high order of abstraction....Perceived events and states are given meaning because they may be coded into classes. The wider the range of objects so classified, the more remote and general the concept that is necessary to capture their similarity. (193)

In practice, this is exactly how we often think and speak of politics. We recognize, for example, that America’s stance toward debt forgiveness in Nigeria and its stance toward Turkey’s admission to the EU are distinct issues. But we see, too, that they have something in common. Debt forgiveness to Nigeria is one element in the category of debt forgiveness, which is (arguably) an element in the more abstract “foreign aid” category, which is in turn one part of America’s foreign policy—which is a concept so abstract that it subsumes not just debt forgiveness to Nigeria but Turkey’s admission to the EU. And this is not all. We see, too, that foreign policy is itself a relatively narrow member of an even more abstract category, “politics”—for “politics,” too, is an abstraction. Arguably more abstract still are “liberalism” and “conservatism,” which we use when we think and argue about the liberal and conservative positions on these issues.

Since Campbell et al. wrote, more evidence has appeared for their conjecture: grouping and regrouping of information into increasingly abstract categories now seems a very common means of organization (Bower et al. 1969; see Anderson 2000 for an overview). Thus, the more organized a person’s cognitions, the more abstractions should figure in his thinking, and the more abstract they should be.

The breadth and depth of cognitions is presumed to be highly correlated with their organization. Political science in favor of the presumption is scarce but uncontradicted (Luskin 1987; Neuman 1981). Psychology makes the presumption plausible: experiments show that

definition of expertise). Breadth and depth are usually replaced by differentiation, organization by integration (Neuman 1981; Tetlock 1983).
people often store information either by organizing it themselves or by adopting the organization that comes with it (Tulving 1963, 1983; Reiser 1986). The more (and more diverse) the information, the more it must be organized if it is to be retained and retrieved. This presumption has had great consequence to the measure of sophistication in political science, which has almost always focused exclusively on either the organization or the breadth-and-depth side of the variable, presuming that the other side follows in tow through correlation.

Measurement. Sophistication is a latent trait. Cognitions cannot be seen or counted. We can only infer their number and their properties from what people say and do. With that in mind, classic efforts to measure political sophistication zeroed in on the ways that people used abstractions when they talked about politics. Because mental organization often is abstraction, scholars thought they could measure organization by gauging how much a person used abstractions in speech and how abstract his abstractions were. The best of these efforts were the “levels of conceptualization” showcased (though not perfected) in The American Voter. They were built by classifying people’s responses to open-ended questions about their likes and dislikes of candidates. Level A, the highest, was designated for people who made political judgments by reference to very abstract principles including—but again, not limited to—liberalism and conservatism. Level D, the lowest, was reserved for those who lacked not just organization but any factual information to organize.

Abstraction-based measures are extinct. They had their last gasp in the 1980s, when Luskin (1987) and Smith (1989) dealt them mortal blows. I mention them here because I am not sure that they deserved to die; I will raise this question in Thursday’s talk. For the moment, note that they did not perish because they were outperformed: Luskin (1987) shows that well-formed abstraction measures compared well with the fact-based measures that have taken their place. (On judging the performance of various measures, see below.)

It is extraordinarily time-consuming to construct good abstraction measures: worthwhile ones require direct analysis of open-ended survey responses. Many were tempted to rely on the NES codings of the responses, but this proved an “instant coffee” approach to abstraction: it wasn’t useless, but it sacrificed the flavor of the original, along with reliability and validity (Smith 1989; but see Cassel 1984). The problem, of course, lies not with coding per se but with judging people’s use of abstractions on the basis of the numerous but terse NES Master Codes. When we discovered that even the best abstraction-based measures did not much outperform their knowledge-based counterparts on construct validity tests, their fate was sealed (Luskin 1987).

3 The latter possibility—that people use and benefit from preexisting organization of information—is the fundament of the move to “behavioral institutionalism” (Lupia 2002, Sniderman 2000, 1993; Sniderman and Bullock 2004; Converse 1964 contains the germ of the idea).

4 People (e.g., Neuman 1981) often charge that abstraction-based measures discriminate against unorthodox ideologies, rewarding only references to “liberal” and “conservative.” They shouldn’t, they needn’t, and in the case of The American Voter, they didn’t (Campbell et al. 1960, 227-28). Note, too, that Jacoby (1986) shows that liberalism and conservatism are especially salient concepts for the most sophisticated, which makes it unlikely that equating high sophistication with the use of those concepts will result in severe measurement error.

5 You need not travel to Ann Arbor to get a sense of what is lost by relying on the Master Codes. Just compare the 1956 NES Master Codes to the open-ended responses in Chapter 10 of The American Voter.
Knowledge-based measures are today’s standard. They are fashioned from counts of correct answers to certain items. They straightforwardly measure breadth and depth. They reflect organization, too, by virtue of their correlation with it—but they are, of course, indirect and weaker measures of organization. My paper with Luskin, like almost every contemporary study of sophistication, stands firmly in the tradition of measuring sophistication through knowledge.

The items used in knowledge measures are of two broad types: placements of parties and candidates on policy and ideological dimensions and factual items, in this context a residual category consisting of everything but placements. Good factual items tend to be less debatable. The right answer to a question about the length of the president’s term or the percentage of the budget going to foreign aid is clear. The location of the Democratic Party on a seven-point issue scale may be less clear. On the other hand, placement items may gauge more important knowledge. One may be able to cast an intelligent vote without knowing who George Bush is or how long his term is. It is harder to do so without knowing where the parties and candidates stand on the issue of the day, at least as summarized by liberal-conservative “ideology,” if not issue by issue.

Knowledge measures are easier to construct, but they still do not construct themselves. Every measure in use embodies many nuts-and-bolts decisions about how to convert raw responses to knowledge items into knowledge scores. These decisions are rarely discussed and almost never systematically examined. They include:

- **Measuring degree.** Scorings may be binary, translating responses into scores of 1 (correct) and 0 (incorrect), or graduated, registering degrees of correctness. Is the respondent who identifies Rehnquist as a romance novelist no more wrong than the one who identifies him as a Senator? Is the one who places Bush at 3 (just left of center) on the NES’s seven-point liberal-conservative scale no more correct than the one who places him at 1 (the most liberal point)?

- **Specifying the right answer.** For some items, like the identification of Rehnquist, the answers are clear. For others, especially placement items, the answers are much less clear, and arguably unknowable with any great precision. Operationally, two possibilities are to define the correct placement of a political figure as the mean placement by the whole sample or the mean placement by respondents who appear most knowledgeable according to some independent measure of knowledge.

- **Strict vs. lenient scoring** (for binary scoring of items containing midpoints). It is well-established that the midpoint is the haven of many ignorant guessers (Converse and Pierce 1986, Luskin 2002). But this is far from saying that midpoint answers are always wrong. If the portion of the federal budget devoted to foreign aid increases modestly, should midpoint answers indicating that it has “stayed about the same” rather than “increased” be treated as right or wrong? Where placement items are concerned, midpoints are supposed to indicate moderation, and they may therefore seem incorrect when attached to politicians who are decidedly liberal or conservative. But people interpret the same scales in
different ways (Brady 1985). In particular, some relatively informed conservatives left-shift the scale, placing apparently conservative politicians at the midpoint (Brady and Sniderman 1985).\footnote{This practice waned in the 1990s. It may be reviving.} Strict scoring deems midpoint placements incorrect; lenient scoring counts them as correct.

- **Treatment of DKs.** The conventional practice is to code “don’t-know” (DK) responses to knowledge items as incorrect. It has been challenged recently by Mondak (1999, 2001; Mondak and Davis 2001; Mondak and Anderson 2004), who generally argues that DK responses reflect more knowledge than incorrect ones and should therefore be treated differently.

- **Corrections for guessing.** Consider a single binary knowledge item scored in standard fashion: correct answers are scored 1; incorrect answers, 0. The expected value of this variable is not the proportion who know the answer but the proportion who know or guess luckily. But we want a variable that reflects knowledge alone—not guessing. In theory, we can create such a variable by assigning a negative score to wrong answers on the presumption that such answers represent unlucky guesses (Luskin and Bullock 2004a, 17-19).

**Findings.** Using the 1988 NES, Luskin and I examine these issues and several others. In all of cases, we construct competing scales according to competing approaches (e.g., one scale with strict scoring, another with lenient scoring) and compare their validity by examining their correlations with six related variables. Some of these are alternative measures of sophistication; others are causes or consequences of it. The intuition is simply that more valid measures should correlate more highly with the criterion variables. (For more detail, see Luskin and Bullock 2004a, 8-11; for an overview, see Cronbach and Meehl 1955 and Carmines and Zeller 1979.)

The findings are clear. Strict placements are better than lenient ones. Much to my surprise, a binary “right-wrong” method of scoring placement items outdoes any effort to reckon “degrees of correctness.” Corrections for guessing constitute an improvement for descriptive purposes, but not for correlational ones: if you want to examine the distribution of knowledge in the population, use corrections for guessing; but if you want to craft a measure of sophistication to use in the right-hand side of an equation, use an uncorrected measure. Finally, Mondak’s suggestions that DKs deserve preferential treatment are decisively rebuffed. People who give DK responses to knowledge items know less, not more, than those who give the wrong answers.

**What difference does it make?** Consider political science work on heuristics, most of which urges that unknowledgeable people can use “inferential shortcuts” to their benefit.\footnote{See Kuklinski and Quirk (2000) for a dour outlook on the use of heuristics.} The claims here fall along two broad lines. First, people who lack direct knowledge about politics can use cues and other shortcuts to infer where candidates and groups stand on issues. Second, the same people can use the same cues and shortcuts to vote as they would if they were fully informed.
The first claim requires that people actually *do* make accurate inferences about the stances of candidates and groups. And according to conventional scoring methods, they do. By these methods, almost everyone knows, at least roughly, where liberals and conservatives, Republicans and Democrats, stand on major issues. But when our methods are applied—correcting for guessing and treating the midpoint as wrong—the results are unequivocal: vast majorities of people do *not* know, or even accurately infer, where politically salient groups stand on important issues. Consider Table 1. The first column shows that under conventional scoring of placement items—lenient and absolute scoring, ignoring those who say “don’t know”—large majorities know where liberals, conservatives, Republicans, and Democrats stand on government-guaranteed jobs and on protecting the rights of the accused. But the second column shows that when better scoring procedures are used—strict placements and corrections for guessing—the proportions of knowledgeable respondents are dramatically smaller. And when we account for those who say “don’t know,” the proportions decline even further: in some cases, it appears that fewer than one in ten people can make the correct placement.

The second, weaker claim of the political heuristics literature is that people use heuristics to acquire the preferences over candidates and policies that they would if they were fully informed. Noting the paucity of empirical work on the claim, Larry Bartels (1996) used cross-sectional analyses of the NES to conclude that this claim, too, is wrong: in his analysis, knowledge made a substantial difference to vote choice. We find that Bartels significantly underestimated the effects of knowledge because he used a relatively poor measure of it. These results do not yet appear in our paper, but I will discuss them on Thursday.
Table 1: Proportions of NES Respondents Correctly Placing Salient Groups on Government-Guaranteed Jobs and Rights of the Accused

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<tr>
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<th>Standard Scoring (Placements Only)</th>
<th>Strict Guessing-Corrected Scoring (Placements Only)</th>
<th>Strict Guessing-Corrected Scoring (All Respondents)</th>
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<tr>
<td>Liberals on Government-Guaranteed Jobs</td>
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<td>.27</td>
<td>.16</td>
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<tr>
<td>Conservatives on Same</td>
<td>.79</td>
<td>.32</td>
<td>.19</td>
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<tr>
<td>Democratic Party on Same</td>
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<td>.42</td>
<td>.29</td>
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<tr>
<td>Republican Party on Same</td>
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<td>.13</td>
<td>.09</td>
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<tr>
<td>Liberals on Rights of Accused</td>
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<tr>
<td>Conservatives on Same</td>
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<td>Democratic Party on Same</td>
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<td>Republican Party on Same</td>
<td>.64</td>
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Source: 1976 NES.

Note: cells are proportions of respondents correctly placing groups on seven-point scales. In the first column, placements are scored in the conventional way: they are lenient, and respondents answering “don’t know” (DK) are excluded from the analysis, i.e., DK responses are coded as NA. In the second column, scoring is strict and corrections for guessing are applied, but respondents answering DK are still ignored. The third column differs from the second by scoring DK responses as incorrect instead of NA. (For definitions of strict and lenient scoring, see page 4; for a description of the guessing correction employed here, see Luskin and Bullock 2004a, 17-19.)

The first question reads “Some people feel that the government in Washington should see to it that every person has a job and a good standard of living. Suppose that these people are at one end of this scale—at point number 1. Others think the government should just let each person get ahead on his own. Suppose that these people are at the other end—at point number 7. And, of course, some other people have opinions in between. Where would you place [liberals] on this scale?”

The second question: “Some people are primarily concerned with doing everything possible to protect the legal rights of those accused of committing crimes. Others feel that it is more important to stop criminal activity even at the risk of reducing the rights of the accused. Where would you place [liberals] on this scale?” (1 = "protect rights of accused", 7 = "stop crime regardless of rights of accused")
Works Cited


