

**REPORT ON VALUES AND
PREDISPOSITIONS ITEMS FOR THE
1998 NATIONAL ELECTION STUDY**

William G. Jacoby
University of South Carolina
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For the past several years, the National Election Studies interview schedule has included several batteries of items intended to measure respondents' values and predispositions in three areas: Equal opportunity; racial prejudice; and moral traditionalism. In each of these subject areas, respondents have indicated their agreement or disagreement to a series of statements intended to tap the respective values. Since 1984, six statements have been used for equal opportunity. Since 1986, four statements have been used for racial prejudice. And, since 1988, four statements have been used for moral traditionalism.

The separate items measuring values and predispositions are usually combined to create summated rating scales of respondents' reactions toward equal opportunity, racial prejudice, and moral traditionalism, respectively. Such multiple-item scales are desirable because they improve measurement reliability over single-item measures. They also enable an empirical assessment of reliability, which is impossible with single items.

In order to cut down the interviewing time in the 1998 Post-Election Study, the NES plans to eliminate more than half of the values and predispositions items. Specifically, four of the equal opportunity items, and two each of the racial prejudice and moral traditionalism items will not be included in the 1998 National Election Study. Therefore, it will only be possible to create two-item scales for each of the values/predispositions.

The National Election Studies staff has already made specific proposals about exactly which items will be cut. However, no explanations were given for the selections, and it is not clear that the *best* subsets of items have been retained. In reducing the numbers of items used to measure values and predispositions, four criteria must be kept in mind:

1. *The directionality of the response codes.* It is important that the retained items are worded in opposite directions. That is, one item, should be coded so that agreement indicates support for the value, while the other item is worded such that disagreement means support for the same value. This is necessary in order to reduce the detrimental effects of acquiescence response set.
2. *The reliability of the summated-rating scale constructed from the retained items.* The scales constructed from only two items will almost certainly be less reliable than the original, six- or four-item scales. Therefore, it is important to select items in a way that maintains the highest possible reliability, within the constraints imposed by using only two items.

3. *The relationship between each two-item scale created from the retained items and its six- or four-item counterpart.* In order to facilitate comparisons of values/predispositions across time, the new, shorter scales should be as much like the earlier versions as possible. Specifically, it is important that individual scores on the new scales and on the earlier scales exhibit strong linear relationships.
4. *Similarity in the shapes of the distributions between each two-item scale created from the retained items and its six- or four-item counterpart.* Again, this facilitates comparisons over time. Along with individual-level correlations, it is important to maintain as much correspondence as possible in our empirical estimates of the level and dispersion of the various values and predispositions.

The preceding four criteria provide guidance for determining which values and predispositions items should be retained in the 1998 National Election Study. The remainder of this report uses empirical evidence from the 1994 and 1996 NES data in order to make some specific recommendations about the measurement of equal opportunity, racial prejudice, and moral traditionalism. And, it is important to emphasize that in two out of three cases, my recommendations differ from the items that have already been selected for inclusion in the 1998 survey instrument.

EQUAL OPPORTUNITY

Individual reactions toward equal opportunity are measured by having respondents indicate their agreement/disagreement to each of the following six statements:

- EQ1: Our society should do whatever is necessary to make sure that everyone has an equal opportunity to succeed.
- EQ2: We have gone too far in pushing equal rights in this country.
- EQ3: One of the big problems in this country is that we don't give everyone an equal chance.
- EQ4: This country would be better off if we worried less about how equal people are.
- EQ5: It is not really that big a problem if some people have more of a chance in life than others.
- EQ6: If people were treated more equally in this country we would have many fewer problems.

Responses to each of the preceding six items were coded on a five-point, successive-integer scale, ranging from 1 for "Agree strongly" to 5 for "Disagree strongly." Items EQ1, EQ3, and EQ6 are coded so that agreement (i.e., lower numerical scores) indicates commitment to equal opportunity. Items EQ2, EQ4, and EQ5 are coded so that disagreement (higher numerical scores) indicate support for equal opportunity.

This report uses the most recent administration of these items, from the 1996 National Election Study, post-election wave. The scores on items EQ1, EQ3, and EQ6 are reversed, so that higher values indicate support for equal opportunity. The summated rating scale constructed from the full set of six items has a reliability of 0.719 (Cronbach's alpha).

Table 1 provides information about all possible two-item scales that can be created from these six items. In each cell of the table, there are two numbers. The first number is the reliability value (Cronbach's alpha) for the scale constructed by summing the row and column items. The second number in each cell—shown within parentheses—is the correlation (Pearson's r) between the two-item scale (formed from that combination of row and column items) and the full, six-item equal opportunity scale.

By the first criterion mentioned above, we should restrict our attention to pairs of items with opposite-direction question wordings. This automatically eliminates the pairs with the highest apparent reliabilities from Table 1. Among the remaining pairs, the NES staff has proposed to retain items EQ1 and EQ2 in the 1998 study. However, the information in Table 1 indicates that this would not be the best subset of items. The scale created from EQ1 and EQ2 only has a reliability of 0.382. In contrast, a scale formed from items EQ2 and EQ3 exhibits a reliability coefficient of 0.423. Similarly, a scale formed from items EQ2 and EQ6 has a reliability of 0.421. Both of the latter pairs have similar relationships to the six-item scale: The correlation of the latter to the scale formed from EQ2 and EQ3 is 0.849. The correlation between the six-item scale and the scale created from EQ2 and EQ6 has almost the same value, at 0.848.

The two item scales formed by EQ2 and EQ3, and by EQ2 and EQ6 exhibit nearly identical reliabilities and correlations with the original, six-item equal opportunity scale. In order to decide between them, it is useful to examine the distributions of the respective scale values. Figure 1 shows smoothed histograms for the 1996 NES respondents' scores on the six-item scale (Panel A) and the respective two-item scales (Panels B and C). From the figure, it is clear that the shape of the EQ2-EQ6 scale's distribution approximates the shape of the full, six-item scale distribution more closely than that from the EQ2-EQ3 scale.

Based upon these results, I recommend that the 1998 National Election Study retain item EQ2. However, item EQ1 should be dropped and replaced by EQ6. The summated rating scale formed by items EQ2 and EQ6 shows one of the highest reliabilities among the opposite-direction item pairs, it is highly correlated with the six-item equal opportunity scale, and it also has a nearly identical distribution to the full scale.

RACIAL PREJUDICE

Racial prejudice has been measured in the National Election Studies by having respondents indicate their agreement/disagreement to the following four statements:

RP1: Over the past few years, blacks have gotten less than they deserve.

RP2: Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.

RP3: It's really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as whites.

RP4: Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class.

Responses to each of the preceding four items were coded on a five-point, successive-integer scale, ranging from 1 for "Agree strongly" to 5 for "Disagree strongly." Items RP2 and RP3 are coded so that agreement (i.e., lower numerical scores) indicates racial prejudice. Items RP1 and RP4 are coded so that disagreement (higher numerical scores) indicate racial prejudice.

This report uses the most recent administration of these items, from the 1994 National Election Study, post-election wave. The scores on items RP2 and RP3 are reversed, so that higher values indicate racial prejudice. The summated rating scale constructed from the full set of four items has a reliability of 0.710 (Cronbach's alpha).

Table 2 shows the reliability coefficients (Cronbach's alpha) and the correlations with the four-item scale (within parentheses) for all possible two-item scales constructed from the racial prejudice items. Once again, we will only consider pairs of items with opposite-direction question wordings. The NES has already decided to retain items RP1 and RP2 on the 1998 interview schedule. This appears to be a good choice. This

pair of items has the highest reliability coefficient for opposite-direction items ($\alpha = 0.547$) and the two-item scale is also highly correlated with the original, six-item scale ($r = 0.889$). Two other pairs of items show slightly higher correlations with the six-item scale (RP1 and RP3, with $r=0.898$; RP3 and RP4, with $r=0.904$), but the reliabilities are lower for these two-item scales ($\alpha = 0.494$ for RP1 and RP3, and $\alpha = 0.428$ for RP3 and RP4). The differences among these correlations are tiny. So, it seems reasonable to retain the pair with the highest reliability. The graphical evidence confirms these numerical results. Figure 2 shows smoothed histograms for the four-item racial prejudice scale (Panel A) and the two-item scale constructed from items RP1 and RP2 (Panel B). Clearly, the distributions for these two scales have virtually identical shapes.

Based upon this evidence, I agree with the NES decision. Items RP1 and RP2 should be retained as measures of racial prejudice. The summated rating scale constructed from these two items has relatively high reliability, and it is closely related to the scale constructed from the full set of four racial prejudice items that have been used by the NES in the past.

MORAL TRADITIONALISM

Moral traditionalism has been measured in the National Election Studies by having respondents indicate their agreement/disagreement to the following four statements:

MT1: The newer lifestyles are contributing to the breakdown of our society.

MT2: The world is always changing and we should adjust our view of moral behavior to those changes.

MT3: This country would have many fewer problems if there were more emphasis on traditional family ties

MT4: We should be more tolerant of people who choose to live according to their own moral standards, even if they are very different from our own.

Responses to each of the preceding four items were coded on a five-point, successive-integer scale, ranging from 1 for “Agree strongly” to 5 for “Disagree strongly.” Items MT1 and MT3 are coded so that agreement (i.e., lower numerical scores) indicates moral traditionalism. Items MT2 and MT4 are coded so that disagreement (higher numerical scores) indicate moral traditionalism.

This report uses the most recent administration of these items, from the 1996 National Election Study, post-election wave. The scores on items MT1 and MT3 are reversed, so that higher values indicate racial prejudice. The summated rating scale constructed from the full set of four items has a reliability of 0.638 (Cronbach's alpha).

Table 3 shows the reliability coefficients (Cronbach's alpha) and the correlations with the four-item scale (within parentheses) for all possible two-item scales constructed from the moral traditionalism items. The NES has already decided to retain items MT2 and MT4 on the 1998 interview schedule. This does *not* appear to be a good choice. These two items are worded in the same direction (i.e., disagreement corresponds to moral traditionalism). As a result, there is a serious risk of acquiescence response set, which would bias the distribution of responses when the items are combined into a scale. Note that this problem also inflates the value of the inter-item correlation, thereby ruining the validity of Cronbach's α as a measure of "true" reliability. A further problem becomes apparent when we examine graphical evidence about the relationship between the MT2-MT4 scale and the full, four-item summated rating scale of moral traditionalism. Figure 3 shows the scatterplot of these two variables. The points are jittered in order to reduce the amount of overplotting and a nonparametric loess curve has been fitted to the data. This shows that the relationship between the two scales is nonlinear in form. Thus, the "translation" from one scale to the other changes across the ranges of the two measures. This is definitely *not* a desirable characteristic if the two retained items are intended to measure the same psychological characteristic as the original set of four moral traditionalism items.

As an alternative, it seems more appropriate to retain item MT1 and *either* item MT2 or MT4. The reasoning is as follows: MT1 forms an opposite-direction pair with each of the other two items. The reliabilities for both of the resultant two-item summated rating scales are higher than those from any other scales constructed from opposite-direction pairs: For the MT1-MT2 scale, $\alpha = 0.406$. For the MT1-MT4 scale, $\alpha = 0.422$. And, the correlations with the full, four-item scale are strong: $r = 0.902$ for the MT1-MT2 scale, and $r = 0.882$ for the MT1-MT4 scale. In deciding between items MT2 and MT4, the graphical evidence

suggests a very slight advantage with the former. Figure 4 shows scatterplots of the six-item scale plotted against each of the two-item scales. Once again, points are jittered and nonparametric loess curves have been fitted to the data in each plot. The smooth curve in Figure 4A is somewhat more linear than that in Figure 4B. The latter shows a short horizontal segment near the middle of the plot. This indicates that the MT1-MT4 scale does not distinguish different scores very well within the central region of the six-item scale. On the other hand, the differences across the two scatterplots are not very striking, so either one would probably be adequate.

It is also necessary to point out that neither two-item scale does a particularly good job of reproducing the distributional shape obtained from the full, six-item scale of moral traditionalism. Figure 5 shows smoothed histograms for each of these scales. The distribution for the six-item scale (Panel A) is unimodal and negatively skewed, with some concentration of observations among the higher scores. The distribution for the MT1-MT2 scale (Panel B) is multimodal, and it has a heavier concentration of observations within its upper half. And, the distribution for the MT1-MT4 scale (Panel C) is unimodal, but more symmetric than the others; it seems to underestimate the number of respondents who display high levels of moral traditionalism. As the “lesser of two evils,” the MT1-MT2 scale does seem to approximate the longer scale a little more closely than the MT1-MT4 scale.

Based upon these results, I disagree with the NES’s decision to retain items MT2 and MT4. Instead, I would suggest that items MT1 and MT2 be retained. These items form an opposite-direction pair. And, a scale created from them shows relatively acceptable reliability and fairly strong similarity to the six-item moral traditionalism scale.

CONCLUSIONS

Time constraints stemming from reduced funding are forcing the National Election Studies to reduce the number of items in the batteries that are used to measure values and predispositions. In this memo, I have argued that decisions about which items should be retained must be made on the basis of sound methodological principles. Specifically, the following criteria should be taken into account: Survey item

construction (balanced question wording); measurement accuracy (reliability of resultant scales); and correspondence to earlier measurements (correlations and distributional similarities to the longer scales employed in earlier NES interview schedules). Note that this report has not dealt with validity questions about the items. Presumably, any such concerns were addressed when the original item batteries were developed and added to the surveys.

In conclusion, I recommend that the following statements be retained in the NES 1998 Post-Election Study to measure values and predispositions:

Equal Opportunity:

We have gone too far in pushing equal rights in this country.

If people were treated more equally in this country we would have many fewer problems.

Racial Prejudice:

Over the past few years, blacks have gotten less than they deserve.

Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.

Moral Traditionalism:

The newer lifestyles are contributing to the breakdown of our society.

The world is always changing and we should adjust our view of moral behavior to those changes.

Table 1: Reliabilities and correlations with six-item equal opportunity scale (in parentheses) for two-item scales formed from all possible pairs of equal opportunity items.

EQ2	0.382 (0.833)				
EQ3	0.574 (0.740)	0.423 (0.849)			
EQ4	0.348 (0.817)	0.682 (0.791)	0.298 (0.856)		
EQ5	0.317 (0.782)	0.538 (0.799)	0.265 (0.825)	0.615 (0.754)	
EQ6	0.548 (0.744)	0.421 (0.848)	0.662 (0.740)	0.299 (0.852)	0.320 (0.808)
	EQ1	EQ2	EQ3	EQ4	EQ5

- Key:** EQ1: Our society should do whatever is necessary to make sure that everyone has an equal opportunity to succeed.
- EQ2: We have gone too far in pushing equal rights in this country.
- EQ3: One of the big problems in this country is that we don't give everyone an equal chance.
- EQ4: This country would be better off if we worried less about how equal people are.
- EQ5: It is not really that big a problem if some people have more of a chance in life than others.
- EQ6: If people were treated more equally in this country we would have many fewer problems.

Notes: Reliability of full, six-item scale is 0.719.

The scores on items EQ1, EQ3, and EQ6 are reversed, so that higher values indicate support for equal opportunity.

Source: 1996 National Election Study.

Table 2: Reliabilities and correlations with four-item racial prejudice scale (in parentheses) for two-item scales formed from all possible pairs of racial prejudice items.

RP2	0.547 (0.889)		
RP3	0.494 (0.898)	0.749 (0.838)	
RP4	0.574 (0.850)	0.466 (0.897)	0.428 (0.904)
	RP1	RP2	RP3

- Key:**
- RP1: Over the past few years, blacks have gotten less than they deserve.
 - RP2: Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.
 - RP3: It's really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as whites.
 - RP4: Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class.

Notes: Reliability of full, four-item scale is 0.710.

The scores on items RP2 and RP3, are reversed, so that higher values indicate greater racial prejudice.

Source: 1994 National Election Study.

Table 3: Reliabilities and correlations with four-item moral traditionalism scale (in parentheses) for two-item scales formed from all possible pairs of moral traditionalism items.

MT2	0.406 (.902)		
MT3	0.607 (0.776)	0.369 (0.870)	
MT4	0.422 (0.882)	0.606 (0.856)	0.346 (0.859)
	MT1	MT2	MT3

- Key:**
- MT1: The newer lifestyles are contributing to the breakdown of our society.
 - MT2: The world is always changing and we should adjust our view of moral behavior to those changes.
 - MT3: This country would have many fewer problems if there were more emphasis on traditional family ties
 - MT4: We should be more tolerant of people who choose to live according to their own moral standards, even if they are very different from our own.

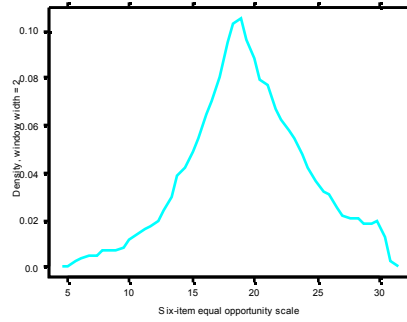
Notes: Reliability of full, four-item scale is 0.638.

The scores on items MT1 and MT3, are reversed, so that higher values indicate stronger moral traditionalism.

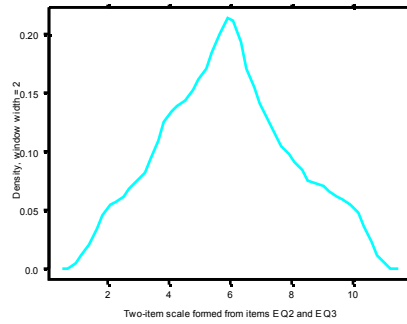
Source: 1996 National Election Study.

Figure 1: Smoothed histograms of distributions for equal opportunity scales (Gaussian kernel densities with a window width of two units).

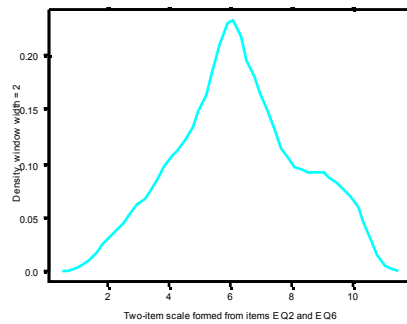
A. Six-item Equal Opportunity Scale



B. Scale formed from EQ2 and EQ3



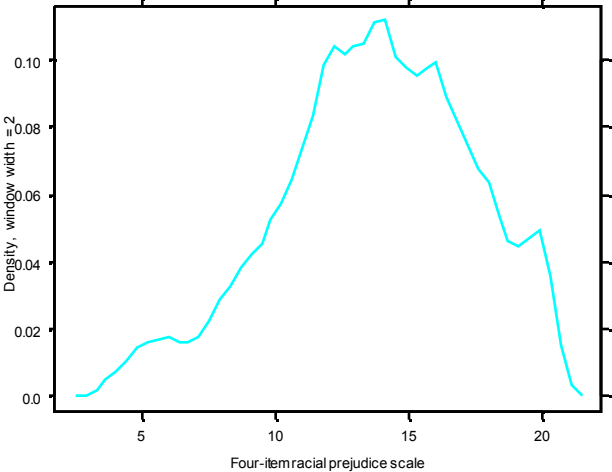
C. Scale formed from EQ2 and EQ6



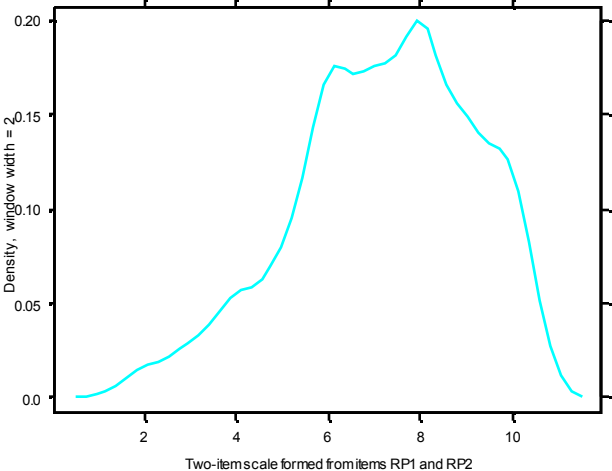
Source: 1996 National Election Study.

Figure 2: Smoothed histograms of distributions for racial prejudice scales (Gaussian kernel densities with a window width of two units) .

A. Four-item Racial Prejudice Scale

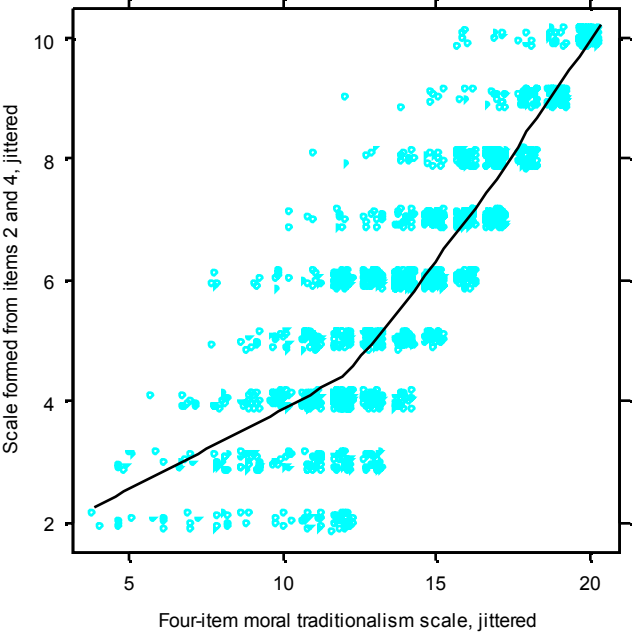


B. Scale formed from RP1 and RP2



Source: 1994 National Election Study.

Figure 3: Scatterplot showing two-item scale created from items MT2 and MT4 plotted against the six-item moral traditionalism scale.



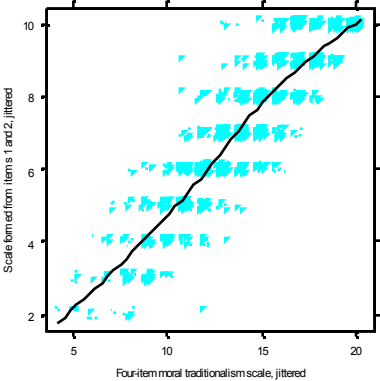
Notes: Points in scatterplot are jittered (i.e., a small amount of random noise is added to the coordinates for each data point) in order to reduce the amount of overplotting).

A nonparametric loess curve is fitted to the data, using a window width of 0.5 and robustness iterations.

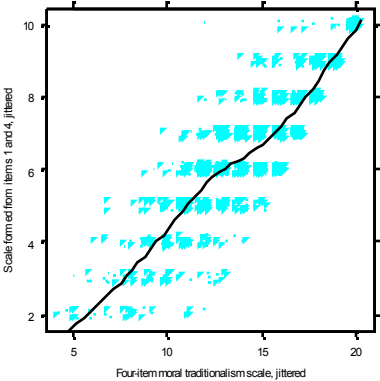
Source: 1996 National Election Study.

Figure 4: Scatterplots showing relationships between two-item scales and the six-item moral traditionalism scale.

A. Scale formed from MT1 and MT2



A. Scale formed from MT1 and MT4

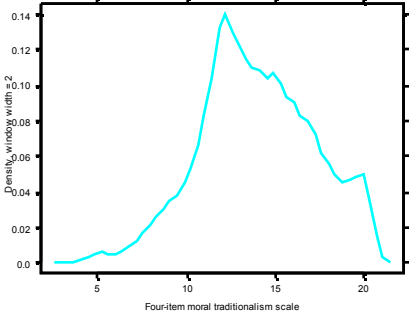


Notes: Points in scatterplot are jittered (i.e., a small amount of random noise is added to the coordinates for each data point) in order to reduce the amount of overplotting. A nonparametric loess curve is fitted to the data, using a window width of 0.5 and robustness iterations.

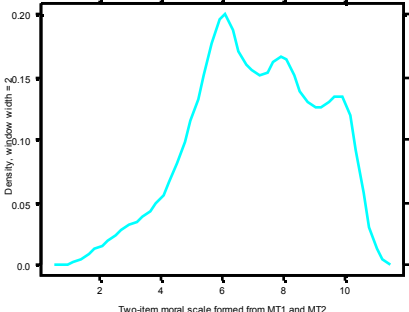
Source: 1996 National Election Study.

Figure 5: Smoothed histograms of distributions for moral traditionalism scales (Gaussian kernel densities with a window width of two units) .

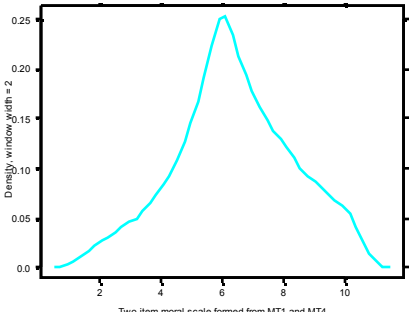
A. 4-item Moral Traditionalism Scale



B. Scale formed from MT1 and MT2



C. Scale formed from MT1 and MT4



Source: 1996 National Election Study.