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The Measurement of Attitudes Toward Abortion

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Abstract

Attitudes towards abortion have been a focal point within politics and religion for many years. Many methods have been created to test these attitudes. For example, Hess and Rueb created a 13-item scale and demonstrated its validity. However, this scale has several potential shortcomings. The developers did not report the reliability of the scale and its factor structure. Further, this scale includes a neutral point and legal language. One of the purposes of the present study was to develop a 12-item scale to address these issues. The present study compares and contrasts these two scales. Psychology student's participated in this study. The results indicated that both abortion scales were reliable and valid. A factor analysis indicated that the Hess and Rueb scale has 3 factors, whereas the researchers newly developed scale had two factors. Implications of these findings are discussed.

Keywords: Abortion scale, political affiliation, religiosity

Introduction

Since the 1973 Roe v. Wade Supreme Court decision on abortion rights, attitudes towards abortion became a political issue. From a psychological perspective, one question is how best to measure attitudes toward abortion? One option is to ask someone whether they are pro-life or pro-choice. However, this approach doesn't allow for degree of support for one position or another.

Another option is to create a brief attitude scale. Toward that end, Hess and Rueb (2005) created a 13-item Likert Scale. Although they provided evidence for the validity of their scale, they did not report its reliability or factor structure. Therefore, one purpose of the present study was to determine the reliability and factor structure of the Hess and Rueb scale. In addition to reliability and factor structure, Hess and Rueb used political party and religion to validate their findings. Therefore, this research's purpose was also to replicate the

Hess and Rueb study in regards to religion and political party.

Furthermore, an examination of their scale and study raises several questions. First, their scale includes a neutral alternative for each item and because the issue of abortion is polarizing a scale that forces participants to take a stance might be a better reflection of reality. Second, many of their items are worded in terms of legality and morality. This context could be too specific and influence the interpretation of the other questions. Therefore, it might be more appropriate to create a scale with a more general set of beliefs. Third, their scale may be assessing multiple factors. A second purpose of this study, then, was to create a Likert scale assessing attitudes toward abortion without a neutral point and with more general belief statements about abortion. In the name of parsimony, we attempted to create a scale with a simpler structure. Moreover, because a test is designed to assess the characteristic of a person, in this case attitudes toward

abortion, the items should share a common core.

We selected the Hess and Rueb (2005) scale because of its brevity. There are other abortion scales such as the dual form abortion scale (Bowers & Weaver, 1979). However that scale has 40 items. It also has an undecided option for each item. Using this scale Bowers and Weaver found that Catholics and Mormons had a significantly more negative attitude towards abortion than did either Protestants and those with no religious affiliation.

In terms of religiosity, Hess and Rueb (2005) hypothesized and found that as religiousness increased, pro-choice scores decreased. This finding replicates earlier research. For example, Legge (1983) found that as the importance of religion increased so did opposition to abortion which was assessed by a six-item scale with an unspecified reliability. Similarly McIntosh, Alston, and Alston (1979) found that people who attended religious services more often tended to hold anti-abortion position. Their findings for religiousness are consistent with the idea that "Religious groups have a significant impact on abortion opinions, typically producing conservative pro-life viewpoints." (Hess & Rueb, p.26). With regards to conservatives and attitudes towards abortion rights Hess and Rueb found that Republicans were more pro-life than were Democrats, Independents, or others.

Based on the previous research, there were two hypotheses; 1) the more religious someone is the less favorable will be their attitude toward abortion, and 2) Republicans would have less favorable attitudes toward abortion than Democrats. The researchers assessed religiosity and political party to

determine the validity of both the Hess and Rueb scale and Taylor and Whitehead scale.

Method

Participants

Ninety-four psychology undergraduate students from Salisbury University volunteered to participate in the study. The sample consisted of 21 males and 73 females ranging in age from 18 to 29. The participants were selected from four experimental psychology classes. Participants were instructed that they would receive no compensation and given a brief 2 minute speech on the importance of assessing attitudes. Emphasizing attitudes towards abortion was important to assess due to the controversial and continuing nature of the subject. This study was conducted after receiving the approval of the institutional review board.

Materials

The participants responded to three scales. Our new scale, named the Taylor and Whitehead scale, was a Likert scale with 12 items (See Table 2). For each item participants indicated whether they strongly agree, agree, disagree, or strongly disagree. There is no neutral point. The investigators created this scale after conducting an item analysis of an original set of 32 items. The items with a correlation of .54 or better were selected. A high score on this scale indicates a less favorable attitude toward abortion. The packet also included the 5-item Religiosity Scale James, Thames, Bhalla, and Cornwell (2003) and the 13-item Hess and Rueb (2005) abortion scale (See Table 3). For each item, participants indicated whether they strongly disagree, agree, neutral, agree, and strongly agree. The Hess and Rueb scale includes 17 additional items

which assess religion and demographic information. These were not included in the analysis because they did not assess attitudes towards abortion. A high score on the Hess and Rueb scale indicates a more favorable attitude toward abortion.

Procedure

A professor and researcher welcomed the students. The instructions were distributed to the participants and were also read to them. The three scales were randomly ordered in the packets and had been previously arranged for quick distribution. Background information on the experiment was provided. The disclosure form was read aloud. After completing the survey, the participant placed it in designated area. Each participant was verbally thanked for volunteering.

Results

Reliability of the Scales

Cronbach's alpha test for homogeneity indicated that each scale was reliable: Taylor and Whitehead abortion scale, $\alpha=.92$, Hess and Rueb abortion scale, $\alpha=.93$, and the James religiosity scale, $\alpha=.90$.

Concurrent Validity

The two abortion scales were also correlated, $r(92) = -.81$, $p <.01$ demonstrating concurrent validity. Recall that a higher score on the Taylor and Whitehead scale indicates a less favorable attitude toward abortion, whereas a high score on the Hess and Rueb scale indicates a more favorable attitude toward abortion.

Correlation with Religion

Each abortion scale was correlated with the James Religiosity Scale to assess validity. The scores on each abortion scale was significantly correlated to the scores on the James Religiosity Scale: Taylor and Whitehead, $r(92) = -.40$, $p <.01$, and Hess and Rueb, $r(92) = .36$, $p <.01$. Thus people who are more religious have less favorable attitudes toward abortion than the people who are less religious.

Political Party and Abortion Rights

Another way to assess the validity of each of the abortion scales was to examine the relationship between attitudes toward abortion and political party. A one-way ANOVA (Democrats, Independents, Republicans, and other) on each abortion scale yielded a significant effect on each scale: Taylor and Whitehead scale $F(3, 90) = 5.18$, $p < .002$, $\eta^2 = .15$ and Hess and Rueb scale $F(3, 90) = 3.22$, $p < .03$, $\eta^2 = .10$.

Tukey test demonstrated that the Republicans were less in favor of abortion than were Democrats and Independents. The means for the Democrats and Independents did not have a significant difference. The party affiliations categorized as "Other" did not have a significant difference compared to Republicans, Democrats, and Independents, but the sample size for "Other" was small (See Table 1).

Factor Analysis

Each abortion scale was analyzed using a factor analysis, principal components, varimax rotation. The items on the Taylor and Whitehead scale loaded on two factors. The factor loadings are reported in Table 2. Items 1, 2, 3, 4, 5, 6, 8, 9, and 12 loaded on the first factor, which was labeled

"Moral/Legality." Items 7, 10, and 11 loaded on the second factor, which was labeled "External Influence."

The items on the Hess and Rueb scale loaded on three factors. The factor loadings are reported in Table 3. Items 4, 5, 6, and 7 loaded on the first factor which was labeled "Legality." Items 1, 2, 3, 12, and 13 loaded on the second factor which was labeled "Abortion Situation." Items 8, 9, 10, and 11 loaded on a third factor for the Hess & Rueb scale, labeled "Parental Responsibility."

Discussion

The Taylor and Whitehead scale and Hess and Rueb scale were compared for reliability, validity, and factor structure. Findings showed that both scales were reliable and valid. On both scales, people who were more religious had a less favorable attitude toward abortion than did the less religious. Similarly, Republicans had a less favorable attitude than did Democrats. With regard to the structure of each scale, the Taylor and Whitehead scale was comprised of two factors, whereas the Hess and Rueb scale was comprised of three factors. Thus the Taylor and Whitehead scale has a simpler structure.

Recall that the objective of the Taylor & Whitehead scale was to create an attitude scale without a neutral point, with general belief statements, and a simpler structure. In terms of reliability and validity both scales had similar psychometric properties suggesting that whether or not the scale has a neutral point or more general wording does not make a difference. However, the Taylor and Whitehead scale did have a simpler factor structure.

Limitations perceived during this study were several. The subjects used in the data

collecting process were college students. A small sample size, that data showed was heavily Democratic. Therefore, there was similarity in age, life experiences, and development which may not reflect the general population. In this and other studies attitudes are assessed through self-report measures. Future research may want to examine religiosity and political affiliation or actual behaviors and/or other methods of assessing attitudes that are unobtrusive.

One reason why it is important to understand the structure of people's attitudes toward abortion is in terms of crafting persuasive messages. There may be some beliefs that are more easily changed than others. For example, attitude change on abortion rights could depend deeply on personal experience with the issue. Furthermore, with a reliable and valid measure of attitudes toward abortion, further research can explore the idea that religiosity and political affiliation produce norms and models of behavior with regards to abortion rights that people follow.

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Table 1
Means and Sample Size for Party Affiliation

Party Affiliation	Sample Size	Taylor and Whitehead	Hess and Rueb
Democrats	47	24.51	43.38
Republicans	29	31.38	35.70
Independents	15	24.67	42.87
Other	3	24.00	42.33

Table 2
Factor Analysis of Taylor & Whitehead Scale

12 Items	Factors	
	Morals/Legality	External Influence
1. Abortion is not acceptable under any circumstances.	.740	.455
2. Abortion is acceptable if the mother's health is endangered.	.556	.534
3. If a woman finds out her baby will be born with a defect, she has the right to abort the child.	.681	.230
4. The human fetus is a living being and therefore should be protected by law.	.792	.266
5. Abortion is murder.	.752	.381
6. A woman has a right to choose to have an abortion.	.671	.549
7. Parental consent should not be required for an abortion to be performed.	.043	.671
8. I believe abortion goes against all morals.	.790	.238
9. It is better to have the baby and put it up for adoption than an abortion.	.779	-.034
10. Abortions should be partially covered by insurance companies.	.264	.750
11. Abortion services should be offered through the university under confidentiality.	.301	.711
12. Depending on the circumstances of conception, a female has the right to determine the best course for the life of her fetus.	.708	.469

Table 3
Factor Analysis of Hess & Rueb Scale

13 Item scale	Legality	Factors	
		Abortion Situation	Parental Responsibility
1. Life begins at conception.	.165	.747	.359
2. Life begins at birth.	.129	.882	.060
3. I might abort a fetus I did not intend to create.	.387	.702	.299
4. Abortion should be legal in all situations.	.532	.359	.432
5. Abortion should be illegal in all situations.	.778	.380	.180
6. Abortion should be legal in the cases of rape or incest.	.856	.263	.104
7. Abortion should be legal if the mother's life or long-term health is at risk.	.859	.086	.294
8. Abortion should be legal if the fetus has a birth defect.	.349	.238	.592
9. Abortion should be legal if the parents cannot afford the baby.	.381	.311	.690
10. Abortion should be legal if the parents do not want that particular sex of the child.	-.023	.082	.855
11. Abortion should be legal if the parents do not want the child.	.411	.319	.649
12. Abortion is morally wrong.	.397	.535	.479
13. Abortion is murder.	.521	.687	.267