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# A TECHNIQUE FOR THE MEASUREMENT OF ATTITUDES TOWARD ABORTION\*

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*After reviewing countless studies dealing with abortion, the author presents 31 generalizations, including the following: "Men's attitudes toward abortion are more liberal than those of women"; and "Women under 30 years of age are more conservative than women of 30 or more." Although the subject is timely and controversial, and although accurate knowledge regarding abortion may lead to more realistic and effective legislation, teaching, counseling, and the like in this area, there is no inclusive, reliable, and valid quantitative technique dealing with the measurement of attitudes toward abortion. On the basis of the above 31 generalizations, therefore, as well as hundreds of statements supplied by a sample of Americans, published sources, and himself, the author constructed an Abortion Scale by means of the Likert scaling technique. The criterion of internal consistency resulted in a final instrument of 25 highly discriminating items, the theoretical range of scores thus being 0 (least liberal) to 100 (most liberal). The validity and reliability of the scale were investigated by means of eight and four tests, respectively, all of which gave extremely satisfactory results. When accompanied by a questionnaire dealing with personal data (age, sex, marital status, religion, education, occupation, and the like), the Abortion Scale can be very useful in research, counseling, teaching, and other related areas.*

ABORTION may be defined as the "expulsion through and out of the birth canal of the embryo or fetus by or before the end of the sixth month, when the child is presumed to be viable. . . . On the other hand, it may refer specifically to the expulsion of the developing human embryo from the womb during any of the first three intrauterine months of its existence: *miscarriage* is then used to refer to the expulsion of the *abortus* during the second three months; and the expulsion of the child during the last three months of pregnancy is called *premature delivery*" (Rosen, 1970: 324). *Abortus* means the aborted fetus.

There are three types of abortion:

1. *Spontaneous* abortion is "due to abnormal development or death of the ovum or its membranes" and to "maternal disease" (Rosen, 1970:4; Taussig, 1936).
2. *Induced* abortion is *legal* or *therapeutic*

when it constitutes "an interruption of pregnancy to safeguard the health or save the life of the mother" (Rosen, 1970:4; Leslie, 1967:529; Rongy, 1933; Thiersch, 1952).

3. The *illegal* or *criminal* form of *induced* abortion includes "unlawful abortions" (Rosen, 1970:5; Dutra, 1950; Freeman, 1962; Huser, 1942; Lader, 1969; Storer, 1866).

The exact number of abortions is not known. Only estimates are available. Noonan (1970:181-182, 241-243) and Rosen (1970: 3-6), for instance, report that for the United States alone the annual figure may be 1,000,000. Of these, about 30 per cent are criminal abortions.

The countless studies of abortion have led to the following generalizations:

1. "The use of socially obligatory abortion as a punitive measure is always found in association with the attitude that voluntary abortion is illicit and to be penalized" (Goode, 1971:3).
2. "Societies in which abortion is culturally imposed, especially punitively,

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- tend to be those which lack alternative outlets for neurotic tensions and anxieties" (Goode, 1971:3).
3. "There is a correlation between the unconscious belief that an unborn child is the offspring of a socially improper father, such as the paternal or maternal grandfather, and the custom of compulsory abortion" (Goode, 1971:3).
  4. "The greater the emphasis on the status disparity between adult and child, the more likely is abortion of the firstborn" (Goode, 1971:3).
  5. "When a society places a high value on children, the rate of abortion is low" (Goode, 1971:3).
  6. "Abortion will be less common if illegitimate children and their parents are less stigmatized. The contrary is also asserted" (Goode, 1971:3).
  7. "The abortion rate will rise with the increasing independence of women" (Goode, 1971:3).
  8. Men's attitudes toward abortion are more liberal than those of women (Blake, 1971:542-543; Maxwell, 1970:250).
  9. Men under 30 years of age are more liberal than men of 30 or more (Blake, 1971:544).
  10. Women under 30 years of age are more conservative than women of 30 or more (Blake, 1971:544).
  11. "Married women are more likely to give the sex drive priority over the maternal impulse and thus resort to abortion in societies where there are taboos on coitus during pregnancy and lactation and where monogamy prevails" (Goode, 1971:3).
  12. "There is a relationship between unconscious parental hostility toward the unborn child (as a motive for abortion) and taboo on coitus during pregnancy and lactation in monogamous societies" (Goode, 1971:3).
  13. Married couples and single persons have similar attitudes toward abortion (Maxwell, 1970:250).
  14. "Abortions are as likely to be performed upon married as upon unmarried women" (Goode, 1971:3).
  15. "There is a low correlation between the abortion of the first child and the parents' reluctance to grow up" (Goode, 1971:3).
  16. "There is an inverse relation between abortion and the marital adjustment of wives" (Goode, 1971:3).
  17. Persons who come from families having four or more children are very conservative about abortion (Maxwell, 1970:250).
  18. Those who are only children have very liberal attitudes toward abortion (Maxwell, 1970:250).
  19. Urban residents are more liberal than their rural counterparts (Maxwell, 1970:250).
  20. Catholics are more conservative than Protestants (Blake, 1971:541, 546; Maxwell, 1970:250).
  21. Persons who are very active in church participation have a more conservative attitude toward abortion (Maxwell, 1970:250).
  22. Education is accompanied by more liberal abortion attitudes (Blake, 1971:543, 549; Maxwell, 1970:250).
  23. The lower social classes are more conservative than the middle classes (Maxwell, 1970:250).
  24. The upper social classes are more liberal than the middle classes (Maxwell, 1970:250).
  25. "Where premarital sex relations are relatively institutionalized, it is more likely that the unwed mother aborts; where such relations are informally accepted, abortion of a reluctant pregnancy is less likely" (Goode, 1971:3).
  26. Those who do not approve of premarital sex are very conservative toward abortion (Maxwell, 1970:250).
  27. Sexual permissiveness is accompanied by liberal abortion attitudes (Maxwell, 1970:250).
  28. "Premarital pregnancy is much more

likely to be terminated by induced abortion among white than it is among Negro females" (Goode, 1971:3).

29. "Premarital pregnancy that ends before marriage is much more likely to result in abortion than in miscarriage or birth" (Goode, 1971:3).
30. Persons who know either a relative or close friend who has received an abortion are significantly more liberal (Maxwell, 1970:250).
31. "The frequency of previous still births and abortions is much higher among mothers of schizophrenic children than among mothers of nonschizophrenics" (Goode, 1971:3).

The above generalizations indicate the importance and timeliness of studies dealing with abortion, since new knowledge may lead to more realistic and effective legislation, teaching, counseling, and the like in this area. In view of the fact that public opinion is now becoming increasingly influential, surveys of attitudes toward abortion are especially valuable. Unfortunately, we have no systematic quantitative instrument that can facilitate such surveys. In fact, even impressive reference volumes—for example, Bonjean (1967), Miller (1970) Robinson *et al.* (1969), Shaw and Wright (1967), Straus (1969), and Summers (1970)—mention no such technique. A careful examination of numerous publications has revealed that Maxwell (1970) seems to have constructed and employed the only abortion scale in existence. But his 12-item instrument does not cover many aspects of abortion. Besides, it is not clear why the technique includes an item that, according to the criterion of internal consistency, is not discriminating.

The purpose of the present study, therefore, was to construct an abortion scale consisting of discriminating items only and covering more aspects of abortion. In this way, the instrument will be more reliable and render research, teaching, and counseling more fruitful and productive.

#### SURVEY OF OPINIONS

The technique employed for this purpose was that developed by Likert (1932). As a result, approximately 1,500 statements regarding abortion were secured. Many of these were supplied by the author himself, but many more were suggested by a large and highly heterogeneous group of native Americans, most of whom came from the East and Midwest. Additional items were found in various newspapers and journals, as well as in miscellaneous short publications (for instance, Bardis, 1964; 1971; Blake, 1971; Genne, 1965; Maxwell, 1970; Pommerenke, 1955; Tietze, 1964). Finally, innumerable books proved to be quite helpful in this respect, at least indirectly (for example, Aptaker, 1931; Bardis, 1969a; Calderone, 1958; Devereux, 1955; Gebhard, 1959; Guttmacher, 1967; Hall, 1970; Kenkel, 1966; Lader, 1970; National Committee on Maternal Health, 1944; Smith, 1967; Thurtell, 1940).

Preliminary tests indicated that 46 of the above statements were the best candidates for the final abortion scale.

#### CRITERION OF INTERNAL CONSISTENCY

On the basis of a sample of 100 subjects, the criterion of internal consistency revealed that 12 of these 46 items should be rejected (this number includes several discriminating statements, since the author wished the final scale to consist of 25 items only and the scores to have a theoretical range of 0-100). The five possible responses to each statement, from the most conservative to the most liberal, were as follows:

- 0: Strongly disagree.
- 1: Disagree.
- 2: Undecided.
- 3: Agree.
- 4: Strongly agree.

The dividing line for discriminating items was placed at 28. Thus, the 21 excluded statements were:

1. Welfare mothers should be given free abortions.

2. The fetus is not really a human being.
3. Abortion is all right between the third and sixth months of pregnancy.
4. Where there is an Rh problem, abortion is all right.
5. Where the child is likely to be born mentally retarded, abortion should be permitted.
6. Abortion should be left up to the mother.
7. Abortion is all right when the expectant mother has German measles.
8. Abortion is a private matter.
9. The church should not determine abortion policy.
10. Easy abortion will not lower moral standards.
11. Abortion is one solution to the overpopulation problem.
12. Doctors who perform illegal abortions should not be punished.
13. An unborn child's life is less important than its mother's health.
14. Abortion is all right after the sixth month of pregnancy.
15. Abortion below 18 is all right without parental permission.
16. Where the mother's mental health is in danger, abortion should be permitted.
17. Where the mother's physical health is in danger, abortion should be permitted.
18. Widely accepted abortion will make those children who are born feel wanted.
19. Abortion should be given to save the mother's life.
20. Abortion decisions should be based on science only.
21. An abortion should be obtained only with the approval of a committee of medical experts.

The discriminating power (given parenthetically) for the above items was as follows: 1-4 (28), 5-8 (27), 9-11 (26), 12 (25), 13 (24), 14 (21), 15-16 (20), 17 (17), 18 (15), 19 (14), 20 (2), 21 (-8).

In the final scale, however, the distribution was as follows: 1-2 (39), 3 (38),

4-7 (36), 8 (35), 9-14 (34), 15 (32), 16-23 (31), 24-25 (28).

Originally, an effort had been made to phrase all statements in the same liberal direction. Consequently, all 25 items in the final instrument are also stated liberally. Such instrumental parsimony (Bardis, 1969b) was justified by tests involving two equivalent forms, one mixed and the other unmixed, of the final scale, both of which gave extremely similar results. (For an analogous experiment, see Bardis, 1969b.)

#### THE FINAL SCALE

##### *Abortion Scale*

(Score equals sum total of 25 numerical responses. Theoretical range: 0, lowest approval of abortion, to 100, highest approval).

Below is a list of issues concerning abortion. Please read *all* statements very *carefully* and respond to *all* of them on the basis of *your own true* beliefs *without* consulting any other persons. Do this by reading each statement and then writing, in the space provided at its left, *only one* of the following numbers: 0, 1, 2, 3, 4. The meaning of each of these figures is:

0: Strongly disagree.

1: Disagree.

2: Undecided.

3: Agree.

4: Strongly agree.

(For research purposes, you must consider *all* statements *as they are*, without modifying any of them in any way.)

— 1. Abortion is all right during the first three months of pregnancy.

— 2. Abortion is not murder.

— 3. Abortion should be given to single women.

— 4. Abortion is not sinful.

— 5. Abortion laws should be liberal.

- 6. If the family cannot support another child, abortion is all right.
- 7. Abortion is not immoral.
- 8. Man has the right to destroy life in the womb.
- 9. Abortion should be legalized.
- 10. If the child is not wanted, abortion is all right.
- 11. Abortion is a human right.
- 12. Easy abortion will not lower the value of human life.
- 13. In cases of rape, abortion should be allowed.
- 14. Abortion is right when the fetus is too young to live outside the womb.
- 15. Abortion should be used to reduce illegitimacy.
- 16. Abortion should be used as a birth control method.
- 17. The embryo is not really a human being.
- 18. Abortion is acceptable when the father abandons the mother.
- 19. Illegitimacy justifies abortion.
- 20. Where the child is likely to be born physically defective, abortion should be allowed.
- 21. Just because a child is conceived, it does not mean that it has the right to live.
- 22. Abortion is better than marriage forced by pregnancy.
- 23. Having unwanted children is worse than abortion.
- 24. In cases of incest, abortion should be allowed.
- 25. Easy abortion will not increase promiscuity.

## VALIDITY

The validity (Garrett, 1955: 344-349) and reliability tests of the final scale were based on 12 different heterogeneous and proportional stratified samples consisting of males and females between the ages of 18 and 65 years. The subjects' religions were Protestant and Roman Catholic, while their education ranged from gradeschool to graduate studies. All of the respondents were native Negro and white Americans, most of them coming from the East and Midwest.

Since, according to Blake (1971: 541-544, 546, 549) and Maxwell (1970:250), Catholics are more conservative than Protestants in abortion matters, males are more liberal than females, educated persons are more liberal than less educated ones, young males are more liberal than older men, and young females are more conservative than older women, the following validity tests were conducted:

1. A group of 40 Catholics made an arithmetic mean on the abortion scale of 33.97, while that of 40 Protestants was 71.50. The *t* value (Weast, 1968: 283-292) for this difference was 5.78 (df. 78;  $p < .001$ ; Weast, 1968:283).
2. The mean of 45 other Catholics was 37.22, and that of 45 Protestants, 69.03 (*t*, 4.81; df. 88;  $p < .001$ ).
3. A group of 50 males made a mean of 64.59, and one of 50 females, 55.28 (*t*, 3.84; df. 98;  $p < .001$ ).
4. A new sample of 42 males responded with a mean of 62.12, and one of 42 females, with 50.62 (*t*, 3.19; df. 82;  $p < .005$ ).
5. The mean of 35 persons with 13 years of education or less was 51.92, while that of 35 subjects with at least 14 years of education was 60.27 (*t*, 3.29; df. 68;  $p < .005$ ).
6. Another group of 25 persons with at most 13 years of formal education reacted with a mean of 50.51, while that of 25 respondents with at least 14 years of education was 63.44 (*t*, 3.53; df. 48;  $p < .001$ ).

7. Forty males under 30 years of age gave a mean of 74.06, while 40 males of 30 or over made a mean of 63.48 ( $t$ , 3.98;  $df$ . 78;  $p < .001$ ).
8. Forty-five females under 30 responded with a mean of 52.91, while 45 females of 30 or more were represented by a value of 60.67 ( $t$ , 2.35;  $df$ . 88;  $p < .01$ ).

#### RELIABILITY

Four reliability (Garrett, 1955:332-344) tests were performed, each of them involving a different sample of 30 subjects:

1. A split-half test (Kendall and Buckland, 1960:274), which did not include scale item No. 25, gave a Pearson product-moment coefficient of correlation (Freund and Williams, 1966: 24, 174) of .95. When this raw value was corrected by means of the Spearman-Brown prophecy formula (Garrett, 1955:340-341), the resulting reliability coefficient was .97 ( $df$ . 28;  $p < .001$ ; Arkin and Colton, 1964: 155).
2. A test-retest gave an  $r$  of .93 ( $df$ . 28;  $p < .001$ ).
3. A split-half, which excluded scale item No. 1, resulted in a corrected coefficient of .91 ( $df$ . 28;  $p < .001$ ).
4. A split-half of the odd-even type (Kendall and Buckland, 1960:274), which was based on scale items 1-24 gave a corrected value of .96 ( $df$ . 28;  $p < .001$ ).

#### CONCLUSION

In view of the importance and timeliness of studies dealing with abortion, the author has constructed a 25-item Likert-type scale for the measurement of attitudes toward this form of operation. Many tests have established the validity and reliability of the instrument.

This technique may be employed in research, teaching, counseling, and other related areas.

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