The author conducted a cross-cultural survey of attitudes toward the pill among university students, part of this international sample being a group of young Canadians. The subjects were students from a southwestern Canadian university and were stratified as to sex and amount of education. The author employed his Pill Scale, a 25-item Likert type instrument. The results show the subjects were extremely close to "approval" of oral contraception in terms of the Likert scale employed. The author presents five related reasons for this result: (1) the liberalizing influences of university education; (2) the increase in reported intercourse experienced by women; (3) prevailing spirit of individualism; (4) some concern about world population; and (5) the desire to achieve a higher social status, partly through emphasis on family planning. However, the qualified qualitative reactions indicated that student enthusiasm was slightly reduced by fear concerning the pill's side effects. The author cautions that although adequate family planning programs are necessary, they will not completely eradicate unwanted pregnancies. (Author/BW)
ATTITUDES TOWARD ORAL CONTRACEPTION
AMONG CANADIAN UNIVERSITY STUDENTS*

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I. Introduction

It has been stated that the Canadian family is highly heterogeneous. Indeed, there "is no one Canadian family. With its distinctive geography and history, Canada is much too heterogeneous to have one or ten or twenty distinctive family types. As the geographical setting, and as the social class, religious, ethnic, occupational, and other groupings vary, so too do our families" (Elkin, 1968:92).

This heterogeneity is also accompanied by numerous unique features. A Canadian scholar, for instance, has written the following: "We have a lower proportion of wives working for pay and a lower divorce rate than most western industrialized countries. Our weather creates distinctive problems of seasonal employment and limits the areas of settlement for retired people. Our mosaic of ethnic groups has no direct counterpart anywhere in the world. Our history links us especially with the cultures of England and France and our geography to the culture of the United States. We have above all a French Canada with its unique historical development for 400 years" (Elkin, 1964:76).

One of the most important organizations that have studied the Canadian family is L'Institut Vanier de la Famille. The primary goals of this institute are two, namely, to strengthen the family in Canada, and to facilitate its adjustment to the modern world. To a certain extent, the institute's original and valuable studies reflect the closer
ties between anthropology and sociology in Canada. Studies by other organizations and individuals are usually indicative of the same interdisciplinary emphasis.

Some of these publications discuss ethnic family systems (Blishen, 1961; Ishwaran, 1971), intermarriage (Rosenberg, 1960), kinship ties (Crysdale, 1968; Garigue, 1956), parent education (Seeley et al., 1968), the social status of women (Schlesinger, 1971), sex behavior (Mann, 1968a; 1968b), family size (Matuszewski, 1958), the one-parent family (Canadian Council on Social Development, 1971; Guyatt, 1971; Schlesinger, 1973), and remarriage (Schlesinger and Macrae, 1970).

II. The Problem

The study of birth control practices among Canadians, however, especially of attitudes toward oral contraception, has been rather limited. Recent reports do indicate that the "average number of persons per family in Canada on June 1, 1969, was 3.9, the same as the 1961 and 1966 censuses" (Schlesinger, 1972:2), and that religiosity among French Canadians tends to generate a higher fertility rate (Petersen, 1969:538-539). As for ideal family size, a Canadian Gallup poll, conducted among 679 Canadians in 1960, revealed that the most common response was four children. Of the Catholic subjects, however, 46 percent mentioned five or more children, the corresponding percentages for Protestants and farmers being 24 and 52 (Elkin, 1964:22-23).

In the United States, studies of birth control practices and attitudes are much more common. Scarlett (1972), for example, has found that undergraduate college students regard the pill as the preferable contraceptive method. Similarly, young women at Berkeley "express almost unanimous support for the university's plan to establish a birth-control clinic. Whether or not they now use contraceptives,
most grrls support the move for two reasons: The need they see for the service on campus and their growing concern about world overpopulation" (Weinstein, 1970:15). Moreover, "the contraceptive policy taking shape at Berkeley seems to be winning converts elsewhere. Stanford University...dropped its ban on prescription of contraceptives for unmarried students" (Weinstein, 1970:15).

In Canada, a survey cited by Elkin (1964:24) has indicated that, among Catholic French Canadians at least, continence is the main birth control method practiced. As for the pill, Levin (1969:212-213) has reported the following statistics on Canadian users:

<table>
<thead>
<tr>
<th>Month</th>
<th>Year</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>1965</td>
<td>250,000</td>
</tr>
<tr>
<td>July</td>
<td>1966</td>
<td>450,000</td>
</tr>
<tr>
<td>July</td>
<td>1967</td>
<td>750,000</td>
</tr>
<tr>
<td>July</td>
<td>1968</td>
<td>1,299,000</td>
</tr>
</tbody>
</table>

The 1967 figure (750,000) represented 27 percent of the estimated number of married women in the reproductive ages (Levin, 1969:212-213).

In view of these developments, it would be both interesting and useful to find out how young intellectuals throughout the world, namely, our future leaders and policy makers, feel about one specific method of birth control, the oral contraceptive.

For this reason, the author has conducted a cross-cultural survey of attitudes toward the pill among university students, part of this international sample being a group of young Canadians. (For published sections of this study, see Bardis, 1970; 1973; 1974.)

More specifically, the author has theorized as follows:

1. University education, which generates a high degree of familiarity with a variety of social systems, epistemological concepts, ontological objects, and axiological principles, tends to result in
intellectual scepticism and cultural relativism, thus constituting a liberalizing and, attitudinally, even fairly equalizing force.

2. Conservative religious systems, due to the traditional indoctrination and socialization that they emphasize, usually preclude the adoption of liberal ideologies by their adherents.

3. In developing and more or less traditionally oriented societies, females are likely to be more conservative than males are, as status ascription is ordinarily more prevalent among the former.

4. In the more industrialized societies of the world, and at least in the sphere of oral contraception, women tend to be almost as liberal as, or even slightly more liberal than, men are, since the emancipated and liberated female expects to be accorded the right to determine by herself what has a major physiological influence on her own organism.

III. Methodology

A. The Pill Scale.

In order to arrive at an operational definition of attitudes toward oral contraception, the author employed his Pill Scale, a 25-item instrument of the Likert type (Bardis, 1969). The theoretical range of scores on this technique is 0 (ideal-typical disapproval of the pill) to 100 (ideal-typical approval).

Although the reliability and validity of the Pill Scale have been tested repeatedly and found to be quite satisfactory, the author performed a split-half reliability test (Kendall and Buckland, 1960:274), which excluded scale item No. 25, on a sample of 30 young Canadians. The resulting reliability coefficient, after the necessary correction had been made by means of the Spearman-Brown prophecy formula (Garrett, 1955:340-341), was .91, which, with 28 degrees of freedom, was significant below .001 (Arkin and Colton, 1964:155).
It is not claimed, of course, that absolute comparability at the international level has thus been established. But, at least, the author has emphasized methodological continuity and uniformity, which sociology has usually neglected. Such neglect commonly prevents us from confidently attributing different findings to attitudinal heterogeneity among our respondents or to methodological discontinuity and variation. Incidentally, it is rather significant that, when Dr. Sabino Acquaviva and signor Giuseppe Bellieni, of the University of Padua, replicated the present author's Italian survey of attitudes toward the pill (their study was more detailed, and their sample of Padua students larger), the findings of their tesina (a paper on one's specialized subject) were virtually identical to those of the original investigation ("Pillola Antifecondativa," in Bardis, 1973:173-174).

B. Personal Data.

A second instrument was also employed in order to secure additional information on independent variables, or personal data, such as sex, age, number of siblings, birth order, marital status, religion, education, major field of study, and the like.

C. The Sample.

The Canadian subgroup of the international sample involved in the major cross-cultural study of attitudes toward the pill constituted a quota sample from a southwestern Canadian university, which was stratified as to sex and amount of education. This type of sample rather facilitates the test of the theories discussed in the preceding section. Of course, a more satisfactory test presupposes additional respondents of various types, whom the author is in the process of selecting.

In any event, the characteristics of the Canadian sample were as
follows:

Nationality: all Canadian.
Race: all white.
Language: all Anglophone.
Sex: 20 male, 20 female.
Age: an average of 23.85 years.
Number of siblings: an average of 2.15.
Birth order: an average of 1.80.
Marital status: 22 single, 4 engaged, 14 married.
Religion: 5 Catholic, 2 Jewish, 22 Protestant, 11 nonaffiliated.
Religious services attended: an average of 1.30 per month.
Education: 10 (5 men and 5 women) from each university year (first, second, third, and fourth).
Major field of study: 37 in the humanities and social sciences, 3 in the natural sciences.
Father's education: an average of 10.60 years.
Mother's education: an average of 9.35 years.
Occupation: all students.
Father's occupational score: an average of 2.45. This was based on the Alba Edwards scale, which is as follows: unskilled workers, 0; semiskilled workers, 1; skilled workers and foremen, 2; clerks and kindred workers, 3; proprietors, managers, and officials, 4; and professionals, 5 (Edwards, 1943:181-186).
Mother's occupation: 11 working, 29 not working.

Information on both the dependent and independent variables was obtained through personal interviews.

D. Statistical Analysis.

The data thus secured were computerized and then analyzed by means of various statistical tests.
IV. Findings

The total arithmetic mean of pill scores among the Canadian students was 72.40 (theoretical range: 0, lowest approval; 100, highest approval). In terms of the 5-point Likert scale employed, this means that the subjects were extremely close to "approval" of oral contraception. At least five related reasons may explain this high average: first, the liberalizing influence of university education; second, the "significant increase in reported intercourse experienced by women, particularly among anglophone students, and clear evidence of emergence of a new sexual morality" (Hobart, 1972:292; Mann, 1968a; 1968b; 1970); third, the prevailing spirit of individualism; fourth, some concern about world overpopulation; and fifth, the desire to achieve a higher social status partly by emphasizing family planning. For these reasons, then, one would have expected the respondents to express a "strong approval" of the pill on the Likert scale. As their qualitative reactions indicate, however, the students' enthusiasm was slightly reduced by their fear concerning the pill's side effects.

A series of t tests (Weast, 1968:283-292) revealed the following about various pairs of means:

1. Males, 70.90; females, 73.90 (t, .63; df, 38; insignificant; Weast, 1968:283).
2. Single, 70.14; married, 76.64 (t, 1.23; df, 34; insignificant).
3. Protestants, 72.95; nonaffiliated, 73.36 (t, .07; df, 31; insignificant).
4. Students with working mothers, 70.09; students with nonworking mothers, 73.28 (t, .60; df, 38; insignificant).

Another series of Pearson product-moment correlation coefficients (Freund and Williams, 1966:24,174), involving pill score versus each of
the independent variables, gave the following results:

1. Age: .01.

2. Number of siblings: .06.

3. Birth order: -.23 (df, 38; significant only above .10; Arkin and Colton, 1964:155). One can only speculate about the reasons for this minor tendency among later-born children to be slightly less approving of oral contraception. Family size does not appear to be the answer, since a higher birth order is not always accompanied by a larger family, and, especially, since the coefficient for number of siblings was merely .06.


5. Amount of students' own education, -.10. This statistically insignificant value seems to support the prediction regarding both the liberalizing and "equalizing" influence of education, the range one to four years being too limited to generate a substantial degree of attitudinal heterogeneity.


7. Mother's education: .24 (df, 38; insignificant above .10). It has often been stated that a mother's attitudes and values typically affect those of her child more extensively than the father's attitudes and values do. This rather low and positive statistic, especially when compared with the coefficient for father's education (.04), is somewhat indicative of such influence, and particularly of the theorized liberalizing and "equalizing" character of education.

8. Father's occupational score: .20. Again, although, as is well known, one's educational and occupational levels are usually positively related, the value of this coefficient reveals both the aforementioned "equalizing" effects of education and the fact that, in this case at
least, paternal occupation is more influential than paternal education is (.04).

Of the less relevant coefficients of correlation, the following four are the most interesting ones. Of these, the first two suggest a minor tendency among better educated persons to have smaller families, the remaining two being strongly indicative of social homogamy. Incidentally, this latter finding has been typical of all of the samples involved in the present cross-cultural study, from Japan to Italy and from Belgium to South Africa:

1. Number of siblings versus father's education: -.24 (df, 38; significant slightly above .10).

2. Number of siblings versus mother's education: -.27 (df, 38; significant below .10).

3. Father's education versus mother's education: .60 (df, 38; significant much below .001).

4. Mother's education versus father's occupation: .52 (df, 38; significant below .001).

When the Canadian findings were compared with those from other countries, the resulting statistical table was as follows (Bardis, 1973b; 1974):

<table>
<thead>
<tr>
<th>Country</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>51.32</td>
<td>54.81</td>
</tr>
<tr>
<td>Canada</td>
<td>70.90</td>
<td>73.90</td>
</tr>
<tr>
<td>Italy</td>
<td>67.00</td>
<td>59.75</td>
</tr>
<tr>
<td>Japan</td>
<td>56.95</td>
<td>47.35</td>
</tr>
<tr>
<td>South Africa</td>
<td>58.30</td>
<td>57.10</td>
</tr>
<tr>
<td>South Korea</td>
<td>66.65</td>
<td>60.40</td>
</tr>
<tr>
<td>United States</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Catholic women in a
state university      55.90
Catholic women in a
Catholic college    41.45
Mennonites           67.30  60.75
Protestants          69.40  66.35

These figures indicate that the Canadian students, especially
women, were the most liberal ones as far as oral contraception was
concerned, the most conservative subjects being American Catholic women.

In general, the quantitative findings of the present study, while
revealing minor tendencies in commonly expected directions (for instance,
the influence of mother's education on child's attitudes), seem to
support, often through negative evidence (namely, statistically
insignificant correlations and differences), the theoretical principles
stated in the second section of this report, that is:

1. University education operates as a liberalizing and "equalizing"
force with reference to attitudes toward oral contraception.

2. Conservative religious systems socialize their adherents into
less liberal attitudes in this area.

3. In developing and traditionally oriented societies, females are
less likely than males to approve of oral contraception.

4. In industrialized countries, women are almost as liberal as,
or even slightly more liberal than, men are in the sphere of attitudes
toward the pill.

Besides such quantitative data, the author has secured numerous
qualitative reactions, namely, comments by the subjects illustrating
various aspects of their attitudes toward the oral contraceptive. Some
of the Canadian respondents' statements, randomly selected, were as
Female: "The pill makes my life endurable, but I had to get married because I was pregnant. It is a crime against humanity to allow unmarried women to get pregnant. I cannot be fair to my child, nor can I be a good mother to her. I am glad I won't have to have other children, but this situation should never have happened. I would have had intercourse even if I had known I would get pregnant. Having the pill would have prevented a tragedy—not having the pill would never have stopped me from having intercourse. Contraceptives should be available to all. No democratic society can justly deny giving them to all people." (Pill score, 86.)

Female: "The pill allows single women to make their own decision regarding sexual activity, free of the fear of pregnancy and the resulting social condemnation. It allows married women to pursue a career safely and to engage in extra-marital activity if they so desire." (Pill score, 93.)

Hale: "The pill should be restricted only to the extent that it may be biologically harmful to some women. A complete physical examination before taking the pill should be required—whether the woman be single or married. We shouldn't emphasize the social and psychological aspects so much." (Pill score, 66.)

Female: "I feel the pill should be made available to anyone wishing to use it, but there should be restrictions as to maturity of thought, necessity, physical ability, and so forth. These things should be determined by the doctor. The use of the pill would improve family relations with regard to children, and the number of pregnancies outside of marriage that force young people to get married would decrease, thus making family life in general stable and happier. If regarded in the
true light, the pill should not diminish men's respect for women." (Pill score, 86.)

**Male:** "Investigation of the psychological and moral aspects of the pill is worthwhile. As for its physiological effects, research is still inconclusive." (Pill score, 92.)

**Female:** "This is an interesting and useful study." (Pill score, 73.)

**Male:** "Birth control is desirable. And the pill should be taken when physically not harmful." (Pill score, 76.)

**Male:** "In general, I approve of birth control. But the pill should be avoided by women who may be hurt by it." (Pill score, 76.)

**V. Summary and Conclusion**

An international survey of attitudes toward oral contraception has indicated that university students tend to approve of this type of birth control. Therefore, the value of education as a liberalizing force in this area is obvious.

Of course, as is revealed by an interminable debate in this sphere, attitudes and actual behavior do not always, if ever, coincide completely. Nevertheless, some overlap between these two phenomena is ordinarily present.

Needless to add, if, when, and where birth control is necessary, inclusive, broad, and multilateral programs are the only measure that can promote individual and social welfare from this point of view. For "favorable attitudes toward family planning is [sic] not a sufficient condition for the adoption of fertility control practices" (Figa-Talamanca, 1972:336). Indeed, "favorable attitudes are not a sufficient condition for behavioral changes. Just as important are the 'situational factors' which effect [sic] a person's behavior....Success in family planning
programs is contingent to concomitant educational, economic, social, cultural, and political changes" (Figa-Talamanca, 1972:343). A medical expert has similarly averred that "the establishment of an adequate national family planning program is only a necessary, but not a sufficient, condition....'Unwanted pregnancies' result not only from lack of contraceptive services but also from unconscious motives, life-style pressures, or other social and personal factors not always clearly identifiable....Certainly strong, outreaching, and complete fertility-control programs are desirable and should be provided as a public health measure. But to assume that such programs will eradicate unwanted pregnancies is to credit them too highly; they will be unfairly condemned as failures when such an unattainable goal is not reached" (Fein, 1972:855).

NOTE

*Presented at the 1973 Annual Conference of the National Council on Family Relations, Toronto, Ontario, Canada.

Copies of the Pill Scale are available gratis upon request from the author.

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