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ABSTRACT

This report hypothesized that Indian university students approve of abortion, that religiosity neutralizes the influence of education in abortion attitudes, and that Indian students are more liberal in their attitudes on abortion than American Catholic students. To test these hypotheses, the author collected data from 150 students from two Calcutta colleges. Survey results reflect the following: (1) the Indian students approved of abortion; (2) religion, socioeconomic background, and education were factors affecting attitudes on abortion; and (3) religiosity remains an influential force, American Catholics being more conservative than Hindus and American Protestants, with Hindus almost as liberal as the Protestants. The report concludes that additional surveys which make comparisons among less educated Indians and test for possible selectivity in the student groups even before college are needed in order to throw further light on this subject. (Author/RVJ)

ABORTION ATTITUDES AMONG UNIVERSITY STUDENTS IN INDIA

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"For destroying the embryo...he must perform the same penance."

Laws of Manu, XI, 88.

I. Introduction

A. Overpopulation. On April 1, 1971, India's population was 547,949,809, or 15.3 percent of the population of our entire planet. "The increase from 1351 to 1961 was 108.8 million, at a rate for the decade of 24.7%. In that decade the people of India added to their number the equivalent of the population of Japan (the seventh most populous nation in the world) with some four million to spare." On the average, "more than one million lives are added to India's numbers every month, and so the very considerable increases in agricultural and industrial production since Independence have not benefited the average Indian in similar proportion" (Mandelbaum, 1974:2; Lader, 1970:138).

Between 1965 and 1970, the number of live births per 1,000 persons, or crude birth rate, was 42.8 (the corresponding figure for the USA in 1972 was 15.6). In 1958-1959, the fertility rate was 136.7 per 1,000 people (the 1971 value for the USA was 59.3). On the other hand, the crude death rate for 1965-1970 was only 16.7 per 1,000 persons, excluding stillbirths, the 1971 rate for the USA being 9.3 (United States Bureau of the Census, 1973:806; United Nations, 1974:81-85). The rapid decline in India's death rate is partly explained by the use

of DDT and the resulting virtual disappearance of malaria--an Indian leader has observed that nowadays, if you wish to meet a mosquito, you must go to a zoo!

For India, an average diet of 2,250 calories per day has been considered minimally adequate (the U.S. average is 3,110). In 1968-1969, however, 50 percent of the urban population and 40 percent of those living in villages had fewer calories per day (Mandelbaum, 1974:3).

B. Family Planning. In view of these problems, India has attempted to adopt family planning. Unfortunately, its "avowed commitment to birth control has been so timid and perfunctory that the government can be accused of almost toying with the crisis until the country was buried by it" (Lader, 1970:136). Of course, the influential Hindu classics have emphasized celibacy, which supposedly leads to spiritual and physical strength. Such religious ideals, which the Muslims have rejected, and which even the Hindus are beginning to question, were popularized and supported by both Gandhi and Nehru. Indeed, Mahatma Gandhi "believed that birth control would weaken the moral fibre of his people, and expected them to follow his own unique idealism, limiting their families by self-restraint. Later, Nehru's contraception campaigns not only lacked force and adequate financial support; they were run by a spinster Health Minister, who was decidedly unenthusiastic about the subject" (Lader, 1970:137). In fact, in 1951, when India's activists demanded a strong family planning program, Prime Minister Nehru replied that economic underdevelopment, not overpopulation, was his country's problem (Norman, 1965:406-407). It is no wonder, then, that early after Independence the only geruine birth control measures, such as urban clinics and motorized clinics for

the provinces, were introduced by private organizations (Lader, 1970:137).

In any event, family planning, whose symbol is a red triangle with the apex down, was introduced by the First Five-Year Plan of 1951-1956 (Mandelbaum, 1974:6). The authorized annual national budget for 1967 was $60,000,000, or $.12 per capita (Berelson, 1969:358). For 1968-1969, it was 370,000,000 rupees, or about $50,000,000. A U.N. study further revealed that, in 1969, family planning encompassed 70,000 employees, including 6,100 physicians and 35,500 paramedical workers (Mandelbaum, 1974:6; Simmons, 1971). In brief, this program "has been officially promoted, especially research and experimental work, ever since the First Five Year Plan. Naturally enough there is, on the whole, readier acceptance of the ideas of family planning in the cities where even the poorer groups rapidly become more sophisticated in some respects....The main difficulty in towns is the cost of any form of mechanical or chemical contraceptives, especially in the poorer groups where the need is greatest. The same groups also suffer from ignorance, illiteracy and notably 'innumeracy' when attempting to apply the rhythm method--a fickle method at best" (Spate and Learmonth, 1967:146-147). Still, the general economic success of the Five-Year Plans themselves might gradually generate lower birth rates.

The more philosophical aspects of family planning are expressed by the three principles that extended this program in October 1963: "(1) each individual should know and feel that the immediate society or community to which he belongs has agreed as a group that having a small family size is the normal, desirable behavior for its members; (2) each individual should have knowledge that a small family is valuable to him personally and should have knowledge of contraceptive methods;

and (3) each individual should have contraceptive methods readily accessible" (Raina, 1966:115-116).

Implementation involving personnel includes, among other things, schools for auxiliary nurse midwives. In the late 1960's, there were over 200 such schools in India, which trained 10,000 nurses of this type. However, 55,000 nurse midwives are needed (Bhatia, 1969:78).

As for the birth control techniques employed, these range from the conservatives' brahmacharya (monklike abstinence) to the Y.M.C.A. method (cold baths) and the pill.

One of the reasons why the rhythm method has been common is the fact that, when India requested the assistance of the World Health Organization, the influential Roman Catholic member-nations responded with a great emphasis on this technique. This inadequate approach was rendered less effective by a peculiar practical implementation, namely, a necklac e of 28 beads worn by women. Unfortunately, these women were unable to distinguish the red color of the danger beads at night and often moved them in the wrong direction. Even when the experts introduced safety catches and different shapes, the women forgot to move the beads or, when sexually excited, moved more than one a day! Besides, in order to preclude criticism by their neighbors, many women hesitated to wear these necklaces (Chandrasekhar, 1965:110,117). In the villages, ignorance, illiteracy, conservatism, and poverty often led to magic beliefs concerning this method. For instance, "beads representing the menstrual cycle differentiating the most likely period for conception...were in fact placed around the neck of a goat, in a village near the experimental clinic in Ramanagaram in Mysore, in order to induce a caprine pregnancy!" (Spate and Learmonth, 1967:147).

Similarly, in the late 1960's when government demonstrator-

stretched condoms over bamboo sticks, many peasants lost faith in such "magic" when their wives conceived, although they, too, stretched prophylactics on bamboo sticks while having coitus! Still, the press advertised nirodh (protection) condoms and the government subsidized them--the price has been two cents for three pieces. Thus, in 1968-1969, almost 51,000,000 prophylactics were distributed (Mandelbaum, 1974:6,82).

The number of IUD insertions for 1970-1971 was 470,000, or 4,100,000 when previous ones are included. The Lippes loop, which the government adopted recently, is particularly practical and promising. Indeed, a test, involving 3,500 Indian women revealed that 5 percent of the loops were removed because of discomfort, and 5 percent were expelled naturally. Of the remaining 90 percent, 99 percent were effective (Mandelbaum, 1974:82; Lader, 1970:138).

Vasectomy, however, has been approved by the government too reluctantly and too late (Lader, 1970:137-138). According to Spate and Learmonth (1967:147), "success with contraception and the rhythm method has been so limited that the government department concerned has turned, as a desperate remedy, to sterilization, especially of men once they have say three children including at least one son; there is even some tendency to regard the planned increase of medical practitioners as an additional force of potential vasectomists, a sterile objective! From the beginning of the campaign to encourage vasectomy in 1956 to April 1962 the total number of operations performed was only some 98,000 mostly in Madras and Maharashtra. This form of campaign seems doomed to failure, probably implying undesirable social, psychological and international consequences." In the early 1960's, the Madras program "provided 40 rupees for travel and loss of working time as well as a liberal finder's fee to the already vasectomized. While that program

was in effect it accounted for a large proportion of the vasectomies in all India and the number was cut by a large proportion when the finder's fee was discontinued, only to recover when the fee was reinstated" (Berelson, 1969:356). Still, by 1969, India had more than 50 percent of all sterilization operations in the world (Mandelbaum, 1974:8-10).

Other birth control methods, such as pills, diaphragms, pessaries, foam tablets, and jellies, require a higher income, modern plumbing, bathrooms, adequate lighting, privacy, and diligent application, which are not prevalent in India (Mandelbaum, 1974:82; Lader, 1970:137-138).

These difficulties explain why, of all Indian couples in the reproductive years, only 13.44 million, or 13.3 percent, are protected in some way. Unfortunately, many of these couples include those using IUD's that have been extracted, and sterilized older persons who have already had all the children they desired. Accordingly, the reduction in the birth rate has not been spectacular (Mandelbaum, 1974:8-10).

C. Abortion. It has been stated that neither "Buddhist nor Hindu theology contains any scriptural prohibitions against early abortion, treating it as a social rather than religious issue. In fact, the Indian government in 1965 began to investigate the legalization of all abortion, modeled on the Japanese system" (where "no religious or ethical objections to abortion have ever been raised") "as part of its policy on population control" (Lader, 1970:94; cf. Kapadia, 1966:100). Nevertheless, Indian classics, such as the Rig-Veda, Ramayana, Mahabharata, and the Laws of Manu, do mention abortion and even condemn it as a serious sin, although they recognize exceptional cases, since there was no agreement concerning the exact beginning of life. For instance, at least two passages in the Laws of Manu refer very critically to women "who have caused an abortion" or

"destroyed the embryo" (V,90; XI,88).

The first modern law dealing with abortion in India was the Indian Penal Code of 1860 which, under classical and British influences, defined induced abortion as a crime, the penalties for the guilty mother and the abortionist being quite severe, unless the operation was therapeutic (Sections 312-314). Thus, many women sought illegal abortions that had tragic physical and psychological consequences, as a result of which public opinion gradually became more liberal. For this reason, in September 1964, the Ministry of Health and Family Planning appointed a committee to study abortion. In December 1966, the committee issued its famous report, advocating liberalization of the abortion law (Ministry of Health and Family Planning, 1966). On October 7, 1967, Minister Chandrasekhar recommended acceptance of this report, and in 1969, the Medical Termination of Pregnancy Bill was introduced (Chandrasekhar, 1970:246-249). The resulting Medical Termination of Pregnancy Act of 1971 "allows induced abortion by a registered medical practitioner, where the length of the pregnancy does not exceed 12 weeks; or by two registered medical practitioners, acting together, where the length of the pregnancy exceeds 12 weeks but does not exceed 20. Pregnancies can be terminated only if the medical practitioners are of the opinion that (1) there is a risk to the life or physical or mental health of the mother, or (2) there is a risk that the child would be born with physical or mental abnormalities. The law further provides that pregnancies caused by rape or due to the failure of family planning devices are cases where continued pregnancy is considered to have negative consequences for the mental health of the mother. The present abortion law in India is quite liberal and, in many respects, similar to the laws in Denmark or Sweden" (Mohan, 1975).

Some studies indicate that in India's provinces, three methods of induced abortion have usually been employed:

1. Introducing a stick with an irritant into the cervix by a barber midwife, this being the most common technique.

2. Medicines obtained from native or homeopathic doctors.

3. Papaya, jaggery, and other self-administered oral medicines (Mandelbaum, 1974:73).

Unfortunately, there are extremely few studies of induced abortion in India (Bhowmik, 1975). Moreover, "vital statistics on spontaneous and induced abortions in India are not available" (Mohan, 1975). A limited 1966 report indicates that "out of every 100 pregnancies, 73 result in live births, 10 in natural abortions (miscarriages), 2 presumably in stillbirths, and 15 are terminated by induced abortions." This would give 3,900,000 induced abortions annually, and at the present time about 4,200,000 (Mandelbaum, 1974:70-71). Other estimates report 5,000,000 cases a year, and that "more than 90 per cent of the women who have induced abortions are married because of the near universality of the marital state in India and the relatively young age at which most Indian girls get married" (Chandrasekhar, 1970:245).

II. The Problem

Although social science departments in Indian colleges and universities have emphasized armchair theorizing at the expense of empirical research (Kuppuswamy, 1972), there are countless empirical studies dealing with the Indian family, most of which have been conducted by Indian scholars. These investigations cover the family institution in general (Basham, 1963; Ross, 1967; Shah, 1974; Srinivas, 1942), as well as specific subjects, such as family types (Desai,1936; Ehrenfelo, 1953; Nimkoff and Gore, 1959; Orenstein, 1961; Owens, 1971;

Singh, 1968), family changes (Rungachery, 1960), exogamy (Karandikar, 1929), kinship (Mayer, 1960), marriage age (Yadau, 1971), housing (Rao, 1974), the family cycle (Collver, 1963), women (Kapur, 1970; Floris, 1962; Gupta, 1970), fertility and family planning (Agarwala, 1967; Dandekar, 1967; Husain, 1970; Prasad and Ghosh, 1956; Rajan, 1967; Vig, 1970), and so on.

Research dealing with young Indians' attitudes toward the family and other social institutions is also fairly common (Desai, 1967; Mukerji, 1945; Sinha and Upadhyay, 1960). It seems, however, that there are no studies of abortion attitudes, although overpopulation and democratization make such research both timely and useful. It is for this reason that the author has conducted what appears to be the first investigation of attitudes toward abortion among univesity students in India.

As this is part of a major international study dealing with abortion and oral contraception (Bardis, 1971; 1972a; 1972b; 1973a; 1973b; 1975), it has been theorized, sometimes inductively, that education and even religiosity constitute influential forces. More specifically, 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 operating as a liberalizing and, attitudinally, even fairly equalizing variable. Also, conservative religious systems, due to the traditional indoctrination and socialization that they emphasize, usually preclude the adoption of liberal ideologies by their adherents.

Accordingly, the following hypotheses have been formulated:

1. University students tend to approve of abortion.

2. Such approval is fairly uniform among university students.

3. Religiosity tends to neutralize the influence of education and thus generate fairly conservative abortion attitudes.

4. American Catholic students are more conservative than Indian students, who are almost as liberal as American Protestants with reference to abortion attitudes.

III. Methodology

To test these hypotheses, the author has collected additional data among university students in India.

A. The Sample. The 150 students interviewed (with the assistance of Professor K. L. Bhowmik of Calcutta) came from two Calcutta colleges and constituted a stratified random sample, 25 males and 25 females thus representing each of the first, second, and third college years. The characteristics of the sample were as follows:

1. Sex: 75 males and 75 females.
2. Age: an average of 19.69 years.
3. Marital status: 126 single, 14 engaged, and 10 married.
4. Number of brothers: an average of 2.42.
5. Number of sisters: an average of 1.91.
6. Order of birth: an average of 2.33.
7. Religion: 132 Hindus, 11 Muslims, 6 Christians, and 1 Sikh.
8. Religious services attended per month: an average of 1.49.
9. Population of home town: 123 at least 5,000 and 27 less than 5,000.
10. Education: 50 from each of the first, second, and third college years.
11. Major field of study: 66 in science, 64 in the humanities, and 20 in commerce.

12. Father's education: an average of 12.49 years.

13. Mother's education: an average of 7.57 years.

14. Father's main occupation: 7 farming, 9 manufacturing and industry, 37 trade and commerce, 18 teaching, and 79 miscellaneous services.

15. Mother's outside employment: 131 not working and 19 working.

16. Employed mother's main occupation: 9 teaching and 10 miscellaneous services.

B. The Abortion Scale. In order to operationalize and quantify abortion attitudes, the author employed his Abortion Scale (Bardis, 1972b; copies are available upon request from the author). The theoretical range of scores on this 25-item Likert-type instrument is 0 (least approval of abortion)to 100 (greatest approval), the 5-point scale for each item being:

0 = Strongly disagree.

1 = Disagree.

2 = Undecided.

3 = Agree.

4 = Strongly agree.

A split-half reliability test of the scale, based on 30 Indian cases, gave a Spearman-Brown reliability coefficient of .89 (Garrett, 1967:339-340,342-345), which was highly significant ($df = 28$, $P < .001$).

C. Personal Data. An additional instrument secured information regarding miscellaneous independent variables (sex, age, education, religion, and the like).

D. Statistical Analysis. The data thus collected were computerized and analyzed by means of various statistical tests.

IV. Findings

The most important statistical findings of the present study were as follows:

A. Item Analysis. The 25 scale items were represented by these arithmetic means (theoretical range = 0-4):

1. Abortion is all right during the first three months of pregnancy. 2.31
2. Abortion is not murder. 2.28
3. Abortion should be given to single women. 2.34
4. Abortion is not sinful. 2.24
5. Abortion laws should be liberal. 2.40
6. If the family cannot support another child, abortion is all right. 2.50
7. Abortion is not immoral. 2.17
8. Man has the right to destroy life in the womb. 1.89
9. Abortion should be legalized. 2.69
10. If the child is not wanted, abortion is all right. 2.71
11. Abortion is a human right. 1.91
12. Easy abortion will not lower the value of human life. 2.21
13. In cases of rape, abortion should be allowed. 3.40
14. Abortion is right, when the fetus is too young to live outside the womb. 2.51
15. Abortion should be used to reduce illegitimacy. 2.50
16. Abortion should be used as a birth control method. 2.18
17. The embryo is not really a human being. 2.02
18. Abortion is acceptable when the father abandons the mother. 2.56
19. Illegitimacy justifies abortion. 2.55

20. Where the child is likely to be born physically defective, abortion should be allowed. 2.89

21. Just because a child is conceived, it does not mean that it has the right to live. 2.05

22. Abortion is better than marriage forced by pregnancy. 2.79

23. Having unwanted children is worse than abortion. 2.75

24. In cases of incest, abortion should be allowed. 3.39

25. Easy abortion will not increase promiscuity. 2.34

It is significant that, of these 25 means, 21 were on the side of relative approval of abortion, while two (8 and 11) represented relative disapproval of the right to destroy life, and the remaining two (13 and 24) indicated considerable approval of abortion in cases of rape and incest.

B. Mean Values. The arithmetic mean of total abortion scores (theoretical range: 0-100) for the entire Indian group was 61.58, that for the 132 Hindus alone being 63.12. When the Hindu value (63.12) was compared with the means of certain other groups (Bardis, 1972a; 1972b; 1975), the t tests (McCall, 1970:177-190) gave the follwing results:

1. American Catholic college males: $N = 100$, mean = 42.20, $t = 3.86$, $df = 230$, $P < .001$.

2. American Catholic college females: $N = 100$, mean = 28.52, $t = 4.27$, $df = 230$, $P < .001$.

3. A mixed sample of American Catholics: $N = 45$, mean = 37.22, $t = 4.21$, $df = 175$, $P < .001$.

4. A mixed sample of American Protestants: $N = 45$, mean = 69.03, $t = 1.89$, $df = 175$, $.10 > P > .05$.

The abortion means of the various subsamples and the t values for comparisons of pairs of means for the Indian group alone were as follows:

1. Males, 66.11; females, 57.05: $t = 2.41$, $df = 148$, $.02 > P > .01$.

2. Single, 62.04; married, 64.30: $t = .29$, $df = 134$, $P > .70$.

3. Hindus, 63.12; Muslims, 26.91: $t = 3.98$, $df = 141$, $P < .001$.

4. Population of home town: at least 5,000, a mean of 60.95; less than 5,000, a mean of 64.44: $t = .70$, $df = 148$, $P > .40$.

5. Commerce majors, 71.60; humanities majors, 53.58: $t = 2.96$, $df = 82$, $P < .005$.

6. Commerce majors, 71.60; science majors, 66.30: $t = 2.29$, $df = 84$, $P = .025$.

7. Humanities majors, 53.58; science majors, 66.30: $t = 2.68$, $df = 128$, $.01 > P > .005$.

8. Father's occupation: trade and commerce, 68.00; teaching, 48.00: $t = 3.19$, $df = 53$, $.005 > P > .001$.

9. Children of working mothers, 61.21; children of nonworking mothers, 61.63: $t = .21$, $df = 148$, $P > .80$.

C. Correlations. When the total abortion scores were correlated with selected independent variables, the resulting Pearson r's (Marascuilo, 1971:416-442) were as follows:

1. Abortion versus age: .05.

2. Abortion versus number of brothers: .09.

3. Abortion versus number of sisters: .00.

4. Abortion versus birth order: .02.

5. Abortion versus religious services attended: -.38 ($df = 148$, $P < .001$).

6. Abortion versus class rank: -.12.

7. Abortion versus father's education: -.21 ($df = 148$, $.05 > P > .02$).

8. Abortion versus mother's education: -.03.

9. Abortion versus attitudes toward violence in general: -.04. This interesting findings suggests some sort of independence between generalized violence attitudes and the violence or destruction involved in abortion. The subjects' violence scores were obtained during the same survey by means of the author's Violence Scale (Bardis, 1975b; copies of this scale are available upon request from the author).

V. Discussion

A. Hypotheses. To a great extent, the above statistical data corroborate all four hypotheses, namely, that university students tend to approve of abortion; that such approval is fairly uniform among them; that religiosity tends to neutralize the influence of education and thus generate fairly conservative abortion attitudes; and that American Catholic students are more conservative than Indian students, who are almost as liberal as American Protestants with reference to abortion attitudes.

Indeed, the Indian abortion average reflected definite, although not overwhelming, approval of abortion. Moreover, such approval was somewhat homogeneous, since many variables did not seem to affect abortion attitudes significantly--these were age, marital status, birth order, number of brothers, number of sisters, mother's education, mother's employment, and population of home town. Of course, additional samples might throw further light on this issue. Then, religiosity, expressed in terms of institutional affiliation and number of religious services attended, remains an influential force, Catholics being more conservative than Hindus and Protestants, and Hindus almost as liberal as Protestants, while there is an inverse relationship between abortion liberalism and frequency of religious services attended.

More specific findings may be interpreted as follows:

B. Urbanization. The nonsignificant difference between abortion scores representing urban and smaller population centers recalls the conflicting findings of various investigators. For instance, the development theory, which is based on the demographic transition theory, and which states that urbanization and industrialization in the Third World will generate lower fertility rates, has not always been supported empirically, thus leading to the conclusion that the U.S. Agency for International Development has not been entirely successful (American Association for the Advancement of Science, 1974). Similarly, it has been asserted that, although urban populations are more likely to adopt various birth control methods, they are not usually and really characterized by lower fertility rates (Robinson, 1960-1961). The opposite has also been averred concerning both fertility and abortion (Mandelbaum, 1974:46-51,73). Moreover, it is frequently "assumed that urban families tend to be smaller than rural ones, and that this may afford at least to neo-Malthusian thinkers an additional reason for favouring rapid urbanization" (Spate and Learmonth, 1967:137). Then, according to the multilinear convergence hypothesis, in the West and the Third World, although "urbanization begins in very different cultural contexts, in each instance the trend soon begins to reproduce phases and patterns that have occurred in other times and places" (Hawley, 1971:313).

C. Sex. The significantly lower abortion scores of Indian females seem to suggest that, as among Roman Catholics, in traditionally oriented cultures, females tend to be more conservative due to their lower education, their acceptance of higher social status for the males, and the like. To some extent, such conservatism often persists even among educated females until more drastic social changes occur.

D. Education. The somewhat liberalizing influence of education in regard to abortion has also been mentioned by other authors, who have considered both attitudes and actual behavior among Indian women (Mandelbaum, 1974:73). The same effect is found in the area of fertility rates, which tend to be lower among educated persons, as well as among those with higher incomes--of course, education and income are usually positively related (Mandelbaum, 1974:42-44,51-59). It is true that, in the present study, the correlation between class rank and abortion scores was too low. Nevertheless, one may speculate that the small number of class ranks, namely, three, resulted in some degree of homogeneity that, in view of the slow cumulative effects of education, precludes higher correlation coefficients. It is revealing that, when, in another part of the present international survey, many more educational levels were included, the liberalizing influence of education was statistically highly significant (Bardis, 1972a).

The relationship between abortion scores and major field of study was interesting. The most liberal subjects were the commerce majors, followed by those in the sciences, while students of the humanities were the most conservative. All differences were statistically significant. Although, as usual, one would have expected the humanities majors to be much more liberal, the opposite was true, and this may probably be explained in terms of their education, which is more philosophical, traditional, and life-negation oriented than in the West (Ministry of Education, 1957; Jones, 1953; Gupta, 1968). Commerce students, on the other hand, appear to be more pragmatic and life-affirmation oriented, while science majors, with their emphasis on experimentation and empiricism, are found between the two extremes. It does not seem coincidental that the subjects with fathers in commerce and trade were

also significantly more liberal than the children of teachers.

E. Religion. As was hypothesized, despite increasing secularization, religiosity was found to be exceedingly influential. First of all, American Catholics were most conservative as regards abortion attitudes, American Protestants being the most liberal, while the Indian subjects were below and close to the Protestants. Moreover, Hindus were much more liberal than Muslims, and the correlation between the variables of abortion and religious services attended was high and negative. Other authors have found that, for strong religious reasons, Indians value procreation of children, especially sons, and that religiosity, although less than education and income, affects fertility rates, which tend to be higher among Muslims than among Hindus. Moreover, Hindus stress religious celibacy and abstinence, while Muslims are less likely to employ contraceptive devices. Of course, there are some exceptions (Basham, 1963:161; O'Malley, 1941; Mandelbaum, 1974:44-46).

But what are the basic and relevant doctrines of the two faiths?

Hinduism, first of all, is considered sanatana (eternal). The soul is believed to transmigrate, but good karma (action) and jnana (knowledge) can lead to moksha, that is, merging of the soul into the paramatma (Supreme Soul) and, thus, to freedom from rebirth and the sorrows that the human body is heir to. Its outward symbols are the caste system and the Vedic hymns, with modern additions. Sacrifices to the divine beings are recommended, but devotion and knowledge are regarded as more important. Worship is mainly individualistic and religious dissent is tolerated--the bloody feuds of Roman Catholics, Protestants, and Muslims are alien to Hinduism. The main source of Hindu philosophy is the Upanishads, although Hindus esteem many of the

ideas found in the epic masterpieces, the Ramayana and the Mahabharata. Its sects are many, the chief ones being the worshippers of Siva, or Saivas; the worshippers of Sakti, or Saktas; and the worshippers of Vishnu, or Vaishnavas (Bhattacharya, 1967:421-423).

With reference to Islam, suffice it to say that, in "Mohammedan lands, the Islamic belief is that life begins in the fetus only after 150 days" (Lader, 1970:94). The Koran itself does not mention isqat (abortion), but, as is stated in the Fatawi Alamgiri, "it is forbidden after the child is formed in the womb. Muhammad is related to have ordered prayers to be said over an abortion, when supplication should be made for the father and mother, for forgiveness and mercy" (Hughes, 1965:4; Ansari, 1955).

Of course, such beliefs must be compared with the attitudes and practices of additional Indian students, since the sample of the present study included only 11 Muslims. Still, it is significant that religiosity remains influential in the modern world, which presents a formidable challenge to religious leaders, who should contribute to the solution of major social problems by adopting gradual changes that do not compromise any of their more valuable doctrines.

F. Paternal Education and Occupation. It is not clear why father's education and student's abortion score were correlated highly and negatively. It may be that, as in the case of humanities majors, paternal education a few decades ago was also traditionally oriented, and even more so then, education thus still being influential, but in rather conservative fashion, at least in some respects.

As regards paternal occupation, fathers in trade and commerce had children with more liberal abortion attitudes than teachers did--the findings concerning the subjects' own major fields of study were similar.

Perhaps these two statistics mean that, in India's somewhat male-oriented culture, family life styles and attitudes are primarily determined by the father's, not the mother's, education and occupation. This also indicates that, to some extent, type of education and economic development may be among the forces that could mitigate the overpopulation problem.

G. Family Planning Versus Economic Development. This problem, which involves, not only India, but the entire planet, was dealt with by the August 1974 United Nations World Population Conference in Bucharest, the first global conference of representatives of governments to concern itself with population control. Unfortunately, the 1,100 delegates from 141 countries reached little agreement, since these leaders "seemed motivated more by national pride and ideology than concern for the hunger that already blights many poor nations" (Time, 1974). The "plan of action," which "called for a reduction of birth rates that would be proportionate to a country's population," and which "proposed that governments should provide the education, information and means for family planning, if the families so desire," was attacked severely (Time, 1974). Algeria's Ali Oubouzar, chairman of the working group that revised the plan, objected that the underdeveloped countries prefer economic and social development to family planning. "The onslaught was led by a bizarre alliance of Communist and Latin American countries. According to these delegations, overpopulation is a myth invented by the rich to exploit and subjugate the poor" (Time,1974). Soviet Deputy Minister of Health Lev Volodarsky asserted that overpopulation has nothing to do with the Third World's problems, and Chinese Deputy Minister of Health Huang Shu-tse expressed a similar opinion. In general, the Marxist position was that "capitalism rather than

population is the root of the developing nations' problems" (Walsh, 1974:1144). Even India's delegates, although they occasionally emphasized a healthy combination of population control and economic development, failed to stress family planning (Time, 1974; Walsh, 1974:1144). Finally, the "Conference recognized that constructive changes in the consumption patterns of affluent countries are vitally necessary to cope with the limited resources of the planet; that mere access to contraceptives and safe abortion will not reduce growth" (Mead, 1974:1113).

It seems, then, that, since in the underdeveloped countries of Asia and Africa, which have more than 50 percent of the world's people, the population is increasing by 2.3 percent annually, that is, much faster than the means of subsistence; and since drought in India and Africa has been intensifying this crisis, the salutary effects of foreign aid, industrialization, and modern agriculture are being constantly neutralized by high birth rates. It is no wonder that Kim Jae Hee, an executive of South Korea's Planned Parenthood Federation, has desperately declared a "No Pregnancy Year," a program using rallies, banners, window stickers, campaigns by movie stars, and so on. But, as Roger Revelle, director of Harvard University's Center for Population Studies, has observed: "Any contraceptive program probably needs to be backed up by a system of legal, safe, and inexpensive abortion, such as exists in Japan, the Soviet Union, and the Scandinavian countries" (Lader, 1970:139).

In brief, socioeconomic justice is desirable, but not sufficient. Family planning is helpful, but not enough. A combination of both is urgently needed. Couples should at long last realize that they must emphasize both their own welfare and that of others. And states should

at long last understand that they must stress both domestic freedom and international responsibility.

VI. Conclusion

A study of abortion attitudes among university students in India has revealed that the subjects rather favored abortion and did so somewhat uniformly. Education and religiosity were particularly influential. It was further concluded that, family planning, including abortion, must be combined with economic development, if it is to be effective.

Additional surveys (comparing with less educated Indians, testing for possible selectivity in the student groups even before college, and so on) are needed in order to throw further light on this subject, especially now that overpopulation is a serious problem, and modern democratic ideals have made the study of attitudes both timely and useful.

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