

INTEREST IN PARENTING AT THE END OF THE EIGHTIES: A STUDY OF CANADIAN STUDENTS

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Résumé — Cette étude débute en comparant les nombres d'enfants désirés par les étudiants canadiens anglophones et francophones en 1968, 1977 et 1988. Les données de 1988 sont ensuite utilisées pour tester des hypothèses suggérées par le travail de Lesthaeghe (1983), Keyfitz (1986), Preston (1986) et Schultz (1986), et ces hypothèses sont amplement appuyées. Des différences dans les variables indépendantes prophétiques des nombres d'enfants désirés en 1978 et 1988 y sont aussi discutées. Les analyses indiquent, en général, l'importance croissante des variables prophétiques se rapportant à une liberté de choix croissante en ce qui concerne la fécondité et un certain déclin dans l'efficacité des influences familiales.

Abstract — This paper begins by comparing the numbers of children wanted by Anglophone and Francophone Canadian students who responded to surveys conducted in 1968, 1977 and 1988. The 1988 data are then used to test hypotheses suggested by the work of Lesthaeghe (1983), Keyfitz (1986), Preston (1986) and Schultz (1986), and these hypotheses are largely supported. Differences in the independent variables predictive of numbers of children wanted in 1978 and 1988 are discussed as well. The analyses generally indicate the increasing importance of predictive variables relating to increased freedom of choice with respect to fertility, and some decline in the effectiveness of family influences.

Key Words — **fertility decline, children wanted, parenting**

The 1980s have witnessed the appearance of a series of seminal publications which together give promise of a comprehensive theory of fertility decline. This paper briefly reviews some of the salient points of this literature in order to derive hypotheses to be tested using data on number of children wanted by samples of young unmarried Anglophone and Francophone Canadians, and reports on changes in the influences to which they have been responsive during the past decade.

Theory

The New Home Economics school — founded by Becker (1960) — has long argued the economic determinants of fertility, providing three explanations for fertility decline. First, it occurs as the cost of raising children increases relative to parental earning power. Second, as parents become aware that costly “high quality” education of their children is necessary to the children’s success, they restrict their reproduction (Becker, 1960; Becker and Lewis, 1974; Kono, 1986, attests that this is clearly the case in Japan today). Third, viewing children as commodities, if they become “more time-intensive than the average consumption commodity,” and the real value of human time increases,” children become more costly relative to other goods, and parents will have fewer of them (Schultz, 1986:88). Moreover, “if child care is more intensive in the mother’s time than in the father’s time, and the value of women’s time increases relative to the value of men’s time, then children will be more expensive and fewer children will be sought” (Schultz, 1986:88).

Keyfitz sharpens this discussion by considering childrearing as an activity, and the product of the activity, children, as a commodity. He argues convincingly that “childrearing as an activity is less able to compete in attractiveness either with work or with leisure, and the child as product is of insufficient value to the parents to cause them to give up alternative commodities” (1986:148). Sustaining the latter point, Keyfitz notes that in high fertility societies, new parents already know how to handle children from direct experience in tending younger siblings and from vicarious experience gained watching their parents. Both experiences are increasingly rare in low fertility societies, and when families become so small that when children don’t have the opportunity to learn parenting skills from seeing how parents handle their siblings, these skills are not passed on. As a result, the (third generation) “children produced are not according to the parents’ taste and parents cease to want them and families become even smaller — a clear example of positive feedback” (*ibid.*, p. 147). Exacerbating this is the fact that influence in shaping children is increasingly

exercised by daycare, television, school and the peer group, so that the often quite different goals of these agencies may conflict with those of the parents. "Especially if parents' time with children is limited because both have jobs, the outside agencies overlay their own strong affects on the parents' weaker ones and obscure them" (ibid., p. 147). As a result, parents and prospective parents may become increasingly disinterested in procreating children whose socialization is out of their hands.

Economic theories have been criticized from a number of perspectives, but some of the most interesting ones attempt to broaden the approach by introducing social influences into the model. Namboodiri (1972) argues that cultural and other influences may operate through husband or wife or both to influence fertility decisions. The fertility wishes of both may be relevant, depending on norms respecting dominance of the husband or wife, the financial contribution of each, the wife's other involvements, the husband's and the wife's contributions to childrearing, their social class position, the expected trend in family income, and the couple's child quality standard.

Caldwell (1982) has synthesized economic and non-economic influences in his "wealth flows" theory. An earlier version of this theory focussing on the demographic transition in developing countries (Caldwell, 1976) has been criticized by Thadahi (1978). She argues that his empirical evidence is "thin" and that since his is essentially a functional argument he should meet the methodological requirements of functional analysis, which she shows he does not. A number of her criticisms have been met in his book (Caldwell, 1982).

The wealth flows theory states that when wealth flows from the work of the younger to the older generation, which in simple societies is typically the fertility decision-making generation, fertility is uncontrolled. However, when wealth flows from the older to the younger generation, because the latter do not contribute to the well-being of their elders and because of the costs of rearing and educating children, there is fertility decline.

Caldwell notes that his theory is not economically determinist in that "it does not regard the economics of fertility as being determined at any given time directly by the means of production or the modes of production" (1982:350). It *is* economically determinist in explaining "fertility as declining as soon as net economic lifetime advantages from children are no longer anticipated," and predicts that "traditional familial production will always be characterized by economic advantage to high fertility and by actual high fertility except in pathological conditions or under duress from external authorities, and that non-familial production will ultimately be characterized by low fertility" (ibid., pp. 349-350). Caldwell argues that higher fertility persists not only in peasant

and hunting-gathering societies, but among wealthy classes in later-evolved societies where family morality insures that family members are more trusted in responsible positions than outsiders. It persists, even with the appearance of capitalism, when young family members are sent out to work and to send their wages home to the *pater familias*, as in parts of Africa today.

In time, the capitalist labour market breaks the link between economic and reproductive decision-making when the latter falls to biological parents, and the family tends to “nucleate.” Emotional links between spouses and between parents and children, formerly subservient to obligations to the *pater familias*, now strengthen. These new bonds lead to greater egalitarianism in family consumption; children become more expensive; the downward flow of wealth is reversed; and fertility declines, often abruptly.

Lesthaeghe makes the provocative observation that “a fertility decline is in essence a part of a broader emancipation process [whereby] the demographic regulatory mechanisms upheld by the accompanying communal or family authority and exchange patterns, give way to the principle of individual freedom of choice” (1983:411). He argues that periods of rapid economic growth “fuel individual aspirations” and expanding employment opportunities allow people to be more self-reliant and independent in pursuit of their goals (*ibid.*, p. 430). As religious and philosophical supports for traditionalism have weakened, there has been a shift in the Western ideational system toward “the increasing centrality of individual goal attainment, that is, the individual’s right and freedom of defining both goals and the means of achieving them” (*ibid.*, p. 429).

Individualism is further promoted by the increasing tendency to view marriage and childbearing from the perspective of their consequences for personal development, and less in terms of fulfilling or adhering to valued social roles (Veroff *et al.*, 1981, Trovato, 1988). Preston (1986) argues, cogently, that individualism can function to invalidate social values — as the negation of social value. “The rhetoric of individualism, first legitimated within the political domain, is conveniently available to justify the dismantling of earlier values when they are no longer servicable” (1986:188) or, perhaps more accurately, no longer seen as serving individual interests.

In this same vein, Lesthaeghe and Surkyn (1988) have also emphasized social influences, criticizing Becker’s New Home Economics model for failure to make use of theories of how preferences, including fertility preferences, are formed. They use cohort analysis to show that fertility levels in a number of European countries have been sensitive to variations in belief systems, religion, nationalism, leftism and tolerance of non-conformity. They conclude that “cohorts develop distinctive meaning-giving universes early in life and seem to

maintain them throughout adulthood;" and that these ideational factors are associated with changes in fertility rates (1988:40).

Clearly the broad process that Lesthaeghe and Surkyn discuss is far from complete: there are yet some high fertility groups in "developed" societies, among whom the influence of traditional religious values is yet strong: the Mormons are a good example. Yet there is little doubt that for people generally in the Westernized world, most churches today offer a cafeteria from which people feel free to select only what their interests dictate, as Bibby shows is the case in Canada (1987). The well-known spread of contraception among North American Catholics exemplifies such exercise of choice. Note, however, that contrary to Westoff and Jones' (1979) predicted end of "Catholic" fertility, Blake (1984) found that among a large sample of high school students, Catholics said they want to have more children than Protestants, and Catholics who were more religiously active expected more children.

These various theoretical perspectives are clearly complementary. With the emergence of mature wage markets, the flow of wealth was reversed from the traditional upward flow; wives became emancipated from their almost slavish dependence on husbands for support, as employment became more available and more attractive to them; wives and children achieved consumption equity with husbands; and personal development and individualism values increasingly displaced traditional familial values. The costs of childrearing increased as parents' time became more valuable, and the rewards tended to decline, partly because of the loss of family control over the kinds of people that children become, with the increased influence of school, television and peer group. In consequence, the desire for children fell sharply, and major improvements in birth control technology since the 1950s gave effective control over conception to women. These developments led to the below-replacement fertility levels now characteristic of almost all developed countries.

The work thus summarized seeks to explain both the demographic transition and the further declines in birth rates in developed countries to levels well below replacement. In this paper, the applicability of these theories to the explanation of fertility *preferences* are tested. The author is aware that they were devised to explain declines in fertility *behaviour*, whereas he is interested in explaining fertility attitudes. The relationship between attitudes and behaviour is complex, and as the above-cited theories make clear, changing attitudes/values are only one component of attempted explanations of fertility decline. Nevertheless, preferences are surely one of the influences affecting fertility behaviour, and it is appropriate to address the question: Does the literature reviewed above explain variations in fertility desires in a "mature," sub-replacement society?

More specifically, bearing in mind Lesthaeghe and Surkyn's (1988) emphasis on a cohort approach because the members of a cohort are socialized by a historically specific set of conditions, does this literature enable us to predict variations in the fertility desires of young Canadians whose formative years were lived in a society where sub-replacement fertility was already normative?

This author is particularly interested in testing the applicability of these theories to the fertility desires of young Canadian Anglophones and Francophones. Francophone fertility rates declined precipitously a generation ago, during the 1960s, from highest ranking to lowest ranking in the country. Has an effect of the quiet revolution and the "post-revolution" French Canadian culture been to create distinctive influences on the fertility desires of young Francophones, or are they responsive to essentially the same influences as Anglophone Canadians? Certainly the transition from an extreme of traditionalism to an extreme of modernism has been made with unusual speed in Quebec. Has this resulted in a unique pattern of influences on the fertility desires of the generation which has grown to maturity during the years of rapid cultural change?

Hypotheses

The literature summarized provides the basis for the following five hypotheses which we are able to test using the data available from a recent survey.

1. The number of children wanted is inversely related to the value of women's time, and specifically to attitudes towards a wife's working and having a career. This hypothesis, based on the work of Becker (1960), Becker and Lewis (1974) and Schultz (1986), focuses on one of the stronger themes in the recent literature, that a woman's fertility is inversely related to the value of her time, in terms of employment income.
2. The number of children wanted is inversely related to the value of men's time, and specifically to their occupational level. This hypothesis presumes that childrearing is time-consuming for fathers as well as mothers, and is again based on Becker (1960), Becker and Lewis (1974) and Schultz (1986).
3. The number of children wanted is inversely associated with the individualistic values reflected in positive attitudes toward birth control, cohabitation and abortion (Preston, 1986).

4. The number of children wanted is directly associated with the traditionalistic values reflected in evangelical religious involvement and strongly favourable attitudes toward marriage (Preston, 1986).
5. The number of children wanted is directly associated with having had surrogate or vicarious parenting experience (Keyfitz, 1986). Surrogate parenting responsibility falls on early-born offspring in large families, and the vicarious influence from parent-models is experienced by all born to multi-children families. Note however, that a compounding influence on these children may be a strong traditionalism, reflected in having a large family.

The Data

The design of this survey involved collecting questionnaires for random samples of never-married students under 27 years of age, who were not members of religious orders, and who were enrolled in two post-secondary schools in each of the five regions of Canada. These schools were Dalhousie University and the Nova Scotia Institute of Technology in the Maritimes, the University of Montreal and a Montreal CEGEP (technical school) in Quebec, Waterloo University and Fanshawe College in Ontario, the University of Alberta and the Northern Alberta Institute of Technology in the Prairies, and the University of British Columbia and the British Columbia Institute of Technology in British Columbia. Two hundred Caucasian and up to 50 non-Caucasian respondents were to be obtained from each of the 10 schools selected by means of random sampling from the current enrolments, with men and women equally represented.

The specific procedure to be used involved contacting students by telephone (or by mail, where they lacked a telephone) and explaining the nature of the study to them. They were to be asked to come at their convenience to a central location where they would be given a questionnaire to be filled out, and seated where their privacy was assured. Completed questionnaires were to be placed in an envelope, in a container with other such envelopes, in order to preserve the anonymity of the respondent. This procedure was used in a similar survey in 1977, yielding returns from about 75 per cent of those contacted (Hobart, 1981).

This procedure was followed in all but the two Quebec schools. In these two, unauthorized changes introduced by the large opinion polling firm conducting the survey affected the representativeness of the Francophone data. There were

also problems with the performance of survey supervisors in Halifax and London Ontario which resulted in low rates of return and sample sizes.¹

A total of 1,775 Anglophone and 493 Francophone questionnaires, including those incomplete, were received. The rate of return for the Anglophone samples ranged from 82 per cent of those contacted at the University of Alberta, to 38 per cent at Dalhousie University, and was 65 per cent overall for the eight Anglophone subsamples. Note that while about 1,000 returns were expected from the four schools in Ontario and Nova Scotia and the same number from the schools in Alberta and British Columbia, in fact these figures were 545 and 1,230, respectively.

How representative of Canadian young people are the samples surveyed in this study? It has been noted that the Francophone data were provided by a convenience sample, and that the rates of return for the Halifax and the London, Ontario, schools were low. Beyond that, can anything further be said? According to the 1986 census (Statistics Canada, 1989) the proportion of young people aged 15-24, roughly comparable with our sample, who had some post-secondary school training in Canada was 35 per cent, and ranged from 34 per cent each in British Columbia, Alberta and Nova Scotia, to 40 per cent in Quebec. In view of the fact that region of Canada was not significantly predictive of the criterion variable (see Table 4), we are justified in suggesting that our findings may be representative of the 34 per cent of young people in British Columbia and Alberta who have had some post-secondary school training, and perhaps for similar young people in Ontario and Nova Scotia as well. We have no basis for inferring the generalizability of our findings to young Anglophones who have not attended a post-secondary school. Nor can we make any inferences about the representativeness of the Quebec respondents, given the convenience nature of the sample.

This 1988 sample differed somewhat in composition from similar samples which provided data in 1968 and 1977 (Hobart, 1972, 1981). Whereas in the 1968 and 1978 studies, only Caucasians from North American or European backgrounds were included in the samples, it was decided that in the 1988 sample, Asians, Latin Americans and Africans should be included — because of their importance in recent Canadian immigration — when their names were on computer-generated sample lists.

The reader may wonder if a student sample might not be quite economically homogeneous, thus tending to limit the test of several of the hypotheses. This is not the case. While only a small proportion of sample members were actually poor (six per cent reported *family* incomes under \$15,001 per year), 22 per cent reported family incomes under \$30,001, 32 per cent reported \$30,001 - \$50,000,

26 per cent reported \$50,001 - \$75,000, and 20 per cent reported family incomes over \$75,000.

After the 1988 data were collected, using an optically scannable questionnaire for all but the last page, the data were scanned or coded and entered in the computer. Thereafter the two scanned and the coded portions were linked, cleaned where necessary, and were then ready for analysis.

The Indicators

A number of the indicators used in this study were composite, but the dependent variable consisted of responses to a single question: "How many children would you like to have during your life?" with responses coded "none" through "more than six." Single item independent variables included responses to the items "How many brothers and sisters do you have?" (indexing surrogate parenthood); "In my marriage, I want my children to be planned with the aid of birth control devices;" and "If a pregnancy did result [from a sexual relationship] I would want it ended through abortion," with the respondent choosing a Likert response to the latter two items. The mother's and the father's occupational levels were determined using the Blishen index (Blishen *et al.*, 1987). Respondents' educational level differentiated between university and technical or trade school students. In the absence of a more precise index, the respondent's father's Blishen Occupational index score and the total parental income were used as proxies for the value of men's time in a respondent's home.

Four indices were based on two items each. The respondent's birth order position was calculated by subtracting the number of siblings older than *R* from the number of *R*'s siblings. The Denomination/Attendance index is a measure of conservativeness of religious involvement. It was computed by multiplying the conservatism rating of the respondent's church affiliation (three categories) by his/her frequency of church attendance (eight categories), with all adherents of non-Christian religions deleted from the sample. The possible range of this index was from 1 (low) to 24 (high).

The Family Commitment index was computed by summing the scored responses to two items. The first one read "Which of the following statements best describes your feelings about your parents? I would sacrifice anything for the welfare of my family (scored 6); My family is one of the most important things in my life (6); My family is important to me, but many other things are too (4); I can pretty well take it or leave it (3); I don't like my family's claims on me and my time (2); The less I see of my family the better I like it (1)." The

second item read 'Which phrase below best characterizes most of your relations with your family? Very happy (scored 6); Happy (5); Somewhat satisfactory (4); Somewhat unsatisfactory (3); Unhappy (2); and Very unhappy (6).' The possible range of these scores was from 2 to 12, and this was the range actually obtained.

The Parents' Ethnic Origins index is the product of the Ethnicity score of *R*'s mother and of his/her father. The parents' countries of birth were grouped into three categories: Canada and English-speaking Caucasian countries were scored 1, other Northern and Western European countries were scored 2, and all remaining countries were scored 3. This index was omitted from the Francophone analyses because almost all respondents fell in category 1.

Three indices were based on summing responses to a number of attitude items. The Favours Marriage scale was computed from 13 items such as "Do you think you would enjoy the responsibilities of marriage?" (five response categories, "Not at all" ... "Very much"), and has a Cronbach's Alpha reliability coefficient of 0.81. The Favours Cohabitation scale was computed by summing the Likert-type responses to six items, such as "I would want to try living together with someone whom I was in love with before we were actually married" and "I would prefer to just live with someone rather than to bother with getting married," and has an Alpha reliability coefficient of 0.84. The Favours Wife's Career index was computed by summing the Likert-type responses to six items such as "A wife should not let bearing and rearing children stand in the way of a career if she wants it," and has an Alpha reliability coefficient of 0.80.

Multiple regression analysis was used in testing the hypotheses, because this technique permits identification of the contribution of each independent variable to the explained variance in the criterion variable. Standardized Beta weights were used to evaluate the strength and direction of relationships. List-wise deletion of cases from the analysis was applied since data on some variables were missing from some individual cases. We did not use pair-wise deletion as it would result in different sample sizes, given the presence of missing data on different variables. This situation would likely contribute to confusing results, since the standard error of parameters is sensitive to variations in sample size.

Findings

It is appropriate to begin by briefly reviewing changes in numbers of children wanted, as seen in the responses by comparable groups of students surveyed in 1968, 1977 and 1988. The 1968 survey was conducted in universities and trade or technical schools in Alberta, Ontario and Quebec (Hobart, 1972), and the 1977 and 1988 surveys were conducted in these same schools with the addition of schools in Vancouver and Halifax (Hobart, 1981).

The data in Table 1 show that there was a sharp decline in numbers of children reported as wanted by the unmarried student respondents between 1968 and

TABLE 1. MEAN NUMBER OF CHILDREN WANTED BY SEX
FOR 1968, 1977 AND 1988, ANGLOPHONE AND
FRANCOPHONE SAMPLES

		MALE		FEMALE		TOTAL	
		Mean	N.	Mean	N.	Mean	N.
1968	Anglophone	3.19	320	3.42	342	3.31	662
	Francophone	3.24	196	3.24	185	3.24	381
	Anglo-Franco Differences	-0.05		0.18		0.07	
1977	Anglophone	2.46	796	2.49	832	2.48	1628
	Francophone	2.84	182	2.82	219	2.83	401
	Anglo-Franco Differences	-0.38		-0.33		-0.35	
1988	Anglophone	2.54	859	2.50	878	2.52	1737
	Francophone	2.87	188	2.58	216	2.71	404
	Anglo-Franco Differences	-0.33		-0.03		-0.19	
1968-77	Differences						
	Anglophone	-0.73		-0.93		-0.83	
	Francophone	-0.40		-0.42		-0.41	
1977-88	Differences						
	Anglophone	-0.08		-0.01		-0.04	
	Francophone	-0.03		0.24		0.12	

¹ Significant at beyond the .05 level.

² Significant at beyond the .01 level.

1977, significantly greater for the Anglophones than for the Francophones. Between 1977 and 1988 there was no statistically significant change, except for Francophone women, whose average desired fertility fell by 0.24 to 2.58, about the level of the Anglophones. This suggests a "gender reversal" in the desire for children, such that women are coming to want fewer children than men.

Inspection of the distributions of numbers of children wanted by male and female Anglophone and Francophone respondents does not change this picture significantly. Among both Anglophone samples there was a decline of 2.8 per cent between 1977 and 1988 in those wanting no children, but this was largely countered by small compensating shifts in the proportions wanting from one to four children, particularly for the Anglophone females. Among Francophone males, slightly increased proportions of 1988 respondents wanting only one or two children were counterbalanced by increases in proportions wanting five or more children in 1988. Thus, with the exception of Francophone females, these data suggest that the fertility desires of Canadian young people have remained stable during the past decade.

But have the influences shaping the fertility desires of young Canadians remained constant during this decade? Or among the various influences, including those identified by Lesthaeghe (1983), Schultz (1986), Preston (1986) or Keyfitz (1986), have some become stronger and some weaker? The answer to this question is found in Table 2, which shows the standardized Beta weights from regression analyses of the 1978 and 1988 data, using identical sets of predictor variables. Separate regression analyses were computed for Anglophone and Francophone respondents, because the influences operating on young Anglophones and Francophones during the last two decades have likely been different, because some of "the same" items in the French and the English language versions of the questionnaire may have somewhat different meanings to Francophone and Anglophone respondents, and because this makes it possible to control for possible confounding effects of data problems in the French sample.

The data in Table 2 show that in 1987 the number of significant predictors for the Anglophone sample was seven while in 1988 it was six. For the Francophone sample, the number of significant predictors was reduced from six to three between 1977 and 1988. The Anglophone data show, notably, that the Mother's Religiosity, Family Income, and Family Commitment indices were no longer significantly predictive in 1988. Size of home community, and *R*'s religiosity, neither of which was significantly predictive of fertility desires for the 1977 sample, were respectively predictive inversely and directly for the 1988

TABLE 2. BETA COEFFICIENTS FOR PREDICTORS OF NUMBER OF CHILDREN WANTED FOR 1978 AND 1988, ANGLOPHONE AND FRANCOPHONE SAMPLES

Predictor Variables	Anglophone Samples		Francophone Samples	
	1978	1988	1978	1988
Favors career for wife	-.2095 ¹	-.1663 ¹	-.0714 ²	-.1426 ¹
Denomination/attendance index	.1085 ¹	.1213 ¹	-.0666 ²	.0846
Favors birth control	-.1557 ¹	-.1448 ¹	-.1352 ¹	-.0232
Number of siblings	.1040 ¹	.0950 ²	.1550 ¹	.2310 ¹
Family income	-.0883 ¹	.0161	-.0267	.0595
Family commitment index	.0772 ¹	-.0107	.0603 ²	.0227
Religiosity of mother	.0597 ²	.0616	.0633	.0985
R's religiosity	.0422	.0752 ²	.0109	.0701
Size of home community	.0217	-.0597 ²	.0501	.0769
Mother's occupation index	.0118	-.0383	.0137	.1692 ¹
Ethnic origin index	.0028	-.0195	³	.0466
Religiosity of father	-.0278	.0500	.0672 ²	.0068
Attends university	.0549	.0465	.0345	.0609
Numbers of respondents	1405	1022	366	240
F Ratio	16.823	24.744	2.226	9.452
Probability of F	.000	.000	.007	.000

NOTES:

1. $P = < .01$
2. $P = < .05$
3. Insufficient numbers of respondents having foreign born parents to warrant inclusion.

sample. Four variables — freedom of the wife to have a career, the Denomination/Attendance index, favouring birth control and family size (number of siblings) — were all similarly significantly predictive in both years.

While interpretation of these changing patterns is somewhat unclear, it appears that family influences may have declined in importance for Anglophone respondents, as seen in the nonsignificance in 1988 of the Family Commitment, Mother's Religiosity and Family Income indices. On the other hand, family size, the Denomination/Attendance index and *R*'s religiosity are also family influences, and the data in Table 2 show that the Beta coefficients for the first variable increased somewhat in 1988 over 1977, the second, though still significant, decreased somewhat (from 0.1085 to 0.0849) and the third increased (from 0.0422 to 0.0752). Assuming that asserting the right of the wife to have a career and favouring birth control are reflective of individualistic values, these values appear to have been no more strong in 1988 than they were in 1977. Likewise, the (traditional) influence of religion on fertility wishes appears not to have declined, in view of the significant Beta coefficients for the Denomination/Attendance index and respondent's religiosity in 1988. The inverse relationship of home community size with the desired fertility criterion may reflect an increase in the traditionalism of smaller communities relative to that in larger cities during the 1980s. Overall, however, this pattern of relationships suggests rather modest changes in the influences shaping the fertility wishes of Anglophone young people during the 1980s (within the limitations of our data). This is perhaps to be expected, since the mean numbers of children wanted by Anglophone men and women did not change during this period, as has been seen.

Nevertheless, the loss of predictive significance of some family influences, particularly the Mother's Religiosity and Family Commitment indices, does suggest some weakening in this source of traditional value influences among the Anglophone respondents. This was doubtless to be expected, as Keyfitz (1986) points out, given the increasing influence of school, television and peers, as larger proportions of young mothers have entered the work force during the 1980s, and placed their children in various daycare situations. Fertility data now appear to indicate that the fertility wishes expressed by the 1977 sample are being translated into smaller numbers of actual births. The decline in significance of family influences, just noted, may have further depressing effects on the actual reproduction of the 1988 sample members, as Keyfitz would predict.

The Francophone data show that the indices for *R*'s family size and the wife's right to have a career were significant predictors of fertility wishes in both 1977 and 1988. However the Denomination/Attendance, Attitude toward Birth Con-

trol, Family Commitment and Religiosity of Father indices — all significant predictors in 1977 — were not so in 1988, and the mother's Blisshen Occupation index was directly significant only in the latter year. The Religiosity of Mother index just failed to meet the five per cent confidence criterion in 1978 and 1988.

These changes in the patterns of Francophone predictors suggest some significant declines in the influence of the family and of religion on desired fertility. Surprisingly, the 1988 data show a direct influence of the mothers' occupational attainment on their offsprings' fertility wishes. This author is unable to suggest why this influence should be direct. On the other hand, the index for the wife's right to have a career showed increased inverse predictive significance in 1988 over 1977 (Beta weights -0.1404 and -0.0714, respectively).

The predictive significance of *R*'s family size may reflect individualism or traditionalism, depending on whether respondents' families were generally large or small. That for the Francophone respondents this influence may be more reflective of individualism than it is for the Anglophones is suggested by the fact that the Anglophone respondents' parents had 0.40 more children than did the parents of the Francophone respondents (data not shown). The mean age of the Francophone sample was 18.3 years; thus about half the sample was born in 1969 or later, by which time the Quebec total fertility rate was the lowest in Canada. It is worth noting that although in 1977 and 1988 Francophones said they wanted more children than Anglophones (Francophone men only in 1988), in fact the Anglophone respondents came from larger families than the Francophones in 1988. This suggests that there may be differences in the influence of parental family size on the fertility desires of young Anglophones and Francophones.

Since the size of Beta is affected by sample size, and since the Anglophone sample is about four times the size of the Francophone sample, a few of the Francophone Betas may fail to achieve significance because of the sample size. However, data in Table 3 show that one important source of differences in significant predictors between the Anglophone and Francophone samples is the greater strength of individualistic and nontraditional values among the latter. The statistically significant differences between the two subsamples in their attitudes toward cohabitation, marriage, careers for women, abortion, use of birth control devices, in Denomination/Attendance scores and in religiosity self-ratings are uniformly consistent in showing that the Francophone respondents are more individualistic and less traditional, than the Anglophone respondents.

TABLE 3. MEAN VALUES FOR 1988 ANGLOPHONE¹ AND FRANCOPHONE SAMPLES OF SELECTED INDEPENDENT VARIABLES

	Anglophone Sample		Francophone Sample		Difference	T=	P=
	Mean	N.	Standard deviation	Mean	N.	Standard deviation	
Denomination/attendance index	1.67	1675	2.49	1.17	478	2.18	4.28 .000
Favors marriage index	38.42	1675	4.46	35.97	385	5.61	2.45 8.02 .000
Number of siblings	2.16	1755	1.50	1.76	490	1.37	0.40 5.64 .000
Favors career for wife	15.92	1646	3.68	16.04	418	4.01	0.12 0.54 .587
Favors cohabitation index	8.75	1689	4.84	13.80	420	4.16	5.05 21.52 .000

NOTES:

1. None of the differences between the Anglophone provincial samples (British Columbia, Alberta, Ontario, Nova Scotia) were statistically significant. Accordingly the samples from the Anglophone provinces are pooled in this analysis.

This paper now turns to testing the hypotheses stated earlier. The first hypothesis states: "The number of children wanted is inversely related to the value of women's time, and specifically to attitudes toward a wife's working and having a career." Two independent variables were available for testing this hypothesis, the Favours Career for Wife index and the mother's Blishen Occupational index. These are certainly not optimal indices of respondent's valuation of women's time. We assume that respondents who assert the right of women to have a career will value women's time more highly than those who do not. We also assume that the respondent's mother's occupational status will correlate directly with valuation of a woman's time because the time of higher work status occupants is objectively more valuable. Because of the publicity that employment of wives and mothers has received, we assume that these indices will be valid proxys for both women and men, though perhaps more so for women than for men.

The data in Table 4 show that the Favours Career index is a significant predictor of the criterion variable for both the Anglophone and the Francophone respondents ($P = 0.004$ and 0.019 , respectively), and the mother's Blishen index is significantly *directly* predictive ($P = 0.013$) only for the Francophone respondents, contrary to the prediction. We conclude that there is support for this hypothesis from the Anglophone sample and from Francophones who do not have mothers employed in high status positions.

The second hypothesis predicts: "The number of children wanted is inversely related to the value of men's time, and specifically to their occupational level." We do not have data for the testing this hypothesis directly. (We would *not* make the assumption that university students see men's time as more valuable than do CEGEP or trade school students.) On the assumption that respondents tend to model their occupational expectations for men generally, and for husbands explicitly, on the achievements of their fathers, we used the respondents' father's Blishen Occupational index scores, and their reports of total family income, as weak proxy indicators in testing this hypothesis. Neither of these indices proved to be significantly predictive of fertility desires for either the Anglophone or the Francophone samples, as Table 4 shows.

The third hypothesis reads: "The number of children wanted is inversely associated with the individualism values reflected in positive attitudes toward birth control, cohabitation and abortion." The data in Table 4 show that all three of these indices are significantly predictive of fertility desires for Anglophone respondents ($P = 0.000$ for all three). However, only the Cohabitation index is significantly predictive ($P = 0.001$) for the Francophones. The distributions of

TABLE 4. REGRESSION ANALYSIS OF PREDICTORS OF NUMBER OF CHILDREN WANTED¹ FOR 1988, ANGLOPHONE² AND FRANCOPHONE RESPONDENTS

Predictor Variables	Anglophone Sample		Francophone Sample	
	Beta	Sig. of T	Beta	Sig. of T
Favors abortion	-.1653	.000	.0332	.603
Favors birth control	-.1389	.000	-.0265	.687
Number of siblings	.1234	.000	.2072	.001
Favors cohabitation	-.1426	.000	-.1422	.024
Favors career for wife	-.0863	.004	.1475	.019
Ethnic Origins index	-.0520	.078	-.1119	.069
Denomination/attendance index	.0560	.107	.0617	.330
Favors marriage	.0165	.571	.0547	.380
Father's Occupational index	.0065	.846	.0529	.514
Mother's occupation index	.0404	.1685	.1534	.013
Family Income	.0233	.489	.0228	.787
Number of younger siblings	-.0199	.516	.0016	.980
Numbers of respondents	1025		235	
Adjusted R ²	.143		.113	
F Ratio	35.09		8.49	
Probability of F	.0000		.0000	

NOTES:

1. Responses to question "How many children would you like to have during your life?" with alternatives, 0, 1, 2, 3, 4, 5, 6, more than 6.
2. The province where the data were collected was inserted into the Anglophone regression analysis as a series of dummy variables to control for the data collection problems in the three Eastern schools. In all cases the probabilities of the resulting Beta weights were greater than .3.

responses on the birth control item are similar for both the Anglophone and Francophone samples, with those agreeing that they “want my children to be planned with the aid of birth control devices” including 73 per cent of Anglophones (45 per cent strongly agreeing) and 74 per cent of Francophones (60 per cent “strongly”). Francophones more often than Anglophones agreed with the statement “If a pregnancy did result ... I would want it ended through abortion,” with 27 and 32 per cent of the Anglophones and Francophones agreeing, respectively (14 and 23 per cent “strongly”), and 41 and 29 per cent disagreeing (30 and 18 per cent “strongly”).

Inspection of the correlation matrix (not presented here) shows that for Francophone respondents, attitudes favouring birth control and abortion do correlate inversely with fertility desires (-0.099 and -0.148, respectively). However, these are only about half as large as the same correlations for the Anglophone data (-0.193 and -0.241). The Francophone data also show that the birth control and abortion indices both correlate quite strongly with Favours Cohabitation index (0.22 and 0.24, respectively), the variable in this cluster which is significantly inversely predictive of fertility desires. The implication is that favouring birth control and abortion are both somewhat predictive of low fertility desires, but that their predictive significance is largely comprehended within that of the cohabitation variable. Accordingly, we judge that this hypothesis is substantiated.

The fourth hypothesis predicts “The number of children wanted is directly associated with the traditionalism values reflected in conservative religious involvement, and attitudes strongly favouring marriage.” The data in Table 2 show that the Denomination/Attendance index is significantly predictive ($P = 0.05$) for the Anglophone sample, but the Favours Marriage index is not predictive for either sample. Note that among the Francophone in contrast to the Anglophone sample members, there are very few who are not of Roman Catholic origin. This helps to explain the fact that the Denomination/Attendance index correlated 0.23 with the children wanted criterion for the Anglophones, but only 0.11 for the Francophones. In the regression analysis, the effects of this rather weak coefficient were “washed out” by the favours cohabitation variable, with which the Denomination/Attendance index correlated 0.22.

The data do show that strongly favourable attitudes toward marriage are less common among Francophones than Anglophones — their mean Favours Marriage scores are respectively 38.4 and 36.0, ($T = 8.02$, $P = 0.000$). However, the correlation of favours marriage with desired fertility is very low, only -0.04. Thus disinterest in marriage is not associated with disinterest in having children

among the Francophone respondents, and nor is it among the Anglophones. We conclude that this hypothesis is substantiated for the Anglophone but not for the Francophone sample.

The last hypothesis states "The number of children wanted is directly associated with having had surrogate or vicarious parenting experience." The index of surrogate parenting is the number of *R*'s younger siblings, and the index of vicarious parenting experience is the total number of *R*'s siblings. The data in Table 4 show that for both language samples the Surrogate Parenting index was not significantly predictive, but the Vicarious Parenting index was significantly predictive for both samples (for the Anglophones, $P = 0.000$; for the Francophones, $P = 0.001$). Note again that this index may reflect not the vicarious parenting experience of *R* in a large family, but rather the influence of the traditionalistic values of parents who choose to have a large family. Indeed, number of siblings correlates 0.21 and 0.15 with perceived religiosity of parents for the Francophone and the Anglophone samples, respectively. We conclude conservatively, that number of siblings may be understood in part as an indicator of traditionalism in the home, and also that the data provide some support for the fifth hypothesis.

Discussion

The author begins by reminding the reader that the data for Francophones is based on a convenience sample of undeterminable representativeness. This should be kept in mind when reading the following discussion.

This paper has reviewed changes in the numbers of children wanted by young Canadians during the past 20 years and has tested hypotheses predicting influences that would affect their fertility desires. Comparable data for 1968, 1977 and 1988 show that while the number of children wanted fell between 1968 and 1977, it remained constant during the following decade, except for Francophone women for whom it declined further. Noteworthy here is an emerging pattern of reversal of the previous pattern for women to express a preference for as many or more children than men (Canadian Institute of Public Opinion, 1967; Gallup, 1972). This statistically significant pattern was found for Anglophones in 1968, though even then it was not found for Francophones. By 1977, the fertility preferences of males and females were found to be virtually identical for both Anglophones and Francophones, and by 1988 the fertility preferences of women were significantly smaller than those of men among Francophones. Among Anglophones the preferences of women were (only) marginally smaller than

those of men, but note that since 1968 the fertility preferences of women had fallen by 0.92, while those of men by only 0.65. A possible explanation for this gender reversal is suggested later.

Regression analyses were performed to test if the 1977 predictors continued to be significant in 1988, and if some variables not significant in 1977 were predictive in 1988, and to test five hypotheses. Significant predictors in both 1977 and 1988 for Anglophones were the *R*'s Family Size, Favours Career for Wife, Denomination/Attendance and Favours Birth Control indices. Only the first two of these were significant for Francophones in both years. Significant in 1977, but not in 1988, for Anglophones were the Family Commitment, Family Income and Religiosity of Mother indices, while for Francophones the Family Commitment, Denomination/Attendance, Religiosity of Father and Favours Birth Control indices were no longer significant. Newly (weakly) significant in 1988 for Anglophones were the *R*'s Religiosity and Size of Home Community indices. For Francophones only the mother's Occupational index was newly significant, a surprising finding since the relationship is direct, and since the correlation for this index with the children wanted criterion was 0.000 for Anglophones. Generally these changes suggest a lessening of family influence, including parental religious involvement, on the fertility preferences of both Anglophone and Francophone respondents.

The tests of the hypotheses found support for those predicting inverse relationships between fertility preferences and the value of women's time and holding individualistic values, and direct relationships for holding traditional values and perhaps for having surrogate or vicarious parenting experience, with the criterion. Interpretation of the latter relationship is ambiguous, because the index, having many siblings, may simply index the traditional high valuation of a large family.

A general interpretation of the various relationships reported in this paper is suggested by Lesthaeghe's observation that "A fertility decline is in essence a part of a broader emancipation process. More specifically, the demographic regulatory mechanisms, upheld by the accompanying communal or family authority and exchange patterns, give way to the principle of individual freedom of choice" (1983:411). This observation tends to explain most of the findings of this study. First, it explains the "gender reversal" whereby women are coming to prefer smaller families than men. The burdens of childbearing and childcare are much heavier for women than for men, and as employment and other opportunities expand for women, increased freedom of choice inevitably gives rise to a greater decline in the fertility preferences of women, than of men.

Second, Lesthaeghe's observation explains the decline of *family* influence, seen in the loss of significance, for Anglophones, of the Family Commitment and Religiosity of Mother, and probably also of the Family Income indices, between 1977 and 1988. *R*'s family size continues as a significant predictor, but probably more because of the *modelling* influence of family size, than because of the moral, social and material influence of the family. The weakening of these latter influences is seen in the number of formerly significant, but now insignificant, family-related predictors just noted. Emergence of size of the home community as a newly significant inverse predictor may reflect more rapid relevant changes in large cities than in smaller communities during the last decade, so that size of home community has (temporarily) emerged as a weakly significant influence. Finally, birth control, abortion and a career for the wife are all resources for increasing individual freedom of choice, so that those wanting few children would be expected to favour these resources as well. Likewise, cohabitation can also be seen as a relationship conferring a number of the advantages of marriage, but with less infringement on personal freedom.

With respect to Francophones, this author suggests that the sharp decline of the Quebec total birth rate from the highest ranking in Canada in 1931 to the lowest by 1960 (Romaniuc, 1984: Table 1.3), argues the trend toward the emancipation of choice during this period. As a result, the 1977 Francophone data show only *R*'s family size and father's religiosity as significant family influences. Again the author suspects that it is the modelling influence of size, rather than size as a reflection of *R*'s parents' values, which is consequential. For Francophones, it is noteworthy that the Favours Birth Control and *R*'s Denomination/Attendance indices (together with Father's Religiosity) lost their predictive significance between 1977 and 1988. The explanation in all cases appears to be that, despite Catholic opposition to birth control, family size is now seen in Quebec as a personal choice, rather than in any sense a moral issue, as indeed the very low Quebec birth rate well illustrates. Thus, these data show that the Denomination/Attendance index correlates only 0.11 with fertility preference, and only -0.10 with favouring birth control. The latter correlates only -0.10 with fertility preference. Both of the last two very weak correlations are explained by the very general favourability toward birth control of the Francophone sample members, among whom 75 per cent are favourable (60 per cent strongly so), 14 per cent are undecided, and only 11 per cent are opposed to use of birth control procedures.

The direct relationship of mother's Occupational index with the fertility preference criterion for the Francophone sample may possibly be explained by

freedom of choice as well. Respondents whose mothers are employed in high status occupations may see women as being free to choose to have more children and so prefer higher fertility as compared with those whose mothers have lower status employment, for whom added children would be more disruptive and draining. This *post hoc* explanation is, of course, suspect.

This study has not provided a compelling test of the relevance of the theories cited to predicting fertility preferences; other formulations may account for the relationships we have found. However, these data do show a relatively good fit between the results from the regression analyses and the relevant writings of Lesthaeghe, Becker, Schultz, Keyfitz and Preston. Particularly significant is the fact that the strongest predictors of low fertility preferences were attitudes favouring abortion and birth control for Anglophones and favouring cohabitation for Francophones — attitudes which are reflective of freedom of choice, or individualistic values. It seems likely that these values are still continuing to spread: the data for Anglophones are somewhat less indicative of individualism than are the Francophone data, and this same differential is apparent in the data for Francophone men and women. Individualism often reflects “the negation of social value” as Preston notes (1986:188), and the apparent increase in individualistic tendencies might give cause for concern about future Canadian fertility. However, the decline in significance of social influences on fertility clears the way for personality and personal preference influences — not indexed in the present study — to become more effective. Future studies should give greater attention to the possible significance of *intrapersonal* influences on the fertility preferences of Canadian young people.

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Footnote

1. The Quebec firm contracted to collect data from students at the University of Montreal and from the CEGEP using the procedures described above. When difficulties were experienced with this procedure, the contracting firm decided, without consultation, to administer questionnaires in the non-random selection of classes where instructors agreed to donate class time. Thus questionnaires were filled out by those students present when the questionnaires were handed out. As well, a further difficulty with this procedure was that a significant proportion did not have time to complete the questionnaire in class, so that some questions toward the end of the questionnaire were answered by only 82 per cent of the Francophone respondents, in contrast to 96 per cent of the Anglophone respondents.
Other difficulties were experienced in surveys of students at Dalhousie University. Data collection here was organized by a graduate student — recommended by a department head as interested and competent — employed to recruit and supervise the work of telephone contact workers who were to contact students named on a computer generated sample list. This supervisor showed a lack of initiative in recruiting telephone contact people and in giving them adequate briefing. The result was that only 57 completed returns were obtained from the Nova Scotia Institute of Technology and only 152 were filled out by Dalhousie students. The refusal rates were the highest among the eight schools where specified procedures were carried out, 50 and 38 per cent, respectively. Similar difficulties were experienced with the person in charge of data collection at Fanshawe College, the technical school in Ontario, where only 102 completed questionnaires, returned by 78 per cent of those contacted, were obtained.

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Charles Hobart

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