The Interaction Effects of Parents, Spouse and Schooling: Comparing the Impact of Jewish and Catholic Schools.

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THE INTERACTION EFFECTS OF PARENTS, SPOUSE
AND SCHOOLING: COMPARING THE IMPACT OF
JEWISH AND CATHOLIC SCHOOLS*

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This paper discusses the literature on the long-range impact of schooling and the types of effects that schools have shown. It compares data on the impact of Jewish schooling on adult religiosity with similar data from a study of Catholic schooling. Like previous studies on other types of schools, the main effect of Jewish schooling seems to be an accentuation of parental influences. This effect is diminished substantially if not supported by marriage to a religious spouse. However, on some types of religiosity, extensive Jewish schooling produces "conversion" effects which persisted even when pre-school and post-school support are lacking. The implications of these findings are discussed.
THE INTERACTION EFFECTS OF PARENTS, SPOUSE AND SCHOOLING: Comparing the Impact of Jewish and Catholic Schools

Studies of school effects have almost universally used multiple regression analysis or similar statistical models. These models, as they are used in most studies, assume linear additive relations between variables. Yet, there is good reason to believe that in reality many (if not most) variables are not associated in a simple linear fashion. After reviewing the literature on "The Impact of School Resources on Students," Spady observed:

"Among the important findings that emerged in this study of the literature were those that described interaction, threshold, accentuation, and contextual and curvilinear trends in the data. Most of these were discovered in my examination or reanalysis of cross-tabular tables. Few emerged in the results of regression analysis. . . (Spady, 1973: 172)."

One of the most interesting examples of non-linear effects, dealing with the long-range impact of schools, is the Greeley and Rossi (1966) study of Catholic education. They not only assess the independent effect of Catholic schooling on adult religiosity but also investigate the interaction of religious schooling with parents' and spouse's religiosity. The purpose of this paper is to compare the interaction effects discovered by Greeley and Rossi with a sample of adult Jews and to see whether the effects resulting from the interaction of these agents is similar for Catholics and Jews.

A Theoretical Framework

The debate over the relative ability of schools to produce personality changes is a long one, with most studies conducted at the college level. Briefly, there seems to be three views on the subject: the "temporary effects theory," the "accentuation effects theory," and the "social support theory."

The temporary effects theory is represented by the work of Philip Jacob (1957). In one of the early reviews of the research on the effects of colleges
on value and attitude change, Jacob concluded that most colleges are not able to produce any substantial changes in students' values, attitudes, or beliefs. Some studies indicate that some small liberal arts colleges do have an impact upon their students, but those changes are due more to conformity while in school than to the beginnings of long-term effects. Accordingly, Jacob believed that any effects of schools on attitude change are only temporary.

The accentuation effects theory is represented by the work of Feldman and Newcomb (1970). After their own review of the literature on the impact of colleges upon students, Feldman and Newcomb concluded:

No single principle has emerged in so many different guises as that of accentuation, ... In its general form the proposition is as follows:

Whatever the characteristics of an individual that selectivity propel him toward educational settings - going to college, selecting a particular one, choosing a certain academic major, acquiring membership in a particular group of peers - those same characteristics are apt to be reinforced and extended by the experiences incurred in those selected settings (Feldman and Newcomb, 1970: 333).

Thus the effect of schools upon students is to amplify certain personality dispositions, many of which are presumably the products of prior socialization.

The social support theory is represented by the work of Greeley and Rossi (1966) it takes into account the other theories and specifies the conditions under which temporary or accentuation effects take place. Basically, the social support theory maintains that the major impact of schools is to accentuate personality dispositions. But even accentuation effects are only temporary if not supported by the agents of socialization encountered after leaving school.

In a study on the effects of Catholic schools upon adult religious involvement, Greeley and Rossi found that among students from very religious Catholic homes, Catholic schooling accentuates home training, but it has es-
sentially no effect on the religious beliefs or practices of those who do not come from such homes (i.e., there is nothing to be accentuated). On the other hand, they found that Catholic schools have no effect when a respondent with very religious parents marries an irreligious spouse. According to Greeley and Rossi: "religious education apparently works when there is constant reinforcement from outside the school" (p. 101). Actually, though, their data show it works only when there is such reinforcement.

The importance of social support for maintaining the effects of socialization is indicated frequently in the literature on the effects of schools. Something may be supported (or strengthened) by giving it backing (propping it up) or by adding to it. Neither method of support is completely independent of the other. Thus, support for socialization can be given by encouragement, approval, and material rewards on the one hand, and exposure to additional socialization on the other hand. The findings on the effects of spouse and duration of schooling indicate that both of these processes operate to influence the outcomes of schooling. Greeley and Rossi (1966), Pollack (1961), Himmelfarb (1974a) and Newcomb et al. (1967), all found that spouses' attitudes were related to the persistence of one's own socialization. Greeley and Rossi, Pollack, and Himmelfarb found that the adult religiosity of religious school students was significantly related to the religiosity of their spouses. Newcomb and associates found that Bennington graduates whose political and economic attitudes persisted from their college days were those who had married men with similar attitudes. These studies also found that the number of years spent within a particular school or system was directly related to the persistence of the attitudes shaped by that institution (see also Pinsky, 1961). Presumably, the supportive effects of spouse in these studies comes from backing school socialization and increasing ex-
posure to the same kind of socialization. The supportive effects of duration schooling is mainly due to the cumulative effects of exposure to additional socialization. Regardless of how socialization is supported, substantial evidence indicates that social support is necessary for its persistence.

Accepting the social support theory and with it the accentuation effects theory raises an interesting theoretical problem. The theory implies that new attitudes and behavior (particularly the religious, political and economic behavior dealt with in the literature) are learned primarily, if not exclusively, in the family of origin and that other socializing agents merely strengthen and accentuate what was learned in the family. It seems more plausible, however, that many social institutions instill new attitudes and behavior, as well as support old ones. It is well known that some people become converted to new beliefs and change their behavior patterns as adults, and that spouses have been found to be particularly potent in their ability to convert. For example, Greeley and Rossi found that among adults who attended Catholic schools, those coming from irreligious homes whose spouses were religious were more likely to be religious adults than those coming from religious homes whose spouses were irreligious. In other words, "A religious spouse apparently can compensate for a less religious family, but not vice versa" (Greeley and Rossi, 1966, p. 102). The ability of a spouse to socialize to new attitudes and behavior is also indicated in the Newcomb et al. (1967) data showing that among 27 Bennington women who changed party preference between 1940 and 1960, twenty-two changed to the same party as their husband, fourteen of them after marriage.

If people can be changed markedly from the way they were raised by their parents, why are schools so relatively ineffective in producing conversion effects?
Most colleges tend to be large, heterogeneous environments with more than one value climate. Furthermore, there is generally no concentrated attempt on the part of the college to socialize students to a particular value system. In fact, Feldman (1969) points out that one of the theoretical problems with studies on the impact of colleges is that they attempt to study the impact of colleges in achieving goals that are presumed by the researcher to exist, but are not always recognized by others as goals of higher education. There is hardly ever an attempt to document consensus among school personnel about the presumed goals. Faced with an environment that includes many value systems and no consensus about which system should predominate, it is probable that students will select themselves into colleges, and into those groups within a college, that will reinforce their pre-college dispositions. The few who cannot find such a supportive setting tend to drop out rather than convert (Feldman and Newcomb, 1970).

Thus, colleges might be ineffective in changing their students' behavior, attitudes, and values simply because they do not try to indoctrinate their students in a particular direction. However, the same cannot be said of religious schools. It is clear what religious schools are supposed to do--produce greater religiosity among their students than exists among coreligionists who attend public schools. If Catholic schools are not successful in producing long-range changes in their students, it is not because they do not try, but perhaps because they do not try hard enough. What might be missing in Catholic schools is an intensive exposure to indoctrination. While some of the Catholics in the Greeley and Rossi sample were exposed to many years of religious schooling (from elementary school through college) they were not exposed to many hours of religious training; Catholic schools spend an average of less than five hours a week on religious studies and this is probably insufficient to have a lasting impact. For example, one study of
the effects of religious schooling showed that hours of religious studies do not have any lasting impact until at least a substantial number of hours (3,000) has been attained (Himmelfarb, 1975b).

From a review of the literature one must conclude that generally schools are not very effective in changing (or converting) people to a particular doctrine. However, as a consequence of studies like those of Coleman, et al. (1966) and Jencks et al. (1972) it has become fashionable among educational researchers to conclude that schools cannot be very effective. If the above reasoning is correct, it would be more accurate to say that schools are ineffective in producing changes because they are not organized to be effective rather than because they cannot be effective. To test this assertion it is necessary to find schools that are organized differently. Jewish schools in the United States present unique settings for such a test. Here are schools that range in the amount of time spent on religious studies from an average of three hours a week to an average of 20 hours a week. Whereas students who go to Catholic schools through college spend a maximum of 3200 hours on religious studies, someone who goes to Jewish day schools and Yeshivas for 16 years will average 10,880 hours of religious studies. In fact, my sample included individuals who had nearly 14,000 hours of religious studies. If such intensive schooling has no impact upon students, then there may be very good reason to doubt the ability of schools to change people even under the most optimum conditions.

To summarize, it seems that the long range effectiveness of a socializing agent depends upon several conditions: (a) the prior socialization of its "clients"; (b) the intensity and extensity of clients exposure to the institution; and (c) the amount of post-institutional support. The combination of these conditions might produce suppressor, conversion, accentuation,
threshold, plateau, and/or ceiling effects. Accordingly, it is expected that Jewish education will be most effective for those coming from religious homes, who get the most intensive type of Jewish education for the greatest number of years, and who marry a religious spouse. The type of effects produced by the interaction of these factors remains to be seen, but existing research leads one to expect some sort of additive, not wholly linear, effect. That is, each increment of schooling is not expected to have an equivalent effect on adult religiosity (see Himmelfarb, 1975b); nor is it expected that equal increments of schooling will effect persons with different pre-school and post-school experiences to the same degree. This paper will concentrate on the latter and investigate whether the type of effects produced by Jewish schooling are more applicable to a temporary effects, accentuation effects, or social support theory.

Sample

A sample of adult Jews having "distinctive Jewish names" (Massarik, 1966) was chosen from the Chicago, Illinois phone book and supplemented with a sample of alumni from two Chicago Jewish schools who were currently residing in the area. One of the schools was a high school and the other a college. The purpose of the alumni sample was to ensure enough cases with higher level Jewish education. The sample population was surveyed by means of a mail questionnaire. Of the 4,665 questionnaires mailed, 1,418 were returned (30.4%). All respondents who were unmarried, foreign born, offspring of an interfaith marriage, or not raised as a Jew were eliminated from the analysis. Thus, this paper is based on 1,009 cases.

A comparison of the characteristics of these respondents with a more representative sample of the Chicago Jewish community drawn for the National Jewish Population Study (Jewish Federation of Metropolitan Chicago, 1973) indicates that this sample has more respondents who are married, middle aged
(i.e., between 25 and 55), somewhat more wealthy (excluding the poor in particular), substantially more professional and native American. The population seems to be more religiously educated and involved, but that appears to be mostly a product of the slightly greater proportion of Orthodox Jews in the sample. The Orthodox portion of the sample is overrepresented by 3.4 per cent and is peculiar in its American nativity, its youth, and its educational and economic achievements. However, since this is an explanatory rather than descriptive study, representativeness was not considered to be of paramount importance. While the magnitude of relationships might differ between samples, with the proper controls the causal relationships ought to be similar. In fact, an analysis of the National Jewish Population study data on the effects of Jewish education yielded coefficients very close to mine (Bock, 1976).

Measures

For the purposes of this study, adult religious involvement was measured by multiple scales. A factor analysis of 41 separate items of religious involvement (listed in the Appendix) yielded eight factors or types of religious involvement.

a) **Devotional--ritual observance**
b) **Doctrinal-Experiential--belief in basic tenets of the faith, and experience of a supernatural presence**
c) **Associational--participation in Jewish organizations**
d) **Fraternal--residence in a Jewish neighborhood and having mostly Jewish friends**
e) **Parental--child-rearing practices which encourage children to be involved in Jewish life**
f) **Ideological--attitudes in favor of support for the state of Israel**
g) **Intellectual Esthetic--reading, studying, and accumulating books, art work, and music on Jewish topics**
h) **Ethical-Moral--charitable attitudes and behavior**
These eight scales encompass four objects to which religious involvement can be oriented: (1) God—devotional and doctrinal-experiential; (2) Community—associational, fraternal, parental and ideological; (3) Cultural system—intellectual-esthetic and (4) Individuals—ethical moral. They also encompass both behavioral and attitudinal modes of involvement. Finally, a measure of total religiosity was formed by standardizing the eight scales and weighting them by their factor score coefficients (Himmelfarb, 1974b). Parents' religiosity and spouse's religiosity before marriage are measured by Guttman scales of ritual observance items. Hours of Jewish schooling was estimated by multiplying the average number of hours per week spent on Jewish studies in a particular type of Jewish school by the number of years spent in that type of school. It was assumed that all types of Jewish schools are open for 40 weeks per year. (See appendix for greater explanation of all scales).

Findings

One of the more important findings in the Greeley and Rossi study was that Catholic schooling has an impact only at the highest level of parents' religiosity. At that level, they say, it is "quite impressive." The left half of Table 1 shows this effect on four of their dependent variables that resemble the dimensions of religious involvement that I analyzed among Jews. Catholic schooling is categorized into 3 groups: All, Some and None. On all four of those dimensions, the effect of Catholic schooling is slight, except for those whose parents were in the highest category of religious observance. The right half of the table contains the gammas and partial gammas for the sample of Jews in this study. Here Jewish schooling is also divided into 3 groupings: 0-600, 601-1,880 and 1,881-13,840 hours of Jewish studies. Parents' religiosity is measured by a Guttman scale of ritual observance items (see Appendix).

Table 1 about here

First, the same kind of interaction between parents' religiosity and religious schooling that Greeley and Rossi found for Catholics also exists for Jews on the first four dimensions in the table. However, it is not found on all dimensions. From the parental dimension through the measure of total
religiosity, Jewish schooling has at least a low impact where parental religiosity is only moderate. The impact of schooling on religious involvement when parents are low in religiosity is statistically non-significant on all but three of the religious involvement measures: devotional, parental, and intellectual-esthetic. However, even the impact on one of those three measures (parental) is slight.

Second, Jewish schools seem to have a more substantial impact on adult religiosity than Catholic schools. In most cases, Jewish schooling begins to influence children from moderately religious homes, whereas Catholic schooling affects only those from highly religious homes. Moreover, with two of the four measures on which the studies can be compared (devotional and ethical-moral), a high level of Jewish schooling has a considerably greater effect than a high level of Catholic schooling.

Third, in accord with most studies on the effects of schools, the general impact of religious schooling is to accentuate family effects. Where students come to school predisposed to religious values, religious schooling accentuates those values; but where students are not predisposed to religious values, schooling has little impact. There are, however, two major exceptions to this general finding. On devotional and intellectual-esthetic religious involvement, Jewish schools seem to have a "conversion" effect on a small, but not negligible, number of respondents. That is, on those types of religious involvement there is a low association between hours of Jewish schooling and religiosity even among those coming from irreligious homes. These conversion effects are the exception rather than the rule, but they are important because they show that even schools can be powerful socializing agents under some circumstances.

If schools have mostly accentuating effects, must those effects be supported by post-school environments in order to be maintained? Greeley
Table 1
ZERO-ORDER AND PARTIAL GAMMA ASSOCIATIONS BETWEEN INTENSITY OF CATHOLIC AND JEWISH SCHOOLING AND ADULT RELIGIOUS INVOLVEMENT CONTROLLING FOR PARENTAL RELIGIOSITY

<table>
<thead>
<tr>
<th>Dimension of Religious Involvement</th>
<th>Catholic Schooling(^a)</th>
<th>Jewish Schooling(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Zero-Order</td>
<td>Partial</td>
</tr>
<tr>
<td></td>
<td>Parents' Religiosity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(100%)</td>
<td>Higher (18%)</td>
</tr>
<tr>
<td>Devotional(^c)</td>
<td>.26</td>
<td>.34</td>
</tr>
<tr>
<td>Doctrinal-Experiential(^d)</td>
<td>.19</td>
<td>.34</td>
</tr>
<tr>
<td>Associational(^e)</td>
<td>.15</td>
<td>.34</td>
</tr>
<tr>
<td>Fraternal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideological</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual-Esthetic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethical-Moral(^f)</td>
<td>.12</td>
<td>.20</td>
</tr>
<tr>
<td>Total Religiosity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Information on Catholic schools taken mostly from Greeley and Rossi (1966) Table 4.3 and partly from Table 2.20. Catholic schooling is in 3 groups: none, some, all

\(^b\)Hours of Jewish Schooling trichotomized: 0 to 600, 601 to 1,880, 1,881 to 13,840

\(^c\)Sacramental Index for Catholics

\(^d\)Doctrinal orthodoxy Index for Catholics

\(^e\)Organizational Membership in at least one church-related organization for Catholics

\(^f\)Ethical orthodoxy Index for Catholics

\(^g\)Chi-square = p>0.05
Table 2

ZERO-ORDER AND SECOND-ORDER CORRELATIONS (r) BETWEEN INTENSITY (HOURS) OF JEWISH SCHOOLING AND ADULT RELIGIOUS INVOLVEMENT CONTROLLING FOR RELIGIOSITY OF PARENTS AND SPOUSE

<table>
<thead>
<tr>
<th>Dimensions of Religious Involvement</th>
<th>JEWISH SCHOOLING a</th>
<th>Second Order Parents' Religiosity b</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Zero-order (100%)</td>
<td>HIGH (48%) LOW (52%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spouse's Religiosity Before Marriage</td>
</tr>
<tr>
<td>Devotional</td>
<td>.53</td>
<td>.52</td>
</tr>
<tr>
<td>Doctrinal-Experiential</td>
<td>.27</td>
<td>.22</td>
</tr>
<tr>
<td>Associational</td>
<td>.23</td>
<td>.20</td>
</tr>
<tr>
<td>Fraternal</td>
<td>.11</td>
<td>.13</td>
</tr>
<tr>
<td>Parental</td>
<td>.37</td>
<td>.40</td>
</tr>
<tr>
<td>Ideological</td>
<td>.24</td>
<td>.13</td>
</tr>
<tr>
<td>Intellectual-Esthetic</td>
<td>.50</td>
<td>.48</td>
</tr>
<tr>
<td>Ethical Moral</td>
<td>.29</td>
<td>.31</td>
</tr>
<tr>
<td>Total Religiosity</td>
<td>.49</td>
<td>.48</td>
</tr>
</tbody>
</table>

a Jewish schooling is dichotomized: (1) less than 1200 hours of Jewish studies (2) 1200 or more hours of Jewish studies

b Parents' religiosity and spouse's religiosity are Guttman scales of ritual observance measures

c p > .05
and Rossi found that Catholic schools have no effect when a respondent with religious parents marries an irreligious spouse (Greeley and Rossi, 1966). The supportive effect of spouse on individuals who attend Jewish school can be seen in Table 2. Although the relationships upon which the correlations are based are often statistically non-significant because of the small number of cases in the cells, the magnitude of the coefficients are indicative of trends. When parents' religiosity during childhood and spouse's religiosity before marriage are both high, Jewish schooling is most strongly associated with religious involvement. The religiosity of both parents and spouse can diminish the relationship between schooling and religious involvement. However, it is certainly not the case in this sample that spouse's religiosity before marriage can entirely reverse the effects of parents and schooling. When spouse is low in religiosity and parents are high, there is generally a weaker relationship between schooling and religious involvement than exists when parents are low and spouse is high in religiosity. Thus, it is true that one's spouse has a stronger influence on adult religiosity than one's parents (as suggested by Greeley and Rossi), but in contrast to their findings, spouse does not always completely reverse the effects of parents and schooling.

Table 2 about here

Greeley and Rossi's conclusion about the importance of spouse's religiosity was based on data appearing in Table 3. A similar cross-tabulation on the Jewish sample was performed and appears in Table 4. In comparing these two tables it can be seen that in both groups an irreligious spouse tends to diminish the relationship between parents and adult ritual observance and between schooling and adult ritual observance. However, in the Jewish sample spouse does not completely diminish the other relationships. Indeed,
when both parents and spouse are low in religiosity, there is a difference of 15 percentage points between many and few hours of Jewish schooling. This finding shows a small stable conversion effect of Jewish schooling. Among Catholics, the difference was only one percentage point. Of course, the greatest effects are produced when parents, schooling and spouse are all highly religious, then 59 percent of the Catholic sample and 88 percent of the Jewish sample appear in the highest category of ritual observance.

Conclusions

First, this analysis has shown that the effects of parents' and spouse's religiosity and exposure to Jewish schooling are partially independent. Where one is low and another is high the effects of the one will only diminish the effects of the other, but not destroy them.

Second, Jewish schooling seems to have considerably greater impact than Catholic schooling on adult religious involvement, but its effectiveness is not consistent for all of the dimensions of religious involvement; it is considerably more effective in some areas than in others. These differences might reflect differences in curricular emphases between more intensive and less intensive Jewish schools.

Third, these data affirm the accentuation effects and social support theories, but they manifest conversion effects too. The most common effect of Jewish schooling is to accentuate parental influences, but the level of school and parent impact will be diminished without post-school support. For some types of socialization, for a small proportion of individuals, schools will have conversion effects which persist into adulthood even when there is a lack of post-school social support. However, such conversion effects will
Table 3

PERCENT HIGH ON SACRAMENTAL INDEX, BY SCHOOL ATTENDANCE, WITH CONTROLS FOR RELIGIOUSNESS OF PARENTS AND OF SPOUSE (FOR THOSE MARRIED TO CATHOLICS)*

<table>
<thead>
<tr>
<th>School Attendance</th>
<th>Religiousness of Parents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High $^a$</td>
</tr>
<tr>
<td></td>
<td>Religiousness of Spouse</td>
</tr>
<tr>
<td></td>
<td>High $^c$</td>
</tr>
<tr>
<td>All Catholic</td>
<td>59% (81)</td>
</tr>
<tr>
<td>Some Catholic</td>
<td>43 (79)</td>
</tr>
<tr>
<td>No Catholic</td>
<td>21 (39)</td>
</tr>
</tbody>
</table>

*This is Table 4.12—Greeley and Rossi, 1966, p. 102.

$a$ upper quarter

$b$ lower quarter

$c$ spouse goes to mass weekly

$d$ spouse goes to mass less than weekly

$e$ too few to percentage
Table 4

PERCENT HIGH\textsuperscript{a} ON JEWISH RITUAL OBSERVANCE CONTROLLING FOR RELIGIOSITY OF PARENTS OR SPOUSE

<table>
<thead>
<tr>
<th>Hours of Jewish Schooling</th>
<th>Parents' Religiosity</th>
<th>Spouse's Religiosity</th>
<th>Spouse's Religiosity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>High</td>
<td>88% (163)</td>
<td>48% (40)</td>
<td>61% (60)</td>
</tr>
<tr>
<td>(1200 or more hours)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>65% (49)</td>
<td>34% (22)</td>
<td>39% (51)</td>
</tr>
<tr>
<td>(less than 1200 hours)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{a}All variables in the table dichotomized approximately at the median.
only occur if there has been considerable exposure to school socialization. For example, in Table 4 the mean number of hours of religious studies for the 31 respondents whose parents and spouses were low in religiosity but who had a high level of Jewish schooling and were high on ritual observance was 2,742 hours.

Several years ago, Armer and Youtz (1971) entered into a debate with Inkeles (1969) about the characteristics of schooling which have an impact on "modern" attitudes and behavior. Inkeles asserts that it is the informal organization of schools while the Armer and Youtz data suggest that the curriculum is more important than organizational structure. My data show that both organizational structure and curricular emphases of schools have important effects on adult religious attitudes and behavior. The schools will have an impact on those areas that are emphasized by the curriculum, but only to the extent that the organizational structure of the school allows for enough exposure to curriculum (see Himmelfarb, 1975b). Furthermore, the individual impact of intensive curriculum exposure will depend upon pre-school and post-school support for curricular objectives.

In sum, then, it seems that when we talk about the effects of schooling it is important to be specific about what is affected, who is affected, under what conditions of exposure to schooling are the effects produced, and in combination with what other experiences do the effects persist.

Both educational theory and educational policy will be advanced far more readily when research can specify the level and conditions under which variables "make a difference" than they will by knowing only which variables have strong linear associations with the others (Spady, 1973: 172).
NOTES

1. From another perspective, though, what most of the literature has viewed as ineffective schooling might really be very effective. Instead of indoctrinating to a particular viewpoint, colleges might be attempting to produce non-partisan, cosmopolitan-oriented, open-minded individuals. The heterogeneity and cultural diversity of most colleges might aid in this effort. This perspective seems implicit in the work of Inkeles and Smith (1975), on the role of schooling in producing modern attitudes and values.

2. Actually, Catholic schools spend only about two hours a week on religious studies. However, services, celebrations, and other forms of religious training are integrated into the secular curriculum. Therefore I have increased my estimate of their students' exposure to religious indoctrination. Estimates for Jewish schools are more clear since religious and secular studies in most all-day Jewish schools are deliberately separated.

3. The actual number of cases for any of the correlations presented may be somewhat less than 1009 due to missing values on different variables.

4. A recent study by Leslie (1972) presents a fairly comprehensive review of the literature on response-rate-bias and concludes that low response rates produce some biases on the independent variables (e.g., age, sex, education, etc.) but not on the dependent variable, particularly when homogeneous populations are surveyed. In other words, if one surveys doctors about medicine and gets mostly younger doctors to respond, Leslie would argue, their responses would be similar to those of the nonrespondents. Younger doctors will answer more like doctors than like members of their age group. Accordingly, I expect that at least with those independent variables related to adult religiosity controlled (e.g., age, education, income, etc.), the religious attitudes and behavior of respondents within those categories will not differ much from nonrespondents in the same categories.
5. For more detail on the representativeness of this sample see Himmelfarb (1974b). For the theoretical and empirical basis for these religious involvement scales see Himmelfarb (1975a).

6. Using ritual observance as a measure of parents' religiosity was found to predict better than parents' organizational participation or a combination of ritual observance and organizational participation to all types of respondent's religious involvement. This is also true with regard to using ritual observance as a measure of spouse's religiosity before marriage.

7. The magnitude of the partial gammas are not exactly comparable, due to different measures and different cutting-points, but this gives a rough estimate.

8. In fact, it seems that on three measures of religious involvement, (devotional, ideological and total religiosity) Jewish schooling has a greater impact when both parents and spouse are low in religiosity than when parents are high and spouse is low. These anomalous findings are probably due to differences in cutting points and measurement error.

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APPENDIX TO SCALES

Measures of Religious Involvement

Most of the variables listed below appear as Likert items on the questionnaire. Respondents were asked to strongly agree, agree, disagree or strongly disagree with statements in the following areas.

The scores on each item for a scale were standardized, weighted by their factor scores and then summed.

The items and their corresponding weights appear below:

a) **DEVOTIONAL** (see below)

b) **DOCTRINAL-EXPERIENTIAL**

- .16154 - Belief in a God who created the universe.
- .16904 - Belief in a God who guides universe.
- .16980 - Belief that the Torah was given by God.
- .16854 - Belief in the Divinity of Rabbinical Law.
- .14186 - Belief that Jews are a Chosen People.
- .12366 - Has seen God perform miracles.
- .14996 - Trusts God to guard and protect from harm.
- .14197 - At times, has had a sense that God was near.

c) **ASSOCIATIONAL**

- .51469 - Proportion of meetings attended last year at the one Jewish organization in which respondent was most active.
- .51469 - Whether respondent was an officer in a Jewish organization last year.

d) **FRATERNAL**

- .57303 - Proportion of present neighborhood that is Jewish.
- .57303 - Proportion of neighbors who visit home that are Jewish.
e) PARENTAL

15175 - Encourage children to learn about Judaism.
20116 - Encourage children to attend synagogue frequently.
20456 - Encourage children to participate in Jewish organizations.
18471 - Encourage children to associate primarily with Jewish friends.
20775 - Encourage children to date Jews only.
19969 - Encourage children to marry within the faith.
18553 - Encourage children to attend a Jewish school for at least 8 years.

f) IDEOLOGICAL

27379 - Give money to Israel.
28703 - Raise money for Israel.
26976 - Seek to influence U. S. foreign policy in favor to Israel.
23589 - Belong to Zionist organizations.
22068 - Give Israeli financial needs priority over local Jewish causes.

g) INTELLECTUAL-ESTHETIC

28797 - Frequency of reading a short story or novel on a Jewish topic or about a Jewish person.
32563 - Proportion of paintings, decorations, and other objects in home which are Jewish in character.
33747 - Proportion of books in home which are Jewish in character.
32612 - Proportion of records in home which are Jewish in character.

h) ETHICAL-MORAL

39351 - Agrees that a person should give some money to poor no matter what his own financial situation is.
49008 - Amount of money given to charity last year.
48596 - Percentage of last year's charity given to Jewish causes.
i) **TOTAL RELIGIOSITY**

- 0.21349 - Parental
- 0.20632 - Devotional
- 0.19510 - Intellectual-Esthetic
- 0.17623 - Ethical-Moral
- 0.17253 - Ideological
- 0.17032 - Doctrinal experiential
- 0.16099 - Associational
- 0.11923 - Fraternal

The following measures of ritual observance were Guttman scales. Respondents were asked whether the following observances are usually practiced in their homes now (Devotional), were usually practiced by their parents during the respondent's childhood (Parents' Religiosity), or were practiced by one's spouse before marriage to the respondent (Spouse's Religiosity):

**DEVOTIONAL**

- Least difficult - light Chanukah candles
  - attend synagogue on High Holidays
  - abstain from bread on Passover
  - fast on Yom Kippur
  - use two sets of dishes for milk and meat products

- Most difficult - abstain from recreational activities on Sabbath

- 0.91--coefficient of reproducibility
- 0.72--coefficient of scalability

**PARENTS' RELIGIOSITY**

- Least difficult - Attend synagogue on High Holidays
- Fast on Yom Kippur
- Use two sets of dishes for milk and meat products.
- No meat eaten in non-Kosher restaurants.
- Abstain from movies or other recreational activities on the Sabbath.

Most difficult - No lights turned on and off on the Sabbath.

.94--coefficient of reproducibility
.78--coefficient of scalability

SPOUSE'S RELIGIOSITY (before marriage)

Least difficult - Raised as a Jew.
- Attended synagogue on High Holidays.
- Fasted on Yom Kippur
- No meat eaten in non-Kosher restaurants.
- Abstained from movies or other recreational activities on the Sabbath.

Most difficult - No lights turned on and off on the Sabbath.

.95--coefficient of reproducibility
.78--coefficient of scalability

HOURS OF JEWISH SCHOOLING

Because many respondents attended more than one type of Jewish school and because each type differs in the number of hours spent on Jewish studies, an estimate of total hours of Jewish schooling (i. e., hours spend on Jewish studies) was made. Respondents were asked to indicate the type of school they attended for the longest period of time and the number of hours per week spent on Jewish studies in that school. From this information it was possible to empirically determine the mean number of weekly hours spent on Jewish studies in each type of school:
Private tutor--4 hours
Sunday school--3 hours
Afternoon Hebrew school--8 hours
All-day school--17 hours
Yeshiva--20 hours
Teacher's institute or College of Jewish studies--6 hours
Other--6 hours

The mean hours per week spent on Jewish studies in each type of school was multiplied by the number of years a respondent attended that type of school and then summed for a total number of hours of Jewish schooling. All schools were assumed to be in session for 40 weeks per year.