Fertility and Ideology: A Study of the Relation between Selective Memory and Childbearing among American Whites

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Abstract

In this paper, we venture to go beyond the usual literature on fertility and ideology, and study ideology as reflected in people's memory of social and historical events. By doing so, we bring together the literature on collective memory and that on fertility differentials. We analyze the 1993 General Social Survey to understand the relation between childbearing behavior and selective memory of certain historical and social events representing political and religious ideology. Our results demonstrate that certain generation-based selective memory items, as reflected in the interaction between memory scores and age cohorts, are clearly related to the respondents' levels of fertility. Indeed, ideology is important in explaining fertility, but the effect cannot be captured by the conventionally conceived instrument such as the liberal-conservative scale or certain measures of religion commonly used in instruments including the General Social Survey. Rather, our analysis shows that ideology resident in selective memory matters as a fertility differential, in particular for the older cohorts.

Introduction

Ideology-related fertility differentials have long been demographers' concern. Attention was particularly paid to a form of ideology represented by religion. One may trace this research tradition back to about four decades ago (Ryder and Westoff 1971; Whelpton, Campell, and Patterson 1966). The interest in the influence of religion on fertility has remained high in recent years (see, e.g., McQuillan 2004).

If one examines one religion only, however, the influence of ideology still is discernable. Researchers, for example, attempted to find explanations for higher conservative than liberal fertility among White Protestants in the United States (Marcum 1986). Nevertheless, the conservative-liberal fertility gap has always captured public attention. Recently, citing the 2004 General Social Survey, Brooks (2006) reported a 41% fertility gap between the liberals and the conservatives.

In this paper we investigate the relation between fertility and ideology with a different conceptualization. Instead of looking at the usual conduits of religion and political views, we examine people's memory of historical and social events. By doing so, we wed the literature on collective memory and the literature on fertility differentials. Indeed, collective memory is always defined socially and ideologically (for a not so recent review of the literature on collective memory, see Olick and Robbins [1998]).

We claim that, because people's social memory is selective, constrained and defined by their ideological outlook, this selective memory may help us understand and gauge fertility. Empirically, we analyze data from the 1993 General Social Survey (GSS) to assess this claim. The 1993 GSS is the only relatively recent national survey where questions about the respondent's social memory were asked.

On the following pages, we first review the literature on fertility differentials in ideology, followed by a section on ideology and collective memory, and another section on collective memory and fertility. After the section that presents the data and methods for the analysis, we report the results from the analysis, and discuss the implications. Finally, we draw some tentative conclusions about the relation between selective memory and fertility.

Fertility and Ideology

The research literature on fertility identifies many factors including socioeconomic conditions, organized family planning, cultural receptivity, new technology, and ideology can influence fertility levels and fertility decline (Hirschman 2001). We have no intention to engage in a serious study of what ideology is because that topic in itself is worth a treatise (see Gerring 1997). For its relevancy for the study of fertility, we examine the two key dimensions of ideology: political and religious ideology.

One type of religious ideology that may have an impact on fertility is what Goldscheider (1973) referred to as "particularized theology" when studying fertility levels; he urged demographers to expand beyond the particular teachings on fertility to the total content and broadly based norms of the religion. Thus, researchers need to distinguish between two categories of religious values that may have an impact on fertility: religious specific teachings or rules that seek to regular childbearing behavior that relates directly to one of the proximate determinants of fertility; and broad norms, values and principles whose impact on fertility is indirect (McQuillan 2004). The

specific rules, for example, may include teachings against abortion and contraception.

There are three types of broad religious norms cited in the literature. One type can be exemplified by religious values that engage directly fertility behavior and plans. For example, the Church of Jesus Christ of Latter-day Saints is obviously pronatalist (Heaton 1986). It is the duty of Mormons to carry out the plan of salvation that can only be fulfilled when all "worth spirits" yet to be born come to experience life on earth (Bean, Mineau, and Anderton 1990). A variation on the theme of duty about the duties owned to one's ancestors or the obligations of the living to the dead. As Caldwell and Caldwell (1987) showed, having a larger number of children in many traditional African cultures fulfills one's duty to ancestors and indicates that those with more children have been favored. A second type of broad religious values deals with issues of social organization and possibly social division of labor that may also indirectly affect rates of fertility. Studying Arabs living in Israel, Goldscheider (1999) wrote about Muslim views on family relationships and the segregated, "appropriated" roles for women. Clearly, the lack of access to economic resources outside the home confines women to a mothering role. A third type of broad religious values summarizes the style of governance and decision making within the family influence by religion. Extending Swanson's (1967, 1986) theoretical work originally applied on the spread of Protestantism in Europe to the study of fertility, Liao (1992) found a higher fertility among the families, regardless of Catholics or Protestants, that were organized with a "social system" kind of thinking where collective interests were more important tended to have a higher fertility than those that behaved more like an "association" where members' individual interests were served.

When we refer to religious ideology, we define it in the sense of broad values and norms or style of governance, which can be any of the three types.

There is less research on the influence of political ideology on fertility. But the public were often reminded of the fertility gap between the liberals and the conservatives. Brooks (2006) argued that the liberals would have a big problem because they were not having enough children and they hadn't for a long time, and that it would spell trouble because of the future pool of potential new voters in their support.

Ideology and Collective Memory

Ideology, according to Clifford Geertz (1973[1964]: 220) is a set of "maps of problematic social reality and matrices for the creation of collective conscience." Put differently, ideology guides the making of collective memory. Another way to view the relation between ideology and collective memory is to examine how past is constructed in collective memory. According to Mead (1929), the past can be symbolically reconstructed or it can be socially conditioned and structured (Maynes, Sugrue, and Katovich 1983). Either way the past is created, it bears the imprint of ideology. When we speak of collective memory as a set of traditions, we may again view tradition as created and governed by the dominating ideology (cf. Hobsbawm and Ranger 1983). In sum, tradition *represents* dominant ideology, and an individual who remembers a salient important event in the past is a *representative* of the tradition embodied by that event.

Memory, be it collective or individual, captures the imprint of a historical time, particularly the important events in a historical time. Typically, individuals experiencing

a certain historical, political, or social event will form a certain memory of the event. Such memory, while individually formed, can be shared by many people, thereby forming generational memory or collective memory of an even larger mass.

As the first proponent of generation-based collective memory, Mannheim (1928[1952]) discussed generational identity, and the collective experiences of a generation. From a sociological point of view, memory stores the experiences of a generation or cohort (Mannheim 1952; Schuman and Scott 1989; Griffin 2004), and the memory of the Civil Rights movement in the U.S., for example, should be greater for southern whites who experienced the movement as mature teenagers or young adults (Griffin 2004). By the same token, these individuals should attribute more importance to events like the Civil Rights than others (Griffin 2004), likely because the events impacted them more profoundly.

Let us propose that there are two ways of examining the connecting mechanism between collective memory and ideology. As discussed above, the sociological approach regards experiences in one's life—especially those obtained during one's formative years—as important and considers that these experiences tend to be retained in the consciousness for the remainder of one's life. Furthermore, these experiences oftentimes can change an individual's outlook or personality fundamentally and forever. Such view, in fact, is rather consistent with the life-course perspective in social demography. For example, the people growing up as teenagers and young adults during the Great Depression compensated for the disadvantageous experiences by men's efforts in the workplace and women's efforts in marriage selections (Elder 1974, 1999). Clearly,

memories of the Great Depression had a long-lasting impact on those individuals' life strategies.

There is also a psychological approach to viewing the mechanism connecting memory to ideology. According to this approach, memory forms personal identity. The approach goes back at least to John Locke, who first wrote on the topic in the late 17th century and famously identified the self with memory. In contrast to Descartes, who established the self in the consciousness of one's immediate experience of thinking (as expressed in the well-known words, "I think, therefore I am"), Locke believed that identity could be found by extending consciousness backward in time to what one could remember, including past actions, thoughts and experiences. In his view, Self identity is based entirely on continuity of memory, for without it a person would have no identity. Locke (1841: 222) summarized the relation between personal identity and memory as follows, "[y]et it is plain, consciousness, as far as ever it can be extended, should it be to ages past, unites existences and actions, very remote in time, into the same person, as well as it does the existences and actions of the immediately preceding moment."

Locke's theory has withstood well the test of time in the past three centuries. Whereas there have been debates, modern scholars still found support for his ideas. After intensive philosophical reasoning, Hamilton (1995) gave support to Locke's theory on memory and personal identity by concluding that "the remembering subject must be identical with the remembered subject," a philosopher's way of stating memory leads to identity. Another scholar lent her support by studying William Wordsworth, whose poetry is preoccupied with the role of memory in people's lives and selves, and came to the conclusion that past experiences shape present perceptions (Lau 2002).

Either the sociological or the psychological approach establishes the relation between memory and ideology by allowing memories to congeal into personal outlooks, strategies, or identity, which can express people's ideological views and direct their actions. Ideology, then, is an expression of personal identity and outlook, both of which have been shaped by past experiences and stored as memories of these experiences. We do not believe memory provides a one-on-one match with political ideology that is commonly operationalized on a liberal-conservative scale. We do think, however, memories of political events, such as the Civil Rights movement and the women's movement, will likely shape individuals' ideology and memories of economic events, such as the Great Depression, may recast peoples' life strategies (according to the sociological perspective). On the other hand, we feel that memories of religion and gender issues can formulate more one's personal identity (according to the psychological approach). Some historical events, such as the women's movement, may work equally well in both channels linking memories to ideology. Whichever approaches one may take, the reviews and discussions above certainly suggest that memory, especially if it is part of collective memory, tends to be long-lasting, making possible the establishment of one's personal identity and further guidance of one's future actions.

Collective Memory and Fertility

In the literature on collective memory, two distinctive cultures exist in how to represent, describe, and study collective memory. One group of scholars regard collective memory as the aggregation of socially framed individual memories, and the other group consider instances of collective memory as phenomena sui generis (Olick

1999). In this paper we follow the first tradition, and treat individual memories as component parts of collective memory. Prominent scholars have used this approach to study collective memory by analyzing surveys (Schuman and Scott 1989; Schwartz and Schuman 2005). In fact, because there is no such a thing as universal collective memory and because "collective" memory is highly selective, dependent on individuals' ideology and social conditioning, hereafter we refer to collective individual memories as *selective memory*. Needless to say, selective memory is influenced by one's cohort and generational experiences, and for that reason, generational memory could be used (cf. Manneheim 1928[1952]). We, however, believe "generational memory" can be misleading and give one a false sense of one memory for the entire generation, and choose to use "selective memory" instead.

One's selective memory of the past can possess two components, a political and a religious dimension. Memories of certain social movements, such as the Civil Rights movement and women's rights movement, may indicate one's inclination toward such movements because this individual would consider such events more important than other events. We consider events the individual remembers about moral decline a possible tap into the religious dimension of ideology. For the same reason, we take a recall by an individual of the importance of religion an indication of religious ideology. These events, once remembered, form part of the individual's consciousness and reflect the person's ideology. Such selective memory, then, stays with the person and is unlikely to be erased or transformed into another kind of memory over time.

Following the literature on the relation between ideology and fertility reviewed earlier, we propose that if one's selective memory is occupied by more liberal events,

then one would tend to have a more decreased fertility; similarly, we expect that if one's selective memory contains more religious type, then one would tend to have a more heightened fertility. That is, these effects of selective memory, if existing, should be independent of common determinants of fertility such as age, race, socioeconomic status, rural upbringing, regional residence, marital status, and work status. As indicators of the two distinctive dimensions of ideology, items of selective memory may work differently from the usual measure of political attitudes or religious affiliation.

However, because selective memory can be conditioned by cohort and generational experiences (Schuman and Scott 1989; Griffin 2004), we further treat the effect of selective memory as being conditional upon birth cohort. That is to say, we will examine how selective memory affects fertility differently, depending on which birth cohort one belongs. In other words, for different generations, the way selective memory influences child bearing behavior can be unique thus possibly producing different effects.

Data and Methods

Data

Very few national surveys include questions on memory. Our empirical analyses are based on the 1993 General Social Survey (GSS) data collected by the National Opinion Research Center (NORC) (Davis and Smith 2004) in 1993, the most recent national survey that included questions on (collective memory). A full probability sample of English-speaking citizens of 18 years of age or over in the United States were surveyed from February to April, 1993 with 1606 complete cases. We restrict the analyses to the 1347 whites only. After excluding of 13 men and 24 women with missing

values in some of the variables for the analyses, we have 578 white men and 735 white women with complete observations. Besides the usual GSS questions, the 1993 GSS survey had a unique open-ended question for spontaneous event-recalling, allowing up to four important national and world events or changes (hereafter referred to as "events") ever happened over the past 60 years. Answers were coded into an ordinal array of importance, from the most important event to the fourth most important event.[1] If an individual remembered a certain historical event and considered it important, especially an event that had found closure in history, such as the Civil Rights movement and the women's movement, the person then would be likely to have experienced, directly by participation or indirectly by reading or learning about it, the event and would identify with the particular event. The GSS 1993 included questions on a diversity of memories from domestic industrial activity, domestic economy in general, social changes, significant leadership, and international relations as well as armed conflicts. We analyzed four memory items from the GSS 1993, the Civil Rights movement, the women's movement, moral decline, and religion. The first two items are historical events and fit the discussion of memory and political ideology in an earlier section. The latter two events were more of a request for the interviewee's opinion—whether events in the past constituted moral decline or whether religion is important (here GSS accepted only positive answers on the religion question)—hence getting at religious ideology.

[1] The question was worded as "There have been a lot of national and world events and changes over the past 60 years-say, from about 1930 right up until today. Would you mention one or two such events or changes that seem to you to have been especially important? There aren't any right or wrong answers to the question—just whatever national or world events or changes over the past 60 years that come to mind as important to you."

Measures

Dependent variable

One of the commonly used variables to measure fertility is the own-children measure. GSS 1993 data asked respondent about the number of children one had (all those born alive including those from a previous marriage). This variable is used in all the analyses.

Independent variables

Table 1 gives a summery of the independent variables and their description, coding, as well as their descriptive statistics that we use in the analysis. For fertility determinants, we included in our analyses demographic and socioeconomic variables of age, marital status, rural-urban residence at age 16, region of residence at age 16, education, and work status. Because of our focus, we also included religion and political views as independent variables as more common indicators of ideology.

---Table 1 about here---

Age: Age is included to capture any cohort, period, and age effect (though we cannot and do not need to tease out their distinction). The GSS surveys respondents aged 18 and up. Six age groups are created: 18 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, 65 and over. In our regression, we used five dummy variables to represent the first five age groups, with the oldest age group as the omitted category.

Marital Status: 1993 GSS data asked respondents about their marital status, with the choices of “currently married”, “widowed”, “divorced”, “separated”, and “never married”. For fertility considerations, since our dependent variable is number of children one had, we created a dummy variable with a code of 1 ever married and 0 if never married.

Residence: The effects of residence (especially residence in one's formative years) on childbearing should be considered in such a diverse country as the United States. The GSS routinely records two kinds of residence at the age 16, one's region of residence in the country and one's residence in urban or rural areas. We recoded the region of residence into a dummy variable for distinguishing those from the South and the rest of the country, with regions of South Atlantic, East South Central and West South Central coded 1, 0 otherwise. To capture one's rural upbringing, we created a dummy variable for the rural-urban division, with residence at age 16 in country, farm or towns with less than 50,000 coded 1, 0 otherwise.

Education: The1993 GSS data recorded respondents' education level by highest year of school completed, with a range from 0 year to up to 20 years. We kept the original coding and excluded missing data (1 man and 2 women) from the analyses. Even though a respondent's completed year of education was recorded at the time of the survey, like childbearing behavior, education is likely to have been completed years ago when the respondent was younger.

Work Status: Whether people are employed full-time or part-time may affect their childbearing, notably women's. The GSS records people's employment status, from which we created two dummy variables. Those who worked full-time is coded 1, 0 otherwise; those who work part-time is coded 1, 0 otherwise. One's work status was recorded at the time of the survey, thus giving a poor measure. However, for majority of the women before retirement age who were housewives and did not work, it would be rather unlikely they actually worked during those childbearing years.

Religious Affiliation in Adulthood: Respondents' religious affiliation can be relevant for studying fertility behavior. In GSS, both T. W. Smith's religious classification scheme and religious preference scheme could reflect people's religious affiliation. The religious classification variable (FUND) records religious inclinations such as fundamentalism at the time of survey (choosing from fundamentalist, moderate and liberal), and the religious preference variable (RELIG) question asked the respondents to identify their preferences from a list of detailed categories. Therefore, we created two dummy variables: to capture people's religious preference, we recoded RELIG into a dummy variable with code 1 if Catholic, 0 otherwise; to represent people's fundamentalist characteristics, we recode FUND into a dummy variable with code 1 if fundamentalist, and 0 otherwise.

Religious Affiliation in Formative Years: Respondents' religious affiliation in formative years can also be relevant for studying fertility behavior. Corresponding to the aforementioned religious affiliation measurements, the GSS also records people's religious affiliation at age 16 in terms of their fundamentalist status and religious preference. Hence, we created a dummy variable with code 1 if Catholic at age 16, 0 otherwise to represent people's religious preference, and another dummy variable coded 1 if fundamentalist at age 16, and 0 otherwise. . A correlation of 0.7796 among white males and .7490 among white females is found between people's religious preference in their formative years and later in their adulthood. A correlation of 0.6788 for white men and 0.6288 for white women is found between people's fundamentalist status in their formative years and later in adulthood.

Religious Services Attendance: This variable records respondents' frequency of attending religious services, with a range from 0=never to 7=more than once a week. We kept the ordinal coding in the analyses.

Conservatism: This variable in the GSS describes respondents' political view, with a range from 1=extremely liberal political viewpoints and 7=extremely liberal political viewpoints. We kept the original coding scale of 1 to 7 in the analyses.

Memory: On the 1993 GSS the recalled events were coded into 58 categories; we used four of them in our analyses.[2] When people answered these questions, they could choose up to four mentions of events, from the most important, to the second most important, and so on. Our *memory* variable is constructed as follows: for each coded event, we used the scores of 4, 3, 2, 1, and 0 to rank the importance of a respondent's mention of an event. If someone remembered an event as the most important event, we assigned a score of 4, if it was the second important event, a score of 3, if the third important event, a score of 2, if the fourth important event, a score of 1, and if no mention at all, a score of 0. Thus, for every recoded event, every respondent has a possible score range from 0 to 4 though a few respondents had a score of up to 10 because they repeated the same event for all four mentions. Although memories were collected at the time of the survey, these selective memories reflect major events over a long time period (from 1930s to 1990s), and they reflect ideology embedded in respondents' value system that is unlikely to change. We selected four memory items for the analyses: the Civil Rights movement, women's movement, moral decline and positive religion memories. The first two are

[2] The original question asked in 1993 was: "The next questions concern how people think about the past. There have been a lot of national and world events and changes over the past 60 years-say, from about 1930 right up until today. Would you mention one or two such events or changes that seem to you to have been especially important? There aren't any right or wrong answers to the question-just whatever national or world events or changes over the past 60 years that come to mind as important to you".

liberal political events that a respondent could identify with while the other two are about more general (religious) tendencies in society to capture respondents' political and religious ideology.

Methods

We conducted separately for white men and white women a series of OLS linear regression analyses of fertility and the four ideology-related memories: the Civil Rights movement, the women's movement, moral decline in society and positive memory on religion. Different age cohorts or generations may present a differential effect of a selective memory item on fertility because of the unique relation between generations and collective memory (Schuman and Scott 1989; Griffin 2004). We computed the means of the importance scores of the four memory events conditional on age for the two sexes and present them Table 2.

---Table 2 about here---

Clearly, there are some cohort effects. Overall, younger men and women tended to remember better of either of the two social movements. Older women would consider moral decline more of an issue than younger women. Religious importance was not recalled by many respondents regardless of age. In the analyses, we first studied the main effects of fertility determinants before adding interactions of selective memory and age group to analyze the conditional effect of selective memory on fertility.

Results

First of all, many common fertility determinants have clear effects on the number of children one had. Table 3 reports the estimated effects of a set of common socio-

demographic fertility determinants on the number of children for both sexes, excluding effects of memories for the time being. Table 4 presents the estimated effects of the fertility determinants and of selective memory items on white men's number of children, and Table 5 gives the same effects as in Table 4 for white women. Since some cohort effects on memory were suggested in preliminary research and suspected conditional effect of selective memory on fertility as discussed in the section on memory and fertility, we included the interaction effects between the age group dummy variables and the selective memory variables in the multiple regressions.

---Table 3 about here---

Without including the memory related variables, age, marital status and place of residence are most significant determinants of fertility for both sexes (Table 3). Overall, men and women of older age groups reported a greater number of children. When compared with the oldest age group of age 65 and above, men of the four age groups between 18 and 54, and women of the two age groups between 18 and 34 and of 55-64 all showed a smaller number of children they had. Meanwhile, those who were ever married in 1993 had close to 1.5 more children than those who were never married for men and about 1 and 1/3 more for women. Those who had lived in the Southern states during their formative years, regardless of their sexes, tended to report a lower fertility than those who had lived in other parts of the country. Women residing in rural areas tended to have a higher fertility. Differences between the sexes are also found in the effects of educational attainment and employment status and significant effects were found only for women. For each additional year of education, women would have 0.092 fewer of a child. Women with full-time employment would have 0.343 fewer of a child

than those not working at all. The difference between part-time job holders and those not working is not significant. No evidence was found for the main effects of Catholic membership and of political view for men or women. However, being a fundamentalist in adulthood years is significant in determining men's fertility, with 0.42 more of a child then those who were not fundamentalists. Although being a fundamentalist or not has no significant indication on women's fertility, the women who attended religious services more frequently would increase their fertility slightly. The coefficients of determination for each OLS model in Table 3 suggest that about 39% of the variance in fertility is explained for men and that percentage for women is about 33%.

---Table 4 about here---

---Table 5 about here---

To explore how memory of historical events could affect fertility, Table 4 and Table 5 present the regression results separately for the two sexes. By and large, many of the effects of the socio-demographic determinants, similar to the earlier regressions, remained statistically significant for both sexes in the model, now with the addition of the memory variables. Age, marital status, Southern residency continue to show positive significance for both sexes while women's rural upbringing, education and full-employment continue to have significant effects on fertility. The effects of selective memory and the interactive terms of age group and memory exhibit considerable variation for the sexes.

In Table 4, the main effect variable measuring the memories of moral decline has a significant positive effect on the number of children for white males (with an estimate of 0.838) whereas that recording memories of religion has a similarly significant positive

effect on number of children for these men (with an estimate of .759). Upon examining the interactions between age and memory (as compared against the oldest group), we see that their significant negative effects on white men's fertility involving the last two memory items.

The analysis of women's fertility and memory shows a greater impact of selective memory on fertility. In Table 5, all the four selective memory items demonstrate some degree of statistical significance in their impact on the number of children for white females. Memories of the Civil Rights movement and the women's movements show significant negative effects (with the estimates of -0.440 and -0.828, respectively) whereas memories of moral decline and religion have significant positive effects (with the estimates of 0.258 and 1.108, respectively). Many of the interaction effects between age groups and memory items also demonstrate statistical significance at various levels of statistical significance.

To better describe the impact of selective memory and its interplay with age on fertility, we present four sets of figures that plot predicted fertility against memory importance scores by age group and sex. Figures 1 through 4 will assist our understanding of the regression results due to the complication of the interaction terms.

---Figure 1 about here---

Figure 1 shows how predicted fertility changes for male and female in each age group corresponding to their understanding of importance of the Civil Rights movement. Since memory of the Civil Rights movement does not have a significant effect on white male's fertility (as given in Table 4), the predicted fertility lines for the five age groups

are all fairly flat. We do, however, observe an age effect, as the oldest age group exhibits a declining slope.

For white females, a much clearer pattern of effects emerges. A selective memory of the Civil Rights movement affects fertility negatively for at least three of the age groups. Even though the younger age groups show a flat fertility line, the 45-54, the 55-64, and especially the 65 and older age groups exhibit a decline in fertility when the intensity of their memory of the Civil Rights movement increases, with oldest age group having the sharpest decline in fertility.

--- Figure 2 about here---

Figure 2 reports the effect of another important social movement—the women's movement—on fertility for women and men. For white males, the effect of the memory of the women's movement does not present any significant effects on fertility except for the oldest age group, which showed a negative impact of the memory on fertility; for white women, the effect is even sharper. It is interesting to see the sideway V-shaped formed by the two oldest age groups for white women. For the 55-64 years-old white women, the effect of the memory of the women's movement on fertility is actually positive. A slightly similar pattern is somewhat discernable in the men's figure, but we should not make too much of it because of the relatively large standard errors for the estimates of the interaction effects in Table 4.

--- Figure 3 about here---

Figure 3 shows the relation between fertility and the selective memory of moral decline among white males and females in the United States. The predicted fertility lines for women are mostly gentle. Because men's estimates were obviously statistically more

significant as indicated in Table 4, let us focus on the interpretation of the upper panel of Figure 3. Those remembering moral decline most well tended to have a more elevated fertility for the oldest age group; for the next two age groups, however, their fertility levels would appear to be depressed slightly if the memory of moral decline is heightened.

--- Figure 4 about here---

Finally, we examine the interplay between fertility and the importance of the selective memory of religion among white males and females in the U.S. Because of the patterns of responses (i.e., only respondents of certain age groups mentioned this memory item during the survey), we could only compute predicted fertility for selected age groups for either men or women. A clear pattern emerges for the oldest age group of both sexes: the more importance someone (either a man or a woman) attached to religion in his or her recollections, the higher a fertility the person exhibited. For white men, the second oldest age group with available data, the 55-64-year-olds, had a similar pattern of fertility curve as the oldest age group with a slightly greater effect with a slightly steeper line than the oldest age group. For white women, the oldest exhibited a sizable positive relation between fertility and the importance of the selective memory of religion.

Discussions and Conclusions

Some overall patterns of the relation between fertility and selective memory emerged from the analysis above. It is clear that gender, age group/generation, and the object of memory are all important in shaping the relation between selective memory and fertility. Perhaps more interestingly, they all work *together* to shape the relationship.

First and foremost, generation or cohort does shape collective or selective memory, as past researchers convincingly argued and empirically showed (Griffin 2004; Manneheim 1928; Schuman and Scott 1989). Our analyses presented a clear cohort-based pattern of the effects of selective memory on fertility. Most important to note is the fertility differential in selective memory for the older cohorts. That is, the importance a respondent attached to a memory event matters little for the younger cohorts but can make a difference for the older cohort(s). For example, for the white women subsample, the sharpest dampening factor played by remembering women's movement occurred for the 65 and over age group. For the white men subsample, on the other hand, the biggest boosting effect was found for the 65 and over age group when it came to remembering moral decline as a significant event. Why is the oldest age group often the one with the most revealing results? We can think of three possible explanations: younger people tend not to dwell on the past as much, and may not value the contribution of memory as much either. It is also true that people who were 55 or older in 1993 experienced the 1960s in their youth and thus may have borne a greater imprint of the social events of the time. Finally, the youngest two cohorts may not have had the time enough to complete their fertility yet.

Another important finding is the gender difference in the effects of selective memory on fertility. While there is no theoretical literature to draw upon, we suspect that women, as the bearer of children, are likely to have their fertility decisions much more related with their thinking and ideology, which is reflected by selective memory. Thus, it is necessary to examine the gender-specific effects of selective memory on child-bearing behavior for each of the age groups.

Furthermore, our results demonstrate that the common measures of liberal-conservative scale that the General Social Survey uses may not be the best to capture any fertility differences as Brooks (2006) found. On the contrary, the measure did not possess any statistically significant explanatory power when it was included with the set of typical fertility determinants (Table 4). Similarly, the five measures of the different aspects of religion we used in the analyses did not matter very much either, with at most one of them showing significant impact on fertility in a given model. This, however, does not suggest either political or religious ideology is unimportant. The four selective memory items that we analyzed—memories of the Civil Rights Movement, women's movement, moral decline, and religion—certainly reflect one's ideology collectively (Table 5 and Figures 1-4). Just as Geertz (1973) pointed out, ideology creates collective consciousness and collective memory. The better one remembers the Civil Rights movement and women's movements, it is safe to say that the more liberal-oriented one is; similarly, the better one remembers moral decline and religion as issues of the recent or not so recent past, the more conservative-oriented one tends become.

Religious ideology, as embedded in a selective memory, also indicated potential as a fertility differential. One may view this as a type of general ideology with all its values and norms. From the analyses we see that for the oldest female age group and the two older male age groups, the more one thinks memory of religion as important (and to a lesser degree, considers moral decline as an issue), the higher their fertility levels would be. This effect is interesting and meaningful because the analyses have already taken into account Catholic affiliation and fundamentalist status at two different times in people's lives but have not shown much effect on fertility (with the exception of one variable).

Our research, too, has implications for survey methodology: perhaps it is time to consider using collective/selective memory items for assisting the measurement political and religious ideology, whether it is for capturing fertility or some other behavioral differentials or for the simple objective of getting a sense of one's political and religious ideology.

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Table 1: Variable Definitions and Descriptive Statistics, GSS 1993

Variable	Description	Coding	Descriptive Statistics			
			Men		Women	
			Mean	SD	Mean	SD
Age	R's age					
18-24		Yes=1, Else=0	.08	.27	.08	.28
25-34		Yes=1, Else=0	.21	.41	.19	.39
35-44		Yes=1, Else=0	.25	.44	.22	.42
45-54		Yes=1, Else=0	.17	.37	.18	.38
55-64		Yes=1, Else=0	.11	.31	.11	.31
65+		*(omitted)*	.18	.39	.22	.42
Ever married?	R has ever married?	Yes=1, No=0	.79	.41	.86	.35
Rural at 16?	Rural residence at 16?	Rural=1, Else=0	.61	.49	.29	.45
South at 16?	Southern residence at 16?	South=1, Else=0	.29	.45	.59	.49
Education	Completed years	Interval from 0 to 20	13.36	3.2	13.04	2.70
Work Status						
Full-time	R has full-time job	Yes=1, No=0	.65	.48	.39	.49
Part-time	R has part-time job	Yes=1, No=0	.07	.25	.14	.34
Catholic?	R is Catholic	Yes=1, No=0	.20	.40	.24	.43
Catholic at 16?	R was Catholic at age 16?	Yes=1, No=0	.27	.44	.26	.44
Fundamentalism?	R is fundamentalist?	Yes=1, No=0	.29	.45	.33	.47
Fundamentalism at 16?	R was fundamentalist at age 16?	Yes=1, No=0	.32	.47	.33	.47
Attend	Religious attendance	0-9 Scale with more than once a week=9	3.41	2.73	4.08	2.77
Conservatism	R's political view	1-7 Scale with extremely conservative=7	4.27	1.32	4.13	1.29
Memory						
Civil rights	Importance	Interval from 0 to 4	.29	.95	.25	.88
Women's movement	Importance	Interval from 0 to 4	.08	.52	.29	.98
Moral Decline	Importance	Interval from 0 to 4	.12	.61	.23	.89
Religion	Importance	Interval from 0 to 4	.03	.33	.04	.38
N			591		756	

Table 2: Conditional Means of Selective Memory Scores by Age Group, GSS 1993

	N		Civil Rights Movement		Women's Movements		Moral Decline		Religion	
Age group	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
18-24	46	63	.50	.29	.17	.41	.13	.06	.00	.00
25-34	126	142	.52	.30	.11	.45	.20	.18	.06	.06
35-44	150	167	.15	.32	.07	.35	.06	.18	.03	.05
45-54	98	133	.28	.28	.11	.34	.14	.35	.00	.03
55-64	63	84	.24	.27	.06	.24	.21	.30	.06	.00
65+	108	167	.18	.10	.01	.02	.03	.26	.00	.05

Table 3: OLS Regression of Number of Children on Common Fertility Determinants, GSS 1993

	Men		Women	
	b	t	b	t
Age 18-24	-1.364***	-4.96	-1.077***	-4.64
Age 25-34	-1.420***	-6.64	-.690***	-3.97
Age 35-44	-.898***	-4.50	-.245	-1.43
Age 45-54	-.554***	-2.65	.198	1.11
Age 55-64	-.102	-.46	.409**	2.15
Ever married?	1.489***	9.61	1.323***	7.85
Rural at age 16?	-.0345	-.30	.257**	2.40
South at age 16?	-.354***	-2.79	-.236**	-1.98
Education	-.024	-1.26	-.092***	-4.4
Full-time job	.111	.72	-.343***	-2.66
Part-time job	-.170	-.70	.019	.12
Catholic?	-.004	-.02	.109	.59
Catholic at age16?	.153	.76	-.042	-.23
Fundamentalist?	.420**	2.48	.213	1.45
Fundamentalist at age16?	-.059	-.37	-.204	-1.41
Attend	.029	1.38	.038*	1.9
Conservatism?	.017	.40	.012	.47
Intercept	1.293***	3.67	1.961***	5.20
R-squared	.389		.331	
N	578		732	

Table 4: OLS Regression of Number of Children on Common Fertility Determinants, White Men, GSS 1993 (*N*=578)

	Civil Rights Movement		Women's movement		Moral Decline		Religion	
	b	t	b	t	b	t	b	t
Age 18-24	-1.373***	-4.81	-1.384***	-4.98	-1.334***	-4.79	-1.360***	-5.00
Age 25-34	-1.428***	-6.49	-1.425***	-6.60	-1.390***	-6.46	-1.410***	-6.61
Age 35-44	-.911***	-4.46	-.926***	-4.62	-.887***	-4.42	-.902***	-4.57
Age 45-54	-.582***	-2.71	-.569***	-2.7	-.480**	-2.27	-.542***	-2.62
Age 55-64	-.123	-.54	-.115	-.52	-.078	-.35	-.166	-.76
Ever married?	1.492***	9.53	1.479***	9.53	1.481***	9.54	1.476***	9.64
Rural at age 16?	-.036	-.31	-.035	-.30	-.016	-.14	-.001	-.01
South at 16?	-.355***	-2.78	-.368***	-2.89	-.352***	-2.78	-.346***	-2.77
Education	-.024	-1.24	-.024	-1.25	-.027	-1.45	-.022	-1.2
Full-time job	.103	.66	.103	.67	.132	.85	.095	.62
Part-time job	-.180	-.72	-.196	-.80	-.160	-.66	-.173	-.72
Catholic?	.001	.00	.004	.02	-.022	-.1	-.060	-.28
Catholic at 16?	.147	.73	.139	.69	.158	.79	.158	.80
Fundamentalist?	.430**	.17	.397**	2.31	.418**	2.47	.425**	.011
Fundamentalist at 16?	-.065	-.40	-.050	-.31	-.059	-.37	-.060	-.38
Attend	.029	1.38	.030	1.40	.033	1.56	.021	1.00
Conservatism	.018	.42	.019	.45	.022	.53	.025	.61
Memory	-.075	-.47	-.728	-.57	.838**	1.99	.759**	2.43
Age 18-24× memory	.081	.36	.804	.62	-.913*	-1.76	-	-
Age 25-34× memory	.080	.43	.751	.58	-.867*	-1.95	-.732*	-1.91
Age 35-44× memory	.118	.52	1.13	.87	-.609	-1.26	-	-
Age 45-54× Memory	.146	.67	.884	1.29	-1.194***	-2.6	-	-
Age 55-64× memory	.127	.54	.935	.71	-.870*	-1.78	.321	.73
Intercept	1.30***	3.66	1.308***	3.69	1.267***	3.57	1.26***	3.63
R-squared	.390		.395		.399		.408	

*: significant at .1 level; **: significant at .05 level; ***: significant at .01 level

Table 5: OLS Regressions of Number of Children on Common Fertility Determinants, White Women, GSS 1993 (*N*=732)

	Civil rights		Women's movement		Moral Decline		Religion	
	b	t	b	t	b	t	b	t
Age 18-24	-1.108***	-4.63	-1.048***	-4.34	-0.960***	-4.06	-1.042***	-4.54
Age 25-34	-.723***	-4.06	-0.694***	-3.86	-0.592***	-3.32	-0.658***	-3.83
Age 35-44	-.325*	-1.86	-0.253	-1.46	-0.153	-0.87	-0.211	-1.25
Age 45-54	.174	.95	0.191	1.04	0.303	1.63	0.247	1.4
Age 55-64	.384**	1.96	0.301	1.55	0.444**	2.25	0.455**	2.42
Ever married?	1.339***	7.90	1.326***	7.83	1.34***	7.93	1.312***	7.83
Rural at 16?	.251**	2.34	0.224**	2.08	0.266**	2.48	0.241**	2.28
South at 16?	-.207*	-1.73	-0.260**	-2.18	-0.235**	-1.97	-0.247**	-2.1
Education	-.090***	-4.25	-0.094***	-4.46	-0.095***	-4.54	-0.085***	-4.07
Full-time job	-.357***	-2.76	-0.345***	-2.68	-0.352***	-2.73	-0.353**	-2.78
Part-time job	.006	.04	0.026	0.16	0.003	0.02	0.017	0.11
Catholic?	.105	.57	0.104	0.56	0.085	0.46	0.095	0.52
Catholic at 16?	-.041	-.23	-0.051	-0.29	-0.031	-0.17	-0.053	-0.3
Fundamentalist?	.206	1.40	0.199	1.35	0.222	1.51	0.192	1.33
Fundamentalist at 16?	-.200	-1.38	-0.178	-1.23	-0.210	-1.45	-0.169	-1.18
Attend	.038*	1.90	0.042**	2.1	0.041**	2.05	0.032	1.64
Conservatism	.019	.45	0.027	0.65	0.018	0.43	0.023	0.58
Memory	-.440**	-2.52	-0.828*	-1.84	0.258**	2.19	1.108***	4.69
Age 18-24× memory	.425*	1.67	0.745	1.57	-0.700*	-1.95		
Age 25-34× memory	.418**	1.98	0.821*	1.79	-0.336*	-1.85	-0.795*	-1.94
Age 35-44× memory	.556***	2.73	0.810*	1.76	-0.309*	-1.73	-1.031***	-3.09
Age 45-54× Memory	.376*	1.71	0.808*	1.74	-0.328**	-2.03	-1.354***	-3.29
Age 55-64× memory	.383	1.63	1.192**	2.48	-0.131	-0.7		
Intercept	1.961***	5.20	1.968***	5.22	1.904***	5.05	1.851***	4.96
R-squared	.339		.339		.339		.353	

*: significant at .1 level; **: significant at .05 level; ***: significant at .01 level

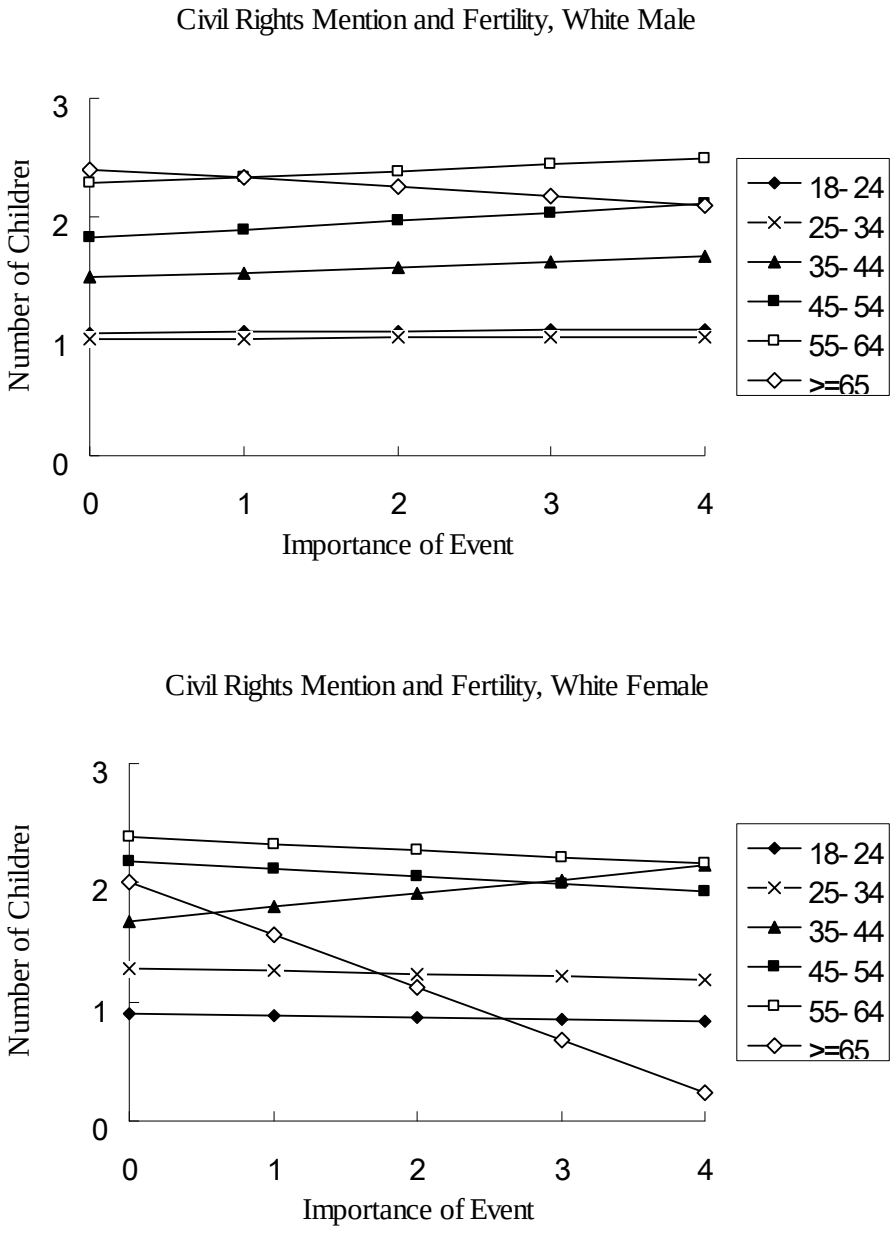
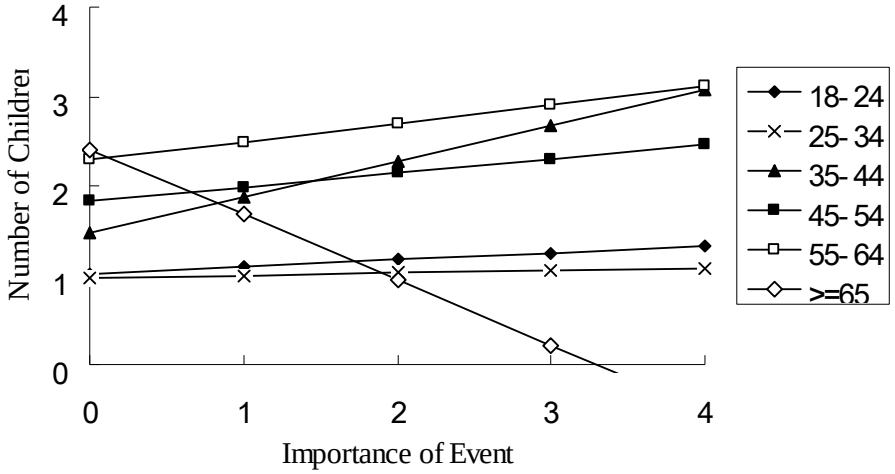


Figure 1. Memory of the Civil Rights Movement and Fertility, White Male and Female

Women's Movement Mention and Fertility, White Male



Women's Movement Mention and Fertility, White Female

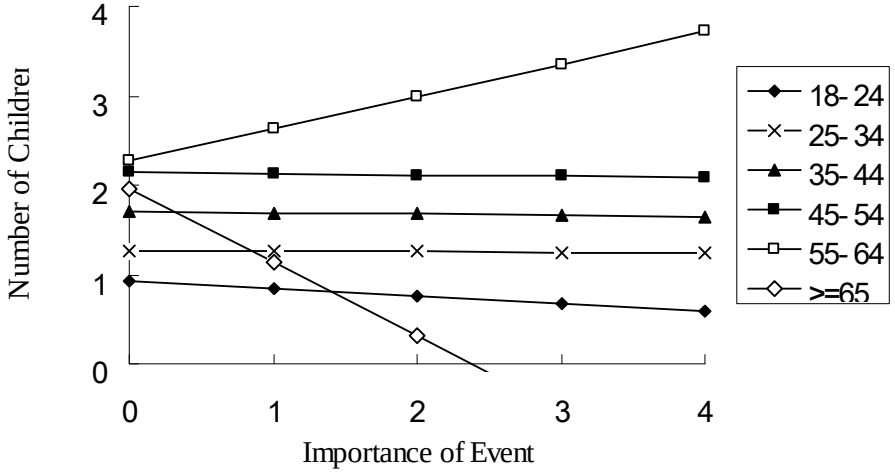


Figure 2. Memory of Women's Movement and Fertility, White Male and Female

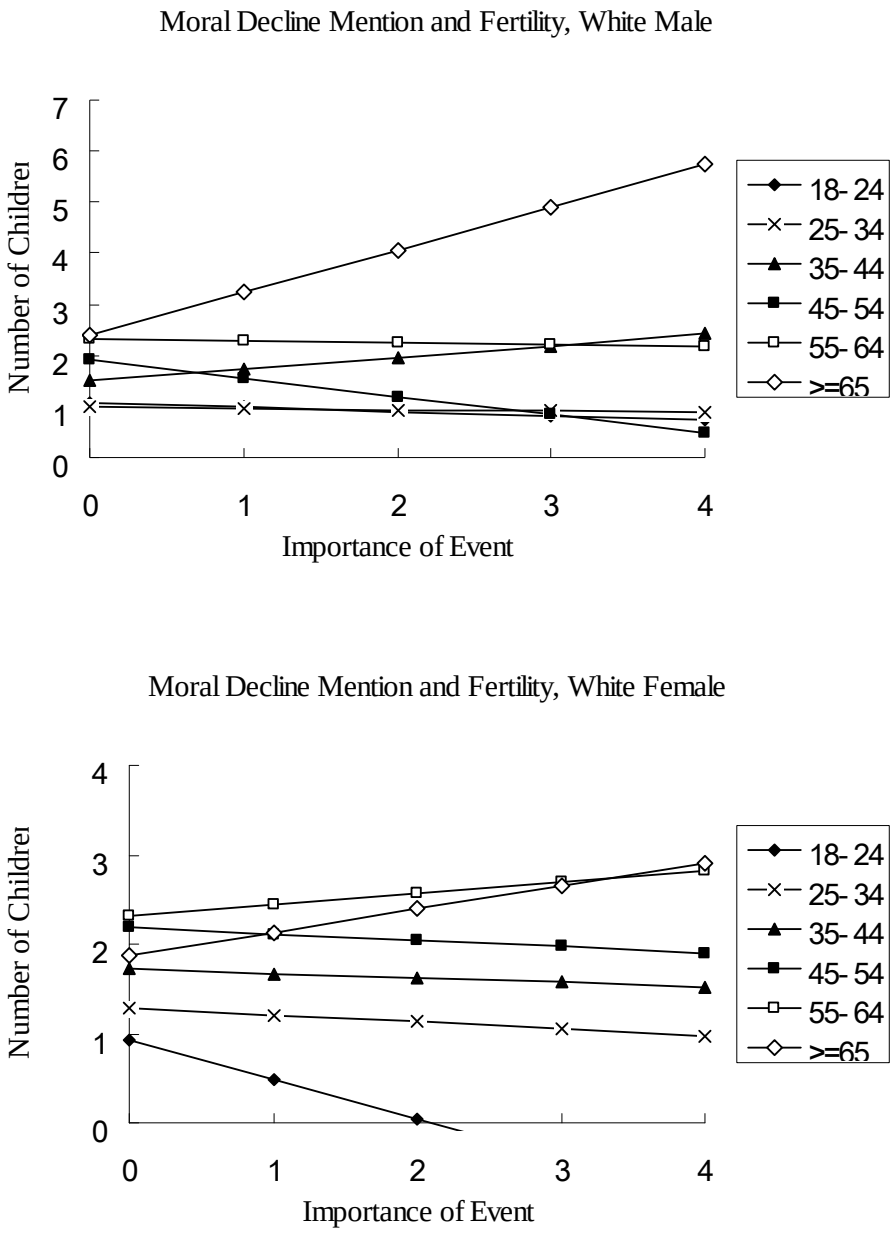
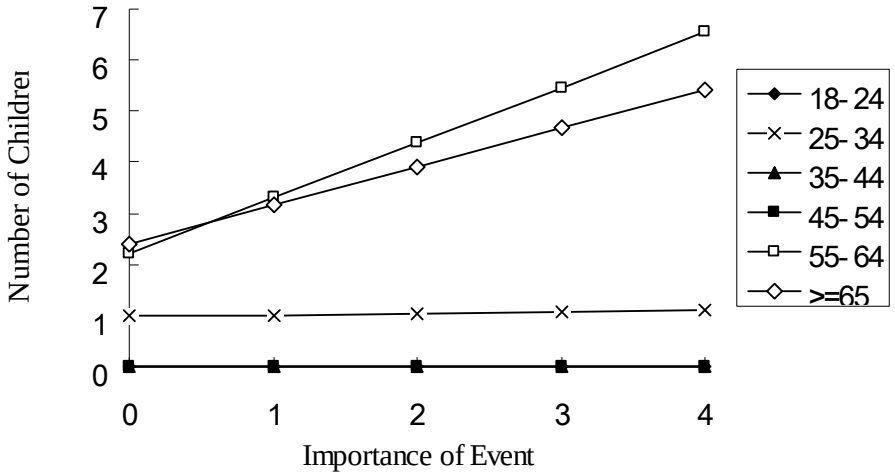


Figure 3. Memory of Moral Decline and Fertility, White Male and Female

Religion Mention and Fertility, White Male



Religion Mention and Fertility, White Female

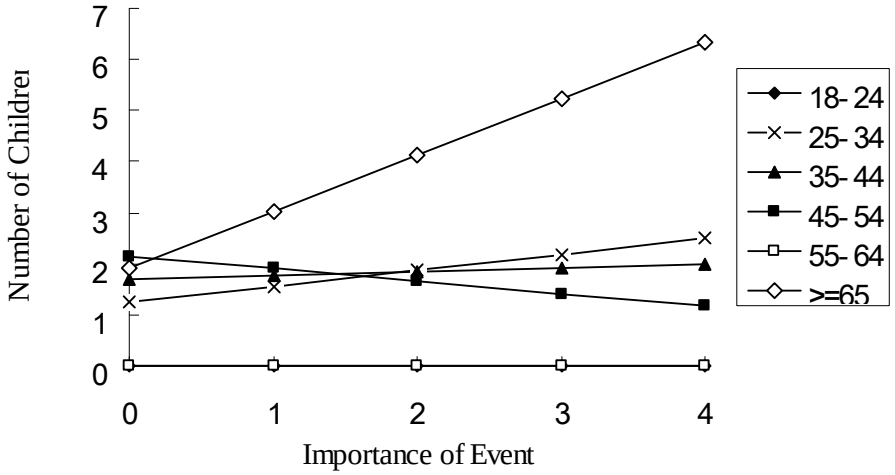


Figure 4. Memory of Religion and Fertility, White Male and Female