The intergenerational transmission of family-related behavior: Evidence from the NSFH

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Introduction

Sociology has a long-standing interest in the intergenerational transmission of educational and occupational status within families (e.g. Blau & Duncan, 1967). A main reason for this interest is the importance of educational and occupational achievement for young adults' life chances. Information on the extent of intergenerational transmission of educational and occupational achievement has been used to draw conclusions about the openness of our society and on the role of the family in society. A large body of evidence has shown that the transmission of educational achievement has decreased in modern societies (e.g De Graaf & Ganzeboom, 1990; Ganzeboom & Nieuwbeerta, 1999). The results for the intergenerational transmission of occupational status are more mixed. In some societies, the effect of intergenerational transmission of occupational status has decreased, whereas in other societies little change is observed (De Graaf & Kalmijn, 2001; Ganzeboom et al., 1991).

The life chances of young adults, however, are not influenced by their achievements in the educational and occupational domain only. Their vicissitudes in the family domain are important as well. For instance, early childbearing has been found to lead to lower socio-economic status and increased risk of family disruption (Card, 1981). Early union formation has been found to increase the risk of subsequent union dissolution (Diekmann & Engelhardt, 1999). Given this importance, it is surprising how little is known about the intergenerational transmission of family-related behavior. Within the family domain, the main interest has been in the intergenerational transmission of divorce (e.g. Amato, 1996; Diekmann & Engelhardt, 1999; Wolfinger, 1999). In addition, some studies have focused on the intergenerational transmission of early childbearing (Furstenberg et al., 1990; Kahn & Anderson, 1992; McCue Horwitz et al., 1991). Again, the main reason for this is that early childbearing and divorce are known to be important determinants of young adults' life chances. However, other events, like the timing of leaving home, the

timing of union formation, the timing of marriage and the timing of parenthood among the general population are important in this respect as well and have received little or no attention (Barber, 2001; Barber & Axinn, 1998).

An additional reason to pay attention to the intergenerational transmission of family-related behavior is that its results shed light on the debate about the process of individualization in modern societies. Proponents of individualization theory, both within sociology and demography, have suggested that this process may have led to a reduction of the impact of institutional authority, including that of parents (Beck & Beck-Gernsheim, 1996; Lesthaeghe, 1995). However, at the same time one could argue that, in such an era, blood ties may be the ones that remain most significant to children, as these are much more likely to be long-lasting than ties to peers or other non-relatives. Information on the extent of intergenerational transmission of family-related behaviors will allow an assessment of whether the process of individualization has led to the disappearance of parental influence in a field at the core of family functioning or whether parental influence on their children's family behavior is still important.

Given the paucity of research evidence on the intergenerational transmission of family-related behaviors, the main aim of this paper is descriptive and exploratory. The strength of intergenerational transmission is studied for a range of demographic behaviors, including the timing of leaving home, the timing of entry into a union, the timing of entry into marriage, and the timing of entry into parenthood. In addition, it is studied whether intergenerational transmission is as strong for sons as it is for daughters, whether mothers are more successful in transmitting their behavior than fathers, and whether the strength of intergenerational transmission diminishes across young adulthood.

Mechanisms explaining intergenerational transmission

To understand the intergenerational transmission of demographic behavior a multi-causal model is needed. Elaborating on the work of Barber (2000, 2001) and her colleagues, four general mechanisms can be put forward to explain the intergenerational transmission of demographic behavior. These mechanisms are value

socialization, social control, behavioral socialization and intergenerational transmission as a by-product.

Value socialization is a first important mechanism of the intergenerational transmission of demographic behaviors (Axinn et al., 1994; Barber & Axinn, 1998; Kapinus, 2004). It starts from the assumption that parental preferences about the appropriate behavior of their children in the family-life domain reflect parents' own behavior. If parents are successful in transmitting these preferences to their children, this will result in similarity between parents and children in actual behavior. Therefore, according to this mechanism, behavioral similarity between parents and children results from children's adoption of parental preferences.

Social control is another attitude-based mechanism linking parental and children's family-related behaviors. Again, parental preferences about the appropriate behavior of their children are postulated to influence their children's behavior. In contrast to the value socialization mechanism, however, this influence is direct rather than indirect (Axinn & Thornton, 1993). Children are assumed to behave in accordance with their parents' preferences not because they share the same preferences, but in order to attain or retain valued resources. If children would not act in accordance with parental preferences, this could lead to negative sanctions by parents, whereas such negative sanctions could be avoided by compliance with parental preferences. In addition, compliance with parental preferences could also lead to positive sanctions by parents.

Behavioral socialization is a third mechanism by which demographic behavior is transmitted from parents to children (Amamto, 1996). In contrast to the previous discussed mechanisms, attitudes are not involved. Instead, behavioral socialization results from the unconscious imitation of behavioral patterns and expectations that are taken-for-granted in the parental home. Socialization theories stress the importance of imitation and role modeling as principles of learning during the early phases of childhood. Although verbal-based socialization become more important later on during childhood and adolescence, this type of socialization could also convey implicit messages about how one should behave.

A fourth and final explanation of the intergenerational transmission of family-related behavior is that it is a *by-product* of exogenous factors that are related to both the parents' and the children's behavior. These factors could be genes (Foster, 2000; Kohler et al., 1999; Morgan & King, 2001), shared social conditions or similarity between parents and children in their trajectories in other life domains (Amato, 1996; Kalmijn et al., in press; Kahn & Anderson, 1992). For instance, marriage is often dependent on the successful completion of education. As a result, the higher educated marry later than those who only achieved a low level of education. If parents transmit their educational achievement to their children, this could lead to similarity in the timing of entry into marriage as well. If so, intergenerational transmission could be viewed as a by-product of other factors that connect the lives of parents and children.

Figure 1 about here

The four mechanisms linking demographic behaviors of parents and children are graphically represented in Figure 1. This model can be used as a heuristic tool to develop hypotheses about differences in the strength of intergenerational transmission between behaviors, and about gender and age differences in the strength of intergenerational transmission.

Differences in strength of intergenerational transmission between behaviors

The strength of intergenerational transmission may depend on the type of family-related behavior. Parents may hold stronger opinions about certain types of behavior than about other types of behavior. For instance, religious parents may be more strongly opposed towards unmarried cohabitation than non-religious ones. Given the centrality of marriage to their religious identity, they may also be more likely to threaten their children with sanctions in order to let them behave in accordance with their attitudes (Aldous & Hill, 1965; Kalmijn et al., in press). The importance of social control will probably be much smaller when demographic decisions are much less strongly linked to parents' identity, like decisions about the timing of leaving home.

Another reason why intergenerational transmission may be weaker for the timing of leaving home is that this event may be less under the control of parents and children than other events (Aldous & Hill, 1965). For instance, if children get a job or become enrolled outside traveling distance from the parental home, they have to move even if both of them would rather have their child stay at home for some time.

Intergenerational transmission may also be weaker the later the event occurs in the chain of family-life events. Most importantly, later on during this chain, the impact of the partner will become very important and social control efforts of parents may become less effective. In addition, behaviors in other life-domains, particularly in the occupational and housing markets, may interfere with decision-making in the family domain, leading to a smaller impact of intergenerational transmission. This process leads one to expect that intergenerational transmission is weaker for first childbirth and strongest for leaving home.

Taken together, these considerations lead to the hypothesis that intergenerational transmission is strongest for decisions concerning marriage and cohabitation, and weaker for decisions concerning leaving home and entry into parenthood.

Gender differences

Gender differences in the strength of intergenerational transmission can occur both in the parental generation and in the children's generation.

With regard to the parental generation, several reasons can be put forward why the intergenerational transmission of family-related behavior should be stronger for mothers than for fathers. First, the quality of the relationship of children with mothers often is better than the quality of the relationship with fathers (Thornton et al., 1995). As a result, both the mechanisms of value socialization and of behavioral socialization may be more important for mothers than for fathers. In addition, it is sometimes argued that mothers have a stronger influence on their children in 'feminine' life domains like family formation. At the same time, fathers are often still the main breadwinner within the family. As a result of this, fathers may yield most power

within the parental home and may be more likely to (successfully) use the mechanism of social control.

Sometimes, it is argued that parents have a stronger impact on daughters than on sons, as the former are more strongly supervised than the latter. If so, the strength of intergenerational transmission may be stronger for daughters than for sons.

It could be that the impact depends not so much on the sex of either the parent or the child, but on the gender homogamy of the parent-child unit. Children use their same-sex parent as a role model with regard to the appropriate timing of events in their own life. If so, the strength of intergenerational transmission may be stronger in same-sex parent-child dyads than in mixed-sex parent-child dyads.

Changes across the life course

The intergenerational transmission of demographic behavior may also be age-dependent in two distinctive ways. It may depend on the age at which the parent experienced the behavior, and it may depend on the age of the child.

Parental age at event. The literature on the transmission of teenage motherhood suggests that a child of a teenage mother runs a considerable risk to become a teenage mother herself as well (Furstenberg et al., 1990; Kahn & Anderson, 1992; McCue Horwitz et al., 1991). This is partly attributed to the adverse circumstances in which children of teenage mothers grow up. The intergenerational transmission of a very age of leaving home and of entry into a partner relationship could also be attributed to such adverse circumstances. This reasoning suggests that intergenerational transmission is stronger if parents experience an event at an early age than if parents experience an event at a modal or late age. However, another mechanism could be operative as well. It could be that parents who experience an event at a relatively young or at a relatively late age have a stronger timing-preference than parents who experience an event at a relatively modal age. If so, it could be that they will put more effort in transmitting this preference to their children. If successful, this could lead to a higher level of transmission of demographic behavior among parents who experienced an event either relatively early or relatively late.

Children's age. Two opposing views on how the strength of parental transmission changes across the life course can be put forward. On the one hand, one could argue that the life course paradigm stresses the continuous importance of early life course influences (including parental characteristics) across one's life span. This would suggest that the strength of intergenerational transmission remains at approximately the same level throughout life. On the other hand, one could argue that as one grows older, new experiences and new significant others (e.g. the partner) become important in life and the impact of early life factors (including parental characteristics) become smaller. This process of cumulative causation suggests that the impact of parental behavior is stronger during the earlier phases of young adulthood than during later phases. If so, the impact of intergenerational transmission will weaken as children get older.

Data

To study the intergenerational transmission of demographic behavior, data from the third wave of the National Survey of Families and Households, held in 2001 and 2002, are used (Wright, 2003). In this third wave of a panel started in 1987, information was gathered among parents interviewed in 1987 and one of their 18-34 year old children. The response rate among parents was 59 percent and among children 47 percent. After selection of parent-child couples with complete wave 3 information on both parent and child, 1452 parent-child dyads remained for analysis.

In wave 3, life history information on the timing of leaving home, entry into a co-residential union, marriage and childbirth was gathered among the children of the original wave 1 respondents. Information on the timing of these events of the parent was already collected in 1987 and updated in waves 2 and 3. For the analyses presented in this paper, data on the timing of leaving the parental home and on when respondents had their first child were used, as well as information available in union formation files constructed by the data providers on the timing of first co-residential union and first marriage. With the exception of the timing of leaving home among parents (available in years only), all information on the timing of events is available on a monthly basis. The dependent variable in the analyses will be the age at which

the focal child experienced one of the events under consideration. If a child had not experienced this event at the time of the wave 3 interview, this child was treated as censored at wave 3.

The main independent variable in the analyses is the age at which the parent experienced the four events of interest. This information is used in two ways. First, parents are categorized into four quartiles based on the age at which they experienced an event. However, not all parents have lived in a co-residential union or have been married. In that case, an additional category for parents who have not experienced the event is created. This categorical variable is used in non-parametric analyses of the impact of parental age at an event on the age at which his or her child experiences the same event. Second, the age at which a parent experiences an event is used as a continuous variable. This variable is used in parametric analyses of the impact of parental age at an event on the age at which his or her child experiences the same event. If a parent has not experienced an event his- or herself, this parent was given the mean age at experiencing this event. In addition, a dummy variable is created indicating whether or not the parent has experienced the event.

Table 1 about here

In Table 1 median ages of parents and children at experiencing the four events of interest are presented. Parents and children leave home at approximately the same age. The other events are clearly postponed by children. Sons and daughters enter into a union about two years later than their same-sex parents. Entry into marriage and into parenthood is even postponed by about six years. In addition, family formation among males (both fathers and sons) is about two to three years later than among females (mothers and daughters).

Given that the aim of this paper is to examine whether intergenerational transmission of demographic behavior occurs and not what mechanisms can account for it, the number of control variables is kept to a minimum. Included is the gender of the child, the gender of the parent and the birth year of the child. The latter variable is included because of the recent delay in the experience of many demographic events in young

adulthood. If one does not control for this fact, the strength of intergenerational transmission could be suppressed.

Analytical strategy

The impact of intergenerational transmission is studied in two steps. First, Kaplan-Meier estimates of the timing of all fur events are presented, separately for men and women and for the four relative age quartiles. Median ages at which sons and daughters experience these events are presented.

Second, multivariate hazard models for each of the four events are presented. The baseline hazard is estimated using a piecewise linear spline function (Lillard & Panis, 2000). This allows the hazard rate to increase linearly between age 'nodes' and to shift direction at nodes, allowing for a flexible way to describe age-dependencies in the hazard rate. Because women often experience these events at somewhat younger ages than men, a stratified model is estimated with separate baseline hazards for sons and daughters. In addition, gender of the parent, birth year of the child and the age at which the parent experienced the event are used in the analyses. Several models are estimated, each tailored to test the hypotheses formulated in the theory section. Model 1 includes only the control variables and the main intergenerational transmission effect. It allows for the testing of the general hypothesis that the timing of an event is transmitted from parent to child. Model 2 includes separate estimates for the transmission to sons and daughters in order to test whether intergenerational transmission is stronger to daughters than to sons. Model 3 includes an interaction effect between parental age at experiencing the event and gender of the parent in order to test whether the impact of mothers is stronger than that of fathers. Model 4 includes an interaction effect between parental age at experiencing the event and gender-equality within the parent-child dyad to test whether the impact of mothers on daughters and of fathers on sons is stronger than that across gender dyads. Model 5 includes a quadratic function of parental age at the event to test whether the impact of parental age is linear or not. Finally, Model 6 models the impact of parental age at the event as depending on the age of the child in order to test whether the strength of intergenerational transmission becomes weaker as children age. This is done using a duration spline variable. Likelihood ratio tests are used to determine whether Models

2 to 6 constitute a significant improvement on Model 1. All models are estimated using *aML* (Lillard and Panis, 2000).

Results

Non-parametric results

To get a first impression of the impact of the age at which parents experienced major demographic events on the age at which their children experience these same events, non-parametric estimates of the age at which sons and daughters experience the event were produced. Parents are divided into four categories, based on the relative age at which they experienced the event. The first category constitutes of mothers and fathers who belonged to the earliest 25 percent of their cohort to experience the event. The second and third category is made up of parents belonging to the second and third quartiles, respectively, to experience the event among their cohort. Finally, the fourth category consists of parents who belonged to the last 25 percent to experience the event.[1] Median ages at which sons and daughters experienced leaving home, entry into a first union, first marriage and entry into parenthood are presented in Table 2.

Table 2 about here

The first event on which data are presented in Table 2 is leaving the parental home. The median age at which sons experience this event is around age 19, whereas it is a few months earlier for women. The impact of parental age at leaving home is evident ─and statistically significant─, though rather small, for sons. Sons of parents who were among the last of their cohort to leave home, have a median age at leaving home that is about half a year later than sons of parents who were among the first of their cohort to leave home. Among women, however, these non-parametric estimates show no evidence intergenerational transmission of age at leaving home from parent to daughter.

[1] Because men often experience these events at somewhat higher ages than women, category membership was calculated separately for men and women.

Entry into a first union is the second event on which information is presented in Table 2. Both among sons and daughters, a clear impact of intergenerational transmission can be observed. The median age at entry into a union of sons of parents who entered into a union relatively late (fourth quartile) is more than two years later than that of sons of parents who entered into a union relatively early (first quartile). Among daughters, the differences are even more pronounced with an almost three year differences between daughters of 'late' and 'early' parents. At the same time, the data suggest that it is early rather than late entry into a union that is transmitted as the difference between parents who belong to the third and the fourth quartile is only very slight.

The third event recorded in Table 2 is entry into marriage. Again, a clear impact of intergenerational transmission, both among sons and daughters, is evident. The median age at which sons of parents who are among the last of their cohort to marry enter into marriage is about three years later than sons of parents who are among the first to marry. Among daughters, the differences seem even greater and amount to six years.

Entry into parenthood is the last event presented in Table 2. Relatively few men have as yet experienced the transition to fatherhood, resulting in less stable estimates. Among sons of parents who were among the third quartile to enter parenthood, not even half had already experienced the transition to parenthood themselves. Even so, the results show that intergenerational transmission of age at parenthood is clearly visible among sons. Sons of parents who were late at entry into parenthood, enter parenthood relatively late themselves as well. Among women, the strength of intergenerational transmission of age at parenthood is even more apparent. Daughters of parents who were early at entry into parenthood become mothers about eight years earlier than daughters of parents who were late at parenthood.

Multivariate results

To test the hypotheses, parametric hazard models were estimated. These models are presented, separately for each of the four transitions, in Tables 3 through 6. To keep the presentation of the key results simple, parameter estimates for the baseline hazard

and for the control variables are not presented (full results can be obtained from the author).

Tables 3 through 6 about here

In Model 1 of Tables 3 through 6, the general hypothesis that parental timing of an event is transmitted to their children is tested. All four transitions yield statistically significant effect, A higher age of the parent at an event reduces the rate at which children experience the event, and hence lead to a higher age of children at the same event. Clearly, intergenerational transmission of age at major demographic events does occur. The strength of intergenerational transmission, however, varies from event to event. A one year later age of the parent leads to a reduction of the rate at which their child experiences the same event of 3.7 percent for leaving home, of 7.9 percent for entry into a first union, of 6.4 percent for first marriage, and of 9.1 percent for entry into parenthood.[2] To formally test the difference between the parameters for the different events, a *z*-score is calculated (Clogg, Petkova and Haritou, 1995). This test shows that intergenerational transmission of age at leaving home is weaker than the intergenerational transmission of each of the other three events. However, intergenerational transmission of entry into a first union, first marriage and first childbirth is equally strong (although the difference between entry into marriage and entry into parenthood almost reaches significance with $z = 1.93$).

Next, it is tested whether the impact of intergenerational transmission differs between sons and daughters. To that aim, separate estimates for the effect of parental age at event for sons and daughters are calculated. The difference in the log-likelihood between Model 2 and Model 1 can be used to test whether the difference between the estimate of sons and daughters is statistically significant (-2 * log likelihood follows the χ^2-distribution). This comparison shows that in none of the four tables, Model 2 constitutes a statistically significant improvement on Model 1. Therefore, the main conclusion is that the impact of intergenerational transmission of age at these four events does not differ between sons and daughters. The only result that suggest some difference between sons and daughters is in Table 3, where the intergenerational

transmission is non-significant for daughters but not for sons. However, given that Model 2 does not improve on Model 1, not too much value should be attached to this result.

In Model 3, it is tested whether fathers and mothers have the same effect on their children. To that end, an interaction effect is added to the model. This interaction effect shows how much weaker or stronger the impact of fathers is compared to that of mothers. For instance, Model 3 of Table 3 shows that the estimate for the impact of the age at leaving home of mothers on the hazard of leaving home of their child is -0.0293, whereas the impact of the age at leaving home of fathers is -0.0697 (=-0.0293+ -0.0404). However, this difference is statistically non-significant as is clear from both the non-significant estimate for the interaction term and the non-significant increase in the log-likelihood of Model 3 compared to Model 1. The difference between fathers and mothers in intergenerational transmission turns out to be non-significant for all four events. This suggests that both parents are equally important in transmitting the timing of major demographic events.[3]

A third hypothesis on the role of gender in intergenerational transmission was that transmission would be stronger in same-sex parent-child dyads than in opposite-sex parent-child dyads. This hypothesis is tested in Model 4 by introducing an interaction effect for age of the parent and whether parent and child have the same sex. No such dyadic gender effect is found for leaving home, marriage and parenthood, but an effect is present for entry into a first union. Intergenerational transmission is stronger in same-sex dyads (either father-son or mother-daughter) than in opposite-sex parent-child dyads. A one year later age of the parent at entry into a first union leads to a reduction of the rate at which their child experiences the same event of 10.0 percent for same-sex dyads, but of only 5.6 percent for opposite-sex dyads.

The next hypothesis concerns whether the strength of intergenerational transmission depends on the age at which the parent experienced the event. It was suggested that

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[2] These figures are calculated by exponentiation of the effects shown in the first Models of Tables 3 through 6. For instance, (1-exp(-0.0372)) * 100 = 3.7.

[3] Evidently, the data include information on one of the parents only. Data on the timing of these transitions in the lives of both parents would allow for a better test of the relative importance of both parents.

particularly early timing of demographic events could be transmitted, or, more generally, that experiencing these events at relatively early or relatively late ages could be more easily be transmitted than a timing that does not deviate too much from the mean age at which people experience these events. This hypothesis is tested in Model 5 or Tables 3 through 6 by including a squared term of age of parent at the event. The results show that for two events ─leaving home and marriage─ this Model clearly improves on Model 1, whereas the increase in the log-likelihood is not statistically significant for entry into a first union, but the statistically significant effect for the squared term suggests that some kind of effect is operating. Interestingly, the sign of the interaction effect differs between events. For leaving home and entry into a first union, the squared term is positive, suggesting that the strength of intergenerational transmission declines at very early or very late ages.[4] For entry into first marriage the squared term is negative, suggesting an increase in the strength of intergenerational transmission of age at marriage at relatively early or relatively late ages.

Finally, in Model 6 it is tested whether the impact of intergenerational transmission becomes smaller as young adults become older. This is done by including a spline function for the parental age effect, consisting of an intercept that shows the strength of intergenerational transmission at the start of the risk period (i.e. at age 14) and a slope parameter that shows the increase or decrease in the strength of transmission per year that the child grows older. One very clear, and two somewhat weaker effects occur. The impact of intergenerational transmission of age at entry into a union clearly becomes weaker as young adults age. The effect becomes zero around age 27.[5] The impact of age en marriage and parenthood also seems to weaken as young adults grow older. The log-likelihood of Model 6 in Tables 5 and 6 differs statistically significant from that in Model 1. The slope parameter, however, turns out to be marginally significant. As for entry into a union, the strength of intergenerational transmission becomes weaker as young adults grow older, but the rate at which this weakening occurs is much lower than that for entry into a union.

[4] The parental age variable is centred around the mean age of parents at experiencing the event, so a positive sign for the squared term implies a decline in the effect as the distance to the mean age increases, whereas a negative sign implies an increase in the effect as the distance to the mean age increases.

[5] -0.2301/.00177 = 13, so the impact of parental age becomes zero after age 14 + 13 = 27.

Conclusions

This paper studies the intergenerational transmission of demographic behavior among young adults. Although we know a lot about the intergenerational transmission of divorce, knowledge about the transmission of family formation events like leaving home, entry into a co-residential union, marriage and childbirth is much more limited. The main aim of this paper is to contribute to filling this knowledge gap by examine whether the timing of these demographic events in the lives of parents is transmitted to their children.

A first important finding is that the timing of all four events –leaving home, entry into a co-residential union, marriage and first childbirth– is transmitted from parents to children. If parents experienced these events at a relatively young age, their children are relatively likely to experience these events at a relatively young age as well. However, the strength of intergenerational transmission varies with the type of behavior. It is clearly weaker for leaving home than for the three other demographic behaviors. The reason why the transmission of age at leaving home is weaker awaits further research. It could be that this is related to the fact that leaving home is more dependent on events in other life domains –like getting a job elsewhere or starting a university education– than other demographic events. It could also be that parents and children have less firm ideas about the appropriate age to experience this event than is the case for other events in the young adult life course.

A second important finding is that the gender of parents and children does not seem to play a major role in the intergenerational transmission of these demographic behaviors. For all four behaviors, the impact of fathers and mothers was found to be equally strong. Likewise, the impact on sons and daughters did not vary for any of the four behaviors either. Finally, intergenerational transmission turned out to be equally strong among parent-child dyads of the same sex as among parent-child dyads of the opposite sex for all events except entry into a first union. This general absence of gender effects could imply several things. First, it could mean that both parents are equally successful in transmitting parental preferences and that both sons and daughters are equally susceptible to parental preferences. However, it could also

imply that it is not so much the attitudes of specific parents that play a role in transmission, but that behavioral transmission and other factors that family members – irrespective of their sex– share.

A third finding is that the strength of intergenerational transmission sometimes depends on the parent's age at experiencing the event. This is true for leaving home, entry into a first union and for entry into marriage. The later parents have left their parental home, the later children do the same, but if parents have left home either very early or very late, their children are less likely to behave in the same way. The same effect was found for entry into a first union. However, the opposite effect was found for marriage. If parents have married relatively early or relatively late, their children are particularly likely to act in the same way. No such curvilinear effects were observed with regard to entry into parenthood. With regard to marriage, these results could imply that parents who married early may be very strong in favor of marriage, whereas parents who marry late may hold a very weak preference for marriage and that these parents are relatively successful in transmitting these preferences to their children. Wit regard to leaving home and entry into a co-residential union, it could imply that parents who experienced these events very early or very late did so as a result of very special circumstances and that their age at leaving home and entry into a union did not reflect their attitudes with regard to the optimal timing of leaving home and entry into a co-residential union, but reflect other factors ─like the wish to escape a relatively bad family situation─ rather than parental preferences.

A fourth finding is that the strength of intergenerational transmission of these demographic behaviors does weaken somewhat, as children get older, with the exception of the transmission of age at leaving home. The age at which parents entered into a co-residential union, entered into marriage and entered into parenthood all have a weaker impact on their child's behavior, as the child gets older. However, until their late twenties, parental timing keeps its effect on the hazard at which their children experience the event. Thus, these results offers support for the idea that intergenerational transmission of demographic weakens with children's age. However, during the ages in which most young adults experience these transitions, intergenerational transmission remains quite strong.

Taken together, these results offer robust support for the proposition that the timing of major demographic events in the family life course of young adults is transmitted from parents to children. Evidently, the next question is how to explain this process. Four mechanisms (value socialization, social control, behavioral socialization and transmission as a by-product of other factors) to explain this association have been put forward. For some of these mechanisms some empirical evidence is available. However, this evidence is still very meager. Testing the existence and importance of these mechanisms poses a major challenge for future research in this area. To test these mechanisms, one needs panel data with information on behaviors, attitudes, and other family characteristics of both parents and children. The increasing availability of such surveys –both in the US and abroad– opens up promising prospects for future research.

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Figure 1 A theoretical framework for the intergenerational transmission of demographic behavior

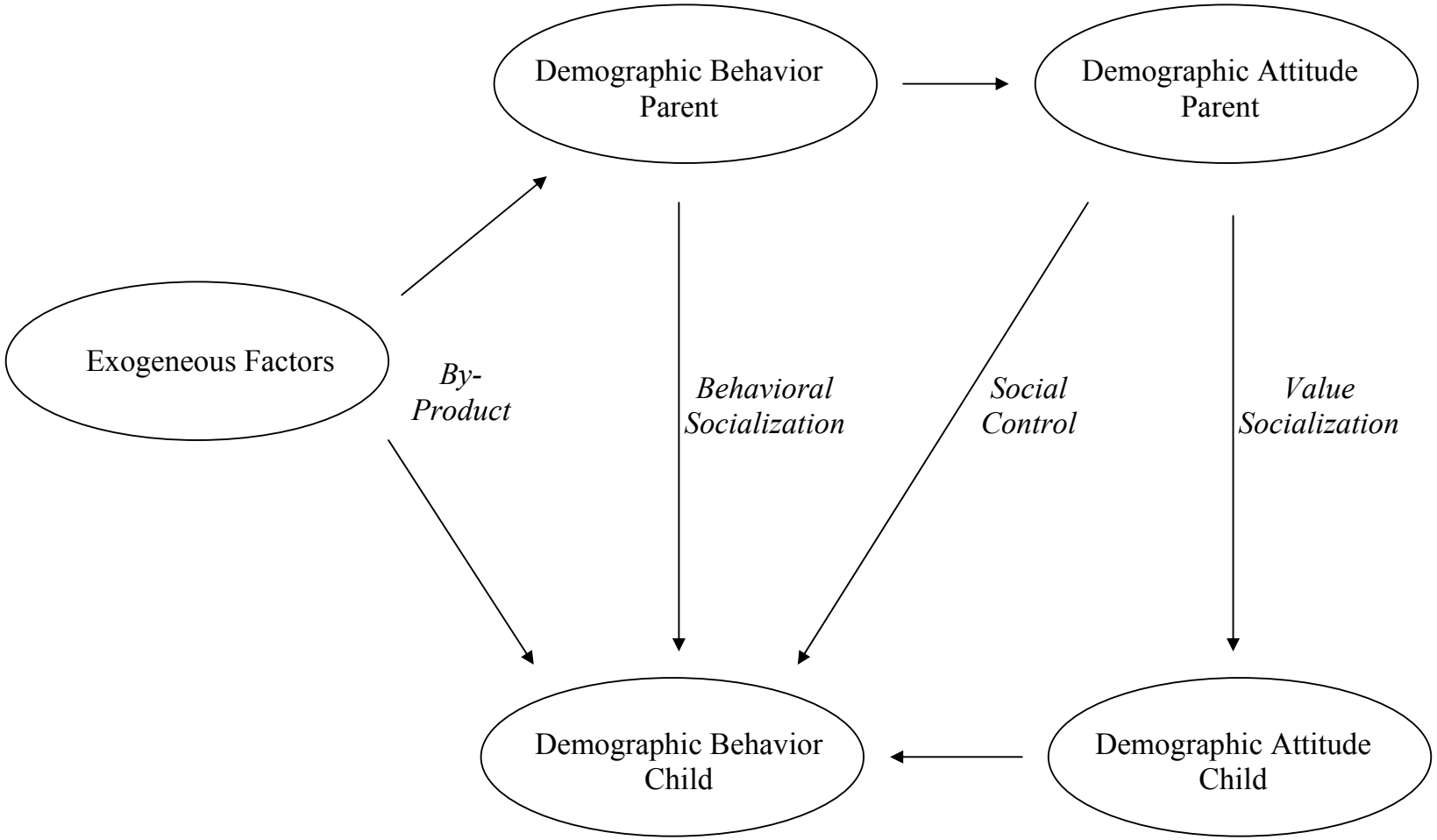

Table 1 Median age of fathers, mothers, sons and daughters at experiencing selected demographic events

Event	Fathers	Mothers	Sons	Daughters
Leaving the parental home	18[a]	18[a]	19.0	18.7
Entry into a first union	22.2	20.2	24.1	22.4
Entry into first marriage	22.5	20.6	28.4	26.4
First childbirth	24.9	21.8	31.0	27.8

[a] Leaving home among parents is known in whole years, not in months

Table 2 Median age of males and females at experiencing demographic events by relative age of parent at his or her own experience of this event

Relative age at which parent experienced an event	Males	Females
Leaving the parental home		
First quartile	18.8	18.5
Second quartile	18.9	18.7
Third quartile	19.1	18.8
Fourth quartile	19.3	18.6
Entry into a first union		
First quartile	23.0	21.0
Second quartile	23.8	22.2
Third quartile	24.8	22.7
Fourth quartile	25.1	22.8
Entry into first marriage		
First quartile	26.5	23.8
Second quartile	27.6	25.8
Third quartile	30.3	27.2
Fourth quartile	29.5	29.8
First childbirth		
First quartile	29.1	24.3
Second quartile	29.5	26.0
Third quartile	-	31.3
Fourth quartile	33.4	32.1

Table 3 Results of several hazard models, stratified by sex, of the impact of parental age at leaving home on leaving home of children (standard errors in parentheses)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Age parent at leaving home	-0.0372** (0.0107)		-0.0293** (0.0119)	-0.0431** (0.0159)	-0.0689** (0.0171)	
Age parent at leaving home (sons)		-0.0530** (0.0155)				
Age parent at leaving home (daughters)		-0.0228 (0.0149)				
Age parent at leaving home * father			-0.0404 (0.0268)			
Age parent at leaving home * same-sex dyad				0.0112 (0.0207)		
Age parent at leaving home ^{2}					0.0033* (0.0014)	
Intercept Age parent at leaving home						-0.0554 (0.0292)
Slope Age parent at leaving home						0.0035 (0.0054)
Log-likelihood	-4638.7	-4637.8	-4637.7	-4638.6	-4636.2	-4638.5

† $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

Table 4 Results of several hazard models, stratified by sex, of the impact of parental age at entry into a first union on first union formation of children (standard errors in parentheses)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Age parent at entry into a union	-0.0818** (0.0113)		-0.0833** (0.0141)	-0.0574** (0.0154)	-0.0908** (0.0114)	
Age parent at entry into a union (sons)		-0.0664** (0.0165)				
Age parent at entry into a union (daughters)		-0.0948** (0.0148)				
Age parent at entry into a union * father			-0.0044 (0.0236)			
Age parent at entry into a union * same-sex dyad				-0.0477** (0.0216)		
Age parent at entry into a union ^{2}					0.0034* (0.0016)	
Intercept Age parent at entry into a union						-0.2301** (0.0254)
Slope Age parent at entry into a union						0.0177** (0.0028)
Log-likelihood	-4128.1	-4127.3	-4128.1	-4146.0	-4126.5	-4112.9

† $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

Table 5 Results of several hazard models, stratified by sex, of the impact of parental age at entry into a first marriage on first marriage of children (standard errors in parentheses)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Age parent at first marriage	-0.0661** (0.0097)		-0.0580** (0.0120)	-0.0780** (0.0135)	-0.0888** (0.0134)	
Age parent at first marriage (sons)		-0.0629** (0.0162)				
Age parent at first marriage (daughters)		-0.0682** (0.0117)				
Age parent at first marriage * father			-0.0316 (0.0232)			
Age parent at first marriage * same-sex dyad				-0.0183 (0.0190)		
Age parent at first marriage^2					-0.0035* (0.0012)	
Intercept Age parent at first marriage						-0.1191** (0.0276)
Slope Age parent at first marriage						0.0062† (0.0032)
Log-likelihood	-2939.8	-2939.8	-2938.9	-2939.5	-2934.1	-2937.6

† $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

Table 6 Results of several hazard models, stratified by sex, of the impact of parental age at entry into parenthood on entry into parenthood (standard errors in parentheses)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Age parent at first childbirth	-0.0957** (0.0119)		-0.1127** (0.0155)	-0.0893** (0.0168)	-0.0991** (0.0127)	
Age parent at first childbirth (sons)		-0.1011** (0.0212)				
Age parent at first childbirth (daughters)		-0.0928** (0.0139)				
Age parent at first childbirth * father			0.0442 (0.0236)			
Age parent at first childbirth * same-sex dyad				-0.0123 (0.0210)		
Age parent at first childbirth ^{2}					-0.0016 (0.0017)	
Intercept Age parent at first childbirth						-0.1490** (0.0284)
Slope Age parent at first childbirth						0.0056† (0.0029)
Log-likelihood	-3395.4	-3395.3	-3393.8	-3395.2	-3395.0	-3393.5

† $p < 0.10$ * $p < 0.05$ ** $p < 0.01$