Affectual Solidarity: Measurement, Theoretical Validity, and Dimensionality

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ABSTRACT

Katherine Pepin: Affectual Solidarity: Measurement, Theoretical Validity, and Dimensionality
(Under the direction of Peter Uhlenberg)

This paper reviews the theory and predictions of the Intergenerational Stake Hypothesis (ISH) specifically examining its element of Affectual Solidarity (AS). It looks at past measures of AS, what they show regarding mother and child report congruence, and their weaknesses. Using paired questions and data from all three waves of the National Survey of Families and Households (NSFH) corresponding to the ISH definition, confirmatory factor analysis is used to create a uni-dimensional measurement instrument of a mother and her adult child's perceived relationship quality of AS. Using this instrument, the implied dimensionality of the latent concept of one shared perception of AS is rejected in favor of separate dimensions for mother and child. Further, it is found, contrary to previous research and ISH prediction, that children are often significantly more positive in ratings of AS than their mothers. A multinomial regression model of socio-demographic characteristics and report congruence is created.

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CHAPTER I

INTRODUCTION

The relationship that parents' have with their children is related to the well-being of their

children throughout life (Roberts and Bengtson, 1996 and 1993; van Wel, Linssen, and

Abma, 2000; Aquilino, 1997; Parrott and Bengtson, 1999; Amato, 1994; Maccoby, 1984;

Knoester, 2003; Lawton, Silverstein, and Bengtson, 1994; Silverstein and Bengtson, 1991;

Silverstein, Parrott, and Bengtson,1995). However, the mechanisms producing this

relationship have been understudied. Before studying these mechanisms, however, we need

to be clear about how relationships are measured. The extant literature shows that when

parents and children respond to questions regarding their relationship quality, their answers

often vary significantly. Why does this occur, and what are the implications? The lack of

agreement suggests that parents and children tend to have differing views of their

relationship quality. The Intergenerational Stake Hypothesis (hereafter ISH), which states

that parents rate their parent-child relationship more positively than do their children, is one

of the dominant theoretical explanations used to describe the discrepancies in parent and

child relationship quality reports. Their discrepant evaluation of the relationshp is attributed

to the parents' desire to impart their legacy versus the children's desire to assert their

independence. Despite the Intergenerational Stake's dominance as an explanatory theory, the

lack of a commonly accepted, valid measurement instrument renders the hypothesis

untestable.

This research analyzes the component of Affectual Solidarity (see Appendix A for complete listing of ISH components), the amount of positive sentiments held about family members and their reciprocity. Due to its importance throughout the life course as well as the current lack of adequate instrumentation, a valid instrument is needed in order to assess the perceived differences in Affectual Solidarity between the mother and her adult child. I propose to develop a means of measurement that will enable me to assess the accuracy of the Intergenerational Stake Hypothesis in terms of this dimension. This will enable me to analyze what causes situations in which children's ratings of Affectual Solidarity are more positive than that of their mothers. This paper will use National Survey of Families and Household (NSFH) data to first construct an instrument to measure the Affectual Solidarity dimension of the Intergenerational Stake Hypothesis.

This research is important for several reasons. Not only does it attempt to provide a tested, uni-dimensional measurement instrument for an often-used theory, it also allows for a more direct test of a specific dimension of the theory. Further, the reported relationship quality between parent and child is often used as a predictor of behavioral outcomes for children (O'Conner 556, 2002). Thus, it is important to note *which* generation is surveyed when interpreting the assessment of the relationship quality. The results may differ depending on which member of the dyad is reporting. Thus, predicted outcomes could diverge based on the respondent. Finally, this instrument and tool will allow me to assess the situations in which children rate their Affectual Solidarity higher than mothers in the dyads, and vice-versa.

First, I will review the theory and predictions of the Intergenerational Stake Hypothesis (ISH). Specifically, I will examine component of Affectual Solidarity and its implied model of dimensionality, which will be further explained below (see page 12 /Figures 1-2). Second,

I will look at past measures of Affectual and other types of solidarity, what these measures have found regarding mother and child report congruence, and their weaknesses. In addition, I will briefly discuss the importance of this dimension's application by reviewing past researchers' use of Affectual Solidarity levels to predict behaviors and outcomes. Using questions and data from Wave 3 of the NSFH corresponding to the ISH definition, I will apply confirmatory factor analysis to create a measurement instrument of a mother and her adult child's perceived intergenerational relationship quality, specifically within the component of Affectual Solidarity. With this instrument, I will be able to assess the implied underlying dimensionality of the latent concept of a shared perception of Affectual Solidarity. By "dimensionality," I mean mother and child sharing one perceived concept of Affectual Solidarity versus each having his/her own perception of it. I will then examine the congruence levels and directions produced by the constructed instrument, as well as compare those to the outcomes predicted by the Intergenerational State Hypothesis. Finally, I will develop a model to predict congruence.

CHAPTER II

BACKGROUND

The Intergenerational Stake Hypothesis (ISH) and the Leniency Hypothesis are the most

common theories explaining the difference in solidarity reports between parents and children.

Thus, it is important to first discuss what these theories say about the incongruence between

parents and their children. Second, I will look at past measures of the specific ISH

dimension of Affectual Solidarity as well as what these measures have found in terms of

congruence between parents and children. Finally, important weaknesses and uses of the

past research will be highlighted.

Theoretical Explanation

Intergenerational Stake Hypothesis

The Intergenerational Stake hypothesis was born out of the more individual

developmental-level Developmental Stake hypothesis proposed by Bengtson and Kuypers in

1971. It refers to the difference in individual development concerns of the children and their

parents. Parents would overstate intergenerational solidarity due to their concern for value

continuation and perpetuating their family, whereas children understate solidarity due to their

desire to establish independence and self-reliance (Giarruso, Stallings, Bengtson, 1995). In

1995, Giarruso, Stallings, and Bengtson proposed an updated Intergenerational Stake

Hypothesis in an effort to take into account both individual level development as well as

socio-structural level influences. From the socio-structural level concepts of exchange theory, the hypothesis now takes into account the forces of differing costs and rewards garnered by the children and parents. That is, parents invest more in children than vice versa "because of their contrasting position in the cycle of generations" thus creating inequity (252). Accordingly, the Intergenerational Stake Hypothesis makes two predictions: "(a) parent's descriptions of parent-child relationships will generally be more positive than children's descriptions, and (b) differential investment as well as differential development may account for cross-generational biases in perception" (229). Further, these predictions were found to hold despite age of parents and children. Initial testing done by Giarruso, Stallings, Bengtson (1995) found that it "appears to be applicable to adult children and their elderly parents without any theoretical elaboration to include developmental tasks of older life-course phases" (257). This was also discussed by Aquilino (1999) who attributes the previous lack of congruence found between young adult children (18-24) and parents in their reports of quality in different dimensions of their relationships to differences in psychological needs established by the generational stake theory (Aquilino 1999, 859). Although the Intergenerational Stake Hypothesis is widely used, it is also frequently criticized for issues pertaining to its use of exchange theory in explaining parent and child differences, the lack of continuity assumed in its use of developmental theory, and for the instrument used for measuring it in the past (Rossi 1995).

Affectual Solidarity

In this paper, I will focus on one of the Intergenerational Stake Hypothesis' delineated elements. "Affectual Solidarity" was so termed by Bengtson and Roberts (1991) as one of

six elements of Intergenerational Solidarity. It is defined to be the "type and degree of positive sentiments held about family members and the degree of reciprocity of these sentiments" (857). More specifically, Giarusso et al. (1995) delineate it to include: "1. Ratings of affection, warmth, closeness, understanding, trust, respect, etc. for family members 2. Ratings of perceived reciprocity in positive sentiments among family members" (857). (See Appendix A for definitions of all dimensions).

An emotional dimension of parent-child relationships was chosen because it is seen as a thread through the life course in parent-child relationships in both social and psychological literature. As Pillemar and Suitor (1991) conclude "social scientists convincingly demonstrated that children and parents continue to interact and depend on one another for both emotional and instrumental support throughout the life course (cf. Bengtson & Robertson, 1985; Brody, Johnsen, Fulcomer, & Lang, 1984; Cicirelli, 1983; Johnson Bursk, 1977; Nydegger, 1983; Shanas, 1979; Troll, Miller, & Atchley, 1979)" (163). In addition, Eleanor Maccoby's "Social Development: Psychological Growth and the Parent-Child Relationship" examines parental warmth and affection as being a major aspect in types of parenting in young children, although she admits that these are difficult to define.

Leniency hypothesis

The Intergenerational Stake hypothesis was called into question by Winkeler, Filipp, and Boll (2000) who investigated the "leniency hypothesis" as an alternative. With the given incongruence of responses between generations, this theory proposes that the older adults tend to infer all social relationships in a more positive light. Using a quasi-experimental approach, it was found that regardless of their lineage, all older adults viewed a controversial

issue discussed between two family members more positively than middle-aged respondents. Thus, in this case, the "leniency hypothesis" was concluded to be more plausible than the stake hypothesis (Winkeler, Filipp, and Boll 2000).

Measurement and Dimensionality of Relationship Quality

Past Measurement and Findings

The value of the method of self-reporting and family member self-reports were recognized by Maccoby and Martin (1983) who acknowledge the unique position held by both parent and child in the intimate knowledge they acquire "by virtue of their daily participation in the family system" (16). With this unique insight "it is reasonable to tap into this information by questioning them" (16). With this diverse source of information from multiple family member comes the issue of whose perspective is most valid or closest to "reality" among the members. But first, as this research hopes to address, comes the issue of accurately measuring each member's perception of the specific self-report of interest to this research – that of Affectual Solidarity between mother and child. In order to do this it is necessary to discuss the importance and use of the measurement of parent and child relationships and its dimensionality.

The use of parent and child relationship report incongruence to predict behaviors, its indication of belief differences, and the reasons for its existence make it an important occurrence in parent and child relationship quality reports. Numerous findings reveal incongruence in relationship quality reports between children and their parents (Aquilino 1999; Aquilino 1997; Pelton and Forehand 2001; Shapiro 2004; Tein, Roosa, and Michaels 1994). Many demographics characteristics are found to correlate with the incongruence.

For example, it was found that incongruence between parent and child relationship quality reports was significantly higher in divorced families (Pelton and Forehand 2001). The lack of congruent responses between parent and child when reporting on the same topics has been well-established across both young and young-adult aged children as well as across numerous types of parent-child reports (Aquilino 1999, Aquilino 1997, Pelton and Forehand 2001, Tein, Roosa, and Michaels 1994, Shapiro 2004). For example, Tein, Roosa, and Michaels (1994), looking cross-sectionally at the Child's Report of Parental Behavior Inventory, found only low to moderate correlation between the child's and parent's reports of parental behavior. Moreover, Bengtson and Kuypers (1971), Giarusso, Stallings, and Bengtson (1995), and Winkeler, Flipp, Boll (2000) find that there is incongruence in parent-child responses, with the parents consistently reporting higher levels of closeness than their children. However, recent studies have started to uncover instances in which children provide higher ratings on some dimensions or aspects of intergenerational solidarity (Shapiro 2004, Aquilino 1999). Many of the methods in this research will be based on more recent studies and their findings.

Shapiro (2004) and Aquilino (1999) analyze incongruence in parent-child reports of relationship quality using Wave II of the National Survey of Families and Households (NSFH). They both find there were systematic discrepancies between the reports of young-adult or adult children and their older parents, although relationship reports were not done on comparatively specific dimensions of relationship quality. Shapiro (2004), driven specifically by the aspects of Intergenerational Solidarity, analyzes incongruence in reports of frequency of contact, global relationship quality, exchanges of assistance, and emotional support. Using a regression model to predict when the parent or child is more positive in

report, parents' age, children's age, child's marital status, distance/co-residence, and the dyad's sex composition are found to be influential. For emotional support (assumed, although not tested to be, closest to measuring Affectual Solidarity), parent's age, the child's marital status, and the dyad's sex composition were found to be significantly influential in the child's reports being more positive. On the other hand, Aquilino (1999) looks at a warmth-support dimension, the construction of which was not driven specifically by Intergenerational Solidarity's definition. He finds parent's and child's marital status, child's education, parent's race, and previous parenting techniques (e.g. democratic discipline, restrictiveness) to be significant factors in when the child's rating is more positive than the parent's rating. Thus, although both found child's marital status to be influential in a child's report being more positive than the parent's report on closeness or emotional support, there was a lack of consistency in the influential demographic characteristics. Although looking at discrepancies in parent-child reports, neither Shapiro (2004) nor Aquilino (1999) analyze the specific dimension of Affectual Solidarity as defined by the Intergenerational Stake Hypothesis. Despite findings to elaborate, Shapiro (2004) claims that "older generations report greater closeness than do younger generations" (Shapiro 2004, 129).

So despite the agreement on the existence of discrepancies between parent and children in their perception to relationship quality, researchers disagree about the causes and conditions underlying these report discrepancies are as well as to what dimensions they affect. Aquilino (1999) looked at dimensions similar to those of, but necessarily driven by, the Intergenerational Stake Hypothesis's definition of Affectual Solidarity, and Shapiro (2004) focused more specifically at non-affectual dimensions of solidarity. Thus, I will test a predictive model of Affectual Solidarity congruence levels. I will do so with a uni-

dimensional scale in order to counteract the canceling out of any effects by other dimensions of Intergenerational Solidarity.

Past research looks at incongruence in many aspects of solidarity and uses unfocused, multidimensional instruments. In order to properly assess parent and child closeness as described through the definition of Affectual Solidarity, an accurate measurement instrument must be used. With a valid instrument, the level and direction of congruence as well as the appropriateness of the Intergenerational Stake hypothesis' predictions can be assessed.

Since I will use Bengtson and Roberts' (1991) definition of the dimension of Affectual Solidarity, it is important to look at past measures associated, used, and reviewed for this specific dimension. Several instruments attempting to measure Affectual Solidarity specifically have been identified and critiqued in the past (Giarusso et al. 1995, Rossi 1995). Although, the Intergenerational Stake Hypothesis has itself been critiqued for its use in explanation of change in Affectual Solidarity and overall explanations in differences between parents and children over time, the *concept* and dimension as delineated by Bengtson and Roberts (1991) are useful (Giarusso et al 1995). In this paper, I will focus principally on the attempt to create a valid measurement instrument based on the ISH theory and definition of Affectual Solidarity by analyzing identical questions asked of a mother and her adult child.

Before creating a measure, it is important to examine the specific measures used in the past and their problems. Measures for Affectual Solidarity used by Bengtson and Roberts (1991) have been reused but their appropriateness questioned[1]. For instance, Alice Rossi criticized

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[1]Giarruso, Stallings, Bengtson (1995) have instruments designed to measure Affectual Solidarity. A shortened, simplified version of their previous instrument uses 6 questions to measure current Affectual Solidarity. These six measures are:
1. Taking everything into consideration, how close do you feel is the relationship between you and your "study" child (or your mother/father) at this point in your life?
2. How is communication between yourself and this child (or your mother/father)-exchanging ideas or talking about things that really concern you at this point in your life?

the instrument consisting of six measures used by Giarusso et al (1995) (Rossi 1995).

Giarruso, Stallings, and Bengtson (1995) have instruments designed to measure Affectual Solidarity. A shortened, simplified version of their previous instrument uses 6 questions to measure current Affectual Solidarity. Although they were implemented on multiple occasions (Mangen, Bengston, and Landry 1988; Richards, Bengtson, and Miller 1989), I found these questions to constitute more than one dimension when assessing the fit of models including questions from the NSFH Wave 3 corresponding to the aspects of their questions. This is also seen conceptually by comparing the measure's content to the definitions of solidarity types by Bengtson and Roberts (1991). Alice Rossi also found this to be the case when analyzing the measures included in this instrument (Rossi 1995). Rossi states one problem to be, "the inclusion in the measure of affectual solidarity of an item, not on affectual solidarity but consensual solidarity (i.e. a rating on perceived similarity of opinions and values about life)" (266). Due to this inclusion of multiple dimensional measures and the corresponding lack of model fit and issues with dimensionality, I will be using the definitions provided by Bengtson and Roberts in 1991 of Affectual Solidarity to determine which variables to include to measure Affectual Solidarity specifically. This process, done through confirmatory factor analysis, will be completed and discussed further in the Analysis and Resutls section below.

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3. In general, how similar are your opinions and values about life to those of your "study" child (or your mother/father) at this point in time?
4. Overall, how well do you and this child (or your mother/father) get along together at this point in your life?
5. How well do you feel you understand this child (or your mother/father)?
6. How well do you feel this "study" child (or your mother/father) understands you?

Dimensionality and Modeling

In order to assess the adequacy of the Intergenerational Stake Hypothesis' predictions, explicit delineation of a conceptual model of this dimension implied by those using and applying the theory and the results from these reports is necessary. This is not done overtly in their research. In other words, it is also important to understand the specific conceptual model in order to know what we are measuring.

The discussion and common use of only one respondent's perception of this relationship quality imply that there is a shared dimension of Affectual Solidarity for the parent and child. (See Figure 1) Thus, by asking only one of member of the dyad, it is measuring this shared concept of relationship quality. However, the incongruence in reports and low correlation found between the parent and child reports of relationship quality implies that each respondent may have his/her own perceived dimension of relationship quality. (See Figure 2) or at least a very different one (Shapiro 2004, 128). Thus, the conceptual dimensionality of the model must be tested to determine the exact conceptual model we intend to measure.

Importance and Use of Relationship Quality Reports

Incongruence in relationship quality assessment, besides what it tells about parents' and children's views, is important because research often uses the assessments of parent-child relationship quality to predict children's risk of behaviors and outcomes as well as parent's well-being, received social support, and mortality risks (Roberts and Bengtson, 1996 and 1993; van Wel, Linssen, and Abma, 2000; Aquilino, 1997; Parrott and Bengtson, 1999; Amato, 1994; Maccoby, 1984; Knoester, 2003; Lawton, Silverstein, and Bengtson, 1994; Silverstein and Bengtson, 1991; Silverstein, Parrott, and Bengtson,1995). For example,

studies have associated children's behavioral outcomes and the well-being of the parents with the emotional quality of parent-child relationships, although many acknowledge these results are mediated by different demographic characteristics (Amato, 1994; Roberts and Bengtson, 1993). The findings used to predict these outcomes usually come from just one source, either the parent or the child. With the above noted discrepancies, the predicted associated outcome behaviors could be altered if the other member were asked about the relationship quality. It is important to describe the reasons behind the discrepancies to also determine the accuracy of these predicted outcomes associated with parent and child relationship quality. For example, Roberts and Bengtson (1996), using 20-year panel data of 273 youths aged 16-26 in the University of Southern California Longitudinal Study of Generations, linked strength of affective ties to parents in early adulthood to levels of a child's self-esteem 20 years later. Using just the child's report, which may be significantly different than that of the parent, may have altered the associations to self-esteem outcomes found. This was acknowledged and questioned by Roberts and Bengtson (1993), when analyzing both parent and child responses to affection and self-esteem of the children. They question the appropriateness of responses to consider although they find that "filial perceptions of affectual closeness were related positively to self-esteem even after controlling for the parent report of affectual closeness" (268). On the other hand, they acknowledge that they are "unable to determine, however, whether this finding reflected benefits of the son's or daughter's perception (accurate or not) or a perceptual bias related to possessing greater self-esteem" (268).

It should be noted that the majority of these findings come from association with the child's assessment of many different types of relationship quality. In light of the pervasive known incongruence in assessment, this raises the question of whether the associated, predicted

behavior outcomes would have been predicted to be different if a parent's assessment was used instead. Thus, the persistent incongruence between parent and children on their relationship quality can be problematic in predicting such outcomes as well as deciding which source of information to tap into for assessment. Further, the use of a single respondent has other implications with regard to the dimensionality of the concept of Affectual Solidarity, which will be discussed below.

With this knowledge, it is important to untangle the parent-child differences in the specific dimensions of solidarity and why they exist, in order to more accurately assess and use these reports in predicting other outcomes. Thus, this paper will try to create a uni-dimensional instrument measuring the ISH's element of Affectual Solidarity which can be used to better understand the dimensionality of the relationship between mothers and their children's level of solidarity and untangle the demographic characteristics causing the differences in their ratings.[2]

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[2]For ease of analysis and the general importance of mother and child relationships, only mothers and their children will be analyzed in this paper.

CHAPTER III

RESEARCH OBJECTIVES AND QUESTIONS

The incongruence in parent-child relationship quality reports has been explained by the

theory of the Intergenerational Stake Hypothesis, which states that parents will more often

report a more positive view of parent-child solidarity than will the child. However, the

instruments used to measure and test the aspects of Intergenerational Solidarity in the past are

criticized as not being uni-dimensional in their operationalization. Consequently, they may

not be valid. Thus, the predictive power of the theory cannot be accurately assessed.

Further, this theory as well as past research uses a single report of relationship quality to

predict future behavior of both the parent and child, which implies that there is a single,

accurate perception of the relationship quality, a perception that is shared by both the parent

and child. However, this has not been stated explicitly in the research or systematically

shown through model and testing of dimensionality. As such, in this paper, I will seek to

complete and answer the following research objectives and questions:

1. Construct a valid, uni-dimensional measurement instrument of Affectual Solidarity as

    delineated by the Intergenerational Stake Hypothesis using questions and responses

    from the National Survey of Families and Households (Wave III).

2. Using this constructed instrument, what are the differences between mother and child

    in assessment of their Affectual Solidarity?

3. Is there *one* shared perception of Affectual Solidarity between a mother and her child, or do they each have their own conceptual dimension of perceived Affectual Solidarity? Despite the implication of a single, shared conceptual dimension in the conclusions and methods of previous research using these reports in prediction and based on the previous low levels of congruence; I hypothesize that there will be evidence of the mother and child each having his/her own perceived level of Affectual Solidarity.

4. What socio-demographic characteristics are associated the child to more positively report aspects of Affectual Solidarity than his/her mother?

5. Do these differences correspond with those predicted by the Intergenerational Stake Hypothesis? If not, why not?

CHAPTER IV

METHODS

First, I will use confirmatory factor analyses to estimate a model of mother and child

perceived levels of Affectual Solidarity. Second, I will look at the difference scores of the

measures included in the constructed instrument to assess the congruence levels and direction

of the Affectual Solidarity of the mothers and their children at two different points in time

(Wave II and Wave III of the NSFH). With these difference scores and assessments of

direction, I will be able to assess the validity of the Intergenerational Stake Hypothesis'

predictions that the mother rates the level of solidarity higher than her child. I will use

multivariate logit regression to determine predictors of the patterns of congruence and

potential explanation for its lack of adherence to the theory.   These measures and the

corresponding model will be used to compare the correlation between their two latent

dimensions in order to determine if the model supports the concept of a single, shared

dimension of perceived Affectual Solidarity or that of each mother and child's own perceived

dimension of this solidarity.

Data

Data for this research comes from the second and third wave of the National Survey of

Families and Households (NSFH). These waves provide both parent and selected focal child

responses regarding rating of overall parent-child relationships. The initial sample, surveyed

in 1987-1988 (N=13,017) and followed up between 1992 and 1994 (N=10,007), included a

nationally representative sample of adults 19 and older living in households in the United

States (Sweet and Bumpass 1988). The third wave follows up on certain sub-samples

including, importantly for this research, those those with Wave 2-eligible focal children. The

third wave interviews these respondents, the past focal children, as well as any other focal

child regardless if they were interviewed in Wave 2 or not (Sweet and Bumpass 2002).[3]

Thus, the generalizability of this data is somewhat limited. To help correct for item-missing

responses and low response rate, multiple imputation methods will be used to get a more full

set of responses[4]. For purposes of analysis, I will limit main respondents to mothers only.

However, this research hopes to expand and further the ideas used by Aquilino (1999) and

Shapiro (2004) who both used Wave 2 data with then younger adult children. Wave III

allows me to look at older adult children as well as their mothers. Thus, it will be used in

constructing the measurement instrument an in the multinomial regression analyses. Some

demographic information will be supplemented from the first and second wave of the data.

    With 71% of those with a Wave 2 interview responding and only 22% of those without a

Wave 2 interview responding, the overall response rate in Wave 3 was 63% for main

respondents. The overall response rate was only 48% for focal children with 61% of those

who responded in Wave 2 responding and 27% of those with no Wave 2 interview

responding (Sweet and Bumpass 2002).

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[3]There is not, and I was informed there will not be, a weight variable constructed for these data.

[4]Imputation has currently been put on hold due to complications with the coding process and rounding issues as well as recent maternity leave of the programmer assisting me with these issues. After its completion, these analyses will be redone using this data.

Descriptive Statistics of the Sample

The average age of 1,261 initial responding mothers in the sample at Time 3 was 52 years of age with 50% falling between the ages of 46 and 56 (with 144 missing case). The average age of the 1,261 initial responding focal children who's mother was the main respondent at Time 3 was 26 with 50% falling between the ages of 22 and 30 (with 12 missing cases). Twenty-seven percent of those who responded (or 295/1082) lived with one or both of their parents. The average educational attainment of mothers that responded (N=1,174) was that of some college: 40.9% had a high school degree, 9.1% did not finish high school, 21.4% had finished some college, 7.8% had an associate degree, and 20.8% had a college degree or higher. The average educational attainment of the children that responded (1,254) was that of some college: 30% had a high school degree, 7.4% did not finish high school, 8% had an associate degree, and 20.6% had a college degree or higher. Of those who responded (N=1,261) 49% of the children are either married or cohabiting. Thirty-two percent of the children are married, 6.8% are either separated or divorced, and 60.8% were never-married. 38.4% percent (N=1,260) of the children are parents. Those focal children with children have an average of 1.74. Forty-seven percent of the 1,261 focal children are male with the other 53% being female.[5][6] (See Table 1)

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[5]There were 443 mother-child dyads responding in both Wave 2 and Wave 3. The average age of the mother at Wave 3 was 55.5 years of age with 50% falling between the ages of 51 and 59. The average age of the 443 focal children was 29.9 with 50% falling between the ages of 26 and 34. Fifteen percent of those who responded (or 56/373) lived with their mother. The average educational attainment of mothers that responded (N=442) was that of a high school degree: 41.6% had a high school degree, 9.7% did not finish high school, 21.7% had finished some college, 6.8% had an associate degree, and 20.13% had a college degree or higher. The average educational attainment of the children that responded (442) was that of some college: 33.3% had a high school degree, 5.2% did not finish high school, 10.2% had an associate degree, and 32.6% had a college degree or higher. Of those who responded (N=443) 65% of the children are either married or cohabiting. Fifty-two percent of the children are married, 10.6% are either separated or divorced, and 37% were never-married. Fifty-four percent (N=443) of the children are parents. Those focal children with children have an average of 1.06. Forty-eight percent of the 443 focal children are male with the other 52% being female. Thus, as apparent above, those responding in both the second and third wave are significantly different than the full pool of respondents in the third wave.

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CHAPTER V

ANALYSES AND RESULTS

Affectual Solidarity Measurement Construction

Conceptualization

As stated above, in this paper I will use Bengtson and Roberts' (1991) definition of the

dimension of Affectual Solidarity. The specific concept of "Affectual Solidarity" was

developed by Bengtson and Roberts (1991) as one of six elements of intergenerational

solidarity. It is defined to be the "type and degree of positive sentiments held about family

members, and the degree of reciprocity of these sentiments" (857). More specifically,

Bengtson and Roberts (1991) define it to include: "1. Ratings of affection, warmth,

closeness, understanding, trust, respect, etc. for family members [and] 2. Ratings of

perceived reciprocity in positive sentiments among family members" (857). NSFH Wave 3

questions asked of both mother and adult child directly relating to these delineations will be

sought when creating the model.

In this process, I will attempt to include questions concerning "'getting along with'" each

other, which was deemed needed by Rossi (1995, 266) as well as those directly related to

definitional terms. Questions asked of both mother and child in the NSFH Wave 3, will be

compared with the definition by Bengtson and Roberts (1991) and added to the model while

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[6]Imputation is currently being employed to correct for the poor response rate and item-missing data. However, imputation can account for the follow-up of only a select group of the original respondents which renders this data necessarily not nationally representative.

testing for fit.[7] Instrument items were added one by one with fit being measured after each

addition. The models were measured with both Wave 2 and Wave 3 data for reliability

purposes. The resulting model fits are provided in Table 2 for all those mothers and children

in Wave 3 and in Table 3 for those responding both in Wave 2 and Wave 3. (See Table 2 and

Table 3) Model 3 was selected for its goodness of fit as well as its parsimony. Table 4

shows the four questions of Model 3 (labeled "Dependent Variables") representing more

closely the exact elements outlined in the definition provided by Bengtson and Roberts

(1991) [see Appendix A]. (See Table 4) They will be used as the dependent variables in the

next step of multinomial regression.

Model Specification

   The model used to determine a uni-dimensional measurement instrument of perceived

Affectual Solidarity for mothers and their children was shown in Figure 1.

The associated equation for the confirmatory factor analysis with intercepts is (factor

complexity =2):

$$x_i = \Lambda_x \xi + \delta$$

where x_i is the ith measure of relationship quality; ξ is the quality measure with Λ giving ξ's

impact on x_i; and δ is the random measurement error. This model assumes that δ has a mean

of zero and is uncorrelated with ξ (Bollen 2005 Class Notes).

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[7]In his research, Aquilino (1999) uses a self-defined Warmth-Closeness dimension which seems to include aspects of "affectual solidarity" as well as other dimensions of relationship quality, although it is not driven specifically by the ISH. Because his research used questions asked of both the parent and child in the National Survey of Families and Households (Wave II), I tested many of his included measures when determining my model of Affectual Solidarity in this research.

Identification

This confirmatory factor analysis is identified based on the 3 indicator, 1 factor rule (Bollen 2005). That is, if each factor has 3 or more indicators, it is identified.

Estimation

The analysis of this model uses weighted least-squares with mean and variance adjustment (WLSMV). This choice was selected by MPLUS because the majority of outcome variables are categorical and binary.

Model Fit & Evaluation of Dimensionality

Individual confirmatory factor analyses were run for the conceptual dimension of Affectual Solidarity for mother and child separately[8] (not shown). They were then completed simultaneously for mother and child to find a model of Affectual Solidarity for both the mother and child. The model with the four indicator (N=1094) for each mother and child provided a χ^2 value of 59.910 (df = 13) and a RMSEA of 0.057 (.05 or less implying good fit) as well as a CFI of .974 (perfect =1.00). In addition, looking at the individual fit of the measures, all factor loadings are found to be significant. Furthermore, the R^2 values are moderate, ranging from .275-.742. The correlation found between the two latent variables of mother and child's affectual solidarity is .318.

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[8]The Mother Only CFA produced good fit for the 4-indicator model. The Child Only CFA had lower, but adequate fit for the 4-indicator model. Although χ^2, CFI, and RMSEA fit indicated better overall fit for the 5-indicator models, all questions were not available in the second wave. Further, the question regarding mother's show of disappointment was the only non-identical question. Thus, in combination with good fit of the simultaneous model, as well as its fit measures in both Wave 2 and Wave 3, the 4-indicator model was selected.

Thus, in terms of the fourth research question, this rather low correlation indicates that there are indeed separate dimensions and not part of one shared dimension of Affectual Solidarity. This supports Figure 2 rather than that of Figure 1.

Application of Measurement Instrument: Multinomial Regression

Now that a measurement instrument has been established for Affectual Solidarity, I will assess the congruence patterns of mother and child dyads in this dimension. The dependent variables will be those determined in the above measurement model. They have three response categories: "High Agreement" corresponding to a mother and child score difference of less than or equal to 1; "Mother More Positive" corresponding to a mother's score being greater than one above that of her child's score; and "Child More Positive" corresponding to a child's score being more greater than one more than that of the mother's score.

Based on past research of Shapiro (2004) and Aquilino (1999), the independent variables I include are characteristics of both the parent and child that have previously been found to affect relationship quality. Due to the lack of dimensionality testing of past instruments, socio-demographic variables are included that were found to be influential in Affectual as well as other dimensions of Intergenerational Solidarity. A description of these variables and their possible response categories can be seen in Table 4. Although not used by Shapiro (2004) or Aquilino (1999) due to the age of the children in the Wave II data they used, parental status is added. Being a major life course transition, when the child becomes a parent it can affect the role and relative status of that child, now parent, within the family. Self-reported health and the number of siblings were also included as potential influences.

Mother-Child Relationship Congruence Patterns

I analyzed the dependent variables delineated in Table 4 to determine the levels of

incongruence. Using the original (non-difference) scores of these variables, lower than in

past research, the correlations between the mother and child range between .04 and .202.

Aquilino (1999) found correlations for parents and children on his warmth-support measures

(although this was not based on Intergenerational Solidarity's definitions) between .18 and

.43 (862). He found these numbers to be similar to past correlation levels between college

freshmen and their parents on subscales of the Child's Report of Parental Behavior Inventory

(CRPBI) done by Schwarz et al. in 1985 (859).

Patterns of agreement between mother-child dyads through multiple regression provides

explanation of which independent, demographic variables are associated with a mother or

child being more positive as opposed to the two being in high agreement. First, it is

important to look at the general pattern of congruence between them.

As Table 5 indicates, the majority of mother-child dyads agree on the other's level of

affection as well ability to laugh together. (See Table 5) Only slightly less than the majority

of mothers and children have a similar level of interest in each other. In looking at patterns

of incongruence of response, the results show that children are more likely to be more

positive in 3 of the 4 measures although only 2 of the 4 (affection and interest in the other)

are significant. In contrast to levels of affection and ability to laugh with the other, there is

less agreement in the believed feeling of reciprocity of interest in each other and ability to

talk when depressed. Only 32.4% of the dyads shared identical ratings on the likelihood of

talking with each other when depressed. However, neither parent nor child was significantly

more likely to be more positive than the other as shown by lack of significance in their mean

response difference scores.[9] Mothers were only found to be significantly more positive in their rating of ability to laugh and have a good time with their child. These findings do not differ substantially from Aquilino (1999) who found the majority of parent-child dyads to agree in their ratings. Further, he found only slightly more instances of parents to being more positive (25%) than that of the child being more positive (21%) which, although almost reversed.

In an attempt to assess if there is a significant change of ratings in these dependent variables as the child ages (approximately 10 years as is the approximate time between Wave II and III interviews), mother and child ratings difference scores were compared from those answered at the time of Wave II with their response at the time of Wave III. Table 6 shows that there are not significant changes in the mother or child's ratings on 3 of 4 of the relationship quality indicators from Wave II to Wave III. However, one rating did significantly increase, indicating that mothers became slightly more likely to talk with her child if she was depressed at time 3 than at time 2.[10] (See Table 6)

In attempt to explain the reasons for the incongruence in Wave III ratings found above and their direction, I used multinomial logit regression to compare predictive socio-demographic characteristics for mothers being more positive and children being more positive with the high agreement group (See Table 7).

The coefficient of the estimated parameters in Table 7 indicate the log odds of each independent variable of being in the column category (mother or child being more positive) than in the high agreement group. Model 1 was found to be the best model. No model was found to fit significantly better using the likelihood ratio test. It provides evidence that a

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[9]Completed using paired t-tests.

[10]However, again it should be noted that those responding in both Wave 2 and Wave 3 differ from the total sample responding in Wave 3.

mother provides a more positive rating of Affectual Solidarity with her child when she is less educated; divorced, separated, or widowed as opposed to married; when her child is male, and when her child is not cohabiting or married. On the other hand, the child tends to provide a more positive rating when his/her mother feels she has relatively poor health and when he/she has more children of their own. For the magnitude of the effects of the significant independent variables, the odds of the mother or child being more positive as opposed to in the high agreement group can be exponentiated and interpreted. For example, the odds of 1.273 (e.241) for the child who are more positive means that for every offspring of the child, the odds of the child being more positive versus being in high agreement with his/her mother increase by 1.3 times. In terms of mother's health, a child's odds of being more positive versus in high agreement with his/her mother decrease by 10% as the mother's health satisfaction increases by 1.

CHAPTER VI

CONCLUSIONS AND DISCUSSION

Building up conceptually from the definition, a measurement instrument for Affectual

Solidarity was constructed using 4 variables from the third wave of NSFH. Overall, there are

moderate levels of congruence in the ratings of Affectual Solidarity measures between

mothers and their young-adult children. The findings show that children are often

significantly more positive in ratings of Affectual Solidarity indicators than their mothers.

Further, the correlation found between the two latent variables of mother and child's

Affectual Solidarity is .313. This rather low correlation supports that there are separate

dimensions and not part of one, shared dimension of Affectual Solidarity which would be

demonstrated by a number closer to 1. This makes explicit that the reports of a mother and

her child are not necessarily tapping the same topic through different respondents, but

reflecting two separate concepts only slightly correlated. This has implications for

methodologists; it is important to apply the reports and associated predicted future behaviors

or conclusions to the appropriate person and not extrapolate too far in predicting for the other

member of the dyad.

These findings of congruence patterns favoring that of the children being more positive in

rating than their mothers are not very different from recent findings of Shapiro (2004) and

Aquilino (1999) when looking at similar concepts of closeness with NSFH Wave 2 data.

However, these differences do not correspond with those predicted by the Intergenerational
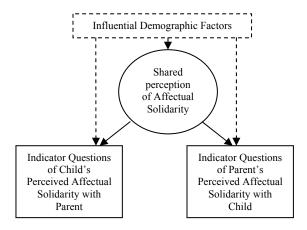
Stake Hypothesis or the Leniency Hypothesis which state that parents are generally more positive in reports than their children. After evaluating these relationships specifically in the dimension of Affectual Solidarity the differences between mother and child reports may be mediated by sex of the child, mother's marital status, mother's education, mother's satisfaction with her health, and number children the child itself has. Further, these differences between the mother and child ratings do not appear to change significantly from Wave II to Wave III. That is, the child and mother are not changing their ratings significantly over time.

In attempting to determine why mothers were not more positive than her child on the majority of occasions, it is important to note potential differences between this research and that of the past in both concept and methods. It is possible that the differences of these results are due to the instrument being uni-dimensional and therefore not affected by perhaps oppositely incongruent responses in other dimensions. Although these are not radically different from the recent results of Aquilino (1999) who looked at NSFH wave II data, he did find that parents were slightly more likely to be more positive than their children. However, he was analyzing a dimension not specifically in line with the definition of Affectual Solidarity and included measures of past parenting techniques and other structural measures not conceptually included in Bengtson and Roberts (1991) definition of Affectual Solidarity. Shapiro (2004) looked at several conceptual dimensions of solidarity, not specifically addressing the full dimension of Affectual Solidarity but looking at overall relationship quality as an indicator of emotional support. Thus, his findings may differ, again, due to different aspects of concentration. As previously noted, past research using Affectual Solidarity specifically and its corresponding instruments provided by Giarusso et al (1995)

have been criticized for including measures beyond that of Affectual Solidarity's definition (Rossi 1995). Accordingly, differences in results may correspond to differences in dimension studied and uni-dimensionality of the measurement instruments used. Thus, this research has developed a means of measurement that will allows for the assessment of the accuracy of the Intergenerational Stake Hypothesis in terms of its Affectual Solidarity dimension distinctly from its others. This, in turn, has provided a vehicle through which to analyze what correlates with situations in which children's ratings of Affectual Solidarity are more positive than that of their mothers. Further, it has provided explicit, empirical support for the conceptual separateness of a mother and her child's perception of their Affectual Solidarity.

This research and its developments provide possibilities for further research. For instance, it is possible that a methodological issue could also produce this lack of congruence in mother-child responses to questions on their perceptions of relationship quality. That is, the same questions used to measure perception of relationship quality could potentially systematically elicit different responses from parents and children. So this examination of the response indicators and substantive explanations for their patterns of congruence must also take into account if their scale usages are significantly different, thus causing the incongruence. They should be analyzed for systematic rater effects and variance in scale-use across groups. With a uni-dimensional instrument and identical questions asked of both mother and child, this analysis is now potentially possible. If there are systematic difference in the scale usage of mothers and their children, it would be imperative to know their direction and magnitude before using any results of data comparing them.

Figure 1. Shared Perception of Affectual Solidarity

Figure 2. Separate Perceptions of Affectual Solidarity

Influential Demographic Factors

Child's perception of Affectual Solidarity

Parent's perception of Affectual Solidarity

Indicator Questions of Child's Perceived Affectual Solidarity with Parent

Indicator Questions of Parent's Perceived Affectual Solidarity with Child

Table 1. Means and Standard Deviations for Descriptive Demographic Variables

	Mean	SD	N		Mean	SD	N
Child Characteristics				*Parental Characteristics*			
Age	26	4.43	1249	Age	52	7.05	1176
Female	.53	.50	1261	Married	.61	.49	1261
Co-Residing	.263	.44	1082	Divorced/Sep/Widowed	.29	.45	1261
Married	.32	.47	1261	Never Married	.04	.19	1261
Divorced/Sep/Widowed	.07	.26	1261	High School	.41	.29	1174
Never Married	.61	.49	1261	Less than HS	.09	.49	1174
High School	.30	.46	1254	More than HS	.50	.50	1174
Less than HS	.07	.26	1254	Number of Siblings	3.63	2.86	1114
More than HS	.62	.48	1254	Health Satisfaction (1-5)	4.00	.89	1116
Married or Cohabiting	.49	.50	1261				
Is a parent	.38	.49	1260				
Number of Siblings	2.76	2.20	1245				
Health Satisfaction (0-10)	7.86	1.88	1247				

Table 2. Affectual Solidarity Instrument Model Fit All Responding in Wave 3

Model	Using Wave 3 of NSHF**			
	# of indicators	χ^2(df) *p-val*	CFI	RMSEA
Model 1: Interested, depressed	2	8.644 (1) *0.0033*	0.971	0.083
Model 2: Affection, interested, depressed	3	28.320 (6) *0.0001*	.984	.058
Model 3: Affection, laugh, interested, depressed*	4	59.910 (13) *0.0000*	.974	.057
Model 4: Affection, laugh, interested, depressed, disappointed	5	85.458 (25) *0.0000*	.968	.047
* Final Model **Note: N varies from 1098 to 1085 in these models				

Table 3. Affectual Solidarity Instrument Model Fit for Those in Both Wave 2 and 3

Model	Using Wave 3 of NSHF**				Using Wave 2 of NSFH**		
	# of indicators	χ^2(df) *p-val*	CFI	RMSEA	χ^2(df) *p-val*	CFI	RMSEA
Model 2: Affection, interested, depressed	3	11.074 (6) .0860	.990	.046	30.786 (7) 0.0001	.960	.085
Model 3: Affection, laugh, interested, depressed*	4	19.984 (11) 0.0455	.988	.045	58.228 (14) 0.000	.946	.082
Model 4: Affection, laugh, interested, depressed, disappointed	5	39.168 (20) 0.0064	.974	.049	N/A*	N/A*	N/A*
*Final Model **Note: N varies from 394 to 399 in these models							

Table 4. Description of Variables

Variable Name	Description of Variable
Dependent Variables	
Affection	Difference score between the mother and child's response to: (Please tell me if you strongly agree, agree, disagree, or strongly disagree with each of the following statements.) My mother/focal child is a loving and affectionate parent/child. High Agreement →Child-Mother ≤ 1; Mother More Positive → Child – Mother <1; Child More Positive → Child – Mother >1
Laugh	Difference score between the mother and child's response to: (Please tell me if you strongly agree, agree, disagree, or strongly disagree with each of the following statements.) It's easy for me to laugh and have a good time with my mother/focal child. High Agreement →Child-Mother ≤ 1; Mother More Positive → Child – Mother <1; Child More Positive → Child – Mother >1
Interested	Difference score between the mother and child's response to: (Please tell me if you strongly agree, agree, disagree, or strongly disagree with each of the following statements.) My mother/focal child is not very interested in my life or in what happens to me. High Agreement → Child-Mother ≤ 1; Mother More Positive → Child – Mother <1; Child More Positive → Child – Mother >1
Depressed	Difference score between the mother and child's response to: How likely is it that you would talk to your mother/focal child if you felt depressed or unhappy? Would you say you definitely would not, you probably would not, there's a 50-50 chance you would, you probably would, or you definitely would talk to your mother/focal child? High Agreement →Child-Mother ≤ 1; Mother More Positive → Child – Mother <1; Child More Positive → Child – Mother >1
Independent Variables	
Characteristics of Mothers:	
Age	Age of the mother at Wave III interview
Self-Reported Health	Satisfaction with current health. [1 to 7 point scale]
Year of Education	The total number of years of education completed by the mother at Wave II. (Variable not yet constructed for Wave III).
Marital Status	Marital status of the responding mother at Wave II. (Variable not yet constructed for Wave III).
Level of Spirituality	How spiritual the responding mother considers herself on a 4 point scale of very spiritual to not spiritual at all.
Number of Siblings	The number of living brothers and sisters, including step- or half-brothers and Sisters the responding mother has.
Characteristics of Children:	
Age	Age of the responding child at Wave III interview.
Completed Level of Education	The total number of years of education completed by the child at the time of the Wave III interview.
Marital/Cohabitation Status	Marital and cohabitation status of the child at Wave III. Those married or cohabiting are compared to those divorced/separated/widowed and to those who were never married.
Number of children	The number of children birthed or fathered by the responding child.
Co-residence with mother	Whether or not the child is currently living with their mother.
Number of Siblings	The number of living brothers and sisters, including step- or half-brothers and Sisters the responding child has.
Self-Reported Health	Satisfaction with current health. [0 to 10 point scale]

Table 5. Mother-Child Difference Scores in Affectual Solidarity (Wave 3)

	High Agreement: Number / avg. difference c-m	Mother More Positive Than Child: Number / avg. difference c-m	Child More Positive Than Parent: Number / avg. difference c-m	Overall Correlation	Overall Mean Difference
Mother/Focal Child is loving and affectionate. (1 str ag to 5 str disag) N = 1,049	54.15% 0	18.12% 1.27	27.74% -1.17	0.196***	-0.095***
Easy to laugh and have a good time together (1 str ag to 5 str disag) N = 1,052	53.52% 0	26.52% 1.30	17.78% -1.15	0.229***	0.098***
Mother/Focal Child not very interested in my life or in what happens to me (1 str ag to 5 str disag) N = 1,051	49.38% 0	14.56% 1.45	36.06% -1.33	0.200***	0.2731***
Would talk to Mother/Focal Child if depressed. (1 not to 5 would) N = 1,053	32.38% 0	33.33% 1.60	34.28% -1.61	0.186***	-0.0057
* p < .05 ** p < .01 *** p < .001					
Note: Data from paired parents and children, National Survey of Families and Households Wave 3					

Table 6. Difference Between Mother-Child Difference Scores in Affectual Solidarity (Wave 2 to Wave 3)

	Child's Rating		Mother's Rating		Mean Change in Difference Scores
	Mean Difference (w3-w2)	Percent Unchanged	Mean Difference (w3-w2)	Percent Unchanged	
Mother/Focal Child is loving and affectionate.	0.005	58.39%	0.003	58.86%	-0.049
Easy to laugh and have a good time together	-0.047	56.26%	0.037	59.36%	-0.054
Mother/Focal Child not very interested in my life or in what happens to me	-0.009	59.10%	-0.007	52.42%	0.015
Would talk to Mother/Focal Child if depressed.	0.071	38.53%	0.137*	37.56%	-.046
* p < .05 ** p < .01 *** p < .001					
Note: Data from paired parents and children, National Survey of Families and Households Wave 3					

Table 7. Multinomial Logit Regression: Congruency of Affectual Solidarity (Wave 3)

	Model 1		oModel 2		Model 3		Model 4	
	Mother More Positive	Child More Positive	Mother More Positive	Child More Positive	Mother More Positive	Child More Positive	Mother More Positive	Child More Positive
Parental Characteristics								
Age	**-0.004**	**0.003**						
Years of Education	**-0.090**	**0.002**	-0.090	0.021	-0.094*	0.003	-0.097*	0.013
Health Satisfaction	**0.012**	**-0.103**	0.014	-0.104*	0.008	-0.110*	0.009	-0.111*
Never Married (vs Married)	**-0.432**	**-0.291**	-0.395	-0.303	-0.363	-.094	-0.357	-0.150
Div, Wid, Sep (vs Married)	**0.377**	**0.045**	0.357	-0.002	0.364†	0.007	0.367	0.004
Number of Siblings	**0.006**	**-0.086**			0.010	-0.046		
Child Characteristics								
Sex	**-0.539****	**-0.096**	-0.511**	-0.042	-0.513**	-0.048	-0.513**	-0.040
Age	**-0.016**	**-0.043**						
Years of Education	**-0.018**	**-0.008**	-0.035	-0.034				
Married or Cohabiting (vs not)	**-0.458***	**0.0002**	-0.496*	-0.069	-0.500*	-0.095	-0.504*	-0.078
Number of Children	**0.165**	**0.241***	0.129	0.161†	0.137	0.173	0.138	0.165
Number of Siblings	**-0.007**	**-0.031**						
Health Satisfaction	**-0.018**	**-0.062**						
Constant	**1.598**	**1.372**	1.066	-0.207	0.641	-0.225	0.707	-0.527
N	**1,020**		1,020		1,023		1,023	
Model chi-square	**47.01****		37.27**		38.98**		35.98**	
LR Test	**-**		With Model 1: 9.74 (df=10)		**-**		With Model 3: 3.00 (df=2)	
* p < .05 ** p < .01 *** p < .001								

Six Elements of Intergenerational Solidarty*

Element	Definition
Associational Solidarity	Frequency and patterns of interaction in various types of activities in which family members engage
	Potential Indicators: 1. Frequency of intergenerational interaction (i.e., recreation, special occasions, etc.) 2. Types of common activities shared
Affectual Solidarity	Type and degree of positive sentiments held about family members, and degree of reciprocity of these sentiments
	Potential Indicators: 1. Ratings of affection, warmth, closeness, understanding, trust, respect etc. for family members 2. Ratings of perceived reciprocity in positive sentiments among family members
Consensual Solidarity	Degree of agreement on values, attitudes, and beliefs among family members
	Potential Indicators: 1. Intrafamilial concordance among individual measures of specific values, attitudes, and beliefs 2. Ratings of perceived similarity with other family members in values, attitudes, and beliefs
Functional Solidarity	Degree of helping and exchanges of resources
	Potential Indicators: 1. Frequency of intergenerational exchanges of assistance (e.g., financial, physical, emotional) 2. Ratings of reciprocity in the intergenerational exchange of resources
Normative Solidarity	Strength of commitment to performance of familial roles and to meet familial obligations (familism)
	Potential Indicators: 1. Ratings of importance of family and intergenerational roles 2. Ratings of strength of filial obligations
Structured Solidarity	Opportunity structure for intergenerational relationships reflected in number, type, and geographic proximity of family member
	Potential Indicators: 1. Residential propinquity of family members 2. Number of family members 3. Health of family members

*Table directly quoted and adapted from Bengtson and Roberts (1991, 857).

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