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Conceptualizing and Measuring Intergenerational Ambivalence in Later Life

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Objectives. In this paper, we explored the association between direct and indirect measures of intergenerational ambivalence, making comparisons by generational position and child's gender; furthermore, we examined whether these measures were similarly strong predictors of depressive symptoms and positive affect.

Methods. Data for the analysis were collected from 254 mothers aged 72–82 years and a randomly selected adult child as part of a larger study of within-family differences in parent–adult child relations.

Results. The findings provided evidence that direct and indirect measures were strongly associated among mothers but only weakly associated among adult children, particularly sons. The two measures were similarly strong predictors of mothers', but not children's, depressive symptoms and positive affect. The most pronounced differences in congruence between direct and indirect measures were found when comparing mothers and sons.

Discussion. The analyses presented here suggest that direct and indirect measures of intergenerational ambivalence may not be tapping the same underlying construct, particularly in the case of adult children and especially sons. Furthermore, direct measures may have an advantage over indirect measures when including sons in the study design. We conclude that direct and indirect measures cannot be used interchangeably across the combination of generation and gender.

Key Words: Intergenerational ambivalence—Parent-child relations—Parent-child relations and psychological well-being.

SCHOLARSHIP on ambivalence in the social sciences dates back to Freud's (1913) and later Merton and Barber's (1963) classic essays; however, interest in this topic among family scholars only took hold in the 1990s, primarily in response to Luescher and Pillemer's (1998) article in *Journal of Marriage and Family*. Since that time, the concept of ambivalence has played an increasingly important role in the study of parent–adult child relations (Fingerman & Hay, 2004; Fingerman, Chen, Hay, Cichy & Lefkowitz, 2006; Fingerman, Pitzer, Lefkowitz, Birditt & Mroczek, 2008; Ha & Ingersoll-Dayton, 2008; Kielcolt, Blieszner, & Salva, 2011; Lowenstein, 2007; Luescher & Lettke, 2004; Pillemer, 2004; Pillemer & Suitor, 2002; Pillemer et al., 2007; Ward, 2008; Ward, Deane & Spitze, 2008). Both direct and indirect measures have been used across studies, with the implicit assumption that these measures are conceptually similar; therefore, little justification has typically been provided for using either type of measure. In this article, we propose that although the direct and indirect measures most commonly used to study ambivalence in intergenerational relations share a conceptual foundation, there are important differences that need to be taken into consideration. We use data collected from 254 adult children and their mothers as part of the Within-Family Differences Study (WFDS) to shed light on such differences.

We first examine the strength of the association between two of the most commonly used types of measures of direct and indirect intergenerational ambivalence. Next, we consider whether direct and indirect measures are similarly strong predictors of psychological well-being, which has been found to be related to intergenerational ambivalence in previous research (Fingerman et al., 2008; Kielcolt et al., 2011; Mongrain & Zuroff, 1994).

We also respond to the call to consider the role of social structural positions in the study of intergenerational ambivalence (Connidis & McMullin, 2002a, 2002b; Pillemer & Suitor, 2005). One of the basic tenets of sociological social psychology is that the positions that individuals occupy affect their patterns of interaction (Stryker, 1980). Within the family, position, particularly parent versus child and son versus daughter, may be among the most important factors to consider when studying the measurement of intergenerational ambivalence. Therefore, we consider both of these dimensions by conducting separate analyses for mothers, sons, and daughters.

Conceptualizing and measuring intergenerational ambivalence

Theory and empirical research are consistent in conceptualizing intergenerational ambivalence at the level of the individual, describing it as coexisting positive and negative feelings toward a parent or an adult child (Pillemer & Luescher, 2004). Despite this high level of congruence in conceptualization across studies, the way in which dyadic ambivalence has been measured has varied widely. One of the most notable

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variations, and the focus of the present paper, involves the application of direct and indirect measures.

Direct measures of intergenerational ambivalence are those in which respondents are asked to respond to individual statements that present simultaneously positive and negative assessments of their relationships with their parents or children. Most direct measures involve asking individuals questions regarding contradictory feelings toward their parent or child, such as whether they "have mixed feelings" or "feel torn or conflicted" in the relationship (Luescher & Lettke, 2004; Pillemer, 2004; Pillemer & Suitor, 2002; Pillemer et al., 2007). Some studies have gone beyond these items to ask about additional types of contradictory feelings about the relationship or the person (Luescher & Lettke, 2004; Pillemer, 2004; Pillemer & Suitor, 2002; Uchino, Holt-Lunstad, Smith, & Bloor, 2004). The common link across these studies is that, regardless of the specific wording, individuals were asked to acknowledge that they were aware of contradictory feelings regarding parents or children.

Like direct measures of intergenerational ambivalence, indirect measures have been designed to capture contradictory feelings held by parents and children toward one another (Lettke & Klein, 2004). However, indirect measures involve using individuals' independent positive and negative assessments of their relationships to create a numeric value that represents the balance between these two sentiments. This approach generally involves using items that tap the affective components of the relationship, such as closeness and conflict (Fingerman & Hay, 2004; Fingerman, Hay, & Birditt, 2004; Ha & Ingersoll-Dayton, 2008; Kielcolt et al., 2011; Wilson, Shuey, & Elder, 2003; Wilson, Shuey, Elder, & Wickrama, 2006). In some cases, the items included a broader range of attributes regarding the relationship or the role partner, such as perceptions of help given, help received, conflict, and relationship quality (Luescher & Lettke, 2004; Uchino et al., 2004; van Gaalen & Dykstra, 2006; van Gaalen, Dykstra, & Komter, 2010).

Calculating the indirect ambivalence measure typically involves summing the positive and negative items and using one of several formulas to produce a numeric value representing the balance between positive and negative sentiments (Ha & Ingersoll-Dayton, 2008; Pillemer & Suitor, 2002; Wilson et al., 2003, 2006). Regardless of the way in which the indirect measure is calculated, the procedure produces a continuous variable that ranges from low to high ambivalence. Although indirect and direct measures take different approaches to soliciting information, they share the goal of capturing contradictory feelings that individuals hold simultaneously about their role partners. However, we posit that there are important differences in the underlying meaning of these two approaches to measuring ambivalence. In particular, the direct approach assumes that individuals are aware of the extent to which they hold contradictory feelings toward their role partners, whereas the indirect approach does not rely on awareness and instead imputes the existence of ambivalence based on the simultaneous existence of positive and negative feelings about the relationship.

This conceptual distinction mirrors one that has been defined in the broader literature as *potential ambivalence* versus *felt ambivalence* (van Harreveld, van der Pligt, & de Liver, 2009). In the case of potential ambivalence, the individual has coexisting conflicting attitudes but is not necessarily aware of them (cf. Petty, Tormala, Briñol, & Jarvis, 2006). In contrast, in the case of felt ambivalence, the individual is aware of such feelings and may even experience discomfort as a result of his or her conflicting attitudes (Newby-Clark, McGregor, & Zanna, 2002). We contend that indirect and direct measures of intergenerational ambivalence embody the same conceptual distinction and therefore may not be measuring the same phenomenon.

One way in which to examine whether indirect and direct measures of ambivalence are tapping the same construct is to explore the degree to which they are correlated with one another. To our knowledge, only three studies of interpersonal ambivalence have included such analyses, only two of which specifically examined intergenerational ambivalence. In the first study, Uchino, Holt-Lunstad, Uno, and Flinders (2001) investigated the correspondence between direct and indirect measures of positive and negative perceptions of network members when in need of support, revealing a moderate association between these two types of measures ($r = .36$).

Second, Luescher and Lettke (2004) examined the relationship between direct and indirect measures of intergenerational ambivalence. Some of their direct measures were similar to those that have been used in other studies, which asked respondents about their mixed feelings regarding particular relationships (i.e., "*person* and I often get on each other's nerves but nevertheless we feel very close and like each other very much"). However, some of their direct measures did not capture the emotional contradiction typically found in such measures (i.e., "person lives her/his own life, but our relationship remains the way it has always been"). The indirect measures were more problematic; respondents were asked to think about their relationship with a parent or child and assess the extent to which each of 14 descriptions applied. The list included some relational dimensions generally found in measures of interpersonal ambivalence, such as "warm," and "loving." However, it also included a range of other items about the relationship itself and personality characteristics of the role partner, such as "open to new experiences," "stuck in a rut," "reliable," and "superficial" (177). Thus, the relatively weak correlations between the indirect and direct measures they reported (.02 to .28) are not surprising.

Finally, Pillemer (2004) examined the associations between direct and indirect measures of intergenerational

ambivalence using a sample of older mothers, finding correlations between .34 and .53. Although the measures used were more standard, the study was limited by the sample, which was relatively small, homogeneous (all White), and disproportionally well educated.

In sum, the strength of the associations between direct and indirect measures found in these studies suggests that they may not be capturing the same underlying construct. In fact, even the highest correlation—that found in Pillemer's study—is only .53, indicating that the one measure accounts for only 28% of the variance in the other measure.

These differences suggest that it may be important to choose carefully when deciding whether to employ direct or indirect measures when studying intergenerational relations. If, in fact, direct and indirect measures are not capturing the same phenomenon, it is likely that there are contexts in which one measure is better suited than the other. For example, in some cultural and situational contexts, respondents are unwilling to reveal or even acknowledge having feelings toward relatives that are not uniformly positive (Reynolds, Torres, Jackson, Boyd, & Chen, 2000). Furthermore, when individuals are under high levels of stress, they have been found to have greater difficulty holding and expressing simultaneously positive and negative feelings (Zautra, Reich, Davis, Potter, & Nicolson, 2000).

Does this mean that under circumstances such as these, it might be wise to utilize indirect measures? We contend that more study is necessary before it will be possible for researchers to make informed decisions regarding choice of measures when designing studies of intergenerational ambivalence. The goal of this article is to shed further light on this issue.

We began by examining the correspondence between direct and indirect measures using bivariate analyses. The next logical step in assessing the relationship between these measures was to examine the association between them using partial correlations and controlling on factors that have been found to predict ambivalence. We therefore controlled on marital status, subjective health, race, and, in the case of adult children, gender (Birditt, Fingerman, & Zarit, 2010; Pillemer & Suitor, 2002; Pillemer et al., 2007; Silverstein & Giarrusso, 2010; Wilson et al., 2003).

We then explored whether direct and indirect measures are equally strong predictors of psychological well-being. Based on van Harreveld and colleagues' (2009) argument that to create discomfort individuals must find the context salient and be aware of their feelings, we might expect that only direct measures would predict psychological well-being. However, recent research has shown that both direct and indirect measures of ambivalence are associated with depressive symptoms (Fingerman et al., 2008; Kielcolt et al., 2011; Lowenstein, 2007; Mongrain & Zuroff, 1994). Thus, it may be that for highly salient contexts, direct accessibility to ambivalent feelings may not be necessary to create discomfort. Nevertheless, based on the arguments regarding felt ambivalence versus potential ambivalence made by van Harreveld and colleagues, we anticipated that direct measures, which reflect felt ambivalence, would be stronger predictors of psychological well-being.

Positions in the Family as Moderators of Congruence between Direct and Indirect Measures

Generational position.—Beginning with the classic article on the generational stake by Bengtson & Kuypers (1971), it has been demonstrated that parents tend to report greater closeness, cohesion, and harmony than do their adult children (Giarrusso, Feng, & Bengtson, 2004; Rossi & Rossi, 1990; Shapiro, 2004; Suitor, Sechrist, Steinhour, & Pillemer, 2006). However, studies exploring other dimensions of parent–adult child relations, such as contact and exchange of support, have not always replicated this pattern (Ikkink, van Tilburg, & Knipscheer, 1999; Mandemakers & Dykstra, 2008; Shapiro, 2004).

We suggest that differences between parents' and children's generational stake may translate into mothers being less willing to report directly about ambivalent feelings because this requires that they acknowledge holding negative feelings toward their children. Although mothers may also be reluctant to report the sorts of disagreements or tensions, which comprise the "negative" dimension of indirect measures, mothers may believe that such negative interactions reflect less directly on their identity as mothers than do negative feelings toward their children. In contrast, adult children—given their generational position—may be less reluctant to report negative or mixed feelings toward their mothers, resulting in greater congruence in direct and indirect ambivalence among children than their mothers.

As discussed earlier, we expected that the direct measure of ambivalence would be a stronger predictor of depressive symptoms and positive affect than would the indirect measure. Nevertheless, based on the same theoretical argument we made regarding the generational stake, we anticipated differences between mothers and their adult children regarding the effects of direct and indirect measures of ambivalence on depressive symptoms and positive affect. Specifically, we anticipated that whereas mothers' reports of direct ambivalence toward their children would have notably stronger effects on both dimensions of psychological well-being than would their reports of indirect measures, adult children's reports of indirect and direct ambivalence toward their mothers would have similar effects on the offspring's psychological well-being.

Child's Gender

Nearly a decade ago, Connidis called for a greater emphasis on gender in the study of intergenerational ambivalence (Connidis & McMullin, 2002a, 2002b). Nevertheless, few

studies have gone beyond simply controlling on gender in their conceptualization or analyses (for exceptions, see Fingerman et al., 2004; Kielcolt et al., 2011). However, there are strong bases for arguing that gender may shape patterns of congruence between direct and indirect measures.

First, classic feminist literature on gender development argues that women and girls are encouraged to place greater emphasis on interpersonal relationships than are men and boys (Chodorow, 1978; Gilligan, 1982). We suggest that such attentiveness to the nuances of interpersonal relationships would lead daughters to be more aware of the existence of contradictory feelings in their relationships. Thus, we hypothesized that there would be greater congruence between direct and indirect measures for daughters than sons.

Second, the same arguments can be used to anticipate greater similarity between congruence of direct and indirect measures between mothers and daughters than mothers and sons. For example, feminist scholars have argued that mothers and daughters develop and maintain more intense relationships than do mothers and sons, greatly because mother–daughter bonding is a more pivotal part of women's than men's identity development (Chodorow, 1978; Fingerman, 2001; Gilligan, 1982). Empirical studies have provided support for this argument, finding with great consistency that mothers and daughters are the closest of all parent–child gender combinations, beginning in childhood and often intensifying as daughters move into adulthood and begin enacting gender-based roles that they share with their mothers (Rossi & Rossi, 1990; Suitor, Sechrist, Gilligan, & Pillemer, 2011). We suggest that because mothers and daughters share a more common perspective on their relationship than do mothers and sons, there will be greater similarity in the patterns of congruence of direct and indirect measures for mothers and daughters than mothers and sons.

Method

The data used in the present analyses were collected as part of the Within-Family Difference Study (WFDS). The design of the WFDS involved selecting a sample of mothers 65–75 years of age with at least two living adult children and collecting data from mothers regarding each of their children. A further decision was to recruit only community-dwelling mothers to reduce the likelihood that the women would be in need of extensive assistance, thus allowing us to study relationships outside of the context of caregiving. The WFDS began in 2001 with interviews of mothers taking place between 2001 and 2003; the original study was expanded to include a second wave of data collection beginning in 2008. The variables of central interest in the present paper were collected at T2, most of which were not available in the T1 data.

Sampling

Suitor and Pillemer used Massachusetts city and town lists as the source of the original WFDS sample. With the assistance of the Center for Survey Research (CSR) at the University of Massachusetts, Boston, Suitor and Pillemer drew a probability sample of women aged 65–75 years with two or more children from the greater Boston area (for a more detailed description of the sampling procedures for T1, see Suitor & Pillemer 2006). The T1 sample consisted of 566 mothers, which represented 61% of those who were eligible for participation, a rate that is comparable to that of similar survey strategies in the past decade (Dixon & Tucker, 2010; Wright & Marsden, 2010).

For the follow-up study, Suitor and Pillemer, with the assistance of the CSR, attempted to contact each mother who participated in the original study. Data collection occurred between 2008 and 2010. In the second wave of the study, 421 mothers were interviewed, resulting in a response rate of approximately 80% taking into consideration both valid responses and deaths among mothers.

Following the interview, mothers were asked for contact information for their adult children; 81% of the mothers provided contact information for their adult children, a rate somewhat higher than typically found in studies of multiple generations (Kalmijn & Liefbroer, 2011; Rossi & Rossi, 1990). Seventy-five percent of the adult children for whom we had contact information agreed to participate, resulting in a final sample of 835 children nested with 277 families. For the present analyses, we used the subsample of 254 mothers in which at least one adult child participated in the study at T2 and for which there were no missing data on any of the variables of central interest in the study. Analyses comparing mothers with no participating children and mothers who had at least one participating child revealed no differences between these two groups in terms of race, marital status, education, age, or number of children.

Analyses comparing children who were and were not interviewed indicated that daughters, married children, and those with higher education were slightly more likely to participate, consistent with other studies with multiple generations (Kalmijn & Liefbroer, 2011; Rossi & Rossi, 1990). Most germane to the present study, we found no differences in mothers' indirect and direct ambivalence scores between children who were and were not interviewed. Taken together, we contend that the small discrepancies between the subgroups of children who did and did not participate are not sufficiently large to introduce consequential confounds, a conclusion consistent with a recent article on nonresponse bias in studies of intergenerational relations by Kalmijn & Liefbroer (2011).

Because the research question in the present article does not involve within-family processes, we chose to randomly select a child from the adult child respondents in each family. This allows us to use Ordinary Least Squares (OLS) regression rather than multilevel models, which are not appropriate for the questions at hand. Furthermore, we argue that direct and indirect measures between the generations can best be compared when the mothers and children are

Table 1. Demographic Information on Mothers and Adult Children

Mothers	(*N* = 254)
Age in years (mean, *SD*)	77 (3.1)
Race (%)	
Black	22
White	76
Other	2
Married (%)	42
Education (%)	
Less than high school	16
High school graduate	37
Post-high school vocational	8
At least some college	13
College graduate	13
Some graduate school	13
Employed (%)	16
Number of children (mean, *SD*)	3.9 (1.7)
Adult children	**(*N* = 254)**
Age in years (mean, *SD*)	49.5 (5.7)
Daughters (%)	60
Married (%)	67
Education (%)	
Less than high school	4
High school graduate	21
Post-high school vocational	3
At least some college	12
College graduate	37
Some graduate school	24
Employed	80
Parents	74

reporting on the same relationships. Because using a single randomly selected dyad underrepresents large families, we initially controlled on number of living children at T2. We felt this was of particular importance because the number of children in the families in the analytic sample ranged from 1 to 10 ($\bar{x} = 3.7$; standard deviation [*SD*] = 1.7). However, these analyses revealed that family size was not significantly related to any of the outcome variables. In an effort to be parsimonious, we omitted this variable from the final analyses. Listwise deletion was used to handle missing data because there were fewer than 8% missing on any variable in the analysis (cf. Allison, 2010; Graham, 2009).

Analytic Sample Characteristics

Table 1 presents the mothers' and children's demographic characteristics ($n = 254$) for the analytic sample. It is important to note that although the mean number of living children in this subsample is higher than would be found in a nationally representative sample of women in this age group, this is due primarily to the criterion that all participants must have at least two living adult children. The mean number of children of women in the subsample is similar to that found in national samples, such as the National Survey of Families and Households (Sweet & Bumpass, 1996), when compared specifically with mothers in the same age group who have two or more children.

Measures

Ambivalence

Direct measure.—We directly assessed subjective perceptions of ambivalence by asking respondents to what degree their attitudes toward their mother or child were mixed or conflicted. The format of the measures was based on previous work by Kelley (1983), Sincoff (1990), and Thompson, Zanna, and Griffin (1995), all of whom employed direct measures of ambivalence in studies of close relationships. The content of the items was developed in pilot studies that were conducted to guide instrument development (for further details, see Pillemer et al., 2007).

To create the direct measure, we combined two global questions about ambivalent feelings. Mothers were asked about the degree to which they had mixed feelings for the child (1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree). They were also asked how often they felt "torn in two directions, or conflicted, about him/her" with the child (1 = never, 2 = rarely, 3 = sometimes, 4 = fairly often, and 5 = very often). To maintain these two items on a comparable scale, we combined the two highest response categories of "felt torn" so that both items ranged from 1 to 4. We chose to combine the two highest categories of felt torn because this item was negatively skewed. We followed the same procedures to create the direct measures for adult children, using questions that asked them about their feelings toward their mothers. The 2-item scale ranged from 2 to 8 for both mothers and children. The mean for mothers was 3.93 (*SD* = 1.42); the mean for adult children was 4.33 (*SD* = 1.72). The Chronbach's alpha for mothers was .59 and for adult children was .76.

Indirect measure.—We created the indirect measure using the Griffin calculation (Thompson et al., 1995):

$$\text{indirect ambivalence} = (\text{positive} + \text{negative})/2 - |\text{positive} - \text{negative}| + 1.5.$$

We utilized Griffin's original indirect measure because it is the most broadly employed in studies of intergenerational ambivalence (Birditt et al., 2010; Birditt, Miller, Fingerman, & Lefkowitz, 2009; Fingerman et al., 2006, 2008; Kielcolt et al., 2011; Wilson et al., 2003, 2006). Although studies of ambivalence in other contexts, such as ambivalence toward objects (political attitudes, brands of consumer goods, etc.), utilize a variety of indirect measures (Lettke & Klein, 2004; Thompson et al., 1995), there has been much greater uniformity in the measures used to study parent–child relations. Despite the common use of the Griffin measure, not all scholars agree that it is the optimal way of indirectly measuring ambivalence (Lettke & Klein, 2004); nevertheless, we contend that this measure is the most appropriate for the present study, given its goals.

We began by combining three positive items measuring relational affect. These items were as follows: (a) Use any number from 1 to 7, where 1 is very distant and 7 is very close. What number would you use to describe the relationship between you and (your child/your mother) nowadays? (b) How often does (your child/your mother) make you feel loved or cared for—very often (5), fairly often, sometimes, rarely, or never (1)? and (c) Being with (your child/your mother) makes you feel very happy—strongly agree (4), agree, disagree, strongly disagree (1)?

To create the positive measure, we needed to make the range of the three items comparable. Because the distributions were positively skewed, we collapsed the lowest categories of each item, so that the scores ranged from 1 to 4, as has been done previously when using these items to create scales of intergenerational closeness (Sechrist, Suitor, Vargas, & Pillemer, 2011). The range of the combined positive relationship scale was 4–12 for mothers and 4–10 for adult children. The mean for mothers was 10.55 (*SD* = 1.68); the mean for adult children was 8.03 (*SD* = 1.46). The Cronbach's alpha for mothers was .67 and for adult children was .76.

We used the same approach when combining the three negative items. These items were as follows: (a) Sometimes no matter how close we may be to someone, the relationship can also at times be tense and strained. Use any number from 1 to 7, where 1 is not at all tense and strained and 7 is very tense and strained. What number would you use to describe how tense and strained the relationship between you and (your child/your mother) is nowadays? (b) How often would you say the two of you typically have disagreements or conflicts—very often (5), fairly often, sometimes, rarely, or never (1)? (c) Does (your child/your mother) make too many demands on you very often (5), fairly often, sometimes, rarely, or never (1)? We then transformed the negative items so that they would range from 1 to 4 before combining them. The range of the combined negative scale was 3–12 for both mothers and adult children. The mean for mothers was 5.75 (*SD* = 2.17); the mean for the adult children was 6.74 (*SD* = 2.22). The Cronbach's alpha for mothers was .67 and for adult children was .61.

The indirect ambivalence measure for mothers ranged from 0 to 13.50 ($\bar{x}$ = 4.37; *SD* = 3.02); the indirect measure for adult children ranged from 1 to 11.50 ($\bar{x}$ = 6.11; *SD* = 2.11).

Psychological Well-Being

We included both positive and negative dimensions of psychological well-being as outcome measures, which provided a broader picture of individuals' well-being than either dimensions alone (cf. Frederickson, 2003).

Depressive symptoms.—To measure depressive symptoms, we employed the 7-item version of the Center for Epidemiological Studies Depression (CES-D) Scale (Ross & Mirowsky, 1988). The CES-D asks respondents how often in the past week they have felt a certain way. It should be noted that the CES-D was not intended for use as a diagnostic tool; rather, it provides a valid and reliable means for ordering individuals on the basis of the frequency and severity of their symptoms. The CES-D Scale's reliability and validity for use in community surveys have been clearly established (Radloff, 1977). The items composing the scale are as follows: (a) Everything I did was an effort, (b) I had trouble getting to sleep or staying asleep, (c) I felt lonely, (d) I felt sad, (e) I could not get going, (f) I felt I could not shake off the blues, and (g) I had trouble keeping my mind on what I was doing. In this sample, the scale for mothers ranged from 7 to 28, with a mean of 10.68 (*SD* = 3.95) and an alpha coefficient .79; the scale for adult children ranged from 7 to 29, with a mean of 11.57 (*SD* = 4.71) and a Cronbach's alpha coefficient of .80.

Positive affect.—To measure positive affect, we used the 6-item scale from the 1995 Midlife in the United States Study. The items ask how frequently, in the past 30 days, respondents have felt (a) cheerful, (b) in good spirits, (c) extremely happy, (d) calm and peaceful, (e) satisfied, and (f) full of life. Responses ranged from "all of the time" (1) to "none of the time" (5). In this sample, the scale for mothers ranged from 8 to 30, with a mean of 21.35 (*SD* = 4.17) and an alpha coefficient .87; the scale for adult children ranged from 7 to 30 with a mean of 20.14 (*SD* = 4.18) and an alpha coefficient .88.

Control Variables

We included subjective health as a control in the analyses of depressive symptoms and positive affect because it has been found to be a strong predictor of both measures of psychological well-being (Beekman, Kriegsman, Deeg, & van Tilburg, 1995; Geerling, Beekman, Deeg, & van Tilburg, 2000). The measure of subjective health had five categories ranging from poor (1) to excellent (5).

Race was measured by asking the mothers to select from a card listing several races and ethnicities (e.g., White, Black or African American, Hispanic or Latina, and Asian). They were instructed that they could choose more than one race or ethnicity. The analytic sample for this paper included 194 White families, 55 Black families, 3 Hispanic families, and 2 Asian families. Based on the literature on later life families, which has shown closer intergenerational ties in Black, Asian, and Hispanic than White families, we coded race as White (0) or non-White (1).

Mothers provided the child's current marital status and number of living children at T2. For the present analyses, child's marital status was coded as currently married, 0 = child not married and 1 = child married.

Analytic Approach

Because we are using a single dyad from each family, we are able to take a simple approach to the data analysis, using

Table 2. Direct and Indirect Ambivalence and Psychological Well-Being (Mothers Only)

	Depressive symptoms			Positive affect		
	Model 1 Direct only	Model 2 Indirect only	Model 3 Direct and indirect	Model 4 Direct only	Model 5 Indirect only	Model 6 Direct and indirect
	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)
Married	−.04 (0.50)	−.03 (0.49)	−.34 (0.49)	−.06 (0.51)	−.06 (0.51)	−.06 (0.51)
Subjective health	−.32** (0.23)	−.33** (0.22)	−.32** (0.22)	.36** (0.23)	.37** (0.23)	.36** (0.23)
Non-White	−.07 (0.59)	−.06 (0.58)	−.06 (0.59)	.21** (0.60)	.19** (0.60)	.20** (0.60)
Direct ambivalence	.13* (0.17)	—	.05 (0.21)	−.19** (0.17)	—	−.12 (0.21)
Indirect ambivalence	—	.17** (0.08)	.15* (0.10)	—	−.19** (0.08)	−.12 (0.10)
Model statistics						
R^2	.14	.15	.15	.19	.19	.20
df	4	4	5	4	4	5
N	254	254	254	254	254	254

Note: df = degrees of freedom.
*$p < .05$; **$p < .01$.

partial correlations and OLS regression. However, to make comparisons between the mothers and their children and between the strength of the direct and indirect measures as predictors of psychological well-being, it was necessary to test for the significance of observed differences. STATA11 provides separate statistical tests for comparisons within the same model (e.g., direct vs. indirect effects on depressive symptoms) and between models using separate subsamples (e.g., mothers vs. children). When comparing the strength of the direct and indirect measures within the same model, STATA calculates an *F* value. In contrast, when making comparisons between subsamples (e.g., mothers vs. children, sons vs. daughters, etc.), STATA uses a postestimation command (seemingly unrelated estimation) to test the hypothesis of differences between subgroups, producing a Chi-square value.

Results

How Strongly Are Indirect and Direct Measures Related?

We began the analysis by conducting bivariate correlations between the direct and indirect measures, conducting separate analyses for mothers and adult children. The bivariate correlations between the indirect and direct measures were .61 ($P < .01$) for mothers and .26 ($P < .01$) for adult children. (Tables not shown.)

Next, we examined the strength of the association between direct and indirect measures using partial correlations controlling on marital status, subjective health, race, and gender in the case of the adult children. After introducing the controls, the associations between the direct and indirect measures were very similar to the bivariate correlations (β = .60 for mothers and .33 for children). A *t* test of the difference between the coefficients for mothers and adult children indicated that the association between direct and indirect measures varied considerably by position in the family ($P < .05$), with substantially greater congruence between the measures among mothers than their adult children. Examination of the partial correlations between the direct and indirect measures by child's gender revealed further differences by family position; the partial correlation for daughters was .38, as opposed to sons, for whom the correlation was only .24. Tests within and between generations indicated that the differences between mothers and both sons and daughters were statistically significant, although the difference between sons and daughters was not.

Are Indirect and Direct Measures Similarly Strong Predictors of Well-Being?

To compare the differential effects of direct and indirect measures on both depressive symptoms and positive affect, we conducted regression analyses in which we included both the direct and indirect measures in the same equations. Because of the magnitude of the correlations between the direct and indirect measures, particularly for mothers, we performed collinearity diagnostics prior to conducting the multiple regression analyses. These diagnostics confirmed that including the two measures was an acceptable procedure for both mothers and adult children.

Previous studies using ambivalence as a predictor of psychological well-being have included either a direct or an indirect measure, but none has included both (Fingerman et al., 2008; Kielcolt et al., 2011; Lowenstein, 2007). To allow comparisons across studies, we felt it was important to present models showing the association between well-being and direct and indirect measures separately as well as in the same equations. Therefore, in Tables 2–5, we present models including only the direct measure, models including only the indirect measure, and models including both the direct and indirect measures.

Predicting Mothers' Psychological Well-Being Using Direct and Indirect Measures

Mothers' depressive symptoms.—The left side of Table 2 presents the analysis regressing mothers' depressive symptoms

Table 3. Direct and Indirect Ambivalence and Psychological Well-Being (Adult Children Only)

	Depressive symptoms			Positive affect		
	Model 1 Direct only	Model 2 Indirect only	Model 3 Direct and indirect	Model 4 Direct only	Model 5 Indirect only	Model 6 Direct and indirect
	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)
Daughter	.00 (0.54)	.03 (0.54)	.01 (0.54)	.10 (0.50)	.06 (0.51)	.10 (0.51)
Married	−.16 (0.25)	−.16 (0.60)	−.16** (0.60)	.09 (0.24)	.09 (0.57)	.09 (0.56)
Subjective health	−.40** (0.25)	−.41* (0.26)	−.41** (0.25)	.29** (0.24)	.30** (0.24)	.29** (0.24)
Non-White	−.04 (0.15)	−.53 (0.67)	−.04 (0.66)	.18** (0.61)	.19** (0.63)	.18 (0.62)
Direct ambivalence	.15** (0.15)	—	.14* (0.16)	−.24** (0.14)	—	−.23** (0.15)
Indirect ambivalence	—	.08 (0.10)	.03 (0.11)	—	−.08 (0.10)	−.01 (0.10)
Model statistics						
R^2	.23	.22	.24	.16	.11	.16
df	5	5	6	5	5	6
N	254	254	254	254	254	254

Note: df = degrees of freedom.
*$p < .05$; **$p < .01$.

on both the direct and indirect measures. The findings shown in Models 1 and 2 indicate that both measures are predictors of mothers' depressive symptoms (β = .13 [$P < .05$] and β = .17 [$P < .01$]). As shown in Model 3, when both measures of ambivalence were included in the analysis, the coefficient for the indirect measure was notably larger than for the direct measure (β = .15 vs. .05), and only the indirect measure reached statistical significance ($P < .05$). Although these findings suggest that the indirect measure is a substantially better predictor of mothers' depressive symptoms, a comparison of the coefficients within Model 3 revealed that the difference was not statistically significant ($F = 0.10$; not significant [n.s.]). Thus, the difference between the standardized coefficients needs to be interpreted with caution.

Mothers' positive affect.—The right side of Table 2 presents the analysis regressing mothers' positive affect on the direct and indirect measures. As shown in Models 4 and 5, the direct and indirect measures were equally strong predictors of positive affect (β = −.19 and −.19, $P < .01$). When both measures were included in the analysis, as shown in Model 6, the strength of the associations with positive affect weakened and neither coefficient reached statistical significance at the .05 level ($P < .08$ and .11). Not surprisingly, given the similarity of the coefficients, the difference between them was not statistically significant ($F = 0.58$, n.s.).

Predicting Children's Psychological Well-Being Using Direct and Indirect Measures

Children's depressive symptoms.—The left side of Table 3 presents the findings of the analysis regressing adult children's depressive symptoms on the direct and indirect measures. As shown in Model 1, the direct measure of ambivalence was a moderate predictor of depressive symptoms (β = .15, $P < .01$); however, the coefficient for the indirect measure was weaker and did not reach statistical significance (β = .08, n.s.). Furthermore, the difference between the coefficients in Models 1 and 2 was significant ($\chi^2 = 2.93$, $P < .10$). A similar pattern was seen when including both the direct and indirect measures in the same equation; as shown in Model 3, the coefficient for the direct measure was clearly

Table 4. Direct and Indirect Ambivalence and Depressive Symptoms by Child's Gender

	Sons			Daughters		
	Model 1 Direct only	Model 2 Indirect only	Model 3 Direct and indirect	Model 4 Direct only	Model 5 Indirect only	Model 6 Direct and indirect
	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)
Married	−.26** (0.91)	−.28** (0.94)	−.26** (0.91)	−.08 (0.79)	−.08 (0.79)	−.08 (0.79)
Subjective health	−.31** (0.41)	−.33** (0.43)	−.31** (0.41)	−.45** (0.32)	−.45** (0.32)	−.45 (0.32)
Non-White	−.14 (0.95)	−.17 (0.10)	−.15 (0.97)	.05 (0.90)	.04 (0.90)	.04 (0.90)
Direct ambivalence	.26** (0.27)	—	.25** (0.27)	.09 (0.19)	—	.08 (0.20)
Indirect ambivalence	—	.13 (0.18)	.07 (0.18)	—	.06 (0.12)	.03 (0.13)
Model statistics						
R^2	.27	.22	.28	.25	.25	.25
df	4	4	5	4	4	5
N	101	101	101	153	153	153

Note: df = degrees of freedom.
*$p < .05$; **$p < .01$.

Table 5. Direct and Indirect Ambivalence and Positive Affect by Child's Gender

	Sons			Daughters		
	Model 1 Direct only	Model 2 Indirect only	Model 3 Direct and indirect	Model 4 Direct only	Model 5 Indirect only	Model 6 Direct and indirect
	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)
Married	.07 (0.87)	.09 (0.93)	.07 (0.88)	.08 (0.72)	.07 (0.73)	.08 (0.72)
Subjective health	.36** (0.40)	.37** (0.42)	.36** (0.40)	.24** (0.29)	.25** (0.30)	.24** (0.29)
Non-White	.24** (0.91)	.26** (0.98)	.25 (0.93)	.12 (0.82)	.13 (0.84)	.13 (0.83)
Direct ambivalence	−.31** (0.26)	—	−.32** (0.27)	−.19* (0.17)	—	−.17 (0.19)
Indirect ambivalence	—	−.04 (0.18)	−.04 (0.17)	—	−.11 (0.11)	−.04 (0.12)
Model statistics						
R^2	.27	.17	.27	.10	.08	.10
df	4	4	5	4	4	5
N	101	101	101	153	153	153

Note: df = degrees of freedom.
*$p < .05$; **$p < .01$.

larger than for the indirect measure (β = .14 vs. .03). However, this difference must be interpreted with caution because a test between the coefficients showed it was not statistically significant ($F = 2.44$, n.s.).

Children's positive affect.—The right side of Table 3 presents the analysis regressing children's positive affect on the direct and indirect measures. As shown in Models 4 and 5, there was a notable difference between the strength of the direct and indirect measures as predictors of positive affect when analyzed in separate models (β = −.24 vs. −.08; $\chi^2 = 6.62$, $P < .05$). The same pattern was found when both the direct and indirect measures were included in the same equation, as shown in Model 6. The coefficients were substantially different (β = −.23 vs. −.01), and this difference was statistically significant ($F = 6.41$, $P < .05$).

Comparing Sons and Daughters

Next, we conducted the same set of analyses separately for sons and daughters. The analyses comparing direct and indirect measures as predictors of depressive symptoms by gender are shown in Table 4. Because of the change in sample size when examining sons and daughters separately, we relaxed the criterion for significance to .10. As seen in Models 1 and 2, the direct measure was a stronger predictor of sons' depressive symptoms than was the indirect measure when only one was included in the analysis (β = .26 vs. .13; $\chi^2 = 3.21$, $P < .10$). The difference between the direct and indirect measures remained notable when both were included in Model 3 (β = .25 vs. .07; $F = 2.82$, $P < .10$).

The findings for daughters are shown in the right half of Table 4. Unlike sons, for daughters, neither the direct nor the indirect measure predicted depressive symptoms. Not surprisingly, none of the differences between the coefficients was statistically significant. Given the magnitude of the coefficients, we might expect that the difference between sons and daughters would be significant for the direct measure; however, this was not the case.

The findings for positive affect by child's gender are shown in Table 5. When analyzed separately, the direct measure was a much stronger predictor of positive affect than was the indirect measure, as shown in Models 1 and 2 (β = −.31 vs. −.04; $\chi^2 = 9.05$, $P < .05$); this was also the case when both measures were included in Model 3 (β = −.32 vs. −.04; $F = 8.27$, $P < .01$). For daughters, the direct measure was a somewhat stronger predictor of positive affect than was the indirect measure when analyzed separately, as shown in Models 4 and 5; but the difference between the coefficients was neither large nor statistically significant. Furthermore, as shown in Model 6, although the coefficient for the direct measure was larger (β = −.17 vs. −.04), the difference was not significant.

Comparing Direct and Indirect Measures between Mothers and Children

In Table 6, we compare the findings for direct and indirect measures between the generations by gender. All the controls were included in the models; however, we present only the coefficients for the direct and indirect measures to facilitate visual comparisons.

Depressive symptoms.—We began by exploring differences between mothers and their offspring without taking children's gender into consideration, as seen in Models 1 and 2 in Table 6. An examination of the coefficients suggested that there were differences between the ways in which direct and indirect measures predicted depressive symptoms for mothers and adult children. For example, for mothers, the beta for the direct measure was .05, whereas it was .14 for their adult children. However, tests between these coefficients revealed that the difference was not statistically significant. This was also the case for the

Table 6. Comparing Direct and Indirect Ambivalence by Gender and Generational Position in the Family

	Depressive symptoms				Positive affect			
	Model 1 Mothers	Model 2 Adult children	Model 3 Daughters	Model 4 Sons	Model 5 Mothers	Model 6 Adult children	Model 7 Daughters	Model 8 Sons
	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)
Direct ambivalence	.05 (0.21)	.14* (0.16)	.08 (0.20)	.25** (0.27)	−.12 (0.21)	−.23** (0.15)	−.17* (0.19)	−.32** (0.27)
Indirect ambivalence	.15* (0.10)	.03 (0.11)	.03 (0.13)	.07 (0.18)	−.12 (0.10)	−.01 (0.11)	−.04 (0.12)	−.04 (0.17)
Model statistics								
R^2	.15	.24	.25	.28	.20	.16	.10	.27
df	5	6	5	5	5	6	5	5
N	254	254	153	101	254	254	153	101

Notes: Controlling on marital status, subjective health, and race. df = degrees of freedom.
*$p < .05$; **$p < .01$.

difference between the coefficients for the indirect measure (β = .15 vs. .03).

Stronger differences appeared when we compared the coefficients for mothers and their sons and daughters separately, as shown in Models 1, 3, and 4. We began by comparing the coefficients for the direct measure. As shown in Models 1 and 4, the coefficient for sons differed markedly from that of mothers (β = .05 vs. .25), a difference that was statistically significant ($\chi^2 = 2.85$, $P < .10$). However, as can be seen by comparing Models 1 and 3, the difference between the coefficients for mothers and daughters was small and not significant (β = .05 vs. .08). Next, we compared the coefficients for the indirect measure, as shown in Models 1, 3, and 4 in the second row of Table 6. Although the coefficient for mothers was greater than those for sons or daughters (β = .15 vs. .07 and .03), none of the differences was statistically significant.

Positive affect.—The coefficients predicting positive affect are shown in Models 5 through 8 of Table 6. For direct ambivalence, the coefficients for mothers and their adult children, as shown in Models 5 and 6, appear to differ (β = −.12 vs. −.23); however, this difference was not statistically significant. In contrast, there were notable differences between the coefficients when taking child's gender into consideration. Specifically, the coefficients for direct ambivalence for mothers and sons differed substantially, as shown in Models 5 and 8 (β = −.12 vs. −.32; $\chi^2 = 2.91$, $P < .10$). In contrast, as can be seen in Models 5 and 7, the coefficients for direct ambivalence for mothers and daughters were very similar (β = −.12 vs. −.17). Finally, as shown in the second row of Table 6 under positive affect, there were no substantive differences between the strength of the association between the indirect measure and positive affect for mothers compared with either sons or daughters.

Discussion and conclusions

The aim of this article was to explore the conceptual and empirical congruence between direct and indirect measures of intergenerational ambivalence, using the types of measures that are commonly used in the field. The analyses of both the associations between the direct and indirect measures and their differential ability to predict psychological well-being suggest that they may not be tapping the same underlying construct, particularly in the case of adult children and especially sons. Findings of partial correlation analyses provided evidence that direct and indirect ambivalence were strongly, but imperfectly, associated for mothers but associated only weakly for adult children. These differences were quite distinct, both for comparisons between mothers and their children without taking gender into consideration and between mothers and their sons and daughters.

Differences between the direct and indirect measures were less pronounced when predicting psychological well-being. As discussed earlier, we anticipated that the direct measure would be a stronger predictor of mothers' depressive symptoms and positive affect than would the indirect measure. Contrary to our expectations, when both direct and indirect measures were included in the models, mothers' reports of their direct and indirect ambivalence toward their adult children were similar predictors of the mothers' depressive symptoms and positive affect. The absence of clear differences may be the result of conceptual similarity in the items used to comprise the two measures. Unlike many studies, in which the items composing the direct and indirect measures span a wide range of affect and relational attributes (e.g., Luescher & Lettke, 2004; van Gaalen et al., 2010), all the items comprising the direct and indirect measures in the WFDS focus specifically on emotional dimensions, particularly closeness and conflict.

In contrast to the mothers, the findings revealed clear differences between the direct and indirect measures for adult children. Among the children, only the direct measure of ambivalence predicted depressive symptoms or positive affect; however, only in the case of positive affect was the difference between direct and indirect measures statistically significant. These patterns changed when we examined the measures separately by gender. In the case of sons, there were consistent differences between the two measures as predictors of psychological well-being; for

both depressive symptoms and positive affect, the coefficients for the direct measure were considerably larger than for the indirect measure, and the differences between them were statistically significant. This was not the case for daughters.

Finally, when we compared the coefficients for direct and indirect measures as predictors of psychological well-being without considering gender, no clear patterns emerged. However, distinctions between the generations were evident when comparing the coefficients for mothers and their children separately by gender. We had anticipated that there would be greater congruence between direct and indirect measures for daughters than sons and more similarity between the patterns of congruence for mothers and daughters than mothers and sons. The results provided support for both of these expectations.

Taken together, these findings suggest that it is important to consider the target sample when choosing measures of intergenerational ambivalence. When including only mothers and/or daughters, direct and indirect measures may produce similar outcomes. However, direct measures may have an advantage when including sons in the sample. This is because the direct measure predicted psychological well-being similarly across all three subgroups (sons, daughters, and mothers), whereas the indirect measure did not.

The findings regarding gender raise the question of whether the differences we found between sons and daughters reflect a more general pattern or whether it is specific to the interaction of gender and generational position in the family. They also raise the question of whether other social structural factors may play a role in the congruence between direct and indirect measures. For example, studies of cultural sensitivity to measures throughout the social sciences have shown that there are differences in responses to the same items by subgroup (Byrne & Campbell, 1999; Jylha, Guralnik, Ferrucci, Jokela, &Heikkinen, 1998). Furthermore, there is evidence that ethnic groups differ in the extent to which individuals acknowledge and openly report negative affect or assessments of relationships (Byrne & Campbell, 1999). Thus, there appear to be grounds upon which to expect that there may be race as well as gender differences in congruence between direct and indirect measures. We hope that possible gender and race differences will be pursued in future research on intergenerational ambivalence.

The present study had limitations that point toward directions for future research. It is important to acknowledge the relatively low reliability of the 2-item direct measure (alpha = .59). Although such reliability is not uncommon in the literature (cf. Barber & Buehler, 1996; Marks, 1998; Simpson, 1990), particularly for scales with few items, we acknowledge that it can attenuate the coefficients. However, it is important to point that, in fact, when differences were found between the direct and indirect measures, the direct measure was the stronger predictor. Thus, there is reason to believe that the differences between the direct and indirect measures might have been greater had we been able to employ a direct measure with higher reliability.

We contend that the best comparisons of direct and indirect measures can be made using reports from mothers and children in the same dyad; however, it is important to recognize that this introduces a potential limitation. Despite the fact that we selected a child from among those interviewed in each family randomly, it is still possible that a single mother–child dyad may not reflect the range of relationships in the family. In fact, previous research based on the WFDS has demonstrated such within-family variations (Pillemer et al., 2007; Suitor & Pillemer, 2006). This may particularly be an issue with large families. We suggest that the only way to fully address this limitation is to use a data set in which all the children in each family were interviewed. The WFDS has only 87 "full families" making it unfeasible to replicate the analyses presented in the paper using this data set. We hope that future studies will provide the data and measures to address this issue.

In sum, the present study has shed new light on the question of whether direct and indirect measures of intergenerational ambivalence are capturing the same construct. We contend that the findings call into question whether these measures can be used interchangeably, particularly across the combination of generation and gender. The conclusion that we draw from our analyses is that these measures capture somewhat different relational phenomena. In particular, direct measures appear to more reliably predict the same outcome across gender and generation. It is important to note, however, that the comparisons between direct and indirect measures that we have made are only a first step in exploring differences in the meanings of these two measures of intergenerational ambivalence. We hope that raising these issues will lead to increased interest in investigating the ways in which parents and adult children experience and express ambivalent feelings toward one another.

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