# Affection and Conflict in Intergenerational Relationships of Women in Sixteen Areas in Asia, Africa, Europe, and America 

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#### Abstract

Studies of intergenerational solidarity in affluent societies suggest that relationships between generations consist simultaneously of both emotional closeness and conflicts. This analysis extends the standard model of intergenerational relationships, which until now has been applied only to countries with bilineal kinship systems, to culturally and economically diverse areas with varying kinship systems. Latent class analysis was applied to measure affection and conflict in the ongoing relationships of young and middle-aged women with their mothers ( 7,522 relationship pairs) and fathers ( 5,338 relationship pairs). The empirical analysis was based on standardised oral interviews with mothers from areas in China, Indonesia, North and South India, South Africa, Palestine, Israel, Turkey, Russia, Estonia, Poland, East and West Germany, France, Jamaica, and the United States ( $n=8,756$ ). The best fitting model of relationship differences consisted of four latent classes: „amicable" (45 percent), "detached" (28 percent), "ambivalent" (22 percent), and "disharmonious" (5 percent). Based on a cross-culturally largely invariant measurement model, results revealed significantly different distributions for fathers and mothers and across areas. Multinomial three-level regression analysis was used to analyse the complex cross-level interdependence of area effects, individual characteristics, and the respective relationship on class membership. In patrilineal societies, relationships of women with their biological parents are more likely to be ambivalent, less likely to be detached, and very likely to become disharmonious in case of spatial proximity. In affluent societies, the relationships are less likely to be disharmonious and most likely to be harmonious. Whereas the frequency of contact decreases the likelihood of detached or disharmonious relationships in affluent societies, functional exchange with the parents increases the likelihood of disharmonious relationships.


Keywords: Intergenerational relationships • Emotional closeness • Conflict • Solidarity • Cross-cultural

## 1 Introduction

The intergenerational solidarity paradigm - a comprehensive scheme for describing sentiments, behaviours, attitudes, values, and structural arrangements in adult intergenerational relationships - has become the "gold standard" model for assessing intergenerational relationships (Silverstein et al. 2010: 1007). The initial model postulated that intergenerational solidarity consists of six distinct components: emotional (closeness), associational (social contact), structural (geographic proximity), functional (supportive behaviour), normative (filial obligations), and consensual (attitudinal agreement) (Bengtson/Schrader 1982; Bengtson/Roberts 1991). In acknowledgment of the fact that intergenerational relationships can be simultaneously warm and antagonistic, the model was extended recently to include "ambivalence" (Luescher/Pillemer 1998; Luescher 2002). Originally developed for the description and better understanding of intergenerational relationships in the United States, the model subsequently demonstrated considerable explanatory power in other countries and, more recently, in cross-national comparisons that have included the United States, the United Kingdom, Norway, Germany, Spain, and Israel (Si/verstein et al. 1998; Daatland/Herlofson 2003; Lowenstein et al. 2005; Lowenstein/Daatland 2006; Lowenstein 2006; Gans et al. 2009; Silverstein et al. 2010). Thus, the scope of cross-national comparisons so far has been limited to affluent societies with a similar cultural heritage. Moreover, most of the empirical knowledge available is based on a very limited number of data sets, and only one of these was designed using the intergenerational solidarity paradigm (OASIS (Old Age and Autonomy: The Role of Service Systems and Intergenational Family Solidarity; Lowenstein et al. 2002). Given this situation, there is legitimate reason to question the external validity of the intergenerational solidarity paradigm when applied to societies of varying cultural heritage.

All societies so far included in cross-national comparisons based on the intergenerational solidarity paradigm have similar institutions of bilineal kinship. In these societies, the intergenerational relationships of married women are relatively free of institutional regulations that restrict choices regarding residence, social contact, mutual support, control rights, or inheritance. As a result, women have much latitude to live out their individual preferences and choices. Unilineal kinship systems, be they patrilineal or matrilineal, are quite different as they impose restrictions that can impinge strongly on intergenerational relationships. In patrilineal kinship systems, for example, parents-in-law may have the same responsibilities to their daughters-in-law that parents have to their daughters in bilineal kinship systems. These responsibilities are expected to be reciprocated by filial obligations of functional solidarity. This situation challenges the relationship with the family of origin and can provoke feelings of ambivalence.

Extending the intergenerational solidarity paradigm to culturally diverse societies has far-reaching conceptual and methodological consequences. "Research within single societies often fails to reveal the influence of culture as a social force [...]. Norms and values distinguish family and state responsibilities in meeting the needs of the aged. Future research must recognise the relationship between cul-
tural belief systems and individual understandings of roles and obligations" (Bengtson/Putney 2000: 281). This challenge can be resolved adequately only through a multi-level approach (Kohli 2005: 270) that takes into account both the variability of intergenerational relationships within individual societies and the institutional variability of family and kinship systems across societies that differ in terms of control rights, descent, and belonging.

The following empirical analysis contributes to research based on the intergenerational solidarity paradigm in two respects. First, it applies the model to 16 cultural areas in China, North and South India, Indonesia, Palestine, Israel, Turkey, South Africa, Russia, Estonia, Poland, East and West Germany, France, Jamaica, and the United States. The empirical analysis thus comprises widely varying economic conditions and diverse kinship systems and their institutions. Second, it complements cross-national comparative research on intergenerational solidarity and ambivalence (Silverstein et al. 2010) with the perspective of young and middle aged women towards their biological fathers and mothers. The model of Silverstein et al. (2010) focusses on the perspective of parents towards their children and is based on samples from six countries (England, Germany, Israel, Norway, Spain, and the United States). It suggests a typology, derived from latent class analysis, of four distinct relationship types: "amicable" (high level of emotional closeness and low level of conflict), "detached" (low levels of both), "disharmonious" (low level of emotional closeness, high level of conflict), and "ambivalent" (high levels of both).

For extending the intergenerational solidarity and ambivalence paradigm to culturally diverse contexts, a strategy of replication and controlled extension was chosen. Replication follows the design of categorical measurement models that are able to identify meaningful types of intergenerational relationships using measures of affection and conflict derived from the solidarity-conflict paradigm (Silverstein et al. 2010: 1007). In the analysis below, the paradigm is extended through a) the investigation specifically of the relationships of young and middle-aged women with their mothers and fathers, b) the question of whether the distribution of relationship types varies across areas with diverse institutional settings and economic conditions, and c) the question of how much variance can be accounted for by individual resources and opportunity structures (Nauck/Arránz Becker 2013).

## 2 Intergenerational relationships in cross-cultural comparison

### 2.1 Theoretical background

By itself, the typology of intergenerational relationships based on the solidarityconflict model provides no argument regarding which conditions favour which combination of affection and conflict. This theoretical gap can be addressed using models of reactions to given relationship states. One model, with striking similarities to that of Silverstein et al. (2010), was developed by Rusbult et al. (1982, 1986, 1991; Rusbult/Van Lange 2003). These authors take up the distinction between exit, voice, and loyalty originally developed by Hirschman (1970) to distinguish possible
reactions of members to decline in formal organisations. To this they add a fourth type, neglect, and apply it to the analysis of partnerships, marriages, and other intimate relationships. They postulate that their four types of reactions to a (dissatisfactory) relationship state are distributed in a two-dimensional space defined by the axes of active versus passive and constructive versus destructive. Relating this typology to interdependence theory, they conclude that the reaction is determined by (a) the level of previous satisfaction with the relationship, (b) the extent of previous investments in the relationship, and (c) the quality of alternatives to the relationship (Rusbult et al. 1986). Previous satisfaction and investments are positively related to loyalty and also to accommodation in case of conflict; they are lower in less interdependent relationships (Rusbult et al. 1991). The likelihood of exit increases with the quality of alternatives. Dependency, especially mutual dependency, increases exit costs. It thus decreases the likelihood of exit and increases the likelihood of voice or neglect (Drigotas/Rusbult 1992).

Whereas the model of Rusbult et al. (1982) describes individual reactions to states of social relationship, the solidarity-conflict model of Silverstein et al. (2010) describes the social relationship itself (as a result of the previous actions of its participants). From their perspective, amicable relationships are the product of high investments accompanied by high relationship satisfaction, resulting in a high gain - low cost situation of relationship maintenance. Detached relationships are the result of a previous exit, resulting in a low gain - low cost situation of maintaining a "non-relationship." Disharmonious relationships are those with low gains - high costs, which may arise when there is no exit option. Ambivalence characterises a relationship that is close and rewarding, based on high previous investments, but at the same time conflictual because of normative disagreement or distribution conflicts; this results in a high gain - high cost situation. Ambivalent relationships are not negative; they are in fact the richest and most demanding kind of relationship because they imply frequent and intense contact and intergenerational exchange in combination with ongoing conflict management as long as the exit option is not chosen. However, ambivalence also "calls for a resolution either in the direction of a mutually supportive tie or in the direction of drifting apart" (Schenk/Dykstra 2012: 124), i.e. a shift toward an amicable or detached relationship. These assumptions are supported by the finding of van Gaalen et al. (2010) that ambivalence increases in intergenerational relationships if adult children have few exit options, for example when they are socially isolated or have few siblings

Additionally, differences between types of social groups and formal organisations should be considered. In the case of intimate relationships, active exit or passive neglect usually equates to destroying the relationship or waiting for its termination. In the case of formal organisations, they usually survive the exit of (some) members. Kinship relationships, in which those of adult married women with their parents are embedded, are located somewhere in between intimate relationships and formal organisations. The kinship system as such "survives" the exit of single members, especially if it has the size of large clans, but is more sensitive to individual reactions than formal organisations, as the relationships are based on complex exchange patterns.

The challenging task of cross-cultural research in this realm is to develop bridging hypotheses that relate properties of the macro-level, i.e. variations between societies or cultural areas, to properties on the micro-level, i.e. systematic variations of affection and conflict in intergenerational relationships. Previous studies of intergenerational relations relevant for the countries selected for this paper have analysed intra-societal variations in a single country or have compared a small number of countries. These included India (Datta et al. 2003; Mishra et al. 2005; Singh 2005), China (Chen/Silverstein 2000; Chu et al. 2011; Chu/Yu 2010; Cong/Silverstein 2008, 2011, 2012a/b; Guo et al. 2009, 2012; Nauck 2009; Silverstein et al. 2006), Indonesia (Nauck/Suckow 2006; Schwarz et al. 2010; Trommsdorff/Schwarz 2007), Israel and Palestine (Kagitcibasi et al. 2010; Katz/Lavee 2005; Lowenstein et al. 2005; Silverstein et al. 2013), and Turkey (Kagitcibasi/Ataca 2005; Kagitcibasi et al. 2010; Nauck/Klaus 2008).

Most approaches in this domain, especially if only a small number of countries are compared, identify pecific socio-structural or cultural characteristics of the societies included and relate them to outcome variables on the individual level. The empirical analysis of Silverstein et al. (2010: 1009) is guided by "knowledge of the political economies and family cultures of nation-states to speculate about the nature of cross-national variations in the emotional ties between older parents and their adult children." This approach becomes unfeasible - and to some extent unnecessary - when analysing multiple societies, because a larger number of country cases makes it possible to test cross-level assumptions about the effects of societal characteristics on intergenerational relationships. Analyses of helping, care, and living arrangements between generations using data sets that include larger numbers of European countries (Hank 2007) often group countries together using typologies such as Esping-Andersen's (1990) typology of welfare states, or they introduce quantitative indicators for the description of societal-level variables in multi-level approaches (Brandt et al. 2009). The following empirical analysis does not seek primarily a better understanding of the specific conditions of solidarity and conflict in intergenerational relationships "within" individual societies using an "emic" approach. Instead, it follows an "etic" approach in looking for differences "between" societies, posing the research question of whether general characteristics of societies explain some of the variation in intergenerational relationships

### 2.2 Hypotheses

This analysis focusses on two macro-level dimensions: the institutional structure of the kinship system and the opportunity structure of the society, measured in terms of its welfare level. It is assumed that intergenerational dependence decreases as the welfare level in the respective area increases. It is also assumed that more alternatives to a specific relationship - both within and outside the kinship system - are available in a bilineal than in a unilineal kinship system. Accordingly, expected societal differences in kinship relationships are formulated as a lineage hypothesis (a) and a welfare hypothesis (b).
(a) An important characteristic of social institutions is related to whether kinship relationships are organised unilinearly or bilinearly. Unilinear kinships systems provide a clear structure of belonging, as all individuals are members of just one lineage. These systems are also based on relatively strong expectations of normative solidarity. In patrilineal kinship systems, intergenerational wealth flows only between male members of the kinship system as part of functional solidarity; associational and affective solidarity is also primarily lineage based. Unilinear kinship systems also provide clear (typically highly ritualised) rules of inclusion. For females in patrilineal societies in case of marriage, this implies that they will have to leave their lineage of origin and will be wholly included in the lineage of their husbands and are then part of it. Thus, for women relationships with the lineage of origin may become detached after marriage. Previous research found that this detachment was only related to obligations and duties and thus to functional solidarity, whereas emotional bonds were not affected (Nauck/ Arránz Becker 2013; Nauck 2012). However, whether strong normative solidarity toward the husband's lineage results in conflictual or ambivalent sentiments toward biological parents remains an open empirical question. A different pattern of intergenerational solidarity should be observable in matrilineal kinship systems, where normative obligations are allocated most clearly within the motherdaughter dyad and intergenerational wealth is transmitted between females. As this relationship is lifelong, it should be associated with strong emotional bonds, but because of the lack of exit options it should also be prone to conflict and thus also to emotional ambivalence. Bilinear kinship systems provide a balanced loyalty to both lines of descent; thus, individuals are not tied to a specific lineage, but rather have their own, "individual" kindred. This reduces normative solidarity toward parents specifically and the significance of intergenerational relationships generally because it makes the marriage unit and the nuclear family the primary unit of solidarity. This may then result in a higher proportion of detached intergenerational relationships or - especially in the case of expected functional help - in high proportions of ambivalent or disharmonious relationships.
Lineage hypothesis: Unilineal kinship systems provide clear borderlines and thus fewer alternatives outside the lineage than bilineal kinship systems. Emotionally unrewarding relationships are maintained as conflictual and not transformed into detached relationships because exiting the relationship is rarely possible. In conjunction with high investments, emotionally rewarding relationships are more likely to be transformed into ambivalent ones than in bilineal kinship systems.
(b) Societies also differ considerably in terms of alternatives to the functional solidarity of the kinship system. In societies in which all welfare production is kinship based and intergenerational relationships are the only source of insurance against the risks of life, investments in and maintenance of functional solidarity is a very salient part of kinship relationships and may also have a strong impact on emotional bonds and intergenerational conflicts. Silverstein et al. (2010: 1009) argue that filial obligations tend to vary inversely with the degree of wel-


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fare development and that family values are generally stronger in societies "in which the state assists citizens only when they have exhausted their personal resources" than in societies, "in which all citizens are incorporated under a single universal insurance system." "For that reason," they continue, "older parents in nations with more evolved welfare systems may also have less conflict with their children than those in nations with more residualist policies. In contrast, older parents in nations with weaker social policies may exhibit both more affection and more conflict because of their greater involvement with and dependence on adult children in such nations." These arguments were developed to differentiate between welfare regimes within relatively affluent societies. It is uncertain whether they apply also to poor societies with weak or non-existent welfare institutions, where the state has no means to compensate exhausted personal resources and individuals have "no choice" but to rely on their relatives. This situation should give rise to a more frequent combination of strong emotional bonds and conflicts, and hence ambivalence. Welfare hypothesis: Affluence and well-developed welfare states provide alternatives to functional solidarity within intergenerational relationships. Relationships in affluent societies "survive" as amicable, if based on long-term rewarding emotional closeness, or as ambivalent, if long-term investments are not met by emotional rewards. Disharmonious intergenerational relationships are "opted out" and transformed into detached relationships.


Additionally, interaction effects between the societal and the relational characteristics may be hypothesised. High levels of functional exchange between women and their family of origin might result in a much more conflictual situation in patrilineal kinship systems as compared to bilineal ones, as such exchanges might be perceived as a signal of disloyalty to the patrilineage to which they belong after marriage. However, this challenge may be reduced if both kinships live very close to each other and have frequent contact. Mutual functional intergenerational exchange may also have different effects on affection and conflict depending on whether it takes place in a poor or affluent society. Whereas functional intergenerational exchange is normatively favoured in less affluent societies, it is much less favoured in affluent societies, where the generations primarily rely on their own resources. Accordingly, disharmony and conflict should increase with functional exchange in affluent societies.

Although the mechanisms covered by the two broad "lineage" and "welfare" hypotheses are theoretically independent, it may be difficult to separate them empirically. Lineage-based societies tend to have a strong tendency to rely on kinship with regard to the production of welfare and especially with regard to security against the risks of life. Bilinear societies, for obvious reasons of decreased normative solidarity and ambiguous modes of belongingness, provide strong incentives to look for alternatives to the kinship system for insurance and welfare. These theoretical considerations underscore that, depending on societal conditions, intergenerational relationships are very different intermediate goods in the social production function for the maximisation of individual welfare (Lindenberg 1989, 1996; Nauck

2001, 2007a/b; Nauck/Klaus 2007; Ormel et al. 1999). Intergenerational relationships in affluent societies are means for the pursuit of welfare benefits primarily in the realm of social esteem, as they provide communication, exchange of emotions, and behavioural confirmation. In contrast, intergenerational relationships in less affluent societies are means to obtain substantial welfare benefits also in the realm of physical well-being, as they are an essential resource for mutual services and the production and distribution of material goods. Accordingly, one may speculate that intergenerational ambivalence has different causes in both societal types. In welfare societies, its likelihood increases when normative obligations to have a "good" emotional relationship are undermined by personal conflict; in poor societies its likelihood increases when normative obligations to have a "good" functional relationship are undermined by shortages in individual resources.

## 3 Method

### 3.1 Samples

Data for the following empirical analysis were gathered in a larger research project on the value of children in cross-cultural comparison (Trommsdorff/Nauck 2005, 2010). The overall goal of the project was to better understand cross-cultural variations in the perceived benefit of having children and its impact on fertility and intergenerational relationships. Data for the study were collected through standardised face-to-face interviews with mothers of preschoolers and mothers of young adolescents. Data collection was undertaken in cooperation with academic teams from local universities and was based on a common sampling design. Area sampling, a well-established strategy in cross-cultural psychology (Whiting 1968), was applied to enhance cross-national comparability. As nationally representative samples were neither feasible nor intended, variance within otherwise culturally sometimes quite heterogeneous societies was minimised by collecting data from three similar geo-graphic-demographic areas in each country: an urban middle-class area, an urban lower-class area, and a rural area. In two countries, multiple regions were included because of important historical legacies. Included separately were East and West Germany because of their long political division (Szydlik 1996) and North and South India because of differences in the institutionalisation of kinship regimes (Klaus/ Tipandjan in press). Sampling was based on register data, where possible, or on multi-stage cluster sampling with random walk. Data were collected in 2002/04 in the People's Republic of China ( $n=614$ ), Indonesia $(n=600)$, North India ( $n=600$ ), Palestine ( $n=499$ ), Israel ( $n=408$ ), Turkey ( $n=622$ ), South Africa ( $n=688$ ), East Germany ( $n=204$ ), West Germany ( $n=409$ ), and France ( $n=200$ ), in 2005/08 in Russia ( $n=548$ ), Poland ( $n=678$ ), and the United States ( $n=337$ ), in 2009/10 in Estonia ( $n=300$ ) and South India ( $n=599$ ), and in 2011 in Jamaica ( $n=615$ ). A total of 8,756 interviews were conducted. Because "culture," as captured by the respective area, is an important unit of analysis, the sub-samples for each area are weighted to adjust for size differences in the multivariate parts of the analysis.

An important strength of our data is that each respondent evaluates relationships with both father and mother, if they are alive, summing to a total of $n=12,860$ relationships of 7,882 respondents with at least one parent alive. As the information is based on female respondents, the data are especially suitable for identifying institutional differences. In patrilineal societies, women are affected by patrilocal residence and the resulting increased interaction with the lineage of their husbands. In matrilineal societies, women remain in their relationship with their mothers. In bilineal societies, neolocal residence prevails.

### 3.2 Measures of affection and conflict in intergenerational relationships

The women in the sample were asked a series of questions about the nature of their relationship with their biological mother and father. Questions were originally developed in English and translated for use in non-English-speaking countries. The accuracy of translations was ensured through back-translation, extensive pre-testing of the instruments, and controls for measurement equivalence (Nauck/Klaus 2007). The key measures in this analysis captured affectual and conflictual dimensions of the solidarity-conflict model. For this purpose, sub-scales of the Network of Relationships Inventory (NRI), developed by Furman and Buhrmester (1985) and assessed by Furman and Buhrmester (1992) and Schwarz (2000), were used. Furman and Buhrmester (1992) reported a mean alpha of 81 for the NRI subscales. In a German study on divorced mothers, the scales conflict and affection revealed internal consistencies between .76 and .86 (Schwarz 2000).

Respondents were asked to rate the respective relationship from (1) "never" to (5) "always". "Conflict" was rated with three items (How often do you and your father/mother disagree and quarrel? How often do you and your father/mother argue with each other? How often do you and your father/mother get upset with or mad at each other?). "Affection" was also rated with three items (How often does your father/mother let you know that you're good at many things? How often does your father/mother like or approve of the things you do? How often do you feel that your father/mother admires you?).

### 3.3 Statistical procedures

### 3.3.1 Correction for culture-specific response styles

One well-known issue in cross-cultural research is cultural variation in response styles to attitude items (van de Vijver/Leung 1997; Fischer 2004; Smith/Fischer 2008). Whereas especially East Asian respondents show a "modesty bias" in preferably using middle categories, respondents from the Near East and Central and South America, for example, tend to show "strong opinions" and preferably use the extreme categories. In order to correct for response styles, the proportion of extreme responses for all 126 attitude items with various contents was calculated and used to correct for individual response styles. In fact, while an unbiased use of the extreme categories would have been 40 percent, the found proportion of an-
swers on extreme categories ranged from 67 percent in South India, 57 percent in South Africa, 52 percent in Jamaica, and 49 percent in Israel to 32 percent in China, 27 percent in Estonia, and 25 percent in Russia. Extensive checks revealed that the correction for response styles changed level-differences between areas, but did not have any substantial effect on the multivariate results.

### 3.3.2 Factor analysis

A first attempt to replicate the intergenerational solidarity and conflict model with data from culturally diverse areas was made with regard to the underlying factor structure. In fact, the two-dimensional structure previously found for relationships between parents and their adult children (Silverstein et al. 2010) was largely confirmed for father and mother relationships in the sixteen samples studied: Disagreement ( .88), arguing (.86) and being upset ( .87) loaded on the first factor; appraisal (.87), approval (.87), and admiration (.87) loaded on the second independent factor ( $r=.15$ ), with 76 percent explained variance by these two factors. This result suggests that the underlying theoretical dimensions of the solidarity-conflict model were captured by the chosen indicators and that both dimensions were independent of each other.

Additionally, the cross-cultural validity of the constructs was checked. The ultimate aim was to compare in pairs the pooled solution with the respective country solutions. The computation of target rotation (van de Vijver/Leung 1997: 88-99) was performed, which provides factor-specific agreement coefficients. The proportionality coefficient was used to assess structural equivalence. The results revealed that the structural equivalence of the measurement of both "affection" and "conflict" across areas was extremely high. The square root of mean squared difference per factor only rarely exceeded .10, namely for both constructs in France (.11) and the United States (.11) and for "conflict" in South India ( .13). The proportionality coefficient, Tucker's phi, for "affection" was lowest for France and the United States with .98, the proportionality coefficient for "conflict" was lowest for South India, France, and the United States (.98). Thus, based on the factor structure of the multiple measurement of the constructs, cross-cultural equivalence was decisively established.

### 3.3.3 Latent class analysis

The next step in testing the solidarity-conflict model in culturally diverse areas was to replicate the types of relationships by latent class analysis. The basic idea of this approach is that "relations can be characterized as a circumscribed set of 'ideal' types that are empirically manifested by combinations of observed variables" (Silverstein et al. 1997: 437). For the purpose of replication, the six indicators were dichotomised along the median value to achieve highest comparability. A series of latent class analyses was run to test whether the same set of unobserved classes accounted for the association of the same categorical variables in culturally diverse intergenerational relationships. Considerably more variation in the relationships
was expected. Higher variation would imply that a multitude of associations exist between the manifest variables and thus would present a strong challenge to the measurement model. In the test, latent classes were added successively until an acceptable fit to the data was reached. The selection of an acceptable model was based on the inspection of the likelihood ratio chi-square test statistic ( $L^{2}$ ), the Bayesian Information Criterion (BIC), the dissimilarity index (DI), and the proportion of classification errors (CE).

Results revealed that the $L^{2}$ values dropped from 23,267 for a one-class model to 30 for a six-class model, whereas the BIC-values went from 22,727 to -206 in the four-class model and then increased again, when allowing for more classes, thereby confirming the superiority of the four-class model. From this perspective and following the "elbow criterion" (Collins/Lanza 2009), the four-class model was selected as the most acceptable, with a DI of .019 and a CE of .055 . Thus, LCA based on dichotomous variables reproduces the reported factor structure based on ordinal scales, which indicates some robustness of the measurement

The next step in the analysis was to test which class solution also results in "a well-defined, descriptively meaningful, and generalizable typology" (Silverstein et al. 2010: 1012) of kinship relationships. The upper panel of Table 1 shows the resulting measurement model in terms of the conditional item probabilities constituting the four-class solution, computed across mother and father relationships and countries, along with their respective prevalence. The response probabilities on the six indicators closely matched the theoretical class definitions, thus supporting the underlying latent class measurement model.

The first class, prevalent in one-fifth of the relationships, was characterised by a high probability of both affection and conflict, i.e. "ambivalence." It should be

Tab. 1: Latent class probabilities and average latent class distribution across all areas and both relationships (corrected data; respondents $n=8,756$; Relationships $\mathrm{n}=12,860$ )

| Latent class Probabilities $^{*}$ | ambivalent | amicable | disharmonious | detached |
| :--- | :---: | :---: | :---: | :---: |
| appraisal | .96 | .89 | .10 | .11 |
| approval | .97 | .94 | .21 | .26 |
| admiration | .96 | .89 | .16 | .14 |
| disagreement | .93 | .10 | .88 | .06 |
| arguing | .93 | .11 | .82 | .04 |
| being upset | .82 | .05 | .76 | .04 |
| Total | $22 \%$ | $45 \%$ | $5 \%$ | $28 \%$ |

* Latent class probabilities greater than .75 are considered relatively high and are shown in bold.

Source: VOC-study
noted that this measurement of ambivalence differs from approaches that directly assess perceptions of ambivalence by asking respondents the degree to which their feelings toward their parents are mixed (Pillemer/Suitor 2002). It also differs from approaches that capture ambivalence by separately measuring positive and negative feelings toward individuals (Fingerman et al. 2004; Ferring et al. 2009). It resembles most the approach of van Gaalen and Dykstra (2006), Silverstein et al. (2010), and Schenk and Dykstra (2012) because it focuses on contrasting dimensions of intergenerational relationships, wherein ambivalence reflects "high levels of both solidarity and conflict (the intense ties)" (van Gaalen/Dykstra 2006: 949) The second class had high probabilities on affection items and low probabilities on conflict items, thus suggesting an amicable type of relationship. The third class was characterised by low affection and high conflict probabilities and was labelled disharmonious. Finally, the fourth type had low probabilities on both affection and conflict items, implying an emotionally detached type of relationship.

Although based on different sets of items, the latent class analysis revealed the same types of intergenerational relationships as the analysis provided by Giarrusso et al. (2005) for a US sample and by Silverstein et al. (2010: 1014) based on data from "six developed nations" from the parental perspective. Significant differences, however, were apparent in the relative importance of the respective types In the study of Giarrusso et al. (2005) with parents under 65, ambivalent relationships ranked first, followed by disharmonious and amicable ones. In Silverstein et al.'s study of parents (2010), amicable relationships prevailed with 61 percent and ambivalent ones ranked last (8 percent). In the data summarised in Table 1, which reflects the daughters' perspective, amicable relationships also ranked first, but only for 45 percent of the sample. Detached relationships ranked second, but ambivalent relationships ranked ahead of disharmonious ones. This finding confirmed the "intergenerational-stake hypothesis" (Bengtson/Kuypers 1971; Giarusso et al. 1995, 2004; Kopp/Steinbach 2009; Trommsdorff/Schwarz 2007), suggesting a more amicable evaluation of intergenerational relationships by the older generation and a more distant evaluation by the younger generation. The finding also reflects the different levels of affection and conflict in the respective stages of the life course: as the average age of both daughters and parents is younger as compared to those in the study of Silverstein et al. (2010), a higher level of conflict is to be expected (Aquilino 1999).

### 3.4 Predictors of relationship types

In subsequent multivariate regression models predicting types of relationships, a number of theoretically important covariates were considered. Table 1 and Table 2 of the Appendix display the descriptive characteristics of the sixteen samples. Significant cross-area differences were found in the distribution of all variables.

### 3.4.1 Individual level

On the individual respondent level, several social characteristic variables captured individual variation in resources and opportunities. To differentiate between the opportunity structures of rural and urban settings, a measure of rural background was used, indicating whether the respondent lived in a village during her schoolage years, at time of her wedding, or at the time of the interview ( $0=$ never lived in rural areas; 3 = lived in rural areas at all three time points). Following the research tradition of the Demographic Health and Fertility Surveys, the welfare level of the household was measured using an eleven-point index based on the possession of durable consumer goods and property ( $0=$ lowest, $10=$ highest). This provides a larger degree of cross-cultural comparability than measures of monetary income. The educational level was coded with five categories: no schooling at all (1), some schooling without a primary school degree (2), a primary school degree but no secondary degree (3), a secondary degree with or without some additional vocational training (4), and a tertiary degree or at least some college or university training (5). Low levels of education characterised the Indian samples, whereas the highest proportions of women with tertiary education were in the Israeli, the Eastern and Western European and the US samples. A seven-point index measured formal inclusion in the labour force, based on items such as the respondent's gainful employment (at the time of her wedding and at the time of the interview), voluntary work, workplace outside the home, employment by a non-family member, monetary payment, bluecollar versus white-collar worker, and full-time versus part-time work. The mothers in the Indian samples had the lowest employment status, the mothers in Eastern and Western Europe and in the United States had the highest.

Relevant individual attitudes of the respondents were captured with three variables. Value of children (VOC) was measured in two dimensions, namely the instrumentality of children for increasing the parent's comfort and the instrumentality of children for providing stimulation and affect. The measurement itself was based on a well-validated instrument (Nauck 2007a; Nauck/Klaus 2007). The first factor contained four items, such as "to have one more person to help the family economically" or "children can help you when you are old," and was interpreted as comfort benefits through children. The internal consistency of the resulting additive scale across all countries was $a=.84$. The second factor contained four items, such as "it is fun to have young children around the house" or "the pleasure you get from watching your children grow," and was interpreted as affection benefits through children. The reliability of the scale was $a=.82$. A 10 -item scale of normative family obligations was constructed based on selected items from the family value scale of Georgas (1989, 1991; Georgas et al. 1996), and a short version of the self-construal scale (Singelis 1994) was used after modifying the wording (Schwarz et al. 2005) to make the items refer to the respondent's family. Participants indicated on a 5-point scale how strongly they disagreed (1) or agreed (5) with the statements. The reliability of this scale was á $=.80$, and thus superior to the interdependence subscale (á $=.71$ ) and the family value scale (ranging from á $=.56$ to .77 ).

### 3.4.2 Relational leve/

On the relational level, the age of the parents is considered to be an indicator of vulnerability and need for personal assistance. Proximity indicates the spatial distance between the respondent and the respective parent, ranging from 1 (overseas) to 5 (in the same household). Especially the matrilineal society of Jamaica showed significant differences between mothers and fathers, which also resulted in significant differences in the frequency of contacts and mutual help. Contacts ranged from 1 (less than once a month) to 5 (daily). Mutual help is a combined index of receiving help with daily chores and providing help with daily chores, measured on a threepoint scale each, ranging from 1 (almost never) to 3 (regularly). High levels of mutual help were found in the South African sample, whereas relatively low levels (with the biological parents of married women) were found in patrilineal societies like India (Nauck 2010; Nauck/Arránz Becker 2013), and in Germany and the United States.

### 3.4.3 Area level

Three societal-level indicators were considered. Following the basic theoretical assumptions in the lineage and welfare hypotheses, the type of kinship system in the respective area and the societal welfare level were expected to be central determinants.

The gross national income per capita (GNI) of 2005 in the purchasing power of 2000 was taken as a proxy indicator for each area's welfare level. The United States ( 37,206 USD), France ( 23,688 USD), Germany ( 23,747 USD) were by far the most affluent societies, whereas India (409 USD) and Indonesia (910 USD) ranked last.

Patrilineal, matrilineal, and bilineal kinship systems have different consequences for women's relationships with their family of origin. Whereas matrilineal and bilineal kinship systems do not limit access, patrilineal kinship systems may draw a clear demarcation between married women and their family of origin. An attempt to measure the prevalence of lineages within the respective area was made by comparing the relationships of the respondents with their biological parents and their in-laws. The comparison was based on proximity, the frequency of contact, and mutual help. The sum of indicators for the in-laws was subtracted from those for the biological parents within each area. If the relationships are balanced, the resulting indicator equals zero, a value above zero indicates a higher prevalence of matrifocal relationships, whereas a value below zero indicates a higher prevalence of patrilineal relationships (within the lineage of the husband). The areas with the strongest prevalence of patrilineages were found in India, Palestine, and China. The areas with a strong orientation toward the family of origin were in South Africa, Indonesia, and Jamaica. Accordingly, these areas are labelled as having a high prevalence of matrifocal kinship systems.

Individual attitudes are related to the respective cultural background. For shaping intergenerational relationships, culturally institutionalised normative expectations toward children are central, with instrumental utilities of children showing the highest variation between countries (Nauck 2006). Moreover, multi-level analy-
ses have demonstrated that whereas fertility intentions are negatively related to a comfort utility value of children on the cultural level, they are positively related to comfort utility expectations on the individual level (Mayer/Trommsdorff 2010). In order to capture this dynamic, the area mean of comfort utility VOC of individual responses was introduced as culture of comfort utility of children on the area level.

## 4 Results

### 4.1 Latent class distribution

Table 2 shows gender-specific and area-specific distributions of the four latent classes. Relationships with mothers and fathers were characteristically different. Whereas the relationship with the mother was much more likely to be ambivalent or amicable than the relationship with the father, the reverse was true for detached relationships. No gender-specific differences were found for disharmonious relationships. This finding reflects the closer and much less "avoidable" mother-daughter relationship, which entails greater investments in contact and mutual help and thus more opportunities for conflict, whereas the relationship with fathers is more likely to be distant and on a low level of interaction. Areas in Table 2 are ranked according to their GNI (gross national income per capita) in 2005.

The most amicable relationships between daughters and their mothers were in the United States, Palestine, Germany, and Russia. The lowest levels were in South India, China, and Jamaica. Detached relationships with mothers were most common in China, Estonia, and Indonesia and least common in South Africa, India, Palestine, and Israel. Disharmonious relationships were most common in Estonia, Russia, and France and least common in South Africa, Palestine, China, and South India. Ambivalent relationships were most prevalent in India, South Africa, Jamaica, Israel, Turkey, and Palestine but rare in China, Estonia, Russia, and Germany. These results showed some significant differences to analyses by Silverstein et al. (2010: 1014) based on the OASIS (Old Age Service Systems and Intergenerational Solidarity) and LSOG (Longitudinal Study of Generations) data, as the most extreme cases in the cross-area comparisons were not to be found in the western European and North American context but rather in East Asia, Africa, and the Near East, whereas the countries, which were included in both studies, turned out to be rather "moderate".

Smaller differences in the relationships with mothers and fathers in individual areas were largely overshadowed by general trends. For example, relationships with fathers were more likely to be detached in all areas. Other significant differences were to be found in ambivalent relationships. Without exception, the mother relationship was more likely to be ambivalent than the father relationship, but there was large variance in degree among the areas. Whereas the percentage differences were low in Indonesia, China, France, Estonia, and Poland, they were high in Jamaica (16 percent), Israel (13 percent), Turkey (10 percent), India (8 percent), and South Africa (8 percent), indicating strong gender differences in intergenerational relationships in these countries.

Tab. 2: Estimated latent class distribution for relationships and areas (percent)

|  |  | ambivalent | amicable | disharmonious | detached |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mother (M) |  | 24.9 | 47.7 | 4.6 | 22.9 |
| Father (F) |  | 19.2 | 41.7 | 5.1 | 34.0 |
| North India | M | 50.9 | 40.0 | 2.6 | 6.6 |
|  | F | 42.0 | 38.7 | 1.8 | 17.5 |
| South India | M | 69.7 | 26.8 | 1.8 | 1.6 |
|  | F | 62.4 | 32.4 | 2.4 | 2.7 |
| Palestine | M | 26.7 | 64.8 | 1.2 | 7.3 |
|  | F | 22.1 | 64.1 | 2.5 | 11.3 |
| Indonesia | M | 12.9 | 47.7 | 2.8 | 36.4 |
|  | F | 13.7 | 42.1 | 2.7 | 41.4 |
| China | M | 3.7 | 30.7 | 1.8 | 63.8 |
|  | F | 3.2 | 24.4 | 1.3 | 71.1 |
| Jamaica | M | 44.6 | 36.0 | 5.8 | 13.5 |
|  | F | 28.5 | 32.6 | 10.6 | 28.2 |
| Russia | M | 11.9 | 58.7 | 9.9 | 19.5 |
|  | F | 8.6 | 45.0 | 10.0 | 36.4 |
| Turkey | M | 29.7 | 49.0 | 5.6 | 15.7 |
|  | F | 19.7 | 47.6 | 5.7 | 26.9 |
| South Africa | M | 43.7 | 51.6 | 0.9 | 3.8 |
|  | F | 35.5 | 52.7 | 0.9 | 10.9 |
| Poland | M | 14.0 | 50.9 | 7.3 | 27.8 |
|  | F | 11.1 | 45.1 | 10.6 | 33.1 |
| Estonia | M | 9.0 | 42.9 | 10.2 | 38.0 |
|  | F | 4.5 | 24.0 | 9.7 | 61.7 |
| Israel | M | 34.8 | 51.7 | 4.8 | 8.7 |
|  | F | 21.5 | 56.3 | 2.6 | 19.6 |
| France | M | 15.4 | 47.8 | 9.9 | 26.9 |
|  | F | 12.1 | 37.1 | 10.9 | 40.5 |
| East Germany | M | 11.7 | 64.2 | 3.9 | 20.1 |
|  | F | 6.3 | 52.1 | 6.3 | 35.2 |
| West Germany | M | 13.4 | 60.9 | 6.6 | 19.1 |
|  | F | 7.0 | 47.6 | 7.4 | 38.0 |
| United States | M | 15.9 | 67.2 | 4.4 | 12.5 |
|  | F | 9.6 | 60.1 | 3.8 | 26.4 |

[^0]With regard to the initial research questions, even the descriptive results indicated that relationships of adult daughters with their biological parents were strongly influenced by institutionalised kinship systems and their implications for gender relations. The inspection of area differences revealed that detachment is a result of "opting out," especially in bilineal kinship systems, where disharmonious relationships were relatively uncommon and amicable relationships were relatively frequent.

The clear differences among the sample's strongest patrilineal societies (India and China) are puzzling. Whereas ambivalent relationships were extremely frequent in North and South India, they were relatively rare in China, where amicable or detached relationships prevailed. These differences could not be explained well by systematic socio-structural differences among the respondents (Appendix, Table A1) or by differences in the intergenerational interaction patterns (Appendix, Table A2). Although the highest proportion of women living in an extended household (with their in-laws) was found in North India (49 percent), the share in South India was lower (37 percent) and not much different from China (30 percent). However, the share of women with less than primary education was much higher in North India (29 percent) and South India (29 percent) than in China (7 percent), which together with their much lower labour force participation - may indicate a much weaker position in the joint household with the in-laws. An analysis of the effect of relational characteristics was similarly inconclusive. Of all areas studied, the North Indian women had the lowest proximity, the lowest contact level, and the lowest level of mutual help with their parents; however, South Indian women did not differ significantly from their Chinese counterparts on these variables. These inconsistencies in the findings could be related to specific aspects of the institutionalised patrilineal kinship system favouring both high levels of ambivalence (in India) and high levels of detachment (in China). Uncovering why the effects vary unexpectedly between countries requires more detailed analyses from an "emic" perspective (which would be beyond the scope of this paper), i.e. taking an immanent culture specific perspective. It needs to be investigated whether low negotiation power which is most likely to be associated with low educational level, results in low interaction with biological parents in combination with high levels of both affection and conflict.

### 4.2 Multinomial logistic regression

A series of three-level multinomial logistic regression analyses was undertaken to test the relationship between class membership and relational, individual, and societal characteristics. Amicable relationships as the most common class were chosen as the reference. As the number of areas included (level 3) was limited, separate analyses were run with either only the "matrifocal kinship system" (and related interaction terms on level 1) or the "gross national income per capita" (and related interaction terms) included. However, results diverged only marginally from the analysis that included both variables, with the coefficients never exceeding a difference of $>.05$ and with no changes in the significance tests.

Tab. 3: Three-level multinomial logistic regression predicting latent class membership of intergenerational relationships ( $n=12,860$ )

| $\exp (\mathrm{b})$ | relationship class (reference: amicable) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | detached |  | disharmonious |  | ambivalent |  |
| Fixed effects |  |  |  |  |  |  |
| Level 3 (areas) |  |  |  |  |  |  |
| Matrifocal kinship system | 1.09 |  |  |  |  | . 94 |
| Gross national income per capita | . 88 |  |  |  |  | . 83 |
| Culture of comfort utility of children | . 72 |  |  | ** |  | 1.06 |
| Level 2 (respondents) |  |  |  |  |  |  |
| Rural background | 1.06* |  |  |  |  | .90*** |
| Education | . 94 |  |  |  |  | . 94 |
| Workforce inclusion | .97*** |  |  |  |  | . 99 |
| Family welfare level | . 93 *** |  |  | *** |  | . 99 |
| Comfort VOC | .85** |  |  |  |  | 1.36*** |
| Affection VOC | .79** |  |  |  |  | .61*** |
| Normative family obligations | . 94 |  |  | *** |  | .13*** |
| Level 1 (relationship) |  |  |  |  |  |  |
| Parent's age | .99** |  |  | *** |  | .99*** |
| Parent's sex (reference: father) | .55*** |  |  |  |  | 1.36*** |
| Parent's proximity | 1.22*** |  |  | *** |  | 1.05 |
| Contact to parent | .77*** |  |  | *** |  | . 95 |
| Functional exchange with parent | .91*** |  |  | *** |  | 1.09** |
| Matrifocal * proximity | . 98 |  |  | *** |  | . 99 |
| Matrifocal * contact | . 99 |  |  |  |  | 1.01 |
| Matrifocal * exchange | 1.00 |  |  |  |  | . 99 |
| GNI * proximity | . 98 |  |  |  |  | .94* |
| GNI * contact | .91*** |  |  |  |  | . 99 |
| GNI * exchange | 1.00 |  |  |  |  | 1.01 |
| Random effects |  |  |  |  |  |  |
| Variance components | $M_{0}{ }^{\text {a }}$ | M ${ }_{1}$ | $\mathrm{M}_{0}$ | M ${ }_{1}$ | $\mathrm{M}_{0}$ | $\mathrm{M}_{1}$ |
| Relationships ( $\mathrm{n}=12,860$ ) | $\pi^{2} / 3$ | $\pi^{2} / 3$ | $\pi^{2} / 3$ | $\pi^{2 / 3}$ | $\pi^{2} / 3$ | $\pi^{2} / 3$ |
| Respondents ( $\mathrm{n}=8,756$ ) | 1.29 | 1.45 | 1.42 | 1.35 | 1.46 | 1.35 |
| Areas ( $\mathrm{n}=16$ ) | . 79 | . 88 | . 46 | . 42 | . 74 | . 38 |
| Interclass Correlation ICC (null/full model) |  |  |  |  |  |  |
| Level 2 | . 24 | . 26 | . 27 | . 27 | . 27 | . 27 |
| Level 3 | . 15 | . 16 | . 09 | . 08 | . 13 | . 08 |

* $\mathrm{p}<.05$; ** $\mathrm{p}<.01$; *** $\mathrm{p}<.001$
a refers to a three-level random intercept model without covariates, M1 refers to the threelevel model with level 3 covariates

Source: VOC-study

The first block of variables in the final model (Table 3) contains the societal-level characteristics: predominant kinship system, welfare level measured as GNI, and the culture of the instrumentality of children as indicated by aggregated variations in the comfort utility of children (level 3). The second block contains personal characteristics of the daughter such as her position in the social structure, her personal expectations toward children, and her self-perceived normative family obligations (level 2). Additional tests revealed that neither the household structure (i.e., whether the daughters lived in an extended household or not) nor the number of their children had an additional effect on class membership; both variables were omitted. The third block contains the characteristics of the relationship between the daughter and her parents as well as interaction terms between societal characteristics and relationship characteristics (level 1). Additional tests revealed no interaction effects between the parents' age and sex and societal characteristics. Table 3 displays the odds ratios for detached, disharmonious, and ambivalent relationships with parents in relation to an amicable relationship as the reference category.

This analysis revealed the following general empirical regularities within the broad cross-cultural context, providing the kind of empirical evidence previously available only for a limited number of countries located mostly in Europe and America.

## Relationship Characteristics and Characteristics of the parents

The older the parents were in this study, the more likely it was that the relationship was amicable and not ambivalent, detached, or disharmonious. As already shown in the bivariate results, the relationship with the mother was more likely to be ambivalent or amicable, whereas the relationship with the father was more likely to be disharmonious or detached. Living in close proximity to the biological parents and high contact frequency were counteracting forces with regard to affection and conflict in the relationship. Whereas proximity as such increased the risk of a disharmonious or even a detached relationship, this was counterbalanced by the frequency of contact, which generally varies positively with opportunity. Thus, if the contact with parents was frequent, the relationship was less likely to be disharmonious or detached.

A higher level of functional exchange in the intergenerational relationship decreased the likelihood that the relationship was disharmonious or detached, but it increased the likelihood that the relationship was ambivalent. This was a further indication that intergenerational dependence is a strong predictor of loyalty and amicable relationships but also for conflict ("voice") and ambivalence if returns on high and complex investments in the relationship do not meet expectations. It also confirmed findings of Silverstein et al. (2010: 1015) that parents who received help with household chores from a child were more likely to have ambivalent relationships with that child.

## Individual Characteristics of the Daughters

Compared to institutionalised relationship characteristics, individual expectations and perceived normative obligations, the socio-structural positioning of the women had relatively small effects on the quality of intergenerational relationships.Women
with a rural background were more likely to have detached relationships with their parents and were less likely to have ambivalent relationships because they were more likely to have moved to an urban environment and to have had less opportunity for frequent contact.

Respondents' educational level had no effect on class membership. Their formal involvement in the labour force reduced the likelihood of detached relationships, as did the welfare level of the household in which they were then living. In other words, if a woman had secure economic resources, the relationship with her parents is more harmonious and rewarding. On the other hand, relative poverty in the societal context made conflicting or detached relationships more likely. In contrast, expectations about intergenerational relationships had a strong impact on the quality of intergenerational relationships

The expectation that children are instrumental for increasing physical well-being significantly increased the likelihood of ambivalent intergenerational relationships and decreased the likelihood of detached or disharmonious relationships. This, again, underscores the dependency effects on ambivalence. Having the expectation that children are instrumental for receiving affection was strongly related to amicable intergenerational relationships and reduced the likelihood of ambivalent and detached relationships. The same effect was associated to an even greater degree with perceived strong normative family obligations, reducing the likelihood of ambivalent and disharmonious intergenerational relationships. This finding contradicts previous research on intergenerational ambivalence, which has suggested that ambivalence is strongly related to normative obligations. This contradiction in findings may, however, stem from differences in theoretical constructs. Whereas ambivalence research focuses on moral dilemmas and contradictory normative structures (Lüscher/Pillemer 1998; Pillemer et al. 2007), the self-construal scale (Singelis 1994) used here seemed to reflect more the affective dimension of belongingness (Nauck/Arránz Becker 2013).

## Societal Characteristics

Central for the guiding hypotheses is the relationship between societal characteristics and relationship types. Although low case numbers reduced the chances of achieving statistical significance, some of the observed differences were strong enough to test societal effects aftercontrolling for relational and individual characteristics.

- Bilineal and matrilineal kinship systems, which allow for the maintenance of relationships with the woman's family of origin, were associated with a higher prevalence of detached and disharmonious intergenerational relationships and with a lower prevalence of ambivalent relationships (relative to amicable relationships). In other words, ambivalent relationships with biological parents are more likely for women in patrilineal kinship systems. This finding supports existing arguments that patrilineal kinship systems affect primarily functional solidarity, wealth flows, and inheritance while leaving emotional relationships with the family of origin untouched (Nauck 2010; Nauck/Arránz Becker 2013).
- Intergenerational relationships of adult women also varied with affluence on the societal level, as a higher welfare level decreased the likelihood of detached, ambivalent, and especially disharmonious relationships even if all the relationship and individual characteristics of the women were controlled for, i.e., intergenerational relationships in affluent societies were very likely to be more harmonious than in poor societies. This finding supports the general assumptions about "opting out" of disharmonious relationships under affluent conditions, which are in turn related to issues of decreased dependency and increased choice regarding the resulting relationship characteristics.
- A counterbalancing force to the effects of the societal welfare level was a culture of instrumentality in intergenerational relationships as indicated by collectively shared high comfort utility expectations toward children. In areas where comfort utility VOC was generally high, the likelihood of disharmonious intergenerational relationships was very low. Because high comfort utility expectations on the individual level also significantly decreased disharmonious intergenerational relationships, societal and individual level effects reinforced each other.

Significant interaction effects between societal and relationship levels provided additional insight into the preconditions of affection and conflict in the intergenerational relationships of women. Whereas functional exchange generally decreased the likelihood of disharmonious relationships (.85***), they became more likely in affluent societies ( $1.10^{* *}$ ). Intergenerational support is generally accepted under conditions of scarce resources, but it indicates a precarious situation in affluent societies, which increases the likelihood of conflicts (in the absence of affection). Frequent intergenerational contact made detached and disharmonious relationships especially unlikely in affluent societies and thus again boosted effects on the individual level. Similar reinforcing effects were found with regard to the institutionalised kinship system. As mentioned before, proximity and contact generally counterbalanced each other. The counterbalancing effect was stronger in patrilineal societies and weaker in matrifocal kinship systems. Thus, in patrilineal kinship systems, there is an especially high potential that women's relationships with their family of origin will become conflictual.

## 5 Discussion

Silverstein et al. (2010: 1019) concluded in their analysis that "the evidence in this investigation points to the importance of national context in structuring emotional ties between older parents and their adult children. Identifying the ecological conditions responsible - welfare state structure, economic development, and/or cultural values - will require a larger sample of nations on which to map these multiple pathways." The present investigation was designed to help fill this gap. The latent class structure of two core dimensions of intergenerational relationships - affection and conflict - were examined in an analysis of the quality of the emotional ties of adult women to their fathers and mothers. Respondents lived in eighteen different areas in Asia, Africa, Europe, and North America and were thus embedded in diverse eco-
nomic development contexts and in a variety of institutionalised welfare regimes and kinship systems. The analysis demonstrated that the four-class model of ambivalent, amicable, disharmonious, and detached relationships was also suitable for describing the perceptions of the younger generation regarding their relationships with their mothers and fathers and that the model can be extended to the analysis of intergenerational relationships in a much larger variety of ecological conditions This provided further empirical evidence that the structure of emotional ties between generations is robust not only within affluent societies, but also across levels of economic development and institutionalised kinship systems.

The results of this study complement previous findings about exchange patterns within the kinship systems of mothers from work related to the functional and structural dimensions of the solidarity model. Among economically developed societies, previous studies found the lowest level of kinship usage in countries like the United States and Germany, resulting in a high proportion of detached relationships. This study confirmed these findings. However, an even more relevant observation from previous work was that cross-societal differences were most clearly notable in the proportions of "obligatory" kinship relationships: "These were widely absent in Israel, the United States, and Germany, whereas they were significantly more prevalent in countries like Russia, Turkey, and Palestine" (Nauck/Arránz Becker 2013: 589). This suggests a self-selection effect in kinship relationships: under af fluent conditions relationships "survive" only, if based on strong emotional bonds, whereas in the absence of emotional bonds, opting out is much more likely. In less economically comfortable situations, relationships will be maintained regardless of their emotional quality in order to secure survival through the maintenance of functional exchange.

In kinship relationships generally, individuals have the freedom to opt out and therefore to have the relationship classified as "detached". Yet, in the special case of intergenerational relationships this choice is restricted, especially when strong norms of intergenerational obligations are imposed and internalised. Only in the case of patrilineal systems, women can take the (unlikely) choice of shifting intergenerational obligations from their family of origin onto the in-laws. Thus, intergenerational relationships are much less likely to be detached ("exited") but much more likely to be characterised simultaneously by strong emotional bonds, conflicts, and disputes ("voice") and, hence, ambivalence. However, women's mother relationships are much less "avoidable" for them than their father relationships, a fact reflected in different gender-specific distributions of ambivalent and detached relationships.

If the intergenerational stake hypothesis holds, then the level of ambivalence should be higher as compared to the older generation. In fact, the main result of the descriptive analysis was that, although two thirds of the intergenerational relationships of the women were affectionate, about one half of these are "ambivalent". This simultaneous inclusion of affection and conflict thus adds additional insights into their cross-cultural comparison (Trommsdorff/Mayer 2012: 326-327), within which the general prevalence of closeness was stressed, especially with regard to societies with collectivistic family cultures.

The latent class analysis revealed that the highest prevalence of ambivalent relationships with mothers (from the perspective of the daughter) were to be found in India, Jamaica, South Africa, Israel, Turkey, and Palestine (in that order) and were thus less common to the affluent and individualised societies of the West. Multinomial regression revealed that the likelihood of ambivalence in intergenerational relationships increases the more intense the functional exchange and the stronger comfort expectations toward children are, whereas the likelihood decreases with stronger affective expectations toward children and feelings of strong family obligations. Finally, interaction effects between societal and relational levels revealed that conflicting relationships with biological parents increase with proximity in patrilineal societies and when functional exchange is performed in affluent societies.

The fact that only mothers were included in the sample may limit the findings. It remains unclear how intergenerational relationships are structured before the transition to parenthood and how exactly parenthood or marriage impacts intergenerational solidarity in different contexts. It is also unlikely that the findings would be similar for fathers, especially because intergenerational relationships interact strongly with gender in kinship systems, be they matrilineal, patrilineal, or bilineal. Possibly, men's relationships with their fathers are less detached than women's father relationships, especially in patrilineal kinship systems. Without a doubt, including male respondents would make for a more comprehensive test of the lineage hypothesis, but it would also increase the complexity of analyses considerably. A further potential limitation stems from the use of area sampling. Whereas this approach is appropriate for cross-regional comparison, which was the primary aim of the study, it cannot yield accurately representative pictures of the countries to which the regions belong. Moreover, the analysis could not rely on independent measurements on the area level. Instead, country level measures were used to measure the welfare level, and aggregated individual data were used to measure the institutionalised kinship system.

Despite these limitations, the replication of the solidarity-ambivalence model across very different cultures proved to be analytically fruitful. Its integration in a multilevel framework is promising because it not only takes immediate individual opportunities into account but also long-standing, historically rooted institutional regulations and cultural beliefs concerning the relevance of intergenerational solidarity.

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## Appendix

Tab. A1: Descriptive statistics for the studied samples from 16 areas: individual characteristics ( $\mathrm{n}=9,303$ female respondents)

|  | India North | India South | Palestine | Indonesia | China | Jamaica | Russia | Turkey |
| :--- | :---: | :---: | :---: | :---: | ---: | ---: | ---: | ---: |
| Age of respondent | 33.0 | 31.8 | 33.1 | 33.0 | 35.4 | 33.1 | 34.1 | 35.4 |
| Number of children | 2.6 | 2.1 | 3.7 | 2.3 | 1.4 | 2.3 | 1.6 | 2.2 |
| Rural background (0-3) | 1.7 | 1.6 | 1.7 | 1.6 | 1.5 | 1.2 | 2.1 | 1.2 |
| Extended household (\%) | 48.7 | 37.1 | 3.5 | 45.5 | 30.2 | 18.8 | 2.9 | 11.2 |
| Education < primary (\%) | 51.3 | 20.3 | 4.0 | 4.2 | 6.6 | 1.2 | 0.2 | 8.1 |
| Education tertiary (\%) | 28.9 | 8.8 | 23.4 | 7.6 | 12.6 | 10.6 | 45.9 | 24.6 |
| Labor status (0-6) | 0.7 | 0.8 | 1.2 | 1.6 | 3.3 | 2.8 | 4.1 | 1.6 |
| Household SES (0-10) | 4.2 | 2.8 | 4.3 | 3.7 | 3.4 | 3.2 | 5.0 | 4.6 |
| Normative Obligations (1-5) | 4.4 | 4.7 | 4.6 | 4.7 | 4.2 | 4.3 | 4.2 | 4.3 |
| Comfort VOC (1-5) | 3.8 | 3.6 | 3.7 | 4.0 | 2.4 | 3.0 | 2.8 | 2.5 |
| Affection VOC (1-5) | 4.2 | 4.8 | 4.5 | 4.4 | 4.2 | 4.2 | 4.4 | 4.6 |
|  | South Africa | Poland | Estonia | 1 srael | France | Germany East | Germany West | United States |
| Age of respondent | 32.7 | 41.7 | 41.0 | 35.8 | 44.3 | 36.1 | 39.1 | 44.7 |
| Number of children | 2.6 | 2.3 | 2.4 | 2.6 | 2.7 | 1.8 | 2.0 | 3.2 |
| Rural background (0-3) | 2.8 | 1.5 | 1.4 | 0.3 | 0.3 | 0.5 | 1.6 | 1.5 |
| Extended household (\%) | 21.2 | 18.0 | 10.0 | 1.4 | 2.7 | 1.1 | 1.4 | 2.1 |
| Education < primary (\%) | 10.9 | 0.3 | 0.4 | 0.0 | 0.5 | 1.1 | 0.3 | 0.0 |
| Education tertiary (\%) | 26.0 | 48.5 | 33.3 | 66.5 | 64.6 | 37.2 | 44.6 | 54.6 |
| Labor status (0-6) | 2.3 | 3.9 | 4.9 | 3.6 | 3.7 | 4.0 | 3.2 | 4.8 |
| Household SES (0-10) | 2.8 | 5.1 | 4.9 | 4.9 | 7.0 | 4.1 | 4.9 | 6.9 |
| Normative Obligations (1-5) | 4.7 | 4.3 | 4.0 | 4.3 | 4.0 | 4.0 | 3.8 | 4.2 |
| Comfort VOC (1-5) | 3.7 | 2.5 | 2.6 | 2.9 | 1.7 | 1.7 | 1.6 | 1.8 |
| Affection VOC (1-5) | 4.0 | 4.3 | 3.8 | 4.4 | 4.3 | 4.0 | 4.0 | 4.3 |

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Tab. A2: Descriptive statistics for the studied samples from 16 areas: relational characteristics

|  | India North | India South | Palestine | Indonesia | China | Jamaica | Russia | Turkey |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age Mother | 60.2 | 60.1 | 62.4 | 59.4 | 65.1 | 58.9 | 58.6 | 64.0 |
| Age Father | 61.5 | 61.6 | 63.6 | 61.6 | 65.7 | 60.3 | 61.2 | 64.8 |
| Proximity to Father (1-5) | 2.6 | 3.0 | 3.1 | 4.1 | 3.3 | 2.9 | 3.4 | 3.1 |
| Proximity to Mother (1-5) | 2.6 | 3.3 | 3.0 | 4.2 | 3.4 | 3.8 | 3.8 | 3.1 |
| Contact to Father (1-5) | 2.0 | 3.1 | 3.1 | 3.7 | 3.1 | 3.2 | 3.5 | 3.0 |
| Contact to Mother (1-5) | 2.0 | 3.4 | 3.3 | 3.9 | 3.2 | 4.3 | 4.1 | 3.4 |
| Mutual help Father (1-6) | 2.9 | 3.3 | 3.5 | 3.4 | 3.9 | 3.2 | 3.6 | 3.3 |
| Mutual help Mother (1-6) | 3.1 | 3.6 | 3.6 | 3.8 | 4.1 | 4.2 | 4.3 | 3.5 |
|  | South Africa | Poland | Estonia | Israel | France | Germany East | Germany West | United States |
| Age Mother | 60.9 | 68.3 | 67.5 | 63.2 | 72.3 | 61.9 | 67.3 | 80.0 |
| Age Father | 63.7 | 69.9 | 68.6 | 64.8 | 73.0 | 62.7 | 68.1 | 80.9 |
| Proximity to Father (1-5) | 4.1 | 3.3 | 3.0 | 2.8 | 3.1 | 2.9 | 2.9 | 3.0 |
| Proximity to Mother (1-5) | 4.2 | 3.5 | 3.2 | 3.1 | 3.3 | 3.0 | 3.0 | 3.0 |
| Contact to Father (1-5) | 3.3 | 3.4 | 2.8 | 3.9 | 3.2 | 3.0 | 3.2 | 3.1 |
| Contact to Mother (1-5) | 3.5 | 3.7 | 3.6 | 4.3 | 3.6 | 3.7 | 3.6 | 3.6 |
| Mutual help Father (1-6) | 4.1 | 3.6 | 3.3 | 3.0 | 3.2 | 2.8 | 2.7 | 2.6 |
| Mutual help Mother (1-6) | 4.4 | 3.8 | 3.7 | 3.4 | 3.6 | 2.9 | 2.9 | 2.8 |

Source: Value of Children Survey

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[^2]
[^0]:    Source: VOC-Study (respondents $\mathrm{n}=8,756$; relationships $\mathrm{n}=12,860$ )

[^1]:    Source: Value of Children Survey

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