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A Person-centered Approach to Studying the Linkages among Parent–Child Differences in Cultural Orientation, Supportive Parenting, and Adolescent Depressive Symptoms in Chinese American Families

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Abstract

This longitudinal study examined whether supportive parenting mediates relations between parent– child differences in cultural orientation (generational dissonance) and depressive symptoms with a sample of 451 first and second generation Chinese American parents and adolescents (12–15 years old at time 1). Using a person-centered approach, meaningful typologies of cultural orientation were derived for fathers, mothers, and adolescents. Overall, results provided support, though qualified, for the notion that generational dissonance is linked to depressive symptoms through decreased supportive parenting. In general, having a parent with a *bicultural* profile seemed to be most advantageous if adolescents similarly had a *bicultural* profile, whereas *more American* oriented adolescents with *more Chinese* oriented parents reported the least supportive parenting and most depressive symptoms. Directions for future research and the benefits of using a person-centered approach in research of acculturation and generational dissonance are discussed.

Keywords

Chinese American; Immigrants; Intergenerational cultural differences; Person-centered analysis; Depressive symptoms

Introduction

Adjustment to the US, with its differing values, practices, traditions, and language, is often marked by significant acculturative stress and other adaptation challenges for immigrants (Organista et al. 2002; Zheng and Berry 1991). Of increasing interest to scholars and practitioners are the adaptation challenges experienced by immigrant families and, in particular, their children. Immigrants, adults and children alike, are faced with external and internal pressures to assimilate to the host culture. However, even though immigrant parents and their children both experience the forces of assimilation, children often assimilate at a faster rate than their parents, an outcome called dissonant acculturation (Portes 1997).

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Differential modes and rates of acculturation can result in parent–child differences in cultural orientation, defined as "the degree to which individuals are influenced by and actively engage in the traditions, norms, and practices of a specific culture" (Tsai and Chentsova-Dutton 2002, p. 95).

Empirical research has been equivocal with respect to whether parent–child differences in cultural orientation (generational dissonance) contribute to increased risk of adjustment problems among children. Whereas some studies have linked differences in cultural orientation (generational dissonance) to disruption of family cohesion, parent–child conflict, and child maladjustment (e.g., Costigan and Dokis 2006a; Farver et al. 2002; Tardif and Geva 2006; Tseng and Fuligni 2000; Ying and Han 2007), other studies have found few or no negative effects of generational dissonance (Lau et al. 2005; Sam and Vitra 2003). In their study of Chinese Canadian families, Costigan and Dokis (2006a) found that generational dissonance in language use (mother–child) and Chinese values (father–child) was related to greater child depressive symptoms. In contrast, Lau and colleagues noted many instances of generational dissonance in their sample of Mexican American families, but their only significant finding with respect to generational dissonance was that adolescents who were less oriented to American culture or more oriented to Mexican culture than their parents exhibited more conduct problems. An increase in conduct problems was not observed among adolescents who were more acculturated or less enculturated than their parents, leading Lau and colleagues to suggest that the generational dissonance hypothesis might be overstated. These conflicting results might stem not just from differences between samples, but also from variability in how cultural orientation and generational dissonance has been operationalized.

Operationalizing Generational Dissonance: Arguments for a Person-centered Approach

Many past studies on generational dissonance have used a variable-centered approach in their analysis of parent–child differences in cultural orientation. Although these studies have sometimes yielded interesting findings, the variable-centered approaches they used may not be optimal for capturing the multi-dimensional nature of cultural orientation and modeling the potentially complex, non-linear relationships between generational dissonance and outcomes. Commonly used variable-centered approaches in studies of generational dissonance involve use of difference scores (e.g., Crane et al. 2005) and continuous variable interactions (e.g., Constigan and Dokis 2006a). As typically employed, these approaches focus on a single dimension of cultural orientation. However, it has been suggested that cultural orientation is best conceptualized as multi-dimensional (e.g., Abe-Kim et al. 2001; Costigan and Su 2004; Ryder et al. 2000; Tardif and Geva 2006). If, for example, the effect of parent–child differences in orientation to American culture depends on their orientations to Chinese culture, then models that include only American cultural orientation would be misapplied. It can be easily shown that as the number of relevant dimensions increases, the interaction model can become difficult to implement and interpret. Another issue that arises with typically chosen variable-centered models pertains to whether the relationship between generational dissonance and outcome variables is linear. For example, Lau and colleagues' (2005) finding that parent–child differences in one direction, but not both directions, was associated with greater conduct problems is indicative of a *non-linear* relationship. Though non-linear terms and models can be implemented within a variable-centered framework, specifying the correct non-linear function can be difficult.

Models with difference scores additionally ignore the potential relevance of the absolute positions of the child and parent on the cultural dimensions. Whether the child and parent are, for example, either equally high or equally low in Chinese cultural orientation (i.e., zero difference) is not distinguished in these models. Furthermore, the validity of results based on difference scores rests upon an often-untested assumption that cultural measures are

invariant (e.g., have equivalent metrics) for children and parents. In the absence of measurement invariance, a zero difference between *observed* scores is unlikely to reflect the same degree of cultural orientation for parents and children, thereby rendering meaningful interpretation difficult or impossible.

Alternative, and even complimentary, to variable-centered analysis is a person-centered approach. Emerging from a holistic-interactionistic metatheoretical perspective (Bergman and El-Khouri 2001), a person-centered approach has been touted for its potential advantages for research on adolescence and families (Bergman 2001; Mandara 2003). A central aspect of a person-centered perspective is the emphasis placed on understanding the individual as a functioning whole, rather than on the individual characteristics or variables themselves. A strength of the person-centered approach is its ability to accommodate non-linearities and interactions that cannot be easily represented in variable-centered models (Bergman 2001).

A thoughtfully employed, person/family-centered approach has the potential to provide a more nuanced understanding of cultural orientation and generational dissonance. In theoretical writings on acculturation, focus has often been placed on the whole person such that cultural orientation cannot be fully understood in terms of individual variables (e.g., English language use) in isolation. Instead, cultural orientation is best conceptualized in terms of the configuration and interaction of multiple cultural characteristics. In Berry's (1987) four-fold typology of acculturation, for example, identifying a person's mode of acculturation (viz., integration, assimilation, separation, or marginalization) requires joint consideration of orientation to both traditional and host cultures. Cultural orientation and related adaptation cannot be adequately understood by their orientation to the host culture alone. Past research on generational dissonance has invoked Berry's four-fold typology (e.g., Lau et al. 2005). Although taking a person-centered perspective, that research has tended to assume, rather than empirically test, the veracity of Berry's four-fold typology for the populations under study (cf., Coatsworth et al. 2005; Rudmin 2003). Moreover, individuals in this research have typically been grouped into acculturation modes based upon arbitrary classification schemes (e.g., median splits). Bergman and El-Khouri (2001) distinguish between this *old* typological approach and a *modern* empirical person-centered approach. With the latter, distinct cultural orientation profiles or types, defined by their prototypical characteristics, can be identified, and individuals can be objectively assigned to groups representing different cultural profiles. To our knowledge, only one published study (Chia and Costigan 2006) has employed such an approach for measuring cultural orientation. Their research identified five distinct acculturation groups in a sample of Chinese Canadian university students, only three of which resembled types from Berry's (1987) four-fold model.

Present Study

The present study will investigate a model of the indirect relation of generational dissonance in Chinese American parent–child dyads on adolescent depressive symptoms through supportive parenting. Of the past research on generational dissonance, the few studies focusing on Chinese immigrant populations in North America have consistently found evidence for the influence of generational dissonance on parenting and adolescent adjustment (Buki et al. 2003; Costigan and Dokis 2006a; Crane et al. 2005; Tardiff and Geva 2006; Ying et al. 2001). This consistency might stem from the ubiquity of parent–child differences in Western and Chinese orientations (Costigan and Dokis 2006b) and the cultural distance between Western and Chinese parenting styles and expectations of child behavior—for example, Chinese culture tends to emphasize Confucian notions of filial piety, discipline and self-control, and interdependence (Kim and Wong 2002).

Recent empirical research on North American Chinese immigrant families lends support for a linkage between parent–child cultural differences and parenting difficulties. For example, Costigan and Dokis (2006a) found that less endorsement of Chinese values and Chinese language use by children was associated with greater intensity of conflicts with their parents when their fathers highly endorsed Chinese values and mothers reported high Chinese language use, respectively. Conversely, greater Chinese language use by children was positively related to conflict intensity when mothers were low in Chinese language use, and children's endorsement of Chinese values was not related to conflict intensity when fathers indicated low endorsement of Chinese values. Other research with Chinese immigrant families has also supported links between parent–child differences in language use and less parent–child cohesion (Tseng and Fuligni 2000), parent–child endorsement of Asian values and less parental warmth (Costigan and Dokis 2006b), and mothers' perceptions of Chinese cultural differences with their children and more parenting difficulties (Buki et al. 2003). An important aim of this study is to add specificity to the understanding of family processes in Chinese immigrant families through studying which configurations of generational consonance and dissonance correspond with more or less supportive parenting.

Based upon past research, we hypothesize that parent–child dyads with more dissimilar cultural orientations will be characterized by less supportive parenting than generationally consonant dyads. Due to lack of specificity in past research, we cannot offer more specific hypotheses regarding differences in supportive parenting between specific consonant or specific dissonant parent–child dyads. Less supportive parenting (according to measures of warmth, inductive reasoning, and monitoring) is then expected to relate to concurrent and longitudinal increases in adolescent depressive symptoms. This hypothesis is supported by an extensive body of research (e.g., Dumka et al. 1997), including research involving Chinese American families (e.g., Crane et al. 2005; Kim and Ge 2000). Mother–child and father–child relationships will be examined separately in recognition that mothers and fathers might exhibit different patterns of cultural orientation and have different culturally proscribed parenting roles and parent–child relationships (Costigan and Dokis 2006a; Costigan and Su 2004; Kim and Wong 2002). This study expands on previous research by integrating modern person-centered methods, which capture cultural orientation within a multi-dimensional framework, with more traditional variable-centered methods, in order to obtain a more nuanced understanding of the interaction of parent–child cultural orientations in relation to supportive parenting and adolescent depressive symptoms. Taking advantage of person-centered methods allows this study to address additional important research questions: (1) Is there an empirical, identifiable typology of cultural orientation? If so, what does this typology look like and does it vary between Chinese mothers, fathers, and adolescents? (2) Are differences in supportive parenting observed between certain types of consonant dyads? (3) Among dissonant dyads, does the direction of differences in cultural orientation matter? For example, are adolescents who are more oriented towards Chinese culture than their parents at increased risk for depressive symptoms relative to those dyads where the direction of differences is reversed?

Method

Participants

Four hundred and fifty-one Chinese American families residing in Northern California participated in the present study. Adolescents (53.8% female) had a mean age of 13.0 years (*SD* = 0.73) at the first wave and 17.05 years (*SD* = 0.80) at the second wave. Adolescent children were primarily (75%) US born. Most parents (87% of fathers, 90% of mothers) were foreign born. Mean age at the time of immigration was 30.45 years (*SD* = 10.03) for fathers and 28.30 years (*SD* = 8.80) for mothers. Length of time in the US was an average of 17.46 years (*SD* = 9.73) for the fathers and 15.74 years (*SD* = 8.36) for the mothers.

A majority of both fathers (63.1%) and mothers (68.4%) reported attaining a high school or higher level of education. The median family annual income range was $30,001–$45,000, though the income distribution exhibited considerable variability, with 13% reporting less than $15,000 and 6.2% reporting more than $105,000. Most adolescents (85%) resided with both parents, with 10.7% living with only their mothers, 1.2% living with only their fathers, and the remaining adolescents living in other family structure configurations.

Procedure

In 2002, participants were recruited from seven middle schools in major metropolitan areas of Northern California. With the assistance of school administrators, research staff identified Chinese American students. Each eligible family was sent a letter describing the study. After obtaining consent from the family, participants received a packet of questionnaires, which were collected two to three weeks after mailing by research staff. Of all eligible families who were contacted, 47% agreed to participate. Of these families, 76% completed surveys. In 2006, participants were re-contacted for the follow- up study. Eighty percent of the wave 1 sample returned complete surveys at wave 2. Attrition analyses found that attriters were similar to completers on parental education, family income, and other demographic factors.

Both English version and Chinese version questionnaires were provided to participants. In order to ensure comparability of the two versions, questionnaires were translated into Chinese and then back translated into English. Inconsistencies were resolved by two bilingual research assistants with careful consideration of culturally appropriate meaning of items. The majority of adolescents used the English version (85% at wave 1), while over 70% of fathers and mothers completed the Chinese version questionnaires.

Measures

Cultural Orientation and Language (Wave 1)—Parents' and adolescents' orientation towards American and Chinese cultures was assessed by the Vancouver Index of Acculturation (VIA; Ryder et al. 2000). The 20-item VIA comprises two scales, American and Chinese cultural orientation, each covering 10 identical domains, such as tradition (e.g., *I often follow Chinese cultural traditions*) and values (e.g., *I believe in mainstream American values*). Parents and adolescents indicated their agreement with these items on a response scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). On the Chinese orientation scale, Cronbach's alpha coefficients were .82, .84, and .84 for fathers, mothers, and adolescents, respectively. On the American orientation scale, Cronbach's alpha coefficients were .83, .84, and .81 for fathers, mothers, and adolescents, respectively.

Language proficiency in reading/writing and speaking/understanding both Chinese and English was assessed with four items (e.g., *how well do you speak and understand Chinese*). Parents and adolescents self-reported their perceived ability on a response scale ranging from 1 (*not well*) to 5 (*extremely well*). Language items were highly, positively correlated within languages (*r*s = .59–.93) and modestly, negatively correlated across languages (*r*s = −.16 to −.36). Within language items for reading/writing and speaking/understanding were averaged to form two composite variables reflecting English and Chinese language proficiency.

Attitudes held towards the importance of family obligations were measured with a 12-item version of a scale developed by Fuligni and colleagues (Fuligni et al. 1999). Family obligations represent an important aspect of cultural orientation for Chinese families, particularly as they relate to the Confucian virtue of filial piety. Parents and their adolescents indicated how important it is to them that the target adolescent is respectful towards the family, provides current support to the family

(e.g., *have your parents live with you when you get older*). Responses ranged from 1 (*not at all important*) to 5 (*very important*). Cronbach's alpha coefficients were .81, .82, and .89 for fathers, mothers, and adolescents, respectively.

Supportive Parenting—Supportive parenting was operationalized using scales measuring three parenting dimensions: parental warmth, inductive reasoning, and monitoring. Adolescents indicated how often they perceived warmth and affection from their mother and/or father with an eight-item measure (e.g., *act loving, affectionate, and caring towards you*) adapted from the Iowa Youth and Families Project (Conger et al. 1995; Ge et al. 1996). Responses ranged from 1 (*never*) to 7 (*always*). Inductive reasoning (e.g., *does your parent give you reasons for his/her decisions*) and monitoring (e.g., *during the day, does your parent know where you are and what you are doing*) were similarly based on adolescents' reports on both parents using four and three items, respectively (Kim and Ge 2000). Responses ranged from 1 (*never*) to 5 (*always*). These three parenting scales were employed as manifest indicators of a latent supportive parenting construct. For fathers' parenting, Cronbach's alpha coefficients were .78, .78, and .92 for monitoring, inductive reasoning, and warmth, respectively. For mothers' parenting, Cronbach's alpha coefficients were .67, .75, and .92 for monitoring, inductive reasoning, and warmth, respectively.

Depressive Symptomatology (Waves 1 and 2)—Symptoms of depression were measured with the Center for Epidemiological Studies Depression Scale (CES-D; Radloff 1977), which has seen extensive use with adolescent (e.g., Radloff 1991) and Chinese (e.g., Kim and Ge 2000; Ying 1988, 1995; Ying et al. 2000) samples. With 20 items, the CES-D comprises four subscales: depressed affect (seven items; e.g., *I felt depressed*), somatic symptoms (seven items; e.g., *my sleep was restless*), lack of well being (four items; e.g., *I enjoyed life*, reverse scored), and interpersonal difficulties (two items; e.g., *I felt people disliked me*). Adolescents indicated how often they had experienced each symptom during the past week on a scale ranging from 0 (*rarely or none of the time*) to 3 (*most of the time*). Subscale scores were used as indicators of a latent depressive symptoms construct. In the present study, Cronbach's alpha coefficients were .82, .71, and .71 at wave 1 and .86, .78, and .74 at wave 2 for depressed affect, lack of well being, and somatic symptoms, respectively.

Results

Overview of Data Analyses

Analyses for the present study proceeded sequentially in three primary steps. In the initial step, we conducted confirmatory factor analyses (CFA) for each scale to verify their factor structures. Factor structures for the cultural orientation and depressive symptoms scales were tested in separate CFA models, whereas structures for warmth, inductive reasoning, and monitoring were tested simultaneously (though separately for each parent). As quantifying change often necessitates that constructs are measured on the same metric across repeated measurements, we used CFA to verify the longitudinal measurement invariance of the CES-D (Pitts et al. 1996).

The second step involved using latent profile analysis (LPA, our person-centered method) to identify and enumerate latent classes that are distinguished by differences in cultural orientation. A form of finite mixture analysis, LPA is the continuous variable counterpart to latent class analysis and can be viewed as a latent model analog to cluster analysis (Vermunt and Magidson 2002). LPA models were estimated using multiple, software-generated random starting value sets to protect against local solutions (Hipp and Bauer 2006). Multiple indices and solution interpretability were considered in choosing a particular *k*-class

solution. Following selection of a *k*-class model, adolescents, mothers, and fathers were each *hard* classified (i.e., class membership was treated as known, with individuals having a non-zero probability of belonging to only one class) into their most likely class or profile based on estimated posterior probabilities. Dummy variables representing joint class memberships of mother–adolescent and father–adolescent dyads were computed.

In the final step, we used structural equation modeling (SEM) to test our hypotheses that supportive parenting will mediate the relation between parent–child cultural orientation and adolescent depressive symptoms. Mother–child and father–child dyads were examined in separate models. Steyer, Partchev, and Shanahan's (2000) *change version of the multistate model with invariant parameters* (*MSIP*) was used to form latent factors representing true initial levels of, and intraindividual change in, depressive symptoms. This re-parameterization of the *state version of the MSIP* involved modeling wave 2 indicators of depressive symptoms as a function of latent factors for depressive symptoms at wave 1 and intraindividual change in depressive symptoms from wave 1 to wave 2. These constructs are analogous to intercept and slope factors in latent growth curve models.

Analyses for the present study were conducted using the Mplus software package (v. 4.2; Muthén and Muthén, 2006). Analyses employed a robust, full information maximum likelihood (FIML) estimator to provide better parameter estimates, standard errors, and fit indices in the presence of missing data and non-normality, except for the ordinal CFA models for depressive symptoms, which used a mean and variance adjusted weighted least squares estimator.

Measurement Models

In general, evidence from CFA models supported the factorial validity of the cultural orientation and language, parenting, and depressive symptoms scales. Across all factors, factor loadings were substantial in magnitude. Parenting scales were examined simultaneously in a 3-factor model. Inductive reasoning, warmth, and monitoring factors were found to be substantially correlated (*r*s: .61–.84), thereby lending support for the validity of a second-order supportive parenting construct. Factor loadings for the supportive parenting factor were substantial (.59–.99). For the CES-D, 3- and 4-factor models, previously explored by Ying (2002), and a 1-factor ordinal CFA model were examined. Finding that the 4-factor solution exhibited the best model fit, but that factors were substantially correlated, we tested and found support for a model with a second-order depressive symptomatology factor. In further analysis, partial longitudinal measurement invariance of factor loadings and intercepts was supported. Results from the latent change model indicated that mean depressive symptom levels did not change between waves, but that adolescents varied in both their initial levels and change in depressive symptoms. Initial levels were positively correlated with depressive symptoms at wave 2, but negatively correlated with change in depressive symptoms, indicating that adolescents who exhibited more depressive symptoms at wave 1 tended to have subsequent smaller increases or larger decreases in their depressive symptoms.

Identifying Latent Profiles of Cultural Orientation

The VIA (Vancouver Index of Acculturation) American and Chinese orientation scales, Chinese and English language proficiency composite variables, and the family obligations scale (descriptive statistics are shown in Table 1) were specified as indicators in LPA models. Using information from multiple indices, three-class solutions were deemed best fitting for adolescents, mothers, and fathers. Labels were given to each profile configuration: *bicultural*, *more American*, or *more Chinese* cultural orientation. Juxtaposing the solutions

for adolescents, mothers, and fathers (Fig. 1) revealed similar patterns, particularly between mothers and fathers, and some interesting differences.

Among adolescents, the largest cultural orientation class at 52%, *more American*, was characterized by higher means on VIA-American and English language proficiency, and lowest means on the VIA-Chinese, Chinese language proficiency, and family obligations. An opposite pattern was observed for the *more Chinese* class, the smallest class at 18%. The *more Chinese* and *bicultural* (30%) classes represented adolescents who were relatively proficient in both languages. The *more American* class comprised predominantly monolingual English adolescents. Of those adolescents in the *bicultural* and *more American* classes, 74% and 90%, respectively, were US born. In contrast, only 29% of adolescents in the *more Chinese* class were US born.

In contrast, mothers in the *more Chinese* class (40% of mothers) tended to be Chinese monolingual. Over 99% of the mothers in the *more Chinese* and *bicultural* classes (46% of mothers) were foreign born. Though these two classes share the same country of birth, *more Chinese* mothers were differentiated by lower income ($b = -1.05$, $SE = 0.24$, $p < .001$) and educational attainment ($b = -1.36$, $p < .001$), suggesting that they are less proficient in Chinese due to lower literacy. *More American* mothers (the smallest class at 14%) were mostly US born (74%) and were characterized by the highest education (bs = 1.66, 3.02, ps < .001) and income (bs = 2.83, 3.87, ps < .001).

The cultural orientation profile patterns for fathers were similar to the patterns for mothers. Over 99% of fathers in the *more Chinese* (the largest at 48%) and *bicultural* (37% of fathers) classes were foreign born, whereas 82% of fathers in the *more American* group (the smallest class at 15%) were US born. *Bicultural* fathers had more income ($b = 1.57$, $p < .001$) and were more highly educated ($b = 1.68$, $p < .001$) than *more Chinese* fathers, and *more American* fathers had more income ($b = 1.96$, $p < .001$) and education ($b = 1.36$, $p < .001$) relative to *bicultural* fathers.

These results suggest that the cultural profiles might represent meaningful and distinct groups. Though individual cultural profiles are interesting in themselves, the focus of this study is on the interactive influence of parent and child cultural orientations. Frequencies of these various parent–child combinations are shown in Table 2. Adolescents' cultural orientation is neither independent from their mother's cultural orientation [χ^2 (4) = 42.09, $p < .001$] nor from their father's cultural orientation [χ^2 (4) = 38.41, $p < .001$]. This is illustrated in the interesting, though expected, observation that very few adolescents with *bicultural* or *more Chinese* profiles had mothers or fathers with *more American* profiles. Though these parent–child dyads would certainly be an interesting group to study, their very small representation in our sample precludes them from further consideration. Therefore, these remaining seven mother–child and seven father–child dyad combinations were subsequently incorporated into the SEM models.

Primary Analyses

Mother–Adolescent Model—In this model, the joint cultural orientation of mothers and their adolescents was specified to have an indirect relationship with concurrent adolescent depressive symptom levels and subsequent change in depressive symptoms through supportive parenting. Supportive parenting and depressive symptoms were modeled as latent factors (see Table 3 for descriptive statistics) and mother's income and education level were included as covariates in the model to minimize potential confounding of SES. Results, presented in Fig. 2, suggest that supportive parenting does vary depending on the joint cultural orientation of mothers and adolescents. In particular, *bicultural* mothers with *bicultural* adolescents exhibited greater supportive parenting than any dyad group where the

mother's cultural orientation was *more Chinese*, regardless of the adolescent's cultural orientation. Joint *bicultural* dyads were similarly associated with greater maternal supportive parenting than dyads involving *bicultural* mothers with *more American* adolescents. The dyad group with the greatest discrepancy in cultural orientation, namely *more Chinese* mothers with *more American* adolescents, was also associated with less supportive parenting than the dyad group with greatest apparent similarity in cultural orientation, namely mothers and adolescents who both had *more American* profiles. When education and income covariates were dropped from the model, *bicultural* mothers with *more American* adolescents also exhibited more supportive parenting than *more Chinese* mothers with *more American* adolescents. All other comparisons were non-significant. Supportive parenting was associated, as expected, with less concurrent depressive symptomatology, but was not associated with longitudinal change in depressive symptom levels. Subsequent analysis with depressive symptoms at wave 2 as the only outcome factor, however, did reveal that supportive parenting was longitudinally predictive of lower depressive symptom levels at wave 2.

Father–Adolescent Model—Specification for the father–adolescent model was identical to that of the mother–adolescent model. Similar to results from the mother–adolescent model, *bicultural* fathers with *bicultural* adolescents tended to be associated with more paternal supportive parenting (see Fig. 3). However, a subtle, slightly different pattern emerged from the father–adolescent model. Whereas greater supportive parenting in jointly *bicultural* mothers and adolescents was observed relative to any dyad group where the mother's profile was *more Chinese*, jointly *bicultural* fathers and adolescents exhibited more paternal supportive parenting relative to dyad groups in which the adolescents were *more American*, except when the fathers were also *more American*. Similarly, *more American* adolescents with fathers that were either *bicultural* or *more Chinese* experienced less supportive parenting than *bicultural* adolescents with *more Chinese* fathers, suggesting the importance of fathers and adolescents sharing a common affinity for Chinese culture. In other words, adolescents with a *bicultural* cultural orientation perceived the most supportive parenting from their fathers, regardless of their father's cultural orientation. On the other hand, adolescents with a *more American* cultural orientation perceived the least supportive parenting from their fathers, except when their fathers were also *more American*. Supportive parenting from fathers was related to lower concurrent depressive symptom levels, but was positively associated with longitudinal change in depressive symptom levels. This latter relationship is contrary to our hypotheses and inconsistent with the negative zero-order correlations between supportive parenting indicators and both time 1 and time 2 depressive symptomatology indicators. Considering the possibility that this negative relationship is an artifact of the negative relationship between initial levels of depressive symptomatology and subsequent change in depressive symptomatology, an alternative model was tested. Controlling for initial depressive symptom levels, the relationship between supportive parenting and change in depressive symptoms was non-significant, thereby supporting our conclusion that the initially obtained relationship was an artifact.

Discussion

A primary aim of this study was to obtain a better understanding of how the cultural orientations of Chinese immigrant parents and their children can interact to result in increased depressive symptoms among adolescents through an environment of less supportive parenting. Overall, the results of this study provide some support, though qualified, for the notion that generational dissonance is related to supportive parenting and concurrent levels of depressive symptomatology. In general, having a parent with a *bicultural* profile seemed to be most advantageous if adolescents similarly had a *bicultural* profile. Importantly, it is not a *bicultural* mother or father *per se* that is most saliently linked

with more supportive parenting, but rather it is the combination of a *biculturally* oriented parent with a *biculturally* oriented adolescent. This configuration might be optimal, because it involves the least distance between parent and child in both Chinese and American cultures while still facilitating a family environment in which potentially protective aspects of Chinese cultural values and traditions are held and valued equally by parent and child.

Our findings also indicate that those with the least supportive parenting and highest depressive symptom levels are parent–child dyads with the greatest cultural and language differences, namely *more American* oriented adolescents with *more Chinese* oriented parents. This is consistent with our hypotheses and past research (e.g., Costigan and Dokis 2006b). When immigrant parents and their children have difficulty conversing in the same language, hold different cultural norms for behavior, and differ in the emphasis that they place on family obligations, the likely concomitant increases in parent–child conflict may affect parental display of warmth and support (Kwak 2003; Szapocznik and Kurtines 1993). Additionally, assimilated Chinese children may hold different (i.e., more American) views of what constitutes supportive parenting from their more traditionally Chinese parents (Qin 2007). However, it would be erroneous to interpret these findings as suggesting that it is the absolute degree of similarity/dissimilarity between parents' and their adolescents' cultural orientation that is the most important cultural determinant of supportive parenting and adolescent depressive symptomatology. It could be argued that there is more similarity between adolescents and parents with *more Chinese* profiles, though this dyad group had lower levels of supportive parenting and more depressive symptoms relative to jointly *bicultural* dyads. Also similar in cultural orientation were parents and adolescents who both belonged to the *more American* profile groups; however, this dyad group was not associated with differences in supportive parenting or depressive symptoms except for a single instance. Although not all instances of generational cultural dissonance may lead to greater conflict and less supportive parenting (Kwak 2003), our results suggest that supportive parenting, particularly children's *perceptions* of supportive parenting, is less likely in the context of generational cultural dissonance. In turn, Chinese American adolescents who feel less supported by their parents are more likely to exhibit more concurrent depressive symptoms.

An interesting question that emerges is whether language differences or cultural differences are more salient for culturally dissonant parent–child dyads. Although our study was not designed to address this question systematically, the finding that parent–child dyads characterized by the least supportive parenting and highest depressive symptoms involved parents who were minimally proficient in English and children who were minimally proficient in Chinese could provide a cogent explanation of our findings (Costigan and Dokis 2006a; Rumbaut 1994). Adolescents, who cannot readily engage in meaningful and reciprocal communication with their parents, are likely to feel less supported by them (Tseng and Fuligni 2000). Moreover, such language disparities might function to undermine parental authority and influence over their children; children who serve as cultural and language brokers can also have a certain degree of power over their parents, which is a culturally incongruent scenario for traditional Chinese parents. Demonstrating how language is a key discerning variable for Asian Americans in predicting their well-being (beyond acculturation measures), Kang (2006, p. 688) reasons that "language is the major channel through which cultural information and heritage are exchanged and shared." However, our findings suggest that differences are not solely based upon language barriers, and parent–child differences in Chinese and American cultural affinities also seem to be important. This is evidenced, for example, by our finding that *bicultural* consonant mother–child dyads were associated with more supportive parenting and less depressive symptoms than *more Chinese* consonant dyads, even though both dyad groups were characterized by fewer language

differences. Although fluent command of a common language for parent and child may be an important component, it will not be sufficient for an optimal family environment.

Our findings also illuminated a subtle, yet interesting, difference between mothers and fathers. Specifically, fathers' supportive parenting was lower when adolescents were least oriented to Chinese culture (i.e., *more American*) if their fathers had a Chinese cultural affinity (i.e., *bicultural* or *more Chinese*). In contrast, mothers tended to be perceived as less supportive when they held a strong Chinese orientation, regardless of the child's orientation. In part, these findings may stem from the strikingly differing parenting roles for mothers and fathers in traditional Chinese culture (Kim and Wong 2002), and the gendered adaptation challenges and experiences of Chinese immigrant mothers and fathers (Qin 2007). Evidence of differences in the relative salience of domains of parent–child cultural and language differences between mothers and fathers has emerged in other research. One such study found that mother–child differences in Chinese language use (but not Chinese values) were predictive of parent–child conflict and children's depressive symptoms, whereas father–child differences in Chinese values (but not Chinese language) were predictive of conflict and depressive symptoms (Costigan and Dokis 2006a). However, it is not easy to reconcile or compare their findings with our findings given the different methodologies of the two studies. Nonetheless, both studies highlight the importance of considering mother–child relationships separately from father–child relationships, particularly for Chinese families, and that more research is needed to better understand these differences. Interestingly, we found that both mothers' and fathers' supportive parenting were similarly related to concurrent depressive symptoms among adolescents, though this relationship was numerically stronger for mothers' supportive parenting than for father's supportive parenting (cf. Chen et al. 2000).

The approach used in this study does not allow for quantifying the degree of parent–child differences in cultural orientation. We do not view this as an inherent limitation, however, because our view of cultural orientation is multi-dimensional, and as such, it is difficult to conceive how such a quantity could be feasibly determined in any meaningful way. It is our view that our person-centered approach provides a richer description of cultural orientation and the joint configurations of cultural orientation for parents and their children. In fact, it was a secondary objective of this study to investigate whether there is a meaningful typology of cultural orientation among Chinese immigrants, and if so, to define the prototypical characteristics of the typology. Our findings provide preliminary support for the existence of such a typology of cultural orientation. That these profiles are distinguished by differences in supportive parenting (controlling for SES) as well as in parental education and income supports the distinctiveness and meaningfulness of these cultural profiles. Interestingly, we did not find evidence for four profiles, as would be suggested by Berry's (1987) four-fold model (cf. Chia and Costigan 2006). In particular, we found no evidence of a marginalized group (individuals who identify with neither Chinese nor American culture). In fact, neither the *more American* nor the *more Chinese* groups was low in endorsement of a Chinese or an American cultural affinity, respectively—and thus neither readily maps onto Berry's assimilation or separated modes of acculturation. Importantly, our results also suggest that generational status is not an adequate proxy for cultural orientation or acculturation. First glances at these profiles might suggest that they are demarcated and defined predominantly by differences in language proficiency. For now, we believe drawing such a conclusion is premature as our findings suggest that salient differences in cultural values are captured by the profiles. However, that the VIA (Vancouver Index of Acculturation) and family obligations scales were highly endorsed by most participants and exhibited little variability across profiles does raise concern of acquiescence or other response biases (Rudmin 2003). Nonetheless, small differences on the observed, somewhat arbitrary metric could still reflect meaningful differences on the latent factor. Further

research with other indicators of cultural orientation, ideally with greater variability, is needed to cross-validate our three-class typology.

The results of this study should be interpreted in conjunction with its limitations. Even though our sample size was substantial relative to many similar past studies, sizes for the dyad groups were not large and may have precluded us from detecting differences in some comparisons. We were unable to explore two dyad groups where the adolescent is more Chinese oriented than their parents, nor consider triads consisting of mother, father, and child. Our sample size, given the multiple dyad groups, was also not sufficient to test our model separately for males and females. As parenting in Chinese culture is often different for boys and girls (Kim and Wong 2002), this would be an interesting and important endeavor for future research. Readers should also be mindful that generalizability of our findings may be limited by our less than desired response rate. Our comparisons with census data suggest that our sample may be over-represented by lower SES Chinese Americans. Another potential limitation of our model is that it assumes that the relationship between supportive parenting and depressive symptoms is not moderated by the child's cultural orientation. The meaning of supportive parenting, as operationalized in this study, and relationships with other constructs might vary depending, for example, on whether the child is first or second generation (Chao 2001). We encourage future research to investigate this. Statistically, it would have been preferable to model cultural orientation class membership as a latent class variable rather than as a known, observed variable, though such an option was not feasible for our aims. However, that there was a high degree of classification certainty, as indicated by high average posterior probabilities for the most likely classes, minimizes the potential biases in model estimates caused by treating class membership as known rather than as unobserved and probabilistic. Finally, though longitudinal, our study is correlational and causal inferences that can be drawn are limited.

Pending further replication, the findings of this study hold potential implications for the provision of mental health related services to Chinese immigrant families. The findings of this study support the recommendation made by others (e.g., Ying and Han 2007) that service providers focus on intergenerational relationships and assess for intergenerational cultural dissonance and conflict when working with Chinese immigrant families. Two interventions that focus on reducing intergenerational cultural conflict, Bicultural Effectiveness Training (Szapocznik and Kurtines 1993) and the Strengthening of Intergenerational/Intercultural Ties in Immigrant Chinese American Families program (Ying 1999), hold promise for improving parent–child relationships in immigrant families. A notable contribution of our study is the greater specificity in understanding the nuanced relationship of mother–child and father–child cultural dissonance to parenting and adolescent mental health, which may be helpful for practitioners employing the aforementioned or similar interventions. Based on the results of this and past research, practitioners should remain mindful of the different implications of generational cultural consonance and dissonance in the mother–child relationship versus the father–child relationship.

In summary, this study suggests that the influence of generational cultural dissonance on children's socioemotional functioning in Chinese American families is more nuanced than previously theorized or acknowledged; this study also exemplifies the benefits of using a person-centered approach in future tests of generational consonance/dissonance theory. An interesting direction for future research would be to investigate whether this typography of cultural orientation is stable or changes in structure or class proportions over time (acculturative and enculturative change) and whether such changes are similar or divergent for children and parents. A person-centered approach might be especially appropriate for empirical studies of segmented assimilation theory, which postulates that because US

society is stratified according to class and race, immigrants are likely to traverse qualitatively different assimilation trajectories (Zhou and Xiong 2005). In conclusion, a person-centered perspective has much to offer future research on acculturation and generational dissonance and has perhaps been underutilized in the past.

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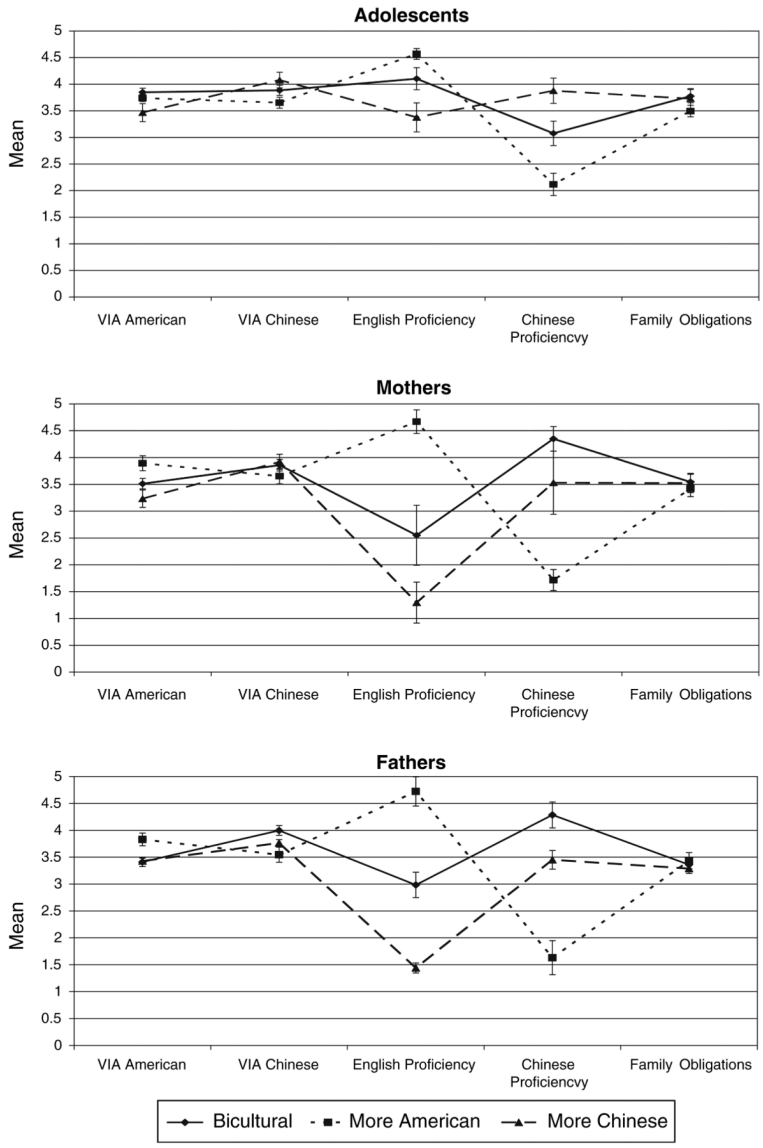

Fig. 1.

Cultural Orientation Latent Profiles. Plotted values are estimated with-in class means on the indicator variables. Error bars depict 95% confidence intervals around their respective means. VIA = Vancouver Index of Acculturation

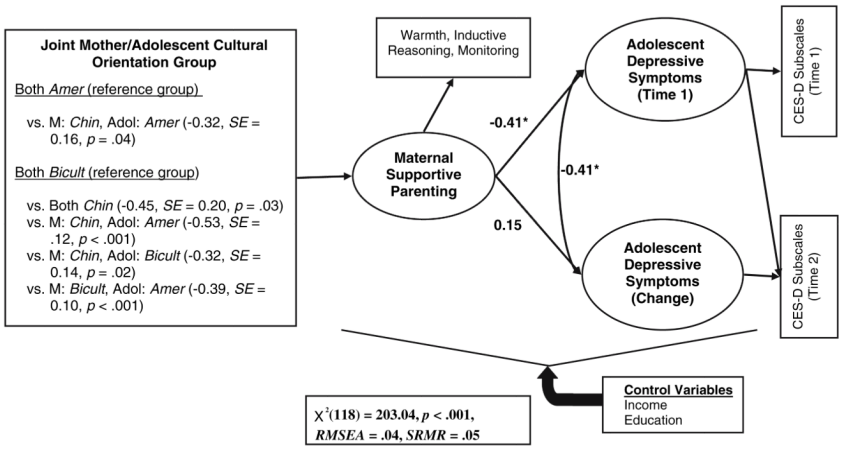

Fig. 2.

The influence of mother/adolescent joint cultural orientation on adolescent depressive symptomatology via supportive parenting. Path coefficients, their respective standard errors, and probability values for the effects of joint cultural orientation on supportive parenting are shown in parentheses. For these pathways, only statistically significant coefficients, which represent group differences in mean levels of supportive parenting, are presented for visual clarity. A negative coefficient reflects that the reference group is associated with greater supportive parenting. M = Mother, Adol: Adolescent, Chin = more Chinese cultural orientation, Amer = more American cultural orientation, Bicult = Bicultural cultural orientation. *$p < .05$

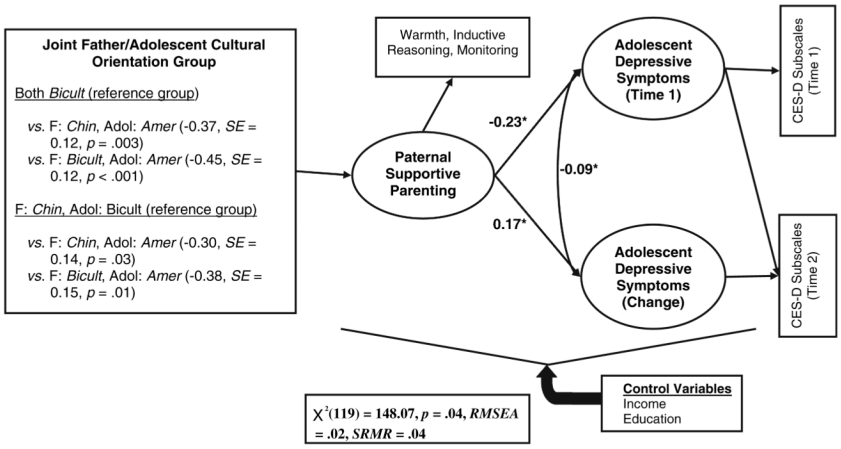

Fig. 3.

The influence of father/adolescent joint cultural orientation on adolescent depressive symptomatology via supportive parenting. Path coefficients, their respective standard errors, and probability values for the effects of joint cultural orientation on supportive parenting are shown in parentheses. For these pathways, only statistically significant coefficients, which represent group differences in mean levels of supportive parenting, are presented for visual clarity. A negative coefficient reflects that the reference group is associated with greater supportive parenting. F = Father, Adol: Adolescent, Chin = more Chinese cultural orientation, Amer = more American cultural orientation, Bicult = Bicultural cultural orientation. *$p < .05$

Table 1

Descriptive statistics for cultural orientation variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Adolescent															
1. VIA—American	–	.40	.18	–.02	.20	.20	.06	.11	–.07	–.02	.19	.07	.15	–.00	.06
2. VIA—Chinese		–	−.05	.36	.30	.04	.14	−.11	.09	−.05	.03	.22	−.11	.19	.14
3. English language			–	−.32	−.01	.15	−.11	.33	−.18	.02	.12	.00	.31	−.20	.02
4. Chinese language				–	.14	−.17	.16	−.32	.40	−.14	−.28	.10	−.45	.42	−.00
5. Family obligations					–	.05	.07	−.06	.02	.09	.13	.06	.01	.05	.12
Father															
6. VIA—American						–	.23	.38	−.12	.05	.44	.15	.31	−.17	−.00
7. VIA—Chinese							–	−.16	.32	.19	.06	.51	−.20	.27	.09
8. English language								–	−.21	.09	.35	−.07	.75	−.27	−.04
9. Chinese language									–	−.05	−.28	.19	−.33	.56	−.09
10. Family obligations										–	.04	.08	.09	−.02	.34
Mother															
11. VIA—American											–	.20	.44	−.20	.11
12. VIA—Chinese												–	−.10	.25	.23
13. English language													–	−.28	−.00
14. Chinese language														–	.09
15. Family obligations															
M	3.80	4.22	2.72	3.62	3.48	3.82	2.51	3.48	3.34	3.45	3.86	2.34	3.66	3.52	3.72
SD	0.55	0.82	1.04	0.66	0.44	0.45	1.39	1.22	0.59	0.47	0.47	1.32	1.20	0.61	0.49

Note. VIA—American = Vancouver Index of Acculturation—American orientation scale; VIA—Chinese = Vancouver Index of Acculturation —Chinese orientation scale

Table 2

Joint distribution of parent–adolescent cultural orientation profiles

Adolescent cultural orientation	Mother cultural orientation			Father cultural orientation			Total[a]
	More Chinese	More American	Bicultural	More Chinese	More American	Bicultural	
More Chinese							
n	35	2	28	37	3	23	65/63
Table %	8.6	.5	6.9	9.7	.8	6.0	
More American							
n	71	50	96	82	51	66	217/199
Table %	17.4	12.3	23.6	21.5	13.4	17.3	
Bicultural							
n	55	2	68	70	3	46	125/119
Table %	13.5	.5	16.7	18.4	.8	12.1	
Total	161	54	192	189	57	135	

[a]Values before the slash represent marginal frequencies for the mother–adolescent portion of the table; numbers after the slash represent marginal frequencies for the father–adolescent portion of the table

Table 3

Descriptive statistics for parenting and depression variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Maternal warmth	–	.68	.37	.74	.47	.32	−.24	−.27	−.34	−.20	−.12	−.16	−.28	−.09
2. Maternal IR		–	.42	.55	.74	.34	−.19	−.20	−.26	−.13	−.08	−.11	−.23	−.09
3. Maternal monitoring			–	.32	.32	.68	−.29	−.20	−.23	−.14	−.13	−.09	−.18	−.20
4. Paternal warmth				–	.70	.52	−.27	−.25	−.30	−.19	−.10	−.11	−.18	−.09
5. Paternal IR					–	.52	−.20	−.20	.25	−.14	−.00	−.04	−.10	−.07
6. Paternal monitoring						–	−.26	−.18	−.21	−.17	−.02	−.02	−.07	−.14
7. Depressed affect (T1)							–	.63	.43	.52	.24	.26	.19	.28
8. Somatic symptoms (T1)								–	.30	.41	.25	.34	.21	.26
9. Lack of well being (T1)									–	.26	.15	.17	.28	.10
10. Interpersonal difficulties (T1)										–	.12	.14	.14	.21
11. Depressed affect (T2)											–	.71	.51	.56
12. Somatic symptoms (T2)												–	.38	.52
13. Lack of well being (T2)														
14. Interpersonal difficulties (T2)													–	.28
M	4.97	3.26	4.08	4.71	3.09	3.69	0.43	0.62	1.08	0.56	0.52	0.77	1.07	.49
SD	1.33	0.92	0.83	1.43	1.00	1.06	0.49	0.45	0.69	0.66	0.56	0.50	0.69	0.58

Note. T1 = Time 1, T2 = Time 2

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