UC Berkeley
UC Berkeley Electronic Theses and Dissertations

Title

Parental Expressions of Love and Care among Chinese Immigrant Families

Permalink

https://escholarship.org/uc/item/3j77m5bj

Author

Williams, Aya Inamori

Publication Date

2022

Peer reviewed|Thesis/dissertation

Parental Expressions of Love and Care among Chinese Immigrant Families

By

Aya Inamori Williams

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

Psychology

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor Qing Zhou, Chair
Professor Mahesh Srinivasan
Professor Stephen H. Chen
Professor Laura Sterponi

Spring 2022

Abstract

Parental Expressions of Love and Care Among Chinese Immigrant Families

by

Aya Inamori Williams

Doctor of Philosophy in Psychology

University of California, Berkeley

Professor Qing Zhou, Chair

Parents' communication of love and care to their child is arguably a universal behavior found among all species. Yet expressions of human love and care are multi-faceted and found to be culturally-varied. In this dissertation, I examine Chinese American parent-child conversations as a case for the multiple ways in which parents express love and care to their child, building on cultural theories about emotion and parenting.

In a sample of 1st generation Chinese American immigrant parents ($N = 110$) and their children ($M = 9.16$ years old), I measured cultural orientation, parenting style, and expressions of love and care during a dyadic affection discussion task. Three types of affection styles were found: training (*guan*), relational affirmation, and validation. Results showed that Chinese parents with lower American orientation discussed training more often to express affection. In addition, socioeconomic status (SES) was found to be a robust predictor of affection style. Higher SES was associated with validation, whereas lower SES was associated with training and relational affirmation. Finally, in moments when parents spoke Chinese, they were more likely to discuss training and relational affirmation, whereas parents who used more English were likely to use validation to express affection toward their child.

Cultural theories of emotion and parenting may explain varied expressions of affection styles, including training, relational affirmation, and validation. Beyond the static view that immigrant families espouse heritage and host cultural values, the present dissertation demonstrates *how* these multiple cultural practices dynamically unfold in conversation. Bilingual code-switching found in these family conversations of love and care may reflect one way in which immigrant parents adopt the new unfamiliar context, while also respecting the old familiar context, thereby bridging the emotional acculturation gap.

Introduction

In one of the earliest studies on parent-child affection, Harlow (1958) demonstrated that macaque monkeys were better able to reduce distress and explore new environments when they had the comfort contact of a warm, soft-clothed (as opposed to a wired) surrogate mother. Ainsworth (1969) and Bowlby (1988) replaced these physical attributes (including warmth) with an internal model of the secure base, or the representations of an available caregiver who provides safety and comfort, which forms the crux of attachment theory. Despite these early views of parental warmth as a necessary human universal, variations in the expression of warmth have been highlighted in recent cross-cultural studies (Deater-Deckard et al., 2011). For example, quantitative studies have shown that Chinese immigrant parents demonstrated lower levels of warmth and affection compared to European American parents (Camras, Kolmodin, & Chen, 2008; Cheah, Li, Zhou, Yamamoto, & Leung, 2015; Wu & Chao, 2005, 2011). One explanation for such group differences is that Confucian values shape ideals for the parent-child relationship in Chinese cultural contexts (e.g., a person is defined by hierarchical relationships with others, Bond & Hwang, 1986). Strong emphasis on hierarchy may result in parents exercising a "set of standard conduct" akin to the authoritarian parenting style (Chao, 1994; Xu, Farver, Zhang, Zeng, Yu & Cai, 2005). Chinese immigrant parents have consequently been described as highly controlling (Jose, Huntsinger, & Liaw, 2000), critical (Ng, Pomerantz & Lam, 2007), even stereotyped as "tiger" parents (Chua, 2011).

The present study challenges the assumptions underlying such conceptualization of parental warmth developed from studies of WEIRD populations (Henrich, Heine, & Norenzayan, 2010). I propose a shift in paradigm, whereby warmth is viewed through the lens of Chinese cultural scripts about emotion and parenting that shape expressions of parents' love and care. I hypothesize that Chinese American parents engage in behavioral expressions that affirm the parent-child relationship (i.e., Chinese cultural script for expressing love and care) in addition to affirmation of internal states focusing on positive emotion (i.e., American cultural script for expressing love and care). A limited number of qualitative studies have supported this view (Cheah et al., 2015; Qin, 2008). Using a mixed-methods approach, I have developed a new coding scheme to characterize parent-child affection discussion in a sample of Chinese American families. I have examined how cultural factors, including cultural orientation, bilingual language choice, and socioeconomic status (SES), influence parental expressions of love and care.

Emotion Perspectives on Expressions of Love and Care

Emotions refer to both positive and negative affective states that involve loosely coupled changes in the domains of subjective experience, behavior, and peripheral physiology (Mauss, Levenson, McCarter, Wilhelm, & Gross, 2005); which unfold over time, typically seconds to minutes (Cunningham & Zelazo, 2007); and are helpful or harmful depending on the context (Gross & Jazaieri, 2014). Love is an emotion that can be experienced as a momentary state (Gonzaga, Keltner, Londahl, & Smith, 2001) and can be measured and manipulated in the laboratory setting (Shiota et al., 2010). It is an emotion heavily rooted in the attachment relationship (Bowlby, 1969; Shaver, Morgan, & Wu, 1996). In the present dissertation, I conceptualized love and care by adopting the constructionist view of emotion, that is, emotions are thought to co-evolve with local, social meanings, and are considered primarily for their sociocultural functions (Mesquita, Barrett, & Smith, 2010).

For immigrant parents and children, two cultural processes become salient following migration: (a) acculturation, the process of adapting to the host culture and (b) enculturation, the process of acquiring and maintaining the ethnic culture (Gonzales, et al., 2008). These are two orthogonal processes: higher acculturation does not entail lower enculturation, and vice versa. Accordingly, emotional patterns within the immigrant family shift in response to these cultural processes (De Leersnyder, Mesquita, & Kim, 2013). Immigrant parents and children may (a) adopt the emotional patterns salient among members in the host culture, as well as (b) maintain emotional pattens salient among members in the heritage culture (Jasini, De Leersnyder, & Mesquita, 2018). Thus, for the Chinese American immigrant family, expressions of love and care are dynamic with respect to old and new. In other words, families adopt both Chinese and American cultural values and norms about emotions.

In this section, I review the existing literature focusing on conceptualizations of emotion in Chinese cultural contexts. First, I review dialectical theories of emotion (Peng & Nisbett, 1999), which suggest that positive and negative emotions might co-occur in the expression of love and care. Second, I review affect valuation theory (Tsai, 2006), which highlights how interdependent or independent relationship goals may shape ideal affect and the expression of positive emotion. Third, I discuss theories of somatization in Chinese cultural contexts (Kleinman, 1982), which suggest that communication of love and care may also be behavioral, in contrast to psychological. I further reviewed cross-cultural studies that compare Chinese, Chinese American, and White American populations to test the stated theoretical views.

Dialectical Theories of Emotion

First, dialectical theories posit that some cultural contexts place value on positive and negative emotions, whereas others primarily place value on maximizing positive emotions. Chinese epistemology, based on the philosophies of Confucianism, Taoism, and Buddhism emphasizes: (1) the principle of contradiction, that two pieces of knowledge may appear to oppose each other, while both being true; (2) the principle of change, that everything is continuously changing; knowledge is always a process, rather than outcome, and (3) the principle of holism, that all things and events in the universe are interrelated (Nisbett, Choi, Peng, & Norenzayan, 2001; Peng & Nisbett, 1999; Spencer-Rodgers, Peng, Wang, & Hou, 2004). On the other hand, American epistemology, based on the laws of logic, emphasizes: (1) the principle of identity: if A is true now, then it is always true, (2) the principle of noncontradiction: A cannot equal not A, and (3) the principle of excluded middle: proposition of fact must be true or false (Lewin, 1935; Peng & Nisbett, 1999). When applied to the domain of emotion, the dominant cultural script in Chinese contexts is to value the "middle way" by balancing positive and negative emotions, whereas the dominant cultural script in American contexts is to maximize positive and minimize negative emotions (Peng & Nisbett, 1999).

Empirical evidence in support of dialectical theories suggests that expressions of positive emotion, including those of love and care, may accompany expressions of negative emotion among Chinese individuals. Bagozzi, Wong, and Yi (1999) found that self-reported positive and negative emotions were positively (rather than negatively) correlated with each other among Chinese college students, but not American college students. In an observational study of Asian American and White American participants' experience of love during a conversation with a romantic partner, Shiota et al. (2010) found that Asian American adult couples were more likely to report love and relationship-focused negative emotions together, in contrast to their European

American counterparts. Finally, in the parent-child context, Chinese and Chinese American parents' self-reported positive and negative emotion expressions were also found to be positively correlated (Chen, Zhou, Eisenberg, Valiente, & Wang, 2011; Chen, Zhou, Main, & Lee, 2015). As one qualitative example, parents have been found to evoke shame – a painful negative emotion accompanying failure and shortcoming – in children as a parenting strategy, while at the same time expressing love and care (e.g., "playful shaming", Fung, 1999; Yik, 2010). Further, in positive emotion inducing situations, East Asian groups reported more simultaneous experience of positive and negative emotions in comparison to American groups, in support of dialectical theories of emotion (Leu et al., 2010).

Cultural scripts about how emotions are valued in a given sociocultural context have implications for individuals' emotion regulation (Mauss & Butler, 2010). While different regulation strategies have different consequences, the "adaptive" or "maladaptive" outcome depends on the details of the person, the situation, and the goals that the person has in that situation. Spencer-Rodgers and colleagues (2004) demonstrated that both positive and negative emotions (including love and hate) predicted wellbeing and health among Chinese participants more than American participants, and that dialectical beliefs mediated this relation (see also Chen et al., 2013). Accordingly, Asian and Asian American groups were more likely to dampen positive emotion whereas European American groups were more likely to savor positive emotion, again, mediated by dialectical beliefs (Miyamoto & Ma, 2011). Consistent patterns have been found in parent-child interactions. Chinese immigrant mothers dampened positive emotion in reaction to their child more than did European American mothers (Song, Yang, Doan, & Wang, 2019). Notably, while parents' savoring had positive effects on emotion knowledge and psychological adjustment in both groups, dampening had marginal negative effects on emotion knowledge for White children, but not Chinese immigrant children (Song et al., 2019).

Affect Valuation Theory

Second, affect valuation theory posits that cultural factors shape ideal affect, or the affective states that people value, refer to, and ideally want to feel (Tsai, 2006). Tsai (2006) proposes that cultural variations in interpersonal goals shape ideal affect. For instance, in the US and other Western cultural contexts, norms and values of placing one's own needs above others' are dominant (Hofstede, 2001; Triandis, 1995). As such, it is important to influence and change (i.e., influence goals) one's environment to fit their own needs (Morling, Kitayama, & Miyamoto, 2002; Weisz, Rothbaum, & Blackburn, 1984). On the other hand, in China and other East Asian cultural contexts, norms and values of placing others' needs (especially those of your own ingroup) above one's own are dominant (Hofstede, 2001; Triandis, 1995). As such, it is important to adjust or change one's own preferences, internal states, and behaviors (i.e., adjustment goals) to fit in with the environment (Morling et al., 2002; Weisz et al., 1984). Such influence versus adjustment goals consequently impacts prioritization of emotional states as they involve different levels of behavioral activity and emotional arousal. Influence goals require action that involve increases in arousal (e.g., high arousal positive states), such as excitement. Adjustment goals require suspended action that involve decreases in arousal (e.g., low arousal positive states), such as calmness. Such low arousal states facilitate monitoring and attention to environmental stimuli. Indeed, those who endorsed interdependent goals were more likely to value low-arousal positive states (e.g., calmness), whereas those who endorsed independent goals were more likely to value high-arousal positive states (e.g., excitement). Interestingly,

momentary emotions of Chinese American immigrants were found to be highly variable, at times resembling that of White participants, other times East Asian participants, and other times in-between (Tsai, 2013).

Evidence from empirical studies on parent-child interactions largely support the affect valuation theory. In studies of infant-directed speech, American mothers used intonation and prosody that were rising, short, steep, and high frequency to encourage infants to act and pay attention (i.e., increase child's level of arousal), whereas Chinese mothers produced melodies that were falling, prolonged, flattened, and low frequency to soothe and quiet infants (i.e., decrease child's level of arousal) (Papousek, Papousek, & Symmes, 1991). In a study of Chinese immigrant parents and older children, the frequency of emotion words (i.e., emotion and mood states, excluding behavioral terms) during a storytelling task was positively associated with American cultural orientation (Tao, Zhou, Lau & Liu, 2013). Exclusion of behavioral terms that express emotion (e.g., yell, sigh, hug) may have contributed to such group differences. That is, guided by Chinese cultural orientation, different types of emotion words may have been used. Chinese American parents were also found to express less intense positive facial emotion when speaking Chinese, but not English, with their children (Williams et al., 2019). One interpretation of these results is that Chinese parents may not model or elicit direct expression of emotions, yet parents may instead teach children to actively listen, attune to, and infer others' emotions though their indirect, sometimes silent, emotional communication (i.e., "read the air," Kim & Markus, 2002; Lau, 2014). The valuation of interdependent adjustment goals (over independent influence goals) may be reflected in both the prioritization of low-arousal positive states (over high-arousal), as well as silence (over speech) in Chinese cultural contexts.

Culturally-shaped ideal affect predicts behavioral consequences, although it is important to note that emotion is most susceptible to cultural influences when there is voluntary control (i.e., greater cultural influences on self-reported descriptions of emotional experience, versus autonomic responses during emotional events; Levenson, Soto, & Pole, 2007). A general trend for a more moderated expression of emotion is found among Asian American groups. Mauss and Butler (2010) found that valuing emotional restraint led to a more favorable physiological response to an anger provocation among Asian American participants, but not among White participants. A large-scale self-report study on cultural display rules in 32 countries showed that interdependent goals were negatively associated with open expression of emotion (e.g., smile; Rychlowska, et al., 2014). However, when Chen and colleagues (2015) assessed both self-reported expressivity and observed emotion expression in Chinese American parents, they found that cultural orientation was related to self-reported emotional expressivity, although largely unrelated to observed emotion expression. Consistent with this pattern, studies of peripheral physiology have shown little differential responses across cultural groups (e.g., Tsai & Levenson, 1997), with the notable exception of Hmong Americans who showed smaller skin conductance response when reliving a "love" memory compared to White Americans (Tsai, Chentsova-Dutton, Freire-Bebeau, & Pryzmus, 2002).

Theories of Somatization (and Psychologization)

Finally, Yik (2010) argued that while valence-arousal structures can be applied to describe the emotional experiences with Chinese populations, it may not be a cultural fit. Kleinman (1982) introduced the conceptual and empirical studies on somatization, whereby Chinese patients with somatic complaints diagnosed with neurasthenia were re-diagnosed as

having some form of depression, a psychological disorder. Ryder and Chentsova-Dutton (2012) proposed that this form of somatization could be understood as a cultural script, and critically, the emphasis on somatization equally highlighted the Western tendencies of psychologization. While "somatization is basically a communicative act," the tendency to attend to the body over the mind has often been pathologized (e.g., alexithymia; Raguram, Channabasavanna, & Devins, 1996). Beyond clinical populations, Potter (1988) has argued that emotion expression among villagers in rural China was concomitant, or secondary, to behavior. In other words, attention was directed away from the psychological processes of individuals, especially their emotions, and toward the appropriate expression of shared agreements about moral values and the social world in terms of behavior. In illustrating a parent-child interaction, Potter (1988) described:

> "When a mother scolds her child, she will never say in so many words that she is angry; she doesn't name the *emotion*. Instead, she scolds the child by saying what she has done wrong and making it clear that the *behavior* of that kind is not right."

Empirical evidence further provides support for the somatic and behavioral expressions of emotion among Chinese individuals. Tsai (2004) observed that less acculturated Chinese American participants used more somatic (e.g., "lightheaded") and social words (e.g., "mom," "dad," "brother," "friends") to communicate emotion in comparison to their European American counterparts. Notably, this was observed even when using English, highlighting the influence of cultural scripts on emotion expression beyond language. In a series of studies on parent-child conversations (Wang & Fivush, 2005; Wang 2001, 2009, 2013, 2018), Chinese and Chinese American mothers used a more "behavioral" approach in evaluating children's past behaviors to promote proper conduct in child, help the child cope with negative experiences, and achieve emotion regulation. White American mothers, on the other hand, employed a more "cognitive" approach in which they elaborated on the cause of their children's feelings states. Chinese mothers focused on repairing relationships and using moral lessons as a resolution to teach children regarding the appropriateness of various behaviors, whereas American mothers focused on reassuring the child and building self-esteem (Wang & Fivush, 2005). While Chinese parents recognized emotional states and reactions (i.e., emotion attribution), they did not further discuss causes or consequences (e.g., emotion explanation) in the manner that American parents did (Wang, 2009). Specifically, Chinese immigrant mothers referred more frequently to the external behaviors, whereas American mothers referred more to their internal states and those of their children (Wang, 2018).

In sum, research on emotion and culture has suggested that the expression of love and care may be shaped by cultural values, scripts, and communication styles. Building on previous studies testing group differences between Chinese, Chinese American and European American populations, the present study extends the research to examining variations within low-income Chinese American population. Specifically, in the Chinese American family, parent-child conversations about love and care may involve the co-occurrence of positive and negative emotions, the moderation of expression, and the focus on behaviors that prioritize the parent-child relationship rather than internal states that revolve around the emotions of the individual. Based on the relative de-emphasis on individual expression of emotion, and relative emphasis on its interpersonal functions, I examine the sociocultural role of the parent in the following section.

Parenting Perspectives on Expressions of Love and Care

In this section, I review the existing literature focusing on parenting in Chinese and Chinese American families. Given the importance of interpersonal and behavioral aspects of emotion expression, a review of culturally valued parenting behaviors may be critical to understanding the expression of love and care in Chinese American families. Specifically, I examine the theoretical concept of training (Chao, 1994) as one form of love and care.

Parenting styles have historically been characterized with two-dimensional models (Darling, 1993) such as control (Watson, 1928) and nurturance (Freud, 1933; Rogers, 1960); acceptance/rejection and dominance/submission (Symonds, 1939); emotional warmth/hostility and detachment/involvement (Baldwin, 1955); love/hostility and autonomy/control (Schaefer, 1959); warmth and permissiveness/strictness (Sears et al., 1957); and warmth/hostility and restrictiveness/permissiveness (Becker, 1964). The dominant theoretical conceptualization of parenting proposed by Baumrind (1996) and Maccoby and Martin (1983) included four styles (authoritarian, authoritative, permissive, and neglectful) that vary in degrees of demandingness (control) and responsiveness (warmth), which have been deemed central features of parenting. The *authoritarian* parenting style includes behaviors that shape, control, and evaluate the child's behavior and attitudes in accordance with a set of standards of conduct, usually an absolute standard, theologically motivated and formulated by higher authority. On the other hand, *authoritative* parenting style includes behaviors that direct the child's activities in a rational issue-oriented manner, by encouraging verbal give and take, as well as sharing the reasoning behind her policy with the child (Baumrind, 1971, p. 261). Further, the *authoritarian* style may favor obedience and instrumental values, such as respect for authority, work, and order, believing that the child should accept parents' word, whereas the *authoritative* style may favor both expressive and instrumental values, affirming the child's present qualities, interests, and desires (Baumrind, 1971, p. 261).

Despite its wide use, a number of studies have also suggested that this typology does not fully capture relevant parenting behaviors across cultural contexts (Choi, Kim, Kim & Park, 2013; Rodriguez, Donovick, and Crowley, 2009). Confucian values provide ideals for parent-child relationship: (1) a person is defined by relationships with others, (2) relationships are structured hierarchically, and (3) social order and harmony are maintained by each party honoring the requirements and responsibilities of the role relationships (Bond & Hwang, 1986). Strong emphasis on hierarchy may be characterized as parents exercising "a set standard of conduct, usually an absolute standard" with little explanation or listening, akin to the authoritarian parenting style (Chao, 1994; Xu, Farver, Zhang, Zeng, Yu, & Cai, 2005). Moreover, the moderated expression of emotion may contribute to the stereotype of Chinese parents as highly controlling, and low on warmth (i.e., "tiger" parents; Chua, 2011). However, when Kim (2013) re-constructed parenting profiles, adjusting control (including monitoring and psychological control) and warmth (including positive and negative valences to distinguish the lack of warmth and the presence of hostility), the frequency of tiger parenting was lower than supportive parenting among Chinese American parents.

In a seminal article, Chao (1994) proposed the theoretical concept of training or *guan* (管教). The underlying parenting belief is in the inherent goodness of the child, and the influential role of the environment (Ho, 1986; Kojima, 1986). Such an environment consists of significant relationships, exemplified by the parent and the child. Comparable relationships include those of older and younger siblings, as well as husband and wife; the critical relationship is that of the sovereign and the subject. The role of the sovereign is to justly govern, teach, and discipline,

whereas the role of the subject is to display loyalty and respect. The parent is thus responsible for exposing the child to models of culturally proper or appropriate behavior and limiting exposure to examples of inappropriate behaviors (Ho, 1986; Wu, 1985; Young, 1972). Importantly, training involves love and care, characterized by an immense devotion and sacrifice on the part of the parent. The Chinese concept of training involves high expectations and firm control, yet, the motivation is to assure a harmonious relationship within the family and the society at large (Lau & Cheung, 1987). Training is a form of parental control motivated by love and care.

Adopting an emic approach (Kulich & Zhang, 2010), the following three indigenous Chinese concepts highlight the values underlying training behavior. First, the parent-child relationship can be described as *qin* (親), in which the child feels close to and loves the parent in response to parent's benevolence for the child (Editorial Board for Comprehensive Dictionary of Chinese Characters 1986-9; Jiang, 1996; Zhang et al., 716/1988; Wu & Chao, 2011). Parents' devotion, thoughtfulness in anticipating and meeting the child's needs, and training foster children's gratitude and love for their parents in the form of *qin*. Notably, the expression of love is in the affirmation of the relationship itself. Second, *guan* (管) means to govern, to care for, and to love (Tobin, 1989). The parental expression of love and care is synonymous with governance, or control (Chao, 1994). This concept reiterates the idea of training as control motivated by love. Third, *chiao shun* (教訓) is defined as teaching or educating children in the appropriate or expected behaviors (Chao, 1994). Potter (1989) similarly suggested that the idiom of emotional love is the idiom of measurable labor in Chinese families. As such, the extent of parents' training is measured by children's behaviors, especially performance in school (Wu & Tseng, 1985). Within the theoretical framework of training, parents' love and care is perhaps in the affirmation of the *qin* relationship, expressed through the behavioral control of *guan* and *chiao shun*.

Empirical studies comparing parental warmth between Chinese, Chinese American, and European American parents provide some evidence for the view of training as one expression of love and care. When measured using items, such as "I let my child know I love him/her," Chinese cultural groups consistently scored lower than other groups in cross-national studies on parental warmth (Deater-Deckard et al., 2011). Chinese parents have been characterized as demonstrating less outward affection and verbal expressions of love (Wu & Chao, 2005). Yet, in a qualitative study using open-ended interviews, Cheah and colleagues (2015) showed that both Chinese immigrant mothers and European American mothers perceived the expression of warmth to be equally important. Notably, specific practices of expressing warmth differed between the two groups. In comparison to American mothers, Chinese immigrant mothers were less likely to express warmth through direct physical and verbal expressions and affective involvement (e.g., hug, kiss, "I love you"), but more likely through provision of comfort (e.g., "When she is having a difficult time, I will let her know that mom still loves her), daily routine needs, and the facilitation of guidance and learning (e.g., food, clothing, hygiene, health, educational opportunities) (Cheah et al., 2015). In expression of love and care, Chinese immigrant mothers may focus on instrumental support, whereas European American mothers may focus on emotional support.

In sum, parental expressions of love and care in the Chinese cultural context may be synonymous with the affirmation of the parent-child relationship itself. The loving parent-child relationship (*qin*) is expressed through training (*guan*, *chiao shun*). Put differently, in the Chinese cultural context, parents may communicate love and care by prioritizing the parent-child relationship, providing instrumental support, and teaching children to behave appropriately.

Synthesis: Expressions of Love and Care in the Chinese American Families

According to the Migration Policy Institute 2017 report, Chinese immigrants are the third largest foreign-born group with approximately two million individuals residing in the US. Historically, Chinese immigration to the US has consisted of two waves: 1) the mid-1800's and 2) the 1970's to present. In the first wave, manual laborers arrived in the US for low-skilled labor, such as agriculture, mining, and railroad constructions. In the present second wave, most immigrants have arrived as international college students, or high-skilled H-1B temporary workers. Chinese immigrants thus have much higher levels of educational attainment compared to the overall foreign- and US-born populations. (Migration Policy Institute, 2017)

Chinese immigrant parents' process of acculturation and enculturation are reflected in their emotional and parenting experiences (Mesquita, 2013; Cheah et al., 2013). With respect to emotion, parents shift towards the host culture's emotional patterns, as well as maintain the heritage culture's emotional patterns. Frequent and positive social contacts with cultural members have found to be predictive of these processes (Jasini, De Leersnyder, & Mesquita, 2018). With respect to parenting, qualitative interviews have shown that Chinese American parents attempt to balance supporting the child's autonomy and individuality, while maintaining a sense of relatedness and familism (Cheah, Leung, & Zhou, 2013). Thus, to varying degrees, Chinese American parents engage in both Chinese and American cultural values and norms about emotion and parenting.

In synthesizing the extant literatures on emotion and parenting, I propose that expressions of love and care may be contextually-dependent on salient cultural scripts, values, and practices. The Chinese cultural scripts for expression of love and care may emphasize the somatic or behavioral, as well as the interpersonal. The affirmation of the parent-child relationship is likely prioritized with an emphasis on the hierarchical role of the parent to provide for and train the child, using expression of both negative and positive emotions as vehicles. Such training is coupled with a strong sense of devotion and sacrifice on the part of the parent. In turn, the child reciprocates with obedience and respect. In contrast, the American cultural scripts for expression of love and care may emphasize the psychological, or individual expressions and elaborations of internal feeling states. Parents may maximize expressions of positive emotions and minimize expressions of negative emotions in parent-child interactions. The affirmation of the parent's and child's internal states is likely prioritized with an emphasis on the parent providing emotional support through direct verbalization. Studying Chinese American parents and children, who straddle both cultural scripts, afford an opportunity to understand how multiple cultural values are endorsed and practiced moment-to-moment and potentially divergent scripts are balanced, chosen, and bridged.

The Role of Bilingualism in Expressing Affection

One way in which Chinese American parents balance multiple cultural scripts (e.g., Chinese *and* American scripts of expressing love and care as illustrated above) may be through the choice of bilingual language use. Bilingual speakers have been found to shift languages in conversation, or code-switch, as a means to adhere to culturally expected patterns of emotion expression (Ervin-Tripp, 1964; Mesquita, Boiger, & De Leersnyder, 2017; Ross, Xun, & Wilson, 2002; Wang, Shao & Li, 2010). In other words, language has been found to be a vehicle for transmitting culturally distinct affective goals (Chen et al., 2012). It may be that a more habitual

or global cultural orientation (i.e., language proficiency, media use, social affiliations) influence expression of parental affection at the macro-level, whereas language use in conversation (e.g., the language choice in conversation or momentary code-switching) influences the expression of parental affection at the micro-level. The latter moment-to-moment measure of culture is dynamic and observable, perhaps most conducive to study of immigrant families where multiple cultural scripts are constantly negotiated. As Chen and colleagues (2012) have suggested, consistent with a Chinese cultural frame, a Chinese American parent may express praise or internal emotional states with her child less frequently when speaking Chinese; yet a shift into English may bring with it the norms and expectations of American parenting and thus facilitate an increase in direct expression of affection.

> "I love you" in Chinese is a very strong phrase and we Chinese don't say it often . . . this is a Chinese phrase we feel but [do] not speak. Personally, I feel much easy to say it in English (my L2)." (Pavlenko, 2005, p. 136)

A previous study has tested the cultural perspective on bilingual language use to express emotion among Chinese American parent-child dyads, and found partial support (Williams et al., 2019). Specifically, there were associations between parents' English use and positive facial emotion. Moreover, praise (e.g., "good job") was almost exclusively stated in English. These findings may be extended in the present study to test (a) a parents' habitual language use and affection style (between-person), (b) moment-to moment bilingual language choice to express parental affection (within-person language choice) and (c) whether a switch in language can causally shift the parents' style of affection (within-person code-switching).

The Present Study

In the present study, I examined the associations between cultural factors and parents' expression of love and care in a sample of Chinese American parent-child dyads using a 3-min affection discussion task. First, I have developed a coding scheme to characterize two culturally-distinct styles of expressing love and care: behavioral expressions that affirm the parent-child relationship, focusing on the parent's role to provide for and train the child, including verbalization of negative emotional states (i.e., Chinese cultural script for expression of love and care); and the affirmation of the parent's and child's internal states, focusing on emotional support through verbalization of positive emotional states (i.e., American cultural script for expression of love and care). Second, I have examined predictors of Chinese and American cultural scripts for expression of love and care. Specifically, I have examined whether parents' and children's cultural orientations, language preferences during discussion, and parenting styles are concurrently associated with culturally-scripted expressions of love and care.

Hypothesis 1

Parent's Chinese cultural orientation would be positively associated with behavioral expressions that affirm the parent-child relationship (instrumental support, training, family role relationship, physical touch, emotion teaching, emotion consequence; see Table 1). Parent's American cultural orientation would be positively associated with affirmation of parent's and

child's verbalized internal states (verbal affection, emotional support, praise, democratic family relationship).

Hypothesis 2

Parent's Chinese language use during affection discussion would be positively associated with behavioral expressions that affirm the parent-child relationship (instrumental support, training, family role relationship, physical touch, emotion teaching, emotion consequence), whereas parent's English language use would be positively associated with affirmation of parent's and child's verbalized internal states, (verbal affection, emotional support, praise, democratic family relationship).

Hypothesis 3

Authoritative parenting style would be associated with both Chinese and American cultural scripts for expression of love and care, with stronger associations for the affirmation of parent's and child's verbalized internal states (verbal affection, emotional support, praise, democratic family relationship), and weaker associations for the behavioral expressions that affirm the parent-child relationship (instrumental support, training, family role relationship, physical touch, emotion teaching, emotion consequence). Authoritarian parenting style would be associated with Chinese cultural scripts for expression of love and care, but not American cultural scripts for expression of love and care.

Hypothesis 4

Previous studies on social status and emotion expression (Kraus, Piff, Mendoza-Denton, Rheinschmidt & Keltner, 2012) have found that those with greater access to resources, such as income and education, possess more freedom to pursue individual goals and open expression of emotion. Thus, I view socioeconomic status (SES) as an additional macro-level cultural factor that influences parents' expression of love and care. I hypothesize that higher SES would be associated with affirmation of parents' and child's verbalized internal states (verbal affection, emotional support, praise, democratic family relationship), whereas lower SES would be associated with behavioral expressions that affirm the parent-child relationship (instrumental support, training, family role relationship, physical touch, emotion teaching, emotion consequence).

Methods

Participants

The present study was part of a larger study on the psychological, social, and academic adjustment of Chinese American children from immigrant families in the Boston metropolitan area and its surrounding neighborhoods (see Chen et al., 2019 for full study procedures). Recruitment was conducted through community centers, participant referrals, and social media. Inclusion criteria were as follows: (1) the child was between ages 7-10 at the time of initial screening, (2) the child lived with at least one biological parent, (3) both biological parents

identified as ethnically Chinese, (4) the child was a first- or second- generation immigrant, and (5) both participating parent and child were able to understand and speak Chinese (Mandarin and Cantonese) and English. The study was approved by the Institutional Review Board at Wellesley College (Protocol title: "Stress and Well-being in Chinese American Immigrant Families," Principal Investigator: Stephen Chen).

The present sample included 1st generation Chinese American immigrant parents (N =110; 101 mothers, nine fathers) and their children (7-11 years old, $M = 9.16$ years, 48.5% girls). Almost all parents were born in China (n =108); one participating parent was born in Hong Kong and another was born in Vietnam. The parents on average received 15.1 years of schooling ($SD = 4.10$). The average annual household income was $98,653 (range = $2,423-400,000). The parents on average spent 12 years in the US ($SD = 7.35$).

Procedure

In the full study, each parent-child dyad participated in a 1.5–2-hr assessment at a college research laboratory or an urban community center. Following informed consent and assent, each parent and child was interviewed individually in their preferred language(s) of choice (Mandarin, Cantonese, or English) by bicultural, bilingual research assistants. All measures were forward- and back-translated into Chinese and English by bilingual researchers. The majority of parents (95.4%) completed the questionnaires in Chinese.

Measures

Demographic characteristics (parent-report)

The Family Demographics and Migration History Questionnaire (Roosa, Liu, Torres, Gonzales, Knight & Saenz, 2008) was used to capture parents' years of education, total family income in the past year, child immigrant generation status (i.e., 1st or 2nd generation), number of persons living in the home, and number of bedrooms in the home. A family socioeconomic index was calculated by averaging the standardized scores of parents' years of education and per capita income. Household density was calculated by dividing the total number of persons in the home with the total number of bedrooms in the home (Evans, Kim, Ting, Tesher, & Shannis, 2007).

Chinese and American cultural orientations (parent-report)

The Cultural and Social Acculturation Scale (CSAS; Chen & Lee, 1996) is a bidimensional scale that assesses the individual's contact and engagement with both heritage (i.e., Chinese) and host (i.e., American) cultures across three domains: language proficiency, media use, and social affiliations. The CSAS is available in Chinese and English, and has shown satisfactory internal reliabilities in a study of Chinese American parents and their children (Garrett-Peters & Fox, 2007; Chen, Zhou, Main, & Lee, 2015). Given the high internal consistency for Chinese ($\alpha = .72$) and American orientations ($\alpha = .88$), composite scores for parents' American orientation and Chinese orientation were computed by averaging the English or Chinese language proficiency, media, and social affiliations subscales. The mean Chinese orientation was 3.46 ($SD = 0.59$) and the mean American orientation was 2.68 ($SD = 0.86$).

Authoritative and authoritarian parenting styles (parent-report)

Parenting styles were assessed using the authoritative and authoritarian parenting subscales from the Chinese version of the Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson, Mandleco, Olsen, & Hart, 1995). The Chinese version of the PSDQ had satisfactory internal reliabilities when used with Chinese and Chinese American samples (Wu et al., 2002; Zhou, Wang, Deng, Eisenberg, Wolchik, & Tein, 2008; Chen et al., 2013). The authoritative scale includes: warmth/acceptance, reasoning/induction, easygoing/responsiveness, and encouragement of child's democratic participation. The authoritarian scale includes: non-reasoning/punitive strategies, corporal punishment, verbal hostility, and directiveness. For each item, parents indicated how often the parent exhibits this behavior with the child on a 5-point Likert scale (1 = *Never* to 5 = *Always*). Given the high internal consistency, corresponding item scores were averaged to calculate composite scores for authoritative (α = .93) and authoritarian styles (α = .85). The mean authoritative score was 4.00 (*SD* = 0.61) and the mean authoritarian score was 2.07 (*SD* = 0.45).

Parent-child affection discussion (observed)

Following a parent-child conflict discussion task (Eisenberg et al., 2008), parents were provided the instruction for the 3-min affection discussion task, a procedure developed by Chen and colleagues for the present study.

"Next, because the previous discussion may have been upsetting to you or your child, please use the final three minutes to help your child understand how much you love and care for him or her. You may use any words or language you like."

接下来，由于刚才的**讨论**可能**对**你或你的孩子来**说**有些**难过**，**请**用最后三分**钟让**您孩子了解您**对**他／她的**爱**和**关心**。你可以随意使用任何**词汇**或**语言**。

The interaction was videotaped, transcribed in the original languages (Mandarin, Cantonese, or English), and translated into English.

Parent's expressions of love and care

The development of the coding scheme followed three stages. First, I read through half of all transcribed data and noted main themes in a process of "open coding" (Qin, 2008; Strauss & Corbin, 1990). In this stage, 31 categories were identified and given conceptual labels. Second, categories were then reduced primarily inductively from the review of existing theoretical frameworks on training (Chao, 1994), and parent-child emotion discussion in Chinese American families (Tao et al., 2013; Wang, 2017). In this stage, 12 codes were identified. Third, two independent coders applied the preliminary coding scheme to ten randomly-selected transcripts. After coding each transcript, reliability discussion was conducted to reach agreement on codes, and to further refine the development of each code. When agreement was not reached or confusion arose, expert researchers specialized in culture and parenting research among immigrant families were consulted. One new category (i.e., emotional consequence) was added,

and one category was separated into three subcategories (i.e., role relationship, sacrifice, and filial piety), resulting in 15 final codes: (a) instrumental support, (b) training - behavioral expectation, (c) training - academics, (d) training - criticism, (e) training - moral values, (f) family role relationship - role, (g) family role relationship - sacrifice, (h) family role relationship - filial piety, (i) physical touch, (j) emotion teaching, (k) emotional consequence, (l) verbal affection, (m) emotional support, (n) praise, and (o) family democratic relationship. Detailed descriptions and examples of the 15 codes can be found in Table 1.

Three independent raters were trained on ten transcripts. Raters were bilingual and bicultural Chinese American research assistants, fluent and literate in Cantonese and/or Mandarin. Every instance of a code was discussed with the author during training period. Prevalence-adjusted bias-adjusted kappa (*PABAK*) was selected for interrater reliability due to the high prevalence of 0's (i.e., absence of affirmation code) for each proposition (Sim & Wright, 2005). It was rare for one proposition to be coded as present (1) for multiple affirmation behaviors. The analysis was conducted using the epiR package (Stevenson et al., 2020) in R (R Core Team, 2020). Once reliability was achieved between two trainers (*PABAK* > .8), coders independently rated transcripts. Between January and June of 2020, a total of 110 transcripts were coded. Approximately one-third (28.6%) of all transcripts were double-coded and ascertained that they met strong levels of agreement for each affirmation code (*PABAK* > .8). If a code did not achieve this level of agreement, reliability discussions were held on the entire transcript in consultation with the author. For all transcripts that were coded by two or more raters, the *PABAK* for each affirmation code ranged between .93 and .99 (Table 2).

Parent's language choice and code-switching

Original untranslated transcripts were used for language coding. Parent's language choice (Chinese or English) was treated as a continuous variable, indicated by the proportion of Chinese and English words in each proposition. To illustrate, number of English words were counted directly. Chinese propositions were first translated, then the number of translated English words were counted. To calculate proportion, the number of English words were divided by total number of words in the proposition. For instance, a completely English proposition would be 1 (e.g., "Then why don't you help me?"), whereas a completely Chinese proposition would be 0 (e.g., "*你听唔听我讲啊?*" / "*Are you listening to me?*"). A proposition using both English and Chinese would indicate a number between 0 and 1 (e.g., "*上次嘅个* teacher *教我* take a deep breath" / "*Last time*, *the* teacher *taught me to* take a deep breath" would be 0.5).

Code-switching was defined as an alternation between two or more languages within a conversational discourse (Myers-Scotton, 1993). It is often difficult to draw a distinction between discourse-related and participant-related code-switching (Wei & Milroy, 1995). The former is to provide structural organization to on-going conversation by establishing a contrast in language choice, whereas the latter is due to speaker's preference for and competence in one language or the other (Auer, 1984). In the present study, for instance, it is difficulty to identify whether a parent switched into Chinese because she wanted to emphasize a cultural value, or because she did not know the English equivalent. Therefore, we counted inter- and intra-sentential switches as any and all shifts in language between Chinese (Mandarin or Cantonese) and English. However, loanwords did not count as code-switches. Loanwords occur as single lexical items, can be accessed with little or knowledge of the other language, and were produced by more than one participant (Poplack & Dion, 2012). Examples include "okay" and "iPhone."

Intra-sentential switches were operationalized as language switches that occur within a proposition (e.g., "*爸爸妈妈很* love you *的*" / "*Dad and Mom* love you *very much*"). Inter-sentential switches are operationalized as language switches that occur between two propositions (e.g., "You listen to mom, yeah? *你唔开心嘅时呢我又唔开心嘅喔*" / "You listen to mom, yeah? *When you're not happy, I cannot be happy.*") The latter includes turn-taking between interlocutors (e.g., parent speaks in Chinese and child responds in English). Code-switching frequency was calculated as the sum of intra- and inter-sentential switches per proposition. Each code-switch was additionally coded for directionality, such as Chinese to English switch, and English to Chinese switch.

Data Analysis

Based on the recommended cutoffs of 2 and 7 for skewness and kurtosis respectively (West, Finch, & Curran, 1995), all main study variables were evaluated for normality. Data analysis occurred in three steps. First, regression analysis was conducted to test whether cultural orientation would be associated with expressions of love and care using linear models. Second, regression analysis was similarly conducted to test whether parenting styles would be associated with expressions of love and care using linear models. Finally, between- and within- person associations between parents' bilingual language choice or code-switching and expressions of love and care were examined using multilevel models (Snjiders & Bosker, 1999) while accommodating dependencies of the repeated measurement of individuals. Because of the parent-directed nature of the affection discussion task, analyses focused on parental expressions. All analyses were conducted using the Linear and Nonlinear Mixed Effects Models package (nlme; Pinheiro et al., 2017) and Linear Mixed Effects Models using Eigen and *SE* packages (lme4; Bates, Maechler, Bolker & walker, 2014) in R (R Core Team, 2020).

Data preparation

Missing data on love and care expression codes were due to inaudible transcript during the affection discussion task, and thus were treated as missing completely at random for data analysis. Three affection codes were removed from subsequent analysis. Instrumental support and academics were below threshold for frequency (i.e., less than 3% of total data). Physical touch was removed due to difficulty of distinguishing actual physical touch versus verbalized description of physical touch through transcripts (e.g., hug versus "Can I hug you now?"). Confirmatory factor analysis (CFA) was conducted for data reduction on affection codes.

Analysis 1: Parent's cultural orientation associated with love and care expressions

To test the unique and interactive relations of Chinese and American cultural orientation to behavioral and psychological expressions of love and care, two linear regression models were conducted. First, parental affection styles were predicted by the following set of predictors: (a) covariates, including gender and immigrant generation status, (b) main predictors of Chinese and American cultural orientations (c) the interaction term of Chinese x American cultural orientation and (d) SES. I hypothesized that parent's Chinese cultural orientation would be more strongly associated with behavioral expressions. On the other hand, American cultural orientation would be more strongly associated with psychological expressions of love and care.

Further, I hypothesized that Chinese and American orientations would interact such that bicultural orientation (i.e., high Chinese and high American cultural orientation) would be more strongly associated with both expressions of love and care than either cultural orientation alone.

Analysis 2. Parent's language choice associated with love and care expressions

To test the hypotheses that parent's language choice would be associated with expressions of love and care, we used multilevel modeling. I hypothesized that parents' higher Chinese use would be associated with behavioral expressions of love and care, whereas higher English use would be associated with psychological expressions of love and care. In the first level (Level 1) within-person analysis, we predicted parents' behavioral or psychological love and care expressions at epoch *t* from their (a) love and care expressions at epoch *t-1* and (b) language choice (proportion of Chinese and English) at epoch *t*. In the second level between-person analysis (Level 2), we tested whether there was a significant association between parents' love and care expressions and expected or habitual language choice. The models were specified by the following equations:

Level 1.

$$Beh\ or\ Psych\ LC_{it} = \beta_{0i} + \beta_{1i}Beh\ or\ Psych\ LC_{i(t-1)} + \beta_{2i}(Lang)_{it} + \varepsilon_{it}$$

Level 2.

$$\beta_{0i} = \gamma_{00} + \gamma_{01}(Mean\ Lang)_i + u_{0i}$$
$$\beta_{1i} = \gamma_{10}$$
$$\beta_{2i} = \gamma_{20}$$

where $Beh\ or\ Psych\ LC_{it}$ is the observed behavior or psychological love and care expressions at epoch *t* for person *i*, β_{0i} is a person-specific intercept, β_{1i} is a person-specific first-order autoregressive coefficient for love and care expressions, β_{2i} is a person-specific contemporaneous association between state level language choice at epoch *t* and love and care expressions at epoch *t*, and residual error, ε_{it}. γ_{00} is the expected type of love and care expressions for a parent whose mean level of language was 0, γ_{01} is the between-person association between the habitual language choice and love and care expressions, γ_{10} is the average within-person association between love and care expressions at epoch *t-1* and epoch *t*, γ_{20} is the average within-person contemporaneous association between state level love and care expression and bilingual language choice. Because the individual-level residual deviations u_{1i} and u_{2i} did not converge, they were removed from the model.

In addition, we tested whether parent's code-switching would predict behavioral or psychological expressions of love and care over time, we conducted 1-epoch lagged multilevel models. Above and beyond concurrent language choice, I hypothesized that switching into Chinese would predict behavioral expression of love and care, whereas switching into English would predict psychological expressions of love and care. In the first level (Level 1) within-person analysis, we predicted parents' behavioral or psychological love and care expressions at epoch *t* from their (a) love and care expressions at epoch *t-1* and (b) intra-sentential code-switching (Chinese to English or English to Chinese) at epoch *t-1*. In the second level between-

person analysis (Level 2), we tested whether there was a significant association between parents' love and care expressions and expected or habitual code-switching frequency. The models were specified by the following equations:

Level 1:
$$Beh\ or\ Psych\ LC_{it} = \beta_{0i} + \beta_{1i}Beh\ or\ Psych\ LC_{i(t-1)} + \beta_{2i}(CS)_{i(t-1)} + \varepsilon_{it}$$

Level 2:
$$\beta_{0i} = \gamma_{00} + \gamma_{01}(Mean\ CS)_i + u_{0i}$$
$$\beta_{1i} = \gamma_{10}$$
$$\beta_{2i} = \gamma_{20}$$

where $Beh\ or\ Psych\ LC_{it}$ is the observed behavior or psychological love and care expressions at epoch t for person i, β_{0i} is a person-specific intercept, β_{1i} is a person-specific first-order autoregressive coefficient for love and care expressions, β_{2i} is a person-specific lagged association between state level code-switching at epoch t and love and care expressions at epoch t, and residual error, ε_{it}. γ_{00} is the expected type of love and care expressions for a parent whose mean level of code-switching was 0 (i.e., language choice), γ_{01} is the between-person association between the code-switching and love and care expressions, γ_{10} is the average within-person association between love and care expressions at epoch t-1 and epoch t, γ_{20} is the average within-person lagged association between state level love and care expression and frequency of Chinese to English or English to Chinese code-switching. Because the individual-level residual deviations u_{1i} and u_{2i} did not converge, they were removed from the model.

Analysis 2: Parenting styles associated with love and care expressions

To test the unique and interactive relations of authoritative and authoritarian parenting styles to behavioral and psychological expressions of affection, two linear regression models were conducted. First, affection styles were predicted by the following set of predictors: (a) covariates, including gender and immigrant generation status, (b) main predictors of authoritative and authoritarian parenting styles, (c) the interaction term of authoritative x authoritarian parenting styles and (d) SES. I hypothesized that parent's authoritarian parenting style would be more strongly associated with behavioral expressions. On the other hand, authoritative parenting style would be more strongly associated with psychological expressions of love and care. Finally, I hypothesized that parenting styles would interact such that those who are high on both authoritarian and authoritative parenting due to bicultural orientation would be more strongly associated with both types of expressions of love and care than either parenting style alone.

Results

Data analyses were conducted in five steps. *First*, confirmatory factor analyses were conducted to reduce the number of total affection discussion codes (training, relational affirmation, and validation). *Second*, to select the covariates to be included in the main analyses, we examined pairwise correlations between sociodemographic variables, cultural orientation, and parenting styles. *Third*, multiple regressions were conducted to test the relations between cultural orientations and parenting styles with affection discussion, controlling for covariates. *Fourth*, moment-to-moment associations between bilingual language choice and affection

discussion codes were examined using multilevel modeling, while accommodating dependencies of the repeated measurements of individuals. *Finally,* multilevel modeling was also used to conduct exploratory analysis on the concurrent and lagged effects of bilingual code-switching on affection style.

Descriptive Statistics of Sociodemographic and Study Variables

The descriptive statistics for continuous sociodemographic variables, affection discussion codes, and language codes are presented in Table 3. Based on the recommended cutoffs of 2 and 7 for skewness and kurtosis respectively (West, Finch, & Curran, 1995), the cultural orientation and parenting style variables met criterion for normality. Many affirmation codes (instrumental support, academics, criticism, physical touch, emotional consequence, emotional support, praise) and language codes (English, inter-sentential code-switching, intra-sentential code-switching, Chinese to English switches, and English to Chinese switches) did not. For the affection discussion codes, the positive skew and kurtosis were due to high prevalence of 0's (i.e., absence of affection discussion across propositions). This was not surprising in a naturalistic parent-child conversation where parents expressed affirmation during some utterances, and not all. As part of the data reduction process described below, I created composite sum codes for affection discussion using confirmatory factor analysis. All composite affection discussion codes met criterion for normality (West, Finch, & Curran, 1995) as shown in Table 4.

Three composite sum codes were created from the 12 affection discussion codes based on a theoretically-driven confirmatory factor analysis. The model was estimated with Mplus 8.3 using full information maximum likelihood to handle missing data and the weighted least square mean and variance adjusted (WLSMV) estimator for adjustment to correct standard errors for non-normality (Muthén & Muthén, 2017). First, training was theorized as a form of parental control motivated by love and care. The parent-child relationship is hierarchical, and as such, the parent teaches the child appropriate behaviors and emotions. Second, relational affirmation was conceptualized as a love and care that is expressed in accordance with the affirmation of parent-child or family role relationship (e.g., How much does Mommy love you? My younger daughter is truly very smart.) Third, validation referred to the acceptance and encouragement of the child's independent expression of emotions, thoughts, and behaviors that reflect internal states. As shown in Figure 1, all standardized factor loadings ranged between .32 and .78. Hu and Bentler (1999) recommended cutoffs of comparative fit index (*CFI*) > 0.95, root mean square error of approximation (*RMSEA*) < 0.06, and standardized root mean square residual (*SRMR*) < 0.08 as the criteria for a relatively good overall model fit. Based on these criteria, the above three factor structure indicated good model fit, $X^2(df =10) = 49.34$, N = *CFI* = 0.96, *RMSEA* = 0.03, and *SRMR* = 0.06.

The full correlation matrix for all study variables, including affection discussion composite codes, are presented in Table 5. As hypothesized, income and education were associated with cultural orientation (i.e., American orientation), parenting styles (i.e., authoritative), and affection styles, and were therefore included as covariates in the following analyses. An aggregated socioeconomic status (SES) variable was created given the high correlation. Parent and child gender were not included as covariates, because although they were related to cultural orientation, they were unrelated to parenting styles and affirmation codes.

Regression Analyses Testing the Effects of Cultural Orientation on Affection Styles

To test the effects of Chinese and American cultural orientation on affection discussion, three multiple regression models were tested to predict affection discussion (training, relational affirmation, and validation) simultaneously from the following set of predictors: (a) SES (b) the main predictors of Chinese and American cultural orientation, and (c) the interaction term of Chinese x American orientation, or the degree of bicultural orientation. To minimize collinearity and to aid interpretation, cultural orientation as well as covariates were mean centered prior to computing the interaction terms.

The regression results are reported in Table 6. In the regression analysis predicting training, relational affirmation, and validation, the interaction term of Chinese and American bicultural orientation was not significant (*t*s (*df* = 99) = -0.97 to 1.64, *p*s = 0.10 to 0.33) and was thus removed from the models. Examining the main effects of Chinese and American orientations on affection discussion codes, we found that American orientation was negatively associated with training (*t*(*df* = 100) = -10.17, *p* = 0.00) and marginally positively associated with validation (*t*(*df* = 100) = 2.34, *p* = .071). Considering the composite SES index as a covariate, we found that American orientation was negatively associated with training (*t*(*df* = 99) = -2.08, *p* = 0.04); all other predictors were not associated with affection discussion codes (*t*s (*df* = 99) = -1.42 to 0.92, *p*s = 0.16 to 0.85).

Regression Analyses Testing the Effects of Parenting on Affection Styles

To test the effects of parenting styles on affection styles, three multiple regression models were again tested to predict each style (training, relational affirmation, and validation) simultaneously from the following set of predictors: (a) SES as a covariate and (b) the main predictors of authoritative and authoritative parenting styles.

The regression results are reported in Table 7. Examining the main effects of parenting styles on affection discussion codes, we found that neither authoritative nor authoritarian parenting styles were associated with the affection discussion codes (*t*s (*df* = 105) = -1.26 to 1.29, *p*s = 0.20 to 0.99). Notably, SES was robustly associated with all three affirmation codes, including training (*t*(*df* = 104) = -6.36, *p* < 0.00) and relational affirmation (*t*(*df* = 104) = -3.00, *p* = 0.041) in a negative direction, and validation (*t*(*df* = 104) = 1.71, *p* = 0.037) in a positive direction. That is, lower SES Chinese American parents discussed more training and relational affirmation, whereas higher SES Chinese American parents expressed more validation.

Multilevel Modeling Testing the Effects of Language Choice on Affection Styles

On average, across all subjects, bilingual parents used approximately 281 Chinese and 53 English words in a single conversation. To shift between the two languages in conversation, parents code-switched (i.e., shifted between English and Mandarin or Cantonese languages) on average 5 times in between each proposition (i.e., inter-sentential code-switching) and 6 times within propositions (i.e., intra-sentential code-switching).

Proposition, defined as a subject-verb construction (in Chinese, 主谓结构), was used as the unit of analysis (Fivush, Hand, & Adam, 1995) for love and care expressions as well as language codes. Each unique or implied verb in an independent clause forms a proposition unit. For example, "He swung and swung" was coded as one proposition, whereas "He swung and laughed" were two. Given the present use of naturalistic speech as the study object, a linguistic

unit (e.g., "Does mommy love you?) was deemed more appropriate than a temporal unit (e.g., 5-s). A proposition was chosen as the appropriate length, since an utterance (e.g., "Yes") would be too short to code love and care expressions meaningfully, yet, full sentences were not frequently observed in our conversational data. The present approach has been adopted in previous studies of parent-child discussion of emotional events (Wang, 2001; Wang, Shao & Li, 2010).

Bilingual language choice and affection styles exhibited considerable variability at both between- and within-person levels. The results for the proposition-level language choice predicting affirmation are presented in Table 8. For all three affirmation codes, we found significant first-order autoregressive effect of affirmation expression, such that training at t-1 predicted increases in training at t ($v_{10} = .63$, $p < .001$), relational affirmation at t-1 predicted increases in relational affirmation at t ($v_{10} = .47$, $p < .001$), and validation at t-1 predicted increases in validation at t ($v_{10} = 1.00$, $p < .001$).

Training was associated with mean level language choice at the between-person level ($v_{01} = -.59$, $p < .01$), indicating that training was influenced by the overall habitual language choice (i.e., proportion of Chinese and English use) during conversation. Above and beyond this global effect of language, language choice showed a significant contemporaneous association with the training at the within-person state level ($v_{20} = -.36$, $p = .01$). That is, in the moments where parents used more Chinese and less English, they were more likely to discuss training with their child. With respect to relational affirmation, there was no association between mean level language choice at the between-person level ($v_{01} = -.21$, $p = .35$). However, bilingual language choice influenced relational affirmation at the within-person state level ($v_{20} = -.85$, $p < .001$). In other words, in the moments where parents used more Chinese and less English, they were also more likely to discuss relational affirmation. Finally, validation was associated with mean level language choice the between-person level, indicating that relational affirmation was influenced by the global habitual use of English during the conversation ($v_{01} = .89$, $p < .001$). On the other hand, no within-person state level associations between language choice and validation were found ($v_{20} = .06$, $p < .66$). Although there was an overall mean effect whereby language choice in the overall conversation influenced the likelihood of parents using validation (i.e., the more English parents used in conversation, the higher frequency of validation), there was no specific use of English words to express validations.

Finally, multilevel modeling was used to test whether moment-to-moment code-switching (inter-sentential switching from Chinese to English and English to Chinese) predicted the discussion of training, relational affirmation, and validation, as shown in Table 9. Across all three models, code-switching from English to Chinese propositions did not influence the frequency of using training, relational affirmation, or validation contemporaneously (estimates > -.19, ps > .07) or at the subsequent proposition (estimates > -.11, ps > .26). However, code-switching from Chinese to English propositions negatively predicted training ($v_{30} = -.71$, $p = .03$), positively predicted validation ($v_{30} = .59$, $p < .01$), and was concurrently negatively associated with relational affirmation ($v_{20} = -.72$, $p = .03$). To summarize, when parents switched from Chinese to English, they were more likely to express affirmation through validation, and less likely to express affirmation through training and relational affirmation.

Discussion

To our knowledge, this is the first observational study of affection styles in Chinese American families. The goal of the present study was to a) characterize the cultural variations in

affirmation expressions within this population, b) test the associations between cultural orientations, parenting styles, and types of parental affection styles across subjects, and to c) examine the within-person moment-to-moment associations between bilingual language choice and affection discussion. In sum, we found that there are three types of parental affection used by Chinese American parents: training, relational affirmation, and validation. In partial support of our hypothesis, we found that less acculturated Chinese parents (i.e., lower American cultural orientation) discussed training as a form of expressing affirmation. In addition, SES was found to be a robust predictor, demonstrating that lower SES Chinese American parents discussed more training and relational affirmation, whereas higher SES Chinese American parents expressed more validation. Other hypothesized associations, such as the relations between parenting styles and affection styles, were not found. To understand these macro-level relations between cultural orientation and affection style at the micro-level, we found that in the moments when parents spoke Chinese, they were more likely to discuss training and relational affirmation. On the other hand, in our sample, parents who were more likely to use English were more likely to validate as a way of expressing affection. The final analysis on code-switching further aids our interpretation, such that when parents switched into English, they were less likely to discuss training and relational affirmation, and instead more likely to validate in subsequent speech.

The findings from this study supported the notion that culture is not a fixed set of values and norms, but rather a dynamic process that can be observed in an unfolding conversation. For immigrant families, there is an ongoing choice to express affirmation in a manner that is consistent with their heritage values, host values, *and* the synthesis of both. Cheah and colleagues (2013) suggested in a series of qualitative interviews that Chinese American parents attempted to balance supporting the child's autonomy and individuality, while also maintaining a sense of relatedness and familism (Cheah, Leung, & Zhou, 2013). Such a balancing act was reflected in the three affirmation expression codes found in the present study: training, relational affirmation, and validation. The concepts of training and relational affirmation emphasized teaching children to behave appropriately in the context of the parent-child hierarchy and to affirm unconditional love and care within the family role relationship, whereas validation encourages the child's independent expressions of thoughts, emotions, and perspectives. The hypothesized Chinese (i.e., behavioral expressions that affirm the parent-child relationship; training, relational affirmation) and American cultural scripts (i.e., affirmation of child's internal states; validation) were indeed found in these affirmation expression codes. Moreover, evidence for the dynamic process of emotional and parental acculturation (Mesquita, 2013) was found at the between-person level, whereby parents who were less acculturated to the American cultural orientation used training more in as an expression of love and care in comparison to parents who were more acculturated.

If indeed emotional acculturation among Chinese American parents is a dynamic process by which parents espouse both Chinese and American values, *how* do parents express such multiplicity of values in conversation with their children? Language use itself might cause shifts in cultural values and norms. Our study results showed that parents shift between affirmation expressions that represent Chinese and American values by code-switching, or shifting the language they speak. In the moments parents used Chinese, they were more likely to express affirmation through training and relational affirmation in line with the Chinese values of *guan* (training) and *qin* (family relations). On the other hand, when parents shifted into English, they were more likely to use validation, consistent with American values of independent expression of thoughts and feelings. These findings are consistent with the broader literature on how language

may serve as a vehicle for transmitting culturally distinct affective goals (Chen et al., 2012). Put differently, bilingual parents may choose one language as more appropriate than another for conveying emotion that is consistent with a particular cultural frame (De Leersnyder & Mesquita, 2017). Integrating this cultural frame switching perspective into the markedness model of bilingual code-switching (Myers-Scotton, 1993), the Chinese language choice can be viewed as an "unmarked" language for parents who were raised in this heritage context pre-migration and the shift into English language is an intentional switch into a "marked" language that parents use to express values of the host context post-migration.

It is important to note that language shifts are only one type of code-switching that we focused on in the present study. There may be other emotion-related "codes" that are shifting throughout conversation, such as the types of words used, facial emotion expressions, or non-verbal gestures and physical touch that are also culturally-scripted. Such limitation opens dialogue for the nature of biculturalism and whether "culture" can be broken down into its parts using different levels of analyses (i.e., whether Chinese American affirmation expressions are the sum of Chinese affirmation behaviors and American affirmation behaviors.) However, given that there may be multiple codes that are shifting during such family interaction, I adopt the holistic view that bilingualism is not the sum of two complete or incomplete monolinguals (Grosjean, 1989), and by extension, Chinese American family interactions are not simply the sum of momentary activations of Chinese and American selves or behaviors.

Contrary to our hypothesis, we found no relations between authoritative and authoritarian parenting styles with affirmation expressions. One interpretation is that self-reported ratings of global parenting styles (e.g., "I find it difficult to discipline my child") may not predict specific parenting behaviors in a specific situation (i.e., lab-based task where parents and children are aware of being videorecorded). This is also consistent with socialization literature which distinguished global parenting styles and specific parenting practices (Darling & Steinberg, 1993). Interestingly, even early critiques of Baumrind's authoritative and authoritarian tripartite model explicitly separated parent-child communication patterns from discussions of parenting styles (Maccoby & Martin, 1983; Lewis, 1981). That is, the family's overall emotional climate may not predict context- or domain-specific parenting practices. More recent literature examining global parenting dimensions with situation-specific parenting practices among Chinese and Chinese American families confirm this pattern (Tao, Zhou, & Wang, 2010; Chen, Zhou, et al., 2011; Curtis, Zhou, & Tao, 2020).

Such consistent patterns suggest the alternative hypothesis that the traditional and widely adopted two dimension control-warmth typology may not fully capture relevant parenting behaviors across cultural contexts, including those of Chinese American families (Rodriguez, Donovick, and Crowley, 2009; Choi, Kim, Kim, & Park, 2013). According to the traditional model (Maccoby & Martin, 1982), demandingness refers to a parent's willingness to act as a socializing agent, whereas responsiveness refers to the parent's recognition of the child's individuality. However, parents' socialization goals, norms, and values vary across cultural contexts, moreover, the perception of the child's "individuality" differ across independent and interdependent models of the self. As Chao (1994, p. 1111) suggested in her seminal article, "the concepts of authoritative and authoritarian are somewhat ethnocentric and do not capture the important features of child rearing…[namely] the concept of 'training.'" While authoritarian control has its historical roots in religious influences against the backdrop of WWII and modern democratic and individualistic parenting, Chinese parenting does not share the same historical and sociocultural contexts (Smuts & Hagen, 1985). While "training" matches on high scores of

authoritarian parenting style, there is also a high maternal involvement, responsibility to teach, discipline, and "govern" as well as physical closeness (Chao, 1994). For these reasons, the training, relational affirmation, and validation codes in the present study may not have been associated with global parenting style dimensions.

On the other hand, socioeconomic status (SES) was found to be a robust predictor of affirmation expression types. Specifically, SES was positively associated with validation, and negatively associated with training and relational affirmation. It is notable that SES and acculturation operated as independent factors influencing affirmation expression (i.e., American orientation was negatively associated with training, controlling for SES). These two factors are often confounded in studies of immigrant families (whereby acculturation is also associated with higher SES). Nonetheless, SES may be viewed as an additional "culture" of social status that influenced affirmation expression beyond ethnic orientation and language choice. This finding is consistent with the idea that higher social status may afford more open expression of emotion. Based on social class theories, access to resources such as income and education enable greater freedom and choice to pursue individual goals, encouraging individualistic orientations motivated by expression of internal states and emotions (Kraus, Piff, Mendoza-Denton, Rheinschmidt & Keltner, 2012; Markus & Stephens, 2017). In contrast, lower social status leads to reduced status and greater monitoring and inhibition of emotional processes (Keltner, Gruenfeld, & Anderson, 2003). This may point to a potential causal role of resource scarcity found in our parent-child interactions (Ellwood-Lowe, Foushee, & Srinivasan, 2021). In the present study, those who had higher SES (low resource scarcity) were more likely to openly express affirmation for their child in the form of validation (i.e., acceptance and encouragement of child's self-esteem and independent expression) transmitting ideas about freedom to pursue individualistic goals. On the other hand, those with lower SES (high resource scarcity) were more likely to teach children to adhere to behavioral expectations and to respect their roles in the family by discussing training and relational affirmation. This pattern is consistent with previous findings of increased expressivity associated higher social status among Chinese American immigrant families (Chen & Zhou, 2019). Although the results partially support the family stress model for validation (Conger & Donnellan, 2007), which theorizes that economic hardship acts as a stressor on the parents therefore leading to harsh discipline and lack of warmth, this model does not fit for training and relational affirmation.

There are several limitations to this study. First, the lab-based task of affection discussion may not be fully ecologically valid. While this study documented what parents will discuss given a prompt for affection discussion, such parent-child conversation may not be the most naturalistic for families. The study was able to capture the behavioral and interpersonal aspects of affirmation expression. Nonetheless, future studies may capture a daily situation (e.g., dinner time conversation) and additionally code for forms of non-verbal communication, such as physical touch and proximity between parents and children as well as bodily and facial emotion expressions. Relatedly, while this study documented associations between language switches and cultural expressions of affection, it remains an open question whether such switches can be triggered (e.g., prompted by a bilingual clinician) to create shifts in cultural and emotional frame, or these association reflect intentional choices on the part of the speaker. Second, given the focus on parental expressions of love and care, child utterances were not coded for content. Although global child characteristics, such as gender or acculturation levels, did not influence parent's affirmation expressions, it remains to be tested whether children's moment-to-moment speech influenced the parent's language choice and affirmation expressions (e.g., if the child engaged in

emotional disclosure in English, would the parents be more likely to validate in English the next proposition?) Third, there is much heterogeneity among bilingual, bicultural immigrant families. Our findings focused on relatively recent Chinese American immigrant families in Boston metropolitan areas and may not generalize to other immigrant populations. Future studies may test whether the effects of emotional code-switching (i.e., shifting to host language to express emotion in line with host culture values and practices, shifting to heritage language to express emotion in line with heritage culture values and practices) can apply to other immigrant communities. Finally, this study is limited in its understanding of which types of affirmation expression may be most conducive to positive parent-child relationship and child adjustment, though perhaps, no one pattern is more optimal than the other. To develop prevention and intervention strategies for parents and children, links to children's socioemotional outcomes are warranted in future studies of emotional code-switching.

Despite stated limitations, the present study is one of the first observational studies to examine the concept of training (*guan*), relational affirmation, and validation as expressions of love and care in Chinese American families. The present study showed that cultural theories of emotion and parenting may explain varied expressions of affection styles that are offered by Chinese American parents. Moreover, beyond the static view that immigrant families espouse heritage and host cultural values, the present study demonstrated *how* these multiple cultural practices dynamically unfold in parent-child conversation. Bilingual code-switching found in these family conversations of love and care may reflect one way in which immigrant parents adopt the new unfamiliar context, while also respecting the old familiar context, therefore bridging the emotional acculturation gap.

References

Ainsworth, M. D. S. (1969). Object relations, dependency, and attachment: A theoretical review of the infant-mother relationship. *Child Development*, 969-1025.

Ang, R., Goh, D., & Ang, R. (2006). Authoritarian parenting style in Asian societies: A cluster-analytic investigation. *Contemporary Family Therapy*, *28*(1), 131–151. https://doi.org/10.1007/s10591-006-9699-y

Bagozzi, R., Wong, N., & Yi, Y. (1999). The role of culture and gender in the relationship between positive and negative affect. *Cognition and Emotion*, *13*(6), 641–672. https://doi.org/10.1080/026999399379023

Baldwin, A. L. (1955*). Behavior and development in childhood.* New York: Dryden Press.

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*, *4*(1), 1–103. https://doi.org/10.1037/h0030372

Baumrind, D. (1996). The discipline controversy revisited. *Family Relations*, *45*(4), 405–414. https://doi.org/10.2307/585170

Becker, W C. (1964). Consequences of different kinds of parental discipline. In M. L. Hoffman & L. W Hoffman (Eds.), *Review of child development research* (Vol. 1, pp. 169-208). New York: Russell Sage Foundation.

Bond, M. H., & Hwang, K. K. (1986). The social psychology of Chinese people. In M. H. Bond (Ed.), *The Psychology of the Chinese* (pp. 213-264). Hong Kong: Oxford University Press.

Bond, M., Kulich, S., & Zhang, R. (2010). The multiple frames of "Chinese" values: From tradition to modernity and beyond. In *Oxford Handbook of Chinese Psychology*. https://doi.org/10.1093/oxfordhb/9780199541850.013.0017

Bowlby, J. (1969). *Attachment and loss.* London: The Hogarth Press and the Institute of Psycho-Analysis.

Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development.* New York, NY, US: Basic Books.

Camras, L., Kolmodin, K., & Yinghe Chen. (2008). Mothers' self-reported emotional expression in Mainland Chinese, Chinese American and European American families. *International Journal of Behavioral Development*, *32*(5), 459–463. https://doi.org/10.1177/0165025408093665

Chao, R. (1994). Beyond parental control and authoritarian parenting style: Understanding Chinese parenting through the cultural notion of training. *Child Development*, *65*(4), 1111–1119. https://doi.org/10.2307/1131308

Cheah, C., Leung, C., & Zhou, N. (2013). Understanding "tiger parenting" through the perceptions of Chinese immigrant mothers: Can Chinese and U.S. Parenting coexist? *Asian American Journal of Psychology*, *4*(1), 30–40. https://doi.org/10.1037/a0031217

Cheah, C., Li, J., Zhou, N., Yamamoto, Y., & Leung, C. (2015). Understanding Chinese immigrant and European American mothers' expressions of warmth. *Developmental Psychology*, *51*(12), 1802–1811. https://doi.org/10.1037/a0039855

Chen, J. M., Kim, H. S., Sherman, D. K., & Hashimoto, T. (2015). Cultural differences in support provision: The importance of relationship quality. *Personality and Social Psychology Bulletin, 41*, 1575–1589. http://doi.org/10.1177/0146167215602224

Chen, S. H., Zhou, Q., Eisenberg, N., Valiente, C., & Wang, Y. (2011). Parental expressivity in Chinese families: Relations to parenting styles and children's psychological adjustment. *Parenting, Science and Practice, 11*, 288 –307. https://doi.org/10.1080/15295192.2011.613725

Chen, S. H., Hua, M., Zhou, Q., Tao, A., Lee, E., Ly, J., & Main, A. (2013). Parent-child cultural orientations and child adjustment in Chinese American immigrant families. *Developmental Psychology, 50*(1), 189-201. https://10.1037/a0032473

Chen, S. H., Zhou, Q., Main, A., & Lee, E. (2015). Chinese American immigrant parents' emotional expression in the family: Relations with parents' cultural orientations and children's emotion-related regulation. *Cultural Diversity & Ethnic Minority Psychology*, *21*(4), 619–629. https://doi.org/10.1037/cdp0000013

Chen, S. H., Gleason, T. R., Wang, M. M., Liu, C. H., & Wang, L. K. (in press). Perceptions of social status in Chinese American children: Associations with social cognitions and socioemotional well-being. *Asian American Journal of Psychology*.

Chen, X., & Lee, B. (1996). *The Cultural and Social Acculturation Scale (Child and Adult Version)*. London, Ontario, Canada: Department of Psychology, University of Western Ontario.

Chen, S. X., Benet-Martinez, V., Wu, W., Lam, B., & Bond, M. (2013). The role of dialectical self and bicultural identity integration in psychological adjustment. *Journal of Personality*, *81*(1), 61-75. https://10.1111/j.1467-6494.2012.00791.x

Chua, A. (2011). *Battle hymn of the tiger mother*. New York, NY: Penguin Press.

Conger, R., & Donnellan, M. (2007). An interactionist perspective on the socioeconomic context of human development. *Annual Review of Psychology*, *58*, 175-199.

Cunningham, W., & Zelazo, P. (2007). Attitudes and evaluations: A social cognitive neuroscience perspective. *Trends in Cognitive Sciences*, *11*(3), 97–104. https://doi.org/10.1016/j.tics.2006.12.005

Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin*, *113*(3), 487–496. https://doi.org/10.1037/0033-2909.113.3.487

Deater-Deckard, K., Lansford, J. E., Malone, P. S., Alampay, L. P., Sorbring, E., Bacchini, D., ... & Dodge, K. A. (2011). The association between parental warmth and control in thirteen cultural groups. *Journal of Family Psychology*, *25*(5), 790-794. https://doi.org/10.1037/a0025120

De Leersnyder, J., Mesquita, B., & Kim, H. (2013). Emotional acculturation. In D. Hermans, B. Rime, & B. Mesquita (Eds.), *Changing emotions* (pp 127-133). Psychology Press.

Domenech Rodríguez, M., Donovick, M., & Crowley, S. (2009). Parenting styles in a cultural context: Observations of "protective parenting" in first-generation Latinos. *Family Process*, *48*(2), 195–210. https://doi.org/10.1111/j.1545-5300.2009.01277.x

Editorial Board for Comprehensive Dictionary of Chinese Characters. (Ed.). (1986 –1989). *Han yu da zi dian* [Comprehensive dictionary of Chinese characters] (1st ed.). Wuhan & Chengdu, China: Hubei & Sichuan Lexicographical Publishing Houses.

Eisenberg, N., Hofer, C., Spinrad, T. L., Gershoff, E. T., Valiente, C., Losoya, S., . . . Maxon, E. (2008). Understanding mother-adolescent conflict discussions: Concurrent and across-time prediction from youths' dispositions and parenting. *Monographs of the Society for Research in Child Development, 73*(2), 1-180.

Ellwood-Lowe, Foushee, & Srinivasan, M. (2022). What causes the word gap? Financial concerns may systematically suppress child-directed speech. *Developmental Science, 25,* e13151.

Evans, G., Kim, P., Ting, A., Tesher, H., & Shannis, D. (2007). Cumulative risk, maternal responsiveness, and allostatic load among young adolescents. *Developmental Psychology*, *43*(2), 341–351. https://doi.org/10.1037/0012-1649.43.2.341

Freud, S. (193 3). *New introductory lectures in psychoanalysis.* New York: Norton.

Fung, H. (1999). Becoming a moral child: the socialization of shame among young Chinese children. *Ethos*, *27*(2), 180–209. https://doi.org/10.1525/eth.1999.27.2.180

Garrett-Peters, P., & Fox, N. (2007). Cross-cultural differences in children's emotional reactions to a disappointing situation. *International Journal of Behavioral Development, 31*, 161–169. https://doi.org/10.1177/ 0165025407074627

Genesee, F., Nicoladis, E., & Paradis, J. (1995). Language differentiation in early bilingual development. *Journal of Child Language*, *22*(3), 611-631.

Gonzaga, G., Keltner, D., Londahl, E., & Smith, M. (2001). Love and the commitment problem in romantic relations and friendship. *Journal of Personality and Social Psychology*, *81*(2), 247–262. https://doi.org/10.1037/0022-3514.81.2.247

Gonzales, N., Germán, M., Kim, S., George, P., Fabrett, F., Millsap, R., & Dumka, L. (2008). Mexican American adolescents' cultural orientation, externalizing behavior and academic engagement: The role of traditional cultural values. *American Journal of Community Psychology*, *41*(1-2), 151–164. https://doi.org/10.1007/s10464-007-9152-x

Gross, J., & Jazaieri, H. (2014). Emotion, emotion regulation, and psychopathology: An affective science perspective. *Clinical Psychological Science*, *2*(4), 387–401. https://doi.org/10.1177/2167702614536164

Harlow, H. F. (1958). The nature of love. *American Psychologist*, *13*(12), 673.

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences, 33,* 61-135. https://10.1017/S0140525X0999152X

Ho, D. Y. F. (1986). Chinese patterns of socialization: A critical review. In M. H. Bond (Ed.), *The Psychology of the Chinese people* (pp. 1- 37). Hong Kong: Oxford University Press.

Hofstede, G. *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. 2001. Thousand Oaks, California: Sage Publications.

Hutt, R., Wang, Q., & Evans, G. (2009). Relations of parent–youth interactive exchanges to adolescent socioemotional development. *Social Development*, *18*(4), 785–797. https://doi.org/10.1111/j.1467-9507.2008.00518.x

Jasini, A., De Leersnyder, J., & Mesquita, B. (2018). Feeling "right" when you feel accepted: Emotional acculturation in daily life interactions with majority members. *Frontiers in Psychology, 9*, 1093. https://doi.org/10.3389/fpsyg.2018.01093

Jiang, R. J. (Ed.). (1996). *Shuo wen jie zi ji zhu* [Collected commentaries on the *Shuowen Jiezi*]. Shanghai, China: Shanghai Gu Ji & Xin hua shu dian.

Jose, P., Huntsinger, C., Huntsinger, P., & Liaw, F. (2000). Parental Values and Practices Relevant to Young Children's Social Development in Taiwan and the United States. *Journal of Cross-Cultural Psychology*, *31*(6), 677–702. https://doi.org/10.1177/0022022100031006002

Keltner, D., Gruenfeld, D., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review,* 110(2), 265-284.

Kim, S. (2013). Defining tiger parenting in Chinese Americans. *Human Development*, *56*(4), 217–222. https://doi.org/10.1159/000353711

Kleinman, A. (1982). Neurasthenia and depression: A study of somatization and culture in China. *Culture, Medicine and Psychiatry*, *6*(2), 117–190. https://doi.org/10.1007/BF00051427

Kojima, H. (1986). Japanese concepts of child development from the mid-l7th to mid-19th century. *International Journal of Behavioral Development, 9*, 315-329.

Kraus, M., Piff, P., Mendoza-Denton, R., Rheinschmidt, M., & Keltner, D. (2012). Social class, solipsism, and contextualism: How the rich are different from the poor. *Psychological Review*, 119(3), 546-572.

Lau, A., Wang, S., Fung, J., & Namikoshi, M. (2014). What happens when you "can't read the air"? Cultural fit and aptitude by values interactions on social anxiety. *Journal of Social and Clinical Psychology*, *33*(10), 853–866. https://doi.org/10.1521/jscp.2014.33.10.853

Lau, S., & Cheung, P. C. (1987). Relations between Chinese adolescents' perception of parental control and organization and their perception of parental warmth. *Developmental Psychology, 23*(5), 72.

Leu, J., Mesquita, B., Ellsworth, P., Zhiyong, Z., Huijuan, Y., Buchtel, E., … Masuda, T. (2010). Situational differences in dialectical emotions: Boundary conditions in a cultural comparison of North Americans and East Asians. *Cognition and Emotion*, *24*(3), 419–435. https://doi.org/10.1080/02699930802650911

Levenson, R. W., Soto, J. A., & Pole, N. (2007). Emotion, biology and culture. In S. Kitayama & D. Cohen (Eds.), *Handbook of Cultural Psychology* (pp. 780 –796). New York, NY: Guilford Press.

Lewin, K. (1973). *A dynamic theory of personality.* 1935. New York and London: Mc Grow Hill.

Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P. H. Mussen (Series Ed.) & E. M. Hetherington (Vol. Ed.), *Handbook of Child Psychology: Vol. 4. Socialization, Personality, and Social Development* (4th ed., pp. 1 -101)

Markus, H., & Stephens, N. (2017). The psychological and behavioral consequences of inequality and social class: A theoretical integration. *Current Opinions in Psychology*, 18, iv-xii.

Matsumoto, D., Seung Hee Yoo, & Fontaine, J. (2008). Mapping expressive differences around the world: The relationship between emotional display rules and individualism versus collectivism. *Journal of Cross-Cultural Psychology*, *39*(1), 55–74. https://doi.org/10.1177/0022022107311854

Mauss, I., & Butler, E. (2010). Cultural context moderates the relationship between emotion control values and cardiovascular challenge versus threat responses. *Biological Psychology*, *84*(3), 521–530. https://doi.org/10.1016/j.biopsycho.2009.09.010

Mauss, I., & Butler, E. (2010). Cultural context moderates the relationship between emotion control values and cardiovascular challenge versus threat responses. *Biological Psychology*, *84*(3), 521–530. https://doi.org/10.1016/j.biopsycho.2009.09.010

Mauss, I., Levenson, R., McCarter, L., Wilhelm, F., & Gross, J. (2005). The tie that binds? Coherence among emotion experience, behavior, and physiology. *Emotion, 5*(2), 175–190. https://doi.org/10.1037/1528-3542.5.2.175

Mesquita, B. (2013). The cultural shaping of emotion. The Social Nature of Emotion Conference, 2013. Amsterdam, The Netherlands.

Mesquita, B., Barrett, L., & Smith, E. (2010). *The mind in context*. New York: Guilford Press.

Miyamoto, Y., & Ma, X. (2011). Dampening or savoring positive emotions: A dialectical cultural script guides emotion regulation. *Emotion, 11*(6), 1346–1357. https://doi.org/10.1037/a0025135

Morling, B., Kitayama, S., & Miyamoto, Y. (2002). Cultural practices emphasize influence in the United States and adjustment in Japan. *Personality and Social Psychology Bulletin*, *28*(3), 311–323. https://doi.org/10.1177/0146167202286003

Myers-Scotton, C. (1993). Common and uncommon ground: Social and structural factors in codeswitching. *Language in Society*, *22*(4), 475–503. https://doi.org/10.1017/S0047404500017449

New York: Wiley.

Ng, F., Pomerantz, E., & Lam, S. (2007). European American and Chinese parents' responses to children's success and failure: Implications for children's responses. *Developmental Psychology*, *43*(5), 1239–1255. https://doi.org/10.1037/0012-1649.43.5.1239

Nisbett, R., Choi, I., Peng, K., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, *108*(2), 291–310. https://doi.org/10.1037/0033-295X.108.2.291

Papousek, M., Papousek, H., & Symmes, D. The meanings of melodies in motherese in tone and stress languages. *Infant Behavior and Development, 14*(4), 415-440. https://10.1016/0163-6383(91)90031-M

Peng, K., & Nisbett, R. (1999). Culture, dialectics, and reasoning about contradiction. *The American Psychologist*, *54*(9), 741–754. https://doi.org/10.1037/0003-066X.54.9.741

Potter, S. (1988). The cultural construction of emotion in rural Chinese social life. *Ethos*, *16*(2), 181–208. https://doi.org/10.1525/eth.1988.16.2.02a00050

Qin, D. (2008). Doing well vs. Feeling well: Understanding family dynamics and the psychological adjustment of Chinese immigrant adolescents. *Journal of Youth and Adolescence*, *37*(1), 22–35. https://doi.org/10.1007/s10964-007-9220-4

Raguram, R., Weiss, M. G., Channabasavanna, S. M., & Devins, G. M. (1996). Stigma, depression, and somatization in South India. (1996). *American Journal of Psychiatry*, *153*(8), 1043–1049. https://doi.org/10.1176/ajp.153.8.1043

Robinson, C., Mandleco, B., Olsen, S., & Hart, C. (1995). Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. *Psychological Reports*, *77*(3), 819–830. https://doi.org/10.2466/pr0.1995.77.3.819

Rogers, C. R. (1960). *A therapist's view of personal goals* (Pendle Hill Pamphlet No. 108). Wallingford, PA: Pendle Hill.

Roosa, M. W., Liu, F., Torres, M., Gonzales, N., Knight, G., & Saenz, D. (2008). Sampling and recruitment in studies of cultural influences on adjustment: A case study with Mexican Americans. *Journal of Family Psychology, 22*, 293–302. https://doi.org/10.1037/0893-3200.22.2.293

Rychlowska, M., Canadas, E., Wood, A., Krumhuber, E., Fischer, A., & Niedenthal, P. (2014). Blocking mimicry makes true and false smiles look the same. *PLoS ONE*, *9*(3), e90876. https://doi.org/10.1371/journal.pone.0090876

Ryder, A., & Chentsova-Dutton, Y. (2012). Depression in cultural context: "Chinese somatization," revisited. *The Psychiatric Clinics of North America*, *35*(1), 15–36. https://doi.org/10.1016/j.psc.2011.11.006

Schaefer, E. S. (1959). *A circumplex model for maternal behavior.* Journal of Abnormal and Social Psychology, 59, 226-235.

Sears, R. R., Maccoby, E., & Levin, H. (1957). *Patterns of child rearing.* Evanston, IL: Row, Peterson.

Shaver, P. R., Morgan, H. J., & Wu, S. (1996). Is love a "basic" emotion? *Personal Relationships*, *3*(1), 81-96.

Shiota, M., Campos, B., Gonzaga, G., Keltner, D., & Peng, K. (2010). I love you but ...: Cultural differences in complexity of emotional experience during interaction with a romantic partner. *Cognition and Emotion*, *24*(5), 786–799. https://doi.org/10.1080/02699930902990480

Song, Q., Yang, Y., Doan, S. N., & Wang, Q. (2019). Savoring or dampening? Maternal reactions to children's positive emotions in cultural contexts. *Culture and Brain*, 1-18.

Spencer-Rodgers, J., Peng, K., Wang, L., & Hou, Y. (2004). Dialectical self-esteem and east-west differences in psychological well-being. *Personality and Social Psychology Bulletin*, *30*(11), 1416–1432. https://doi.org/10.1177/0146167204264243

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, Calif: Sage Publications.

Symonds, P. M. (1939). *The psychology of parent-child relationships.* New York: Appleton-Century-Crofts.

Tao, A., Zhou, Q., Lau, N., & Liu, H. (2013). Chinese American immigrant mothers' discussion of emotion with children: Relations to cultural orientations. *Journal of Cross-Cultural Psychology*, *44*(3), 478–501. https://doi.org/10.1177/0022022112453318

Tobin, J. J., Wu, D. Y. H., & Davidson, D. H. (1989). *Preschool in three cultures.* New Haven, CT: Yale University Press.

Triandis, H. (1997). Individualism and collectivism. 1995. New York, NY: Routledge.

Tsai, J. L. (2013). 17 Dynamics of ideal affect. *Changing Emotions*, 120.

Tsai, J. L., Knutson, B., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology*, *90*(2), 288-307. https://doi.org/10.1037/0022-3514.90.2.288

Tsai, J., & Levenson, R. (1997). Cultural influences on emotional responding: Chinese American and European American dating couples during interpersonal conflict. *Journal of Cross-Cultural Psychology*, *28*(5), 600–625. https://doi.org/10.1177/0022022197285006

Tsai, J., Chentsova-Dutton, Y., Freire-Bebeau, L., & Przymus, D. (2002). Emotional expression and physiology in European Americans and Hmong Americans. *Emotion*, *2*(4), 380–397. https://doi.org/10.1037/1528-3542.2.4.380

Wang, Q. (2001). "Did you have fun?": American and Chinese mother–child conversations about shared emotional experiences. *Cognitive Development*, *16*(2), 693–715. https://doi.org/10.1016/S0885-2014(01)00055-7

Wang, Q, Hutt, R., Kulkofsky, S., McDermott, M, & Wei, Ruohong. (2009). Emotion situation knowledge and autobiographical memory in Chinese, immigrant Chinese, and European American 3-year olds. *Journal of Cognition and Development*, *7*(1), 95–118. https://doi.org/10.1207/s15327647jcd0701_5

Wang, Q. Chinese socialization and emotion talk between mother and children in native and immigrant Chines families. *Asian American Journal of Psychology, 4*(3), 185-192. https://10.1037/a0030868

Wang, Q & Song, Q. (2018). He says, she says: Mother sand children remembering the same events. *Child Development*, *89*(6), 2215–2229. https://doi.org/10.1111/cdev.12927

Wang, Q., & Fivush, R. (2005). Mother–child conversations of emotionally salient events: Exploring the functions of emotional reminiscing in European-American and Chinese families. *Social Development*, *14*(3), 473–495. https://doi.org/10.1111/j.1467-9507.2005.00312.x

Watson, J., & Watson, R. (1928). *Psychological care of infant and child*. New York: W.W. Norton & Co.

Weisz, J., Rothbaum, F., & Blackburn, T. (1984). Standing out and standing in: The Psychology of Control in American and Japan. *American Psychologist*, *39*. Retrieved from http://search.proquest.com/docview/1289940833/

Williams, A., Srinivasan, M., Liu, C., Lee, P., & Zhou, Q. (2019). Why do bilinguals code-switch when emotional? Insights from immigrant parent-child interactions. *Emotion*. https://doi.org/10.1037/emo0000568

Wu, C., & Chao, R. K. (2005). Intergenerational cultural conflicts in norms of parental warmth among Chinese American immigrants. *International Journal of Behavioral Development*, *29*(6), 516-523. https://doi.org/10.1037/a0021063

Wu, C., & Chao, R. K. (2011). Intergenerational cultural dissonance in parent–adolescent relationships among Chinese and European Americans. *Developmental Psychology*, *47*(2), 493. https://doi.org/10.1037/a0021063

Wu, D. (1985). Child training in Chinese culture. In W. S. Tseng & D. Wu (Eds.), *Chinese Culture and Mental Health* (pp. 113-134). Orlando, FL: Academic Press.

Wu, D., & Tseng, W. S. (1985). Introduction: The characteristics of Chinese culture. In W. S. Tseng & D. Wu (Eds.), *Chinese Culture and Mental Health* (pp. 3-13). Orlando, FL: Academic Press.

Wu, P., Robinson, C., Yang, C., Hart, C., Olsen, S., Porter, C., … Wu, X. (2002). Similarities and differences in mothers' parenting of preschoolers in China and the United States. *International Journal of Behavioral Development*, *26*(6), 481–491. https://doi.org/10.1080/01650250143000436

Xu, Y., Farver, J., Zhang, Z., Zeng, Q., Yu, L., & Cai, B. (2005). Mainland Chinese parenting styles and parent–child interaction. *International Journal of Behavioral Development*, *29*(6), 524–531. https://doi.org/10.1177/01650250500147121

Yik, M. (2010). How unique is Chinese emotion? *The Oxford handbook of Chinese psychology*, 205-220. https://doi.org/10.1093/oxfordhb/9780199541850.013.0015

Young, N. F. (1972). Independence training from a cross-cultural perspective. *American Anthropologist, 74*(3), 629-638.

Zhang, Y., et al. (Ed.). (1988). Xin xiu Kangxi zi dian [Revised Kangxi dictionary] (1st ed). Shanghai, China: Shanghai Xinhua Bookstore. (Original work published 1716)

Zhou, Q., Wang, Y., Deng, X., Eisenberg, N., Wolchik, S. A., & Tein, J. (2008). Relations of parenting and temperament to Chinese children's experience of negative life events, coping efficacy, and externalizing problems. *Child Development, 79,* 493–513. https://doi.org/10.1111/j.1467-8624 .2008.01139.x

Table 1

Code Category, Definition, and Direct Quote

Code category	Definition	Direct quote
Instrumental support	Parent provides concrete, tangible goods to child. This code emphasizes the hierarchical parent-child relationship with the role of parent as the provider. The focus is on tangible materials (e.g., food, clothes, money)	"Once you are done washing your hands, you can eat, you want water;" "Mom won't be able to cook for you forever;" "I buy new clothes for you."
Training	Parent teaches child appropriate behavior. This code embodies the Chinese concepts of *guan* (to care for, to love, and to govern) and *chiao shun* (educating children in the appropriate or expected behaviors)	
Behavioral expectation	The focus is on shaping behavior by 1) providing exemplars and comparing child's behaviors against these standards, or 2) providing positive and negative consequences (i.e., if/when-then statements), including emotional consequences.	"Sit properly, can't be like this;" "OK, listen to mom;" "Sweep the floor when I get home, mop the floor, then mom will be happy."
Academics	The focus is on school-related topics (e.g., homework, teacher, grade), and child's efforts to achieve successful outcomes in school. Include extracurricular activities.	"Mom wants to like and cherish you, but at the same time wants you to be smart in your studies;" "Keep doing math practices, right, do English practices;" "If she doesn't know how to do her homework, she'll go ask the teacher."
Criticism	The focus is on the parent's disapproval of child's attributes, activities, products, or choices (i.e., deviations from expected norms or ideals) and the parent blaming the whole child, eliciting feelings of shame (i.e., inferiority, weakness, incompetence). May be associated with positive or negative emotion.	"Your name, you can't write your Chinese name? Screwed;" "You look pretty bad like this;" "Drink more water, and eat less rice, because you are too fat now."
Moral values	The focus is on parent teaching morals and values on how to be a good, right, and proper person.	"Be good;" "You should be a happy person, who can help others, society and others, right?" "Not follow bad people. Don't be with bad people, understand"
Family role relationship	Parent establishes the importance of family. The code embodies the Chinese concept of *Qin* (child feels close and loves the parent in response to parent's benevolence for the child), and emphasizes the unconditional and hierarchical nature of parent-child relationship.	
Role	The focus is on the child's role in the family (e.g., sibling).	"We are families and we help out each other;" "Because you are an elder brother, an elder brother, so you need to be good'

Sacrifice	The focus is on the parent's sacrifice and devotion to the child.	"You know the many things I do are all for your own good;" "I find time to go with you to bike."
Filial piety	The focus is on the child's respect, obedience, and loyalty to the parent.	"So now I always take very good care of you, when I am old, I hope that you can also take very good care of me;" "Whatever you want to do, you have to come back and ask mom and dad."
Physical touch	Bodily contact between parent and child. This code captures the physical closeness between parent and child, as well as emphasis on somatic expression of care. The focus is on verbal references to touch.	"Your hand is warm;" "Give mommy a kiss then;" "Can I hug you?"
Emotion teaching	Parent teaches child about specific emotions and rules for regulation (i.e., which emotions to have, when, and how to experience or express them). This code teaches child to have appropriate emotions, to notice other's emotions (including parent), and to follow cultural scripts about emotion suppression. The focus is on parent shaping child's emotional experiences.	"When you are not happy, I teach you;" "So we have no problem now, you are happy now;" "When these emotions stir up inside you when you are in conflict, don't let out your anger out on others"
Emotional consequence	Parent expresses negative emotion in response to child's misbehavior. The code captures relational aspects of psychological control (i.e., guilt induction and shaming) teaching child to be sensitive to others. The focus is on parent reporting on own negative emotions as a result of child's behaviors.	"Rules, he will behave really well. Won't need mommy to be mad, right;" "Of course I am sad. You don't even listen when I talk to you or teach you."
Verbal affection	Parent explicitly verbalizes love and care for child. This code emphasizes the direct communication of feeling state as the primary goal, without additional behavioral requests. The focus is on the use of words, such as "I love you."	"Mom's love for you is the size of Jupiter plus earth;" "You are my baby;" "You are so important to mommy."
Emotional support	Parent attends to the child's emotions by helping child verbally express and process emotional experiences. The code adopts the view that emotion, and its expression, are inherently valuable. The focus is on validations and questions that refer to child's feeling states and prompts child to verbalize.	"Are you happy today? …Why? Can you tell me;" "When you are unhappy, tell me, OK?"
Praise	Parent approves and supports child's attributes, activities, products, or choices. This code captures parent's attention on child's positive behaviors that build self-esteem. The focus is on positive evaluations of the child, especially in comparison to others.	"You and your sister are both very smart. You both are super good students;" "You aren't like many other kids, you actually know how to be calm."
Family democratic relationship	Parent prioritizes child's opinions, judgments, and preferences. The code emphasizes horizontal (rather	"Do you want to go anywhere, Dad and Mom can take a leave

32

than vertical) parent-child relationship and respect for child's autonomy. The focus is on parents asking about and actively listening to child's own opinions, judgements, and preferences, without leading. from work, where should we go for vacation;" "You might not always have the same opinion, but that's OK, you are still my boy."

Table 2
Interrater reliability

Affirmation Code	*Kappa*	*PABAK*
Instrumental Support	.89	.99
Training – Behavioral Expectation	.95	.93
Training – Academics	.91	.97
Training – Criticism	.78	.98
Training – Mora Rules	.87	.97
Family Relationship – Role	.93	.96
Family Relationship – Sacrifice	.77	.96
Family Relationship – Filial Piety	.83	.95
Emotion Teaching	.68	.96
Emotion Consequence	.74	.98
Verbal Affection	.79	.98
Emotional Support	.80	.96
Praise	.81	.98
Family Democratic Relationship	.91	.95

Table 3
Descriptive statistics of the study variables.

	N	Mean	*SD*	Min	Max	Skewness	Kurtosis
Child's age							
Income	105	93,542.12	89,852.27	2,423.00	400,000.00	1.09	0.32
Education	109	14.65	4.11	3.00	20.00	-0.47	-0.69
Chinese orientation	102	3.46	0.59	2.08	5.17	0.23	0.09
American orientation	100	2.68	0.86	1.00	4.64	0.16	-0.81
Authoritative	108	4.00	0.61	2.15	4.96	-0.75	0.36
Authoritarian	108	2.07	0.45	1.11	3.53	0.32	0.00
Instrumental support	109	1.36	2.59	0	12	2.41	5.31
Behavioral expectation	109	11.79	10.62	0	47	1.24	1.08
Academics	109	2.55	4.54	0	23	2.68	7.55
Criticism	109	0.72	1.66	0	12	3.73	18.90
Moral rules	109	3.12	3.96	0	19	1.78	3.60
Role relationship	109	7.99	7.37	0	38	1.44	2.89
Sacrifice	109	2.50	3.35	0	17	1.66	3.21
Filial piety	109	3.68	4.72	0	25	1.94	4.94
Physical touch	109	0.99	2.03	0	15	4.02	21.27
Emotional teaching	109	1.66	3.38	0	19	2.84	8.99
Emotional consequence	109	0.42	0.98	0	5	2.67	7.06
Verbal affirmation	109	1.18	1.62	0	8	1.82	4.04
Emotional support	109	1.76	2.76	0	15	2.13	5.04
Praise	109	0.71	1.70	0	10	3.57	14.80
Democratic relationship	109	6.08	5.59	0	23	0.90	0.03
English	109	52.35	90.81	0	377	2.14	3.65
Chinese	109	281.21	190.80	0	734	0.20	-0.90
Inter-sentential codeswitching	109	4.50	5.56	0	32	2.11	6.27
Intra-sentential codeswitching	109	6.26	9.59	0	71	3.48	17.71
Chinese to English switch	109	4.42	5.77	0	42	3.03	14.77
English to Chinese switch	109	6.43	7.51	0	44	2.04	5.53

Table 4
Descriptive statistics of the composite variables.

	N	Mean	*SD*	Min	Max	Skewness	Kurtosis
Training	109	17.71	14.65	0	56	0.83	-0.27
Relational Affection	109	16.06	12.80	0	67	1.31	2.70
Validation	109	7.84	7.16	0	31	1.21	0.97

Figure 1
Three-factor confirmatory analyses of affirmation codes.
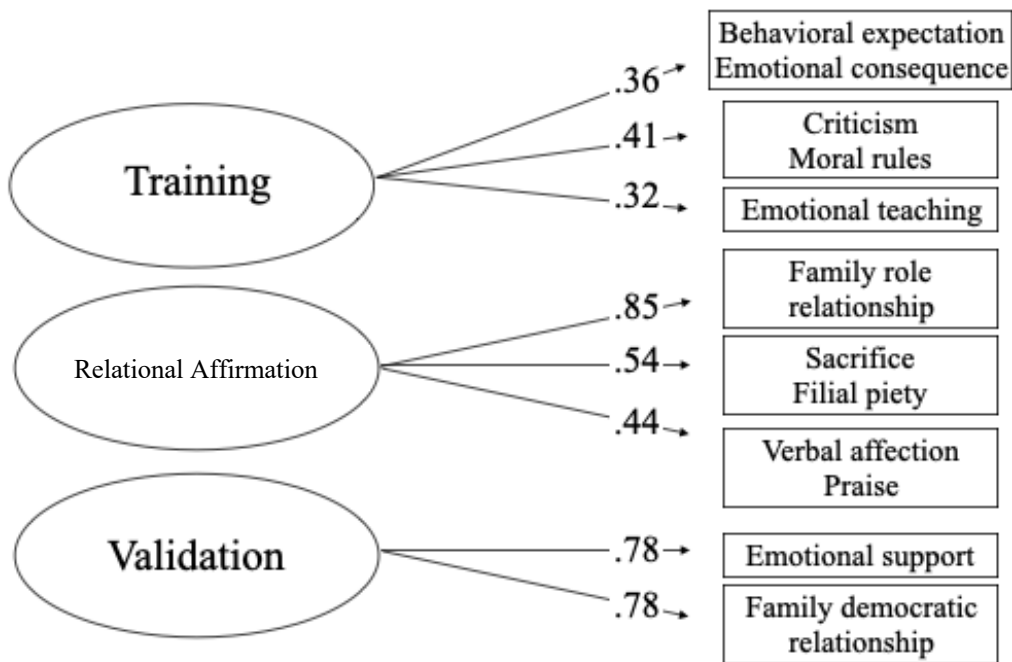
CFI = .96, TLI = .90, RMSEA = .03, SRMR = .06

Table 5
Correlations of main study variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Income													
2. Education	.72**												
3. Parent gender	-.07	-.28**											
4. Child gender	.13	.04	.03										
5. Chinese orientation	.01	.12	-.11	.04									
6. American orientation	.51**	.59**	-.24*	.02	.30**								
7. Authoritative	.32**	.38**	-.10	.04	.23*	.42**							
8. Authoritarian	-.04	.04	.02	.02	-.05	-.04	-.19						
9. Training	-.40**	-.35**	.08	.03	-.13	-.41**	-.14	.12					
10. Relational affection	-.22*	-.20*	.03	-.01	-.08	-.19	-.07	.12	.52**				
11. Validation	.21*	.15	.04	.09	-.05	.16	-.03	-.00	-.12	.04			
12. English	.34**	.29**	.03	-.00	-.12	.35**	.11	.06	-.19	-.15	.22*		
13. Chinese	-.54**	-.48**	-.00	-.05	.04	-.44**	-.14	.07	.65**	.51**	-.11	-.57**	
14. Inter-sentential codeswitching	.13	.22*	.02	-.01	.02	.14	.20	.13	-.03	.01	.26*	-.07	-.01

Note. * indicates *p* < .05. ** indicates *p* < .01.

Table 6

Multiple Regression Predicting Affection Styles from Cultural Orientation

Predictors	1. Training		2. Relational affection		3. Validation	
	B(SE)	β	B (SE)	β	B (SE)	β
Intercept						
SES	-3.80(1.94)	-0.22	-2.63(1.86)	-0.18	0.95(1.03)	0.12
Chinese orientation	-0.89(2.65)	-0.03	-0.47(2.53)	-0.02	-0.66(1.40)	-0.05
American orientation	**-6.44*(3.09)**	-0.25	-0.59(2.95)	-0.03	1.41(1.64)	0.11
Total R^2	**.188****		.039		.040	

Table 7

Multiple Regression Predicting Affection Styles from Parenting Styles

Predictors	1. Training		2. Relational affection		3. Validation	
	B(SE)	β	B (SE)	β	B (SE)	β
Intercept						
SES	**-6.36**(1.56)**	-0.39	**-3.00*(1.45)**	-0.21	**1.71*(0.81)**	0.22
Authoritative	0.49(2.35)	0.02	1.69(2.18)	0.08	-0.84(1.22)	-0.07
Authoritarian	5.28(3.00)	0.16	4.56(2.79)	0.16	-0.55(-0.35)	-0.03
Total R^2	**.163****		.055		.041	

Table 8

Multilevel Model Testing if Language Choice Predicts Affection Styles

Affection	Estimate (*SE*)	*p*	95% CI	Exp. (Estimate)
Language choice predicting training				
Fixed Effects				
Intercept v_{00}	-1.45 (.07)	< .001	[-1.61, -1.31]	.23
Training, *t*-1 v_{10}	.63 (.03)	< .001	[.56, .70]	1.88
State Lang, *t* v_{20}	-.36 (.14)	.01	[-1.05, -.15]	.69
Mean Lang v_{01}	-.59 (.22)	< .01	[-.65, -.09]	.55
Language choice predicting relational affirmation				
Fixed Effects				
Intercept v_{00}	-1.51 (.08)	< .001	[-1.66, -1.36]	.22
Relational affection, *t*-1 v_{10}	.48 (.03)	< .001	[.42, .54]	1.62
State Lang, *t* v_{20}	-.61 (.13)	< .001	[-.88, -.35]	.54
Mean Lang v_{01}	-.18 (.23)	.43	[-.63, .27]	.84
Language choice predicting validation				
Fixed Effects				
Intercept v_{00}	-2.32 (.09)	< .001	[-2.51, -2.15]	.10
Validation, *t*-1 v_{10}	1.00 (.05)	< .001	[.89, 1.11]	2.72
State Lang, *t* v_{20}	.06 (.15)	.66	[-.23, .35]	1.06
Mean Lang v_{01}	.89 (.25)	< .001	[.39, 1.40]	2.44

Note. CI = confidence interval. Unstandardized estimates.

Table 9

Multilevel Model Testing if Language Choice Predicts Affection Styles

Affection	Estimate (*SE*)	*p*	95% CI	Exp. (Estimate)
Code-switching predicting training				
Fixed Effects				
Intercept v_{00}	-1.45 (.07)	< .001	[-1.61, -1.30]	.23
Training, *t*-1 v_{10}	.64 (.03)	< .001	[.57, .70]	1.90
Chinese to English CS, *t* v_{20}	-.26 (.26)	.32	[-.83, .22]	.77
Chinese to English CS, *t*-1 v_{30}	-.71 (.32)	< .05	[-1.42, -.13]	.49
Code-switching predicting relational affection				
Fixed Effects				
Intercept v_{00}	-1.50 (.08)	< .001	[-1.66, -1.35]	.22
Relational affection, *t*-1 v_{10}	.47 (.03)	< .001	[.41, .54]	1.60
Chinese to English CS, *t* v_{20}	-.72 (.32)	.03	[-1.44, -.14]	.49
Chinese to English CS, *t-1* v_{30}	-.18 (.26)	.47	[-.74, .29]	.84
Language choice predicting validation				
Fixed Effects				
Intercept v_{00}	-2.33 (.10)	< .001	[-2.53, -2.15]	.10
Validation, *t*-1 v_{10}	1.01 (.05)	< .001	[.90, 1.11]	2.75
Chinese to English CS, *t* v_{20}	-.38 (.30)	.20	[-1.02, .17]	.68
Chinese to English CS, *t-1* v_{30}	.59 (.22)	< .001	[.13, 1.00]	1.80

Note. CI = confidence interval. Unstandardized estimates.