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Assessing Parenting Behaviors in Euro-Canadian and East Asian Immigrant Mothers:
Limitations to Observations of Responsiveness

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Abstract

The use of parenting measures that are developed for use with Western families without testing their validity among families from Non-Western cultural backgrounds may not be appropriate. Similar parenting behaviors may affect child outcomes in different ways across different cultures. This study examined the cross-cultural validity of an observational Maternal Responsiveness coding system and of self-reports of lax/inconsistent parenting in Euro-Canadian ($n=23$) and East Asian immigrant mothers ($n=23$) of 4 to 7 year old sons. In Euro-Canadian mothers, observed parenting responsiveness was associated with less lax/inconsistent parenting and fewer child behavior problems. In East Asian immigrant mothers however, observations of greater responsiveness were not related to reports of lax/inconsistent parenting, and were associated with greater child behavior problems. Implications for the use of these parenting measures across culture groups are discussed.

Keywords: cross-cultural validity, maternal responsiveness, observation, East Asian immigrant families, parent-child interaction

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Associations between parenting behaviors and child outcomes are well-documented (Maccoby, 1980). However, the way that parenting constructs (e.g., warmth, sensitivity, consistency, control) are related to child behavior may not be the same across all cultures. Parents from different cultures may display parenting behaviors that are topographically similar, but the meaning of these behaviors and the impact they have on children (better or poorer outcomes), may be entirely different. As such, the use of measurement tools developed to assess parenting among families from Western cultures may not be appropriate for families of different cultural backgrounds. If the cross-cultural validity of these measures is assumed without being tested, then parenting behaviors that have different meanings across cultures may be inappropriately interpreted (Deater-Deckard, Dodge, Bates, & Pettit, 1996).

Maccoby and Martin (1983) describe parenting behaviors in terms of demandingness and responsiveness and, following the early work of Baumrind (1971), describe authoritative parenting as characterized by high demandingness and responsiveness, and authoritarian parenting as reflecting high demandingness but low responsiveness. Much of the research comparing parents from Western and Non-Western cultures has examined these parenting styles, the attitudes and practices related to each, and their associations with child outcomes. Specifically, comparisons have been made between North American/European and East Asian (e.g., Chinese, Japanese, Korean, Vietnamese) parents. For North American/European parents, authoritarian parenting is linked to poorer child outcomes (Mackinnon, Henderson, & Andrews, 1993; Shucksmith et al., 1995), while more authoritative parenting (e.g., caring, empathy, guidance) is linked to positive child outcomes, such as greater academic achievement, increased

self-esteem, and decreased mental health problems (Buri, 1989; Maccoby & Martin, 1983). Although East Asian mothers consistently endorse more authoritarian attitudes and strategies for parenting (e.g., directiveness, restrictiveness) than North American/European mothers (Chao, 1994; Hulei, Zevenbergen, & Jacobs, 2006; Jose, Huntsinger, Huntsinger, & Liaw, 2000; Kelley & Tseng, 1992), the literature is less clear on how authoritarian and authoritative parenting styles relate to child outcomes in East Asian families. Some studies report similar relationships across groups, such that power assertive or authoritarian parenting is associated with child adjustment problems and authoritative parenting with better child outcome in both North American/European and East Asian groups (Chao, 2001; Chen et al., 2002; Chen et al., 2001; Chen et al., 1997; Ho, Bluestein, & Jenkins, 2008). However, other studies contradict these findings and show that authoritarian parenting is related to negative child outcomes in European-American families but to positive outcomes for Asian children, and that authoritative parenting is related to positive child outcomes in European-American families but unrelated to adjustment for Asian children (Ang & Goh, 2006; Chao, 2002; Dornbusch, Ritter, Leiderman, Roberts & Fraleigh, 1987).

These mixed findings suggest the possibility that the North American/European definition of authoritarian parenting may not be applicable to East Asian parents. The Confucian concept of filial piety, which is influential in East Asian cultures, states that it is a child's duty to respect and obey their parents, and that a parent's duty is to teach their child to understand the value placed on this concept and to train children to behave accordingly (Lim & Lim, 2003). Thus, the high demandingness that is characteristic of parents from this culture may be expected and accepted by their children as part of their cultural understanding of the roles that parents should play. In addition, parents' efforts to ensure that their children adhere to this essential

value may be recognized by families as responsive parenting as it shows care and concern for the upbringing of children. The conflicting results in the cross-cultural associations between parenting and child outcomes, along with the possibility that the meaning of responsive and demanding parenting behaviors differs between North American/European and East Asian cultures, highlight the need to establish cross-cultural validity for measures of responsive/demanding parenting.

The interpretation of parenting behaviors across cultural groups also may be influenced by the method of measurement. Self-report measures may allow parents to interpret items in a way that is consistent with their culture. For example, with items such as “I set limits on what my child is allowed to do” or “my child is not punished when he has done something wrong”, what constitutes “limits”, “not punished”, and “done something wrong” may correspond to different parenting behaviors in North American/European versus East Asian mothers. In contrast, for observational measures of parenting, the definitions of the behaviors are provided by the coding manual (which is often constructed from a particular cultural view point). As such, observational systems may classify parenting behaviors as reflecting the same construct, when in fact the behaviors have different meanings across cultures. For example, being sensitive and empathic towards a complaining child may represent positive parenting in North American/European cultures, but negative parenting in East Asian cultures. In this study we not only examine the validity of parenting measures across Euro-Canadian and East Asian immigrant families, we also employ both self-report and observation measures of parenting.

Specifically, this study evaluates the appropriateness of the Maternal Responsiveness coding system developed by Johnston, Murray, Hinshaw, Pelham, and Hoza (2002) in assessing the observed behaviors of mothers from East Asian cultures compared to Euro-Canadian

mothers. Previous research has demonstrated the validity of this observational measure among North American families such that maternal responsiveness is negatively correlated with harsh parenting strategies and child conduct problems (Johnston et al., 2002; Seipp & Johnston, 2005). However, no study to date has examined the validity of this responsiveness measure among East Asian families. We will also examine the validity of self-report measures of lax/inconsistent (low demanding) parenting across these two cultural groups using the Parenting Scale Laxness subscale (Arnold, O'Leary, Wolff, & Acker, 1993) and the Alabama Parenting Questionnaire Inconsistent Discipline subscale (Shelton, Frick, & Wootton, 1996). Both of these scales have demonstrated discriminant, concurrent and predictive validity in North American/European samples, but have not been used with East Asian samples.

The consideration of how parenting is assessed in Euro-Canadian and East Asian families has particular relevance as these groups respectively represent the majority and largest visible minority populations in Canada (Statistics Canada, 2005). Although East Asian families who immigrate to Canada may assume some of the parenting beliefs and practices of the dominant culture as they acculturate, the parenting attitudes from their heritage cultures are expected to continue to exert an influence (Bornstein & Cote, 2004). As such, issues of the validity of our measures of parenting in these two cultural groups have considerable importance for efforts to understand parenting and child behavior among a large proportion of Canadian families. In summary, we will assess the cross-cultural validity of an observational responsiveness measure and self-reports of lax/inconsistent parenting in Euro-Canadian and East Asian immigrant families. Beyond examining group differences in parenting behaviors assessed by these two methods, we will examine whether the measures correlate with each other in expected ways across the two cultural groups. In addition, we will evaluate the predictive validity of the

measures by examining their relations to child problems in the two cultural groups. Based on previous research, we hypothesize that observed maternal responsiveness will correlate negatively with mother-reported lax-inconsistent parenting and child behavioral problems in Euro-Canadian families. If the maternal responsiveness construct as presently defined is culturally valid for East Asian immigrant families, then this variable should not differ between groups, and should show relationships similar to those found for the Euro-Canadian families.

Method

Participants

Mothers and boys aged 4 to 7 years were recruited as part of a larger study examining parenting and child behavior. Mothers responded to notices sent through schools, and posted in public areas such as community centers in the Lower Mainland of Vancouver, British Columbia. Families who had participated in previous studies and indicated an interest in future studies were also invited to participate.

The original sample consisted of 123 mother-child dyads, and for this analysis, a subset of these was selected and divided into matched Euro-Canadian ($n = 23$) and East Asian immigrant ($n = 23$) groups. To minimize the influences of demographic variables on parenting practices, families in the two groups were matched as closely as possible on several characteristics. In order of priority, mother's education level, child behavior problems as reported by the mother on the Child Behavior Checklist (Achenbach, 1991), child age, and family socioeconomic status (SES) calculated using the Blishen index (Blishen, Carroll, & Moore, 1987) were used to match families in the two groups (see Table 1 for demographic information). Mothers also were asked how much they identified with being Canadian on a scale of 1 ("not at all Canadian") to 10 ("completely Canadian"), and to maximize the cultural

differences between the two groups, only Euro-Canadian mothers who identified as 10 on the scale were included. East Asian immigrant mothers were not excluded based on this criterion due to a small number of participants in this group.

After matching, 23 mother-child pairs remained in each of the Euro-Canadian and East Asian immigrant groups. Mothers in the Euro-Canadian group described themselves and their child as being ethnically Caucasian (61%), Canadian (22%), English (9%), European (4%), or Ukrainian-Scottish-Irish (4%). In the East Asian immigrant group, mothers identified themselves and their child as being ethnically Chinese (70%), Asian, (13%), Chinese-Canadian (9%), or Korean (9%). As expected, given the matching, the two groups did not differ in child age, maternal education, or child problems on the CBCL. Mothers in the two groups also did not differ in their age or marital status. Descriptively, the average level of child problems reported by the mothers in both groups fell within the normal range. For both groups, SES corresponded approximately to occupations of real estate agents, construction managers, and writers/editors.

Procedure

The Behavioral Research Ethics Board at the University of British Columbia approved this study. After mothers' informed consent and sons' assent were obtained, mothers and sons were videotaped for 20 minutes in a laboratory playroom. For the first 10 minutes of the interaction, the pair engaged in Free Play with the instructions to "play just like you would at home". The next 10 minutes were a Task situation in which mothers were given a list of activities (e.g., putting away toys, working on puzzles) for their sons to complete. The Free Play situation was designed as one that could be initiated and driven mainly by the child, while mothers were meant to take control and guide the child during the Task situation. Following the interaction, mothers completed questionnaires assessing child behavior and parenting. As part of

a larger study, mothers also observed and made predictions about their sons' performance on cognitive tasks and the order of the interaction and this prediction task was counterbalanced across families. For their participation, boys were given a t-shirt and mothers were given \$30.

Measures

Mother-reported child behavioral problems. The Child Behavior Checklist (CBCL; Achenbach, 1991) for 4- to 18-year old children includes 113 items on which parents rate the degree to which their child displays various problems on a scale of 0 ("not true") to 2 ("very or often true"). We used the Total Problems score from the CBCL as a measure of child behavior problems. This subscale has demonstrated high test-retest reliability ($r = .93$) and internal consistency ($\alpha = .96$) in North American/European groups (Achenbach, 1991), as well as in East Asian groups ($r = .81$; $\alpha = .89$) (Leung & Wong, 2003). For both North American/European (Achenbach, 1991) and East Asian (Leung et al., 2006) samples, the CBCL has shown concurrent and predictive validity, and differentiates between clinical and nonproblem children.

Mother-reported lax and inconsistent parenting practices. The parenting practices of mothers were assessed using the Parenting Scale (PS; Arnold et al., 1993) and the Alabama Parenting Questionnaire (APQ; Shelton et al., 1996). The PS is a 30-item self-report measure that assesses parents' disciplinary actions. The PS Laxness subscale was used in this analysis, and includes 11 items that measure parents' permissive discipline. Phrases that represent firm and lax parenting (e.g., "I threaten to do things that I am sure I can carry out" vs. "I threaten to do things that I know I won't actually do") are placed at opposite ends of a 7-point scale and respondents rate where they fall on the continuum. For North American/Europeans, this scale displays high test-retest reliability ($r = .83$) and internal consistency ($\alpha = .82$) (Arnold et al., 1993). When used in a sample of parents from various cultures, where approximately half of the

parents were East Asian, the internal consistency of the Laxness subscale was found to be high ($\alpha = .82$) (Hulei et al., 2006). Although this measure demonstrates concurrent and predictive validity, and discriminates between clinical and nonproblem samples of North American/European children (Arnold et al., 1993), it has not been used in exclusively East Asian samples.

The APQ is a 42-item, 5-point Likert-type, self-report measure that assesses parenting practices. The Inconsistent Discipline subscale was used and includes six items that are rated on a scale of 0 (“never”) to 4 (“always”) measuring parents’ inconsistent use of discipline (e.g., “*you let your child out of a punishment early*”). Although the APQ has not been used in samples of exclusively East Asians parents, in a mixed sample with a majority of Western and a minority of Asians parents, a high test-retest reliability ($r = .85$) and moderate internal consistency ($\alpha = .67$) was found (Dadds, Maujean, & Fraser, 2003). In North American/European samples the scale differentiates between clinical and nonproblem children (Shelton et al., 1996).

Although the internal consistency for the PS Laxness subscale was quite high across the Euro-Canadian ($\alpha = .83$) and East Asian immigrant ($\alpha = .80$) mothers in our sample, it was somewhat lower for the APQ Inconsistent Discipline subscale ($\alpha = .55$ and $.70$, respectively), perhaps due to the reduced number of items on the Inconsistent Discipline subscale. With the goal of increasing internal consistency, and because the two scales represent similar constructs and were significantly correlated among both the Euro-Canadian mothers, $r(22) = .61, p < .01$, and the East Asian immigrant mothers, $r(22) = .72, p < .01$, scores on the two scales were each standardized and then combined to form a single Lax/Inconsistent Parenting score with an internal consistency of $.84$ for the Euro-Canadian and $.80$ for East Asian immigrant mothers.

Observed maternal responsiveness. This study used the Responsiveness coding system developed by Johnston and colleagues (2002) to code mothers’ behaviors in the videotaped

interactions (Free Play and Task). During each minute of the 10-minute interactions, mothers' behaviors were coded using six 7-point scales, ranging from 1 (lowest) to 7 (highest).

The scales represent the dimensions of: 1) Style of Control which describes the extent to which the mother is authoritative or autocratic in her control of the child's behavior; 2) Sensitivity of Control assesses the appropriateness of the mother's control of her child; 3) General Responsiveness depicts a mother's overall ability to adapt according to her child's needs; 4) Affective Tone measures the emotional tone of the mother's voice, facial expressions, body posture, gestures, and verbal statements; 5) Acceptance of the Child reflects the extent to which the mother accepts, is affectionate, encourages, and seems to enjoy spending time with the child; 6) Involvement describes how much time the mother spends engaged with the child during the interaction. When the coders perceived no control being exerted by the mothers during a minute interval, they rated Style and Sensitivity of Control as being "not applicable".

A team of six coders trained using the coding manual until independent coders consistently achieved agreement of 80% or above with ratings within a 1-point difference considered as agreement. After the initial training period, coders continued to meet on a bi-weekly basis to ensure continued adherence to the coding manual. A subset of all the interactions of the larger study was double-coded for reliability, where two coders blindly and independently coded the same interaction. Thirty-six percent of the original study's interactions were double-coded, with this representing 17% of the interactions of the Euro-Canadian mothers in this study and 48% of the interactions of the East Asian immigrant mothers in this study. To determine interrater reliability, intraclass correlations (ICCs) were calculated between the coders across all dimensions. It has been suggested that ICCs between .50 and .80 represent substantial interrater agreement, and those above .80 represent almost perfect interrater agreement (Landis & Koch,

1977). ICCs ranged between .68 and .97 for observations of Euro-Canadian mothers and from .63 to .87 for East Asian immigrant mothers, with the exception of Style of Control during Free Play as observed in East Asian immigrant mothers (ICC =.37). Consistent with previous research (Johnston et al., 2002; Seipp & Johnston, 2005), an Overall Responsiveness score was created by averaging the ratings from all six dimensions within the Free Play and Task interactions.

Results

Between Group Comparisons

Two-tailed *t*-tests at the $\alpha = .05$ level were conducted to compare Euro-Canadian and East Asian immigrant mothers' reports of lax/inconsistent parenting and observed responsiveness (see Table 2). No cultural differences were found in lax/inconsistent parenting reported by mothers. However, in both Free Play and Task, Euro-Canadian mothers were rated by observers as significantly more authoritative and sensitive in their use of control, more responsive to their child, and higher on overall responsiveness than East Asian immigrant mothers.

Concurrent Validity

Bivariate correlations were calculated between observed maternal responsiveness and self-reported lax/inconsistent parenting within each culture group (see Table 3). Because these constructs, as assessed by our specific measures, have not been examined together in East Asian families, we were unable to make directional predictions and thus used two-tailed significance tests. Given the relatively small sample size, we used significance tests with alphas of .10 to increase our power. As such, results must be interpreted with caution. For Euro-Canadian mothers, lax/inconsistent parenting was negatively associated with several Maternal Responsiveness dimensions. However, no significant correlations between reported

lax/inconsistent parenting and observed maternal responsiveness were found in East Asian immigrant mothers.

Given this pattern of findings, we tested whether the correlations between the parenting measures were significantly different in the two groups. We compared correlations that were significant in one group but not in the other. Given that tests for differences between correlations are less sensitive with small sample sizes we choose to again use a liberal alpha ($\alpha = .10$) for these comparisons. The correlations between Lax/Inconsistent Parenting and a number of Maternal Responsiveness dimensions were significantly stronger in the Euro-Canadian compared to East Asian immigrant mothers (see Table 3).

Predictive Validity

As an evaluation of the predictive validity of the self-report and observed parenting measures for the two cultures, we conducted bivariate correlations to test their associations with child behavior problems. Due to the mixed nature of research findings on the relationship between parenting characteristics and child outcomes in East Asian families, we again used two-tailed significance tests ($\alpha = .10$). The correlations are presented in Table 4. In the Euro-Canadian group, several of the Responsiveness dimensions observed during Task were significantly negatively associated with child problems such that Euro-Canadian mothers who were more Responsive reported fewer behavior problems in their sons. In contrast, for East Asian immigrant mothers, several Responsiveness dimensions from the Free Play interaction were significantly, but positively, associated with child behavior problems. Thus, East Asian immigrant mothers who were observed as more sensitive, responsive, and involved during play reported more behavioral problems in their sons. We again tested whether the significant

correlations between child behavior problems and the parenting measures within each culture were different across the two cultures ($\alpha = .10$). These differences are shown in Table 4.

Discussion

The aim of this study was to examine the cross-cultural validity of the observational Maternal Responsiveness coding system developed by Johnston and colleagues (2002) and self-report measures of lax/inconsistent parenting for use in East Asian families. Although the Euro-Canadian and East Asian immigrant mothers were well-matched on demographic variables and child behavior problems, there were group differences in observed responsiveness, specifically on dimensions assessing style and sensitivity of maternal control and general responsiveness. These findings suggest that these dimensions of the responsiveness measure may be more sensitive to cultural differences than potentially more objective aspects of behavior such as the mother's affective tone, acceptance of the child, or involvement in the interaction. We note that the interpretation of the Style of Control dimension as assessed during free play is hindered by the low interrater reliability on this dimension. We speculate that this low reliability may be due, at least in part, to difficulties applying this dimension to mothers from the East Asian cultural group.

If we had only compared group means for the Responsiveness measure, we would have concluded that East Asian immigrant mothers are less responsive than Euro-Canadian mothers. However, the relations of observed responsiveness to self-reported parenting and to child behaviors problems suggest an alternative explanation: that the Responsiveness measure as presently constructed is not valid for use among East Asian parents and that lower levels of observed Responsiveness in this group have a different meaning than they do for Euro-Canadian mothers. Observed Responsiveness was negatively related to self-reported lax/inconsistent

parenting for the Euro-Canadian mothers in this study. However, scores on the two parenting measures were not significantly related for East Asian immigrant mothers. In addition, consistent with previous research (Johnston et al., 2002), greater Responsiveness was related to fewer reports of child behavior problems for Euro-Canadian mothers. However, among East Asian immigrant mothers, more Responsive parenting during play was related to *more* child problems. Thus, during play situations, observed parenting behaviors that are typically associated with poorer adjustment in Euro-Canadian children are associated with better adjustment in East Asian immigrant children. It is possible that, when East Asian mothers are responsive or authoritative in their play interactions with their sons, these behaviors are outside of the norms prescribed by their culture, and this dysynchrony between parenting and cultural norms may place children at risk for behavior problems. Whatever the explanation for the divergence in the relations between parenting responsiveness and child behavior across the two cultural groups, the findings emphasize that the responsiveness measure as presently constructed does not have the same meaning in both groups, and its use in East Asian families may be inappropriate.

On the self-report parenting measures, our results did not indicate cultural differences. In addition, although self-reports of parenting were generally associated as expected with the observational measure in the Euro-Canadian mothers, the relations between these methods of assessing parenting behavior were nonsignificant among the East Asian immigrant mothers. Finally, self-reports of lax/inconsistent parenting were not significantly related to child behavior problems for either group. Although we would have expected significant relations between these constructs, particularly for the Euro-Canadians (Arnold et al., 1991; Shelton et al., 1996), the magnitude and direction of the correlations suggest that the small size and the normative nature of the sample may have been limiting factors in finding these relations.

The two methods of assessing parenting behaviors provided somewhat different findings in this study. Observed behaviors differed between the two cultural groups, but the scores showed little evidence of validity in the East Asian immigrant group. Self-reports of parenting did not differ between groups. These reports were not related to observed parenting behavior and were not significantly related to child problems for either group. Thus, although it is clear that the observational measure has limited, if any, validity among East Asian immigrant mothers, it is difficult to offer firm conclusions regarding the validity of the self-report measure for either group. As we suggested previously, self-report measures may allow for greater intra-individual cultural interpretation of items, while observational measures use set definitions of parenting behaviors and do not allow cultural interpretation. Perhaps in our study, Euro-Canadian and East Asian immigrant mothers may have each responded to the self-report items according to a culturally-dependent understanding of the construct being measured. This may have resulted in an endorsement of similar levels of lax/inconsistent parenting, although the scores may correspond to different behaviors in the two cultures. Regardless of the reasons for the differences across the measures, these findings illustrate the fact that measures provide different types of information, and the inclusion of both is likely to provide a more comprehensive picture.

Limitations and Future Directions

There are three main limitations to this study. Given the small sample size, we increased the alpha level of significance tests to .10 to increase power, but recognize that this also inflates the Type I error rate. We felt this liberal approach to significance testing was justified because the two cultural groups were well-matched and because we believe that our findings have important implications for assessing parenting in Canadian ethnic minority families. In this case, it seemed more prudent to increase the risk of a Type I error than to falsely conclude that there

are no cultural differences in the validity of the measures. Because this study used a subset of participants from a larger study, the mothers were not recruited with cultural comparison in mind. Thus, we have a more heterogeneous East Asian immigrant group than might be desired. However, we note that these East Asian immigrant mothers identified quite strongly with being Canadian, with a group mean of 7.26 ($SD = 1.86$) on the 10-pt scale (with “10” meaning “completely Canadian”), albeit, still significantly lower than the ratings in the Euro-Canadian group, $t(44) = 7.05, p < .001$. We speculate that the effects may have been even stronger in a more homogenous and less acculturated sample of East Asian immigrant mothers. In addition, our measure of acculturation (i.e., “How much do you identify as being Canadian?”) is quite simple and may not be particularly sensitive to differences in level of acculturation. Future studies should aim to measure this construct in a more detailed and psychometrically sound way. Lastly, due to the specific nature of the observational tasks that we used to tap maternal responsiveness, it is possible that our results may not generalize to other parenting behaviors or contexts, and should be interpreted with caution.

Our limitations and the need for replication notwithstanding, these findings have important implications and suggestions for future research. First, the findings suggest that if maternal responsiveness is to be assessed in East Asian mothers, measures must be developed and validated within this cultural context. It is possible that the Responsiveness coding system may be adapted to identify parenting behaviors which represent an East Asian concept of responsiveness. For example, responsiveness amongst North American/European mothers includes being sensitive and adaptive to children’s needs, which is associated with the Western idea of authoritative parenting, as well as positive outcomes amongst North American/European children. However, there are some parenting behaviors, such as keeping firm control of children

and lecturing children on appropriate and inappropriate behavior, which are associated with the Western conception of authoritarian parenting and negative outcomes amongst North American/European children, but are associated with positive outcomes amongst East Asian children. Such behaviors are viewed as displays of parental care, warmth, love and involvement by East Asian children, and are generally positively regarded in East Asian cultures (Chao, 1994; Lim & Lim, 2003). Hence, the basis for an appropriate construct of East Asian maternal responsiveness could be formed by these identified behaviors. However, before any of these assumptions can be considered valid, they must be empirically tested. To this end and in general when designing measures that aim to be culturally-appropriate, researchers would do well to consult cultural experts (e.g., community focus groups).

Second, more research should be directed towards the investigation of cultural gaps within families and how they might influence the relationship between parenting and child behaviors. Both being brought up within the same culture, Euro-Canadian mothers and their children will likely have matched expectations for each other's behaviors. On the other hand, East Asian mothers who have immigrated to Canada will likely have had more exposure than their sons to the cultural beliefs and practices related to their ethnic backgrounds. As a result, East Asian immigrant mothers may have expectations and behaviors that are more in line with the beliefs of the East Asian culture, which may not match well with the expectations and behaviors of their sons, who grow up within and mostly likely become more acculturated than their mothers to the dominant Euro-Canadian culture. The presence of such a discrepancy between mothers' and children's expectations and behaviors may contribute to the development of child behavior problems (Chan & Leong, 1994). However, it is difficult to speculate how this might have influenced our results, given our heterogeneous East Asian sample that probably had

varying rates of acculturation amongst the families. Lastly, the findings highlight how the use of assessment measures that are not validated for cross-cultural comparisons may yield both research and clinical information that is misleading. This is an important point of consideration not only for research between Euro-Canadian and East Asian groups, but for research involving other cultural groups (e.g., Aboriginal, African).

Overall, our findings highlight the importance of considering the cross-cultural validity of the tools used to measure behaviors across cultures, as well as the need for exercising caution when interpreting results from cross-cultural research.

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Table 1 Family Characteristics

	Euro-Canadian			East Asian			
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	
Family Characteristics							
Child's age (months) [†]	71.24	14.62	49-95	71.17	15.04	49-93	$t(44) = .02, p = .99, \text{partial } \eta^2 < .001$
Mother's age (years)	37.29	6.08	25-48	36.30	5.48	22-48	$t(42) = .56, p = .58, \text{partial } \eta^2 = .007$
Blishen SES score [†]	49.79	10.74	26-67	52.42	13.40	18-72	$t(44) = .74, p = .47, \text{partial } \eta^2 = .01$
CBCL "Total Problems" T-score [†]	56.09	9.37	40-73	55.30	8.99	41-73	$t(44) = .29, p = .77, \text{partial } \eta^2 = .002$
How Canadian mothers identifies herself [‡]	10.00	.00	10-10	7.26	1.86	3-10	$t(44) = 7.05, p < .001, \text{partial } \eta^2 = .53$
			%				%
Mother's highest level of education[†]							
High school/Trade school/Some college		26.1			21.7		$\chi^2(1) = .12, p = .73$

College/Graduate school	73.9	78.2	
Mother's current marital status			
Single/Separated/Divorced	26.0	13.0	$\chi^2(1) = 1.24, p = .27$
Married/Common-law/Live-in partner	73.9	86.9	

[†]Variables used to match participants between cultures; [‡]Variable used to select Euro-Canadian participants

Table 2 Measures of Parenting in the Two Culture Groups

	Euro-Canadian <i>n</i> = 23			East Asian <i>n</i> = 23			
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	
Negative Parenting Practices Scale							
Lax/Inconsistent Parenting ^a	-0.07	.529	-0.88-1.02	.075	.622	-0.96-1.66	<i>t</i> (44)= 0.85, <i>p</i> = .40, <i>partial</i> η^2 = .02
Maternal Responsiveness Dimension							
<i>Free Play</i>							
Style of control	4.34	.35	3.40-5.00	4.03	.43	3.29-5.00	<i>t</i> (44)= 2.64, <i>p</i> = .01, <i>partial</i> η^2 = .14
Sensitivity of control	4.19	.64	3.13-5.33	3.69	.65	2.44-4.70	<i>t</i> (44)= 2.63, <i>p</i> = .01, <i>partial</i> η^2 = .14
General responsiveness	4.88	.74	3.00-6.20	4.20	.76	2.70-5.40	<i>t</i> (44)= 3.08, <i>p</i> = .003, <i>partial</i> η^2 = .18
Affective tone	4.67	.46	4.00-5.70	4.59	.49	3.70-5.60	<i>t</i> (44)= 0.53, <i>p</i> = .60, <i>partial</i> η^2 = .006
Acceptance of child	3.90	.35	3.90-5.30	4.31	.46	3.70-5.80	<i>t</i> (44)= 0.11, <i>p</i> = .91, <i>partial</i> η^2 < .001
Involvement	5.83	.80	4.00-6.90	5.58	.63	4.30-6.70	<i>t</i> (44)= 1.19, <i>p</i> = .24, <i>partial</i> η^2 = .03
Overall responsiveness	4.70	.40	3.97-5.30	4.40	.41	3.59-5.08	<i>t</i> (44)= 2.57, <i>p</i> = .01, <i>partial</i> η^2 = .13

Task

Style of control	4.62	.60	3.60-5.70	4.02	.67	3.00-5.20	$t(44)= 3.15, p = .003, \text{partial } \eta^2 = .18$
Sensitivity of control	4.74	.72	2.90-6.00	4.29	.58	3.40-5.90	$t(44)= 2.34, p = .02, \text{partial } \eta^2 = .11$
General responsiveness	5.21	.79	3.10-5.21	4.43	.80	2.80-6.20	$t(44)= 3.33, p = .002, \text{partial } \eta^2 = .20$
Affective tone	4.61	.53	4.00-5.90	4.47	.55	3.30-5.90	$t(44)= 0.90, p = .37, \text{partial } \eta^2 = .02$
Acceptance of child	4.52	.39	4.00-5.40	4.46	.55	3.70-5.80	$t(44)= 0.45, p = .66, \text{partial } \eta^2 = .01$
Involvement	5.90	.75	4.40-6.90	5.70	.72	3.90-6.90	$t(44)= 0.94, p = .35, \text{partial } \eta^2 = .02$
Overall responsiveness	4.93	.50	3.98-5.78	4.56	.54	3.58-5.88	$t(44)= 2.34, p = .02, \text{partial } \eta^2 = .12$

Note. Each Maternal Responsiveness dimension is scored on a scale of 1 to 7, with higher scores indicating greater responsiveness.

^aA combined standardized score (using the PS Laxness and APQ Inconsistent Discipline subscales).

Table 3 Correlations between measures of parenting

Maternal Responsiveness Dimension	Lax/Inconsistent parenting	
	Euro-Canadian <i>n</i> = 23	East Asian <i>n</i> = 23
<i>Free Play</i>		
Style of control	-.20	.02
Sensitivity of control	-.23	-.10
General responsiveness	-.50*** ^a	-.13 ^b
Affective tone	-.25	.14
Acceptance of child	-.13	.05
Involvement	-.51** ^a	.00 ^b
Overall responsiveness	-.49** ^a	-.03 ^b
<i>Task</i>		
Style of control	-.39	-.03
Sensitivity of control	-.45* ^a	-.01 ^b
General responsiveness	-.46* ^a	-.08 ^b
Affective tone	-.25	.08
Acceptance of child	-.39	.19
Involvement	-.47* ^a	-.04 ^b
Overall responsiveness	-.51** ^a	.01 ^b

Note. Correlations with different superscripts are significantly different across the two cultural groups, $p < .10$.

*Correlation within each culture is significant, $p < .10$. **Correlation within each culture is significant, $p < .05$.

Table 4. Correlations between child behavior and measures of parenting

	CBCL total problems score	
	Euro-Canadian <i>n</i> = 23	East Asian <i>n</i> = 23
Parenting Measures		
<i>Negative Parenting Practice</i>		
Lax/Inconsistent Parenting	.34	.25
<i>Maternal Responsiveness Free Play</i>		
Style of control	-.07	.26
Sensitivity of control	-.18 ^a	.37* ^a
General responsiveness	-.26 ^a	.47** ^b
Affective tone	-.19	.27
Acceptance of child	-.10	.24
Involvement	-.25 ^a	.45** ^b
Overall responsiveness	-.28 ^a	.51** ^b
<i>Maternal Responsiveness Task</i>		
Style of control	-.21	.13
Sensitivity of control	-.26	.10
General responsiveness	-.40* ^a	.10 ^b
Affective tone	-.09	.08
Acceptance of child	-.52** ^a	.16 ^b
Involvement	-.26	.07
Overall responsiveness	-.36* ^a	.13 ^a

Note. Correlations with different superscripts are significantly different across the two cultural groups, $p < .10$.

*Correlation within each culture is significantly different across the two cultural groups, $p < .10$.

**Correlation within each culture is significant, $p < .05$.