Cultural diversity in center-based child care: differences and similarities in caregivers' cultural beliefs

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4. Caregivers' beliefs and behavior in culturally diverse center-based child daycare: Are they related?

Abstract

The present study examined the relations between caregivers' beliefs and behaviors, and second, investigated the consequences of differing cultural beliefs for caregivers' childrearing behaviors considered to be crucial for process quality in center-based daycare. Participants were 57 caregivers with various cultural backgrounds, working with toddlers in center-based daycare. A semi-structured interview method was combined with detailed observations of caregivers' childrearing behaviors in the childcare center. Doing so, we attempted to measure caregivers' beliefs and childrearing behavior on similar levels of specificity and concreteness. Several statistically significant relations between caregivers' expressed beliefs and their observed behavior were found. The pattern of correlations revealed dissociation between individualistic and collectivistic beliefs regarding behavior. Beliefs ranged among an individualistic orientation were positively related to almost all observation scales, whereas more collectivistic beliefs were mostly *not* or *negatively* related to the observation scales. We discuss the observation scales' possible cultural bias towards individualistic beliefs and behavior, as well as the possible relevance of collectivistic beliefs and practices for the group-based character of center-based daycare.

4.1   Introduction

The increasing cultural diversity of Western societies presents new challenges to the field of center-based child daycare, in particular to its standards of process quality, a term coined to refer to the everyday practices of care, interaction, and socialization (cf. Howes, Phillips, & Whitebook, 1992). Increasing numbers of children with a non-mainstream immigrant background are enrolling in child daycare centers and related early childhood provisions, today (OECD, 2003), while, parallel to this development, the numbers of caregivers in the child care workforce with similar immigrant backgrounds are steadily rising too. With the increasing cultural diversity among staff and families served, core ideas about childrearing and, more in particular, the consensus about what constitutes process quality in center-based child care, may become less obvious.

Beliefs about what is important in child rearing and, thus, what constitutes *quality*, are known to vary vastly across cultural communities (for overviews, see Bugental & Johnston, 2000; Kagıtçıbaşı, 1997; Rubin & Chung, 2006). For instance, parents in Western middleclass communities have been found to emphasize childrearing goals such as autonomous selfhood, or independence, to value authoritative and child-centered socialization strategies, and to endorse models of child development that depict the young child as an intentional being, who is capable of self-regulated learning and development – an orientation conveniently referred to as *individualistic*. Parents in non-Western communities, in contrast, have been found to emphasize social-relatedness goals, or interdependence, to value respect for authorities, conformity to social and moral rules, and obedience, and to see modeling and direct instruction as ways of learning valuable things to children – an orientation conveniently referred to as *collectivistic* (cf. Bornstein & Cote, 2004; Cote & Bornstein, 2003; Greenfield, et al, 2003; Harkness, Super, & van Tijen, 2000; Keller, Borke, Yovsi, Lohaus, & Jensen, 2005; Kemmelmeier et al., 2003; Raeff, 2000; Rudy & Grusec, 2001; Triandis, 1995).

In previous research among professional caregivers from different cultural communities, working in the same daycare centers and sharing the same professional training, profound cultural differences in childrearing beliefs were found with respect to themes such as autonomy and relatedness (Huijbregts, Leseman, & Tavecchio, 2008; Huijbregts, Tavecchio, Leseman, & Hoffenaar, in press). The present study examined the consequences of differing cultural beliefs for child

rearing behaviors believed to be crucial for process quality in center-based child care, in particular sensitive and autonomy stimulating caregiver–child interactions (Lamb, 1998; Vandell & Wolfe, 2000).

The topic of this article touches upon an interesting issue that, despite its obviousness (Singer, 1993), hasn't received much attention in previous research. Caregivers in center-based child care are faced with the often difficult task of finding a good balance between the needs and concerns of each individual child, requiring a child-centered orientation, and the needs and concerns of the child care group, requiring a group-centered orientation and skills to manage groups. Whereas the official quality standards in the daycare systems in many countries match the individualistic, child-centered model best, reflecting current Western consensus on what constitutes process quality, the characteristics of the setting itself, in particular the fact that children are cared for in groups, seem at least also compatible with a more collectivistic orientation on part of the caregivers (Rosenthal, 1999; Singer, 1993). Thus, an interesting question is what kind of beliefs, individualistic or collectivistic, or perhaps a balanced mixture, support caregivers best in dealing with this task.

Several authors have suggested that cultural differences in beliefs among caregivers could lead to cross-cultural value conflicts that could have consequences for the process quality in child daycare (Burchinal & Cryer, 2003; Greenfield, Flores, Davis, & Salimkhan, 2008; Greenfield, Quiroz, & Raeff, 2000). However, to date, direct evidence pertaining to this issue is scarce. A few studies addressed caregivers' and teachers' beliefs about children's personal-social development and their views on appropriate socialization strategies, in particular regarding the use of control strategies (Rosenthal, 1991; Scott-Little & Holloway, 1992; Scott-Little & Holloway, 1994; Vandenplas-Holper, 1996). A consistent finding in these studies was that caregivers who subscribed to authoritarian beliefs, more often used authoritarian childrearing methods. The study by Rosenthal (1991) further demonstrated that caregivers, who expected children to develop independence at an early age, were found to impose fewer restrictions on children's behavior. The scarce findings underscore the relevance of the present topic.

If cultural childrearing beliefs are important for process quality in child daycare, there must be a relevant connection between caregivers' beliefs and their behavior. However, the evidence for such a connection is still far from conclusive. In three reviews of studies focusing on parental attitudes and cognitions as determi-

nants of their child rearing behavior only weak evidence for such a relation was found (Bugental & Johnston, 2000; Holden & Edwards, 1989; Sigel, 1992). With respect to early childhood care and education settings, several studies indeed confirmed that caregivers' and teachers' beliefs about education and teaching influence actual classroom practices (Abbott-Shim, Lambert, & McCarty, 2000; Charlesworth, Hart, Burts, Thomasson, Mosley, & Fleege, 1993; Maxwell, McWilliam, Hemmeter, Ault, & Schuster, 2001; Scott-Little & Holloway, 1992; 1994; Solomon & Battistisch, 1996; Stipek & Byler, 1997; Vartuli, 1999), but how ideas about children and children's development, important socialisation goals, and appropriate childrearing strategies influence practices in early childhood education and care settings, is an understudied topic. Moreover, several recent studies reported no (Wilcox-Herzog, 2002) or theoretically unexpected relations between beliefs and behaviors (Wen, Elicker, & McMullen, submitted).

We presuppose that the difficulty in many studies to find relevant and consistent relations between beliefs and behavior in childrearing arises from methodological and conceptual problems. A first methodological problem concerns the frequent mismatch of the levels of specificity and concreteness. Whereas in many studies childrearing beliefs are assessed with regard to rather general, broad ranging, and abstract themes, the behavior observations to which these beliefs are subsequently related, are much more specific, context-dependent, and concrete. Put differently, the two constructs – beliefs and behavior - are seldom measured at the same level of specificity and concreteness, which is likely to result in weaker correlations (Ajzen & Fishbein, 1977; Ajzen, 1996; Lorenz, Melby, Conger, & Xu, 2007). A second methodological problem concerns the cultural homogeneity of the samples that were involved in most studies. As culture was found to strongly influence beliefs in many studies (Bugental & Johnston, 2000; Kagitçibasi, 1997; Rubin & Chung, 2006), a probable consequence of studying culturally homogeneous samples is (severely) restricted variance in the independent variable, that is, cultural beliefs, which may have resulted in an underestimation of the strength of the beliefs-behavior relationship. In the current study, we attempted to improve on these methodological flaws by examining the childrearing beliefs and practices of a culturally diverse sample of professional caregivers, by using open interviews to address both general and specific beliefs on concrete childrearing issues, and by relating the beliefs, thus assessed, to observations of concrete childrearing behavior in representative situations in the child daycare centers, in order to increase

58

the probability of finding a firm relation between beliefs and behavior.

Finally, a conceptual problem that may explain a weak belief–behavior connection is the, often tacit, assumption that childrearing beliefs should relate consistently to actual childrearing behavior across various contexts, regardless context factors that may moderate the relationship. According to current theorizing, however, cultural childrearing beliefs should be considered dynamic structures that are adapted to the opportunities and constraints prevailing in the actual context, including social factors such as the views of colleagues and parents (Bugental & Johnston, 2000; Harkness & Super, 1999; Kontos, Burchinal, Howes, Wisseh, & Galinsky, 2002; Tamis-LeMonda et al., 2008). Particularly interesting, therefore, and an understudied topic, are the possible moderator effects of contextual factors on the beliefs-behavior connection. Recent evidence for a moderating role of context factors was found by Wen et al. (submitted). These researchers found in the entire sample only a weak relationship between early childhood teachers' beliefs and their behavior, but a much stronger relationship in the subsample of teachers with a higher educational level, more specialized professional training, and more professional experience, compared to a much weaker one in the subsample of teachers who were lower educated and less experienced. A possible explanation might be that the higher educated, more experienced teachers were better able to put their beliefs into practice.

In view of the issues of the current study, a similar moderator effect, leading to different strengths of the beliefs-behavior relationship, may result from the micro-cultural context of the daycare center (Gerber et al., 2007; Kontos, Burchinal, Howes, Wisseh, & Galinsky, 2002; Solomon & Battistisch, 1996). In a previous study, we found that the child care center's micro-cultural context, indicated by the degree of cultural diversity among staff and children cared for, influenced individual caregivers' beliefs in addition to, and independent of, the effect of their own cultural background (Huijbregts et al., in press). Caregivers working with colleagues with predominantly collectivistic beliefs in culturally diverse centers, tended to subscribe more to collectivistic beliefs themselves, regardless their own cultural background, whereas caregivers working with colleagues with predominantly individualistic beliefs in centers that served mainly mainstream middleclass families, tended to subscribe more to individualistic beliefs. Extending this finding, the question arises whether the opportunities for caregivers to put their beliefs into practice differ with the compatibility of their beliefs with the predo-

minant cultural orientation of the child care center in which they are employed. To provide a first answer, we will explore whether the beliefs-behavior relationship is stronger when caregivers' beliefs are more compatible with the micro-cultural characteristics of the setting than when they are less compatible.

In sum, the aims of this study were twofold. The first aim was to investigate whether caregivers' cultural beliefs were indeed related to their observed practice. The second aim was to explore the possible moderator effect of the center's micro-cultural context on the belief-behavior relationship.

4.2   Method

4.2.1   Participants

Participants were 57 female caregivers, working with two- to four-year-olds in 22 different child care centers, divided over 33 different groups. Caregivers' mean age was 32 (range 20-52). The vast majority (78 %) had completed studies at secondary vocational level, 22 % had completed education at the higher vocational level. Duration of employment in child care ranged from 0 to 18 years with a mean of 5.6 years. The sample consists of 20 Dutch caregivers, 13 Surinamese-Dutch caregivers, 13 Moroccan-Dutch, 5 Antillean-Dutch and 6 Turkish-Dutch caregivers. The Surinamese, Turks, Moroccans and Antilleans are nowadays the largest non-western migrant groups in the Netherlands (CBS, 2007). Respondents' cultural background was assessed by self-ascription and controlled for by asking their country of birth and the country of birth of their parents. About half of the immigrant-Dutch caregiver sample (56%) was born outside the Netherlands, of the majority of these caregivers (98%), both parents were born outside the Netherlands.

Surinam and the Netherlands Antilles are located in the Caribbean region in South-America, and have been Dutch colonies for several centuries. The Moroccan and Turkish caregivers are the descendants of guest workers who migrated to the Netherlands in the 1960s and 1970s. The countries of origin can be characterized as predominantly collectivistic. Research on parental beliefs of Surinamese and Antillean parents in the Netherlands shows both continuity with the goals and practices of their own upbringing, and adaptations to the Dutch context. Collectivistic childrearing goals such as respect for authorities, conformity to rules of

60

conduct, obedience to parents, and sociability are still very important, whereas personal autonomy is becoming a valued goal for the higher educated (Distelbrink, 1998; Janssens et al., 1999; Mayo, 2004). The Moroccans and Turks living in the Netherlands value their religion and culture highly, including its collectivistic childrearing goals such as respect for authorities, conformity to rules and relational values, whereas the development of an autonomous self is much less valued (Janssens et al., 1999; Phalet & Schönpflug, 2001). In the first years of life, childrearing in Moroccan families in the Netherlands is characterized by an emphasis on physical closeness, caring and pampering. Moroccan mothers show a permissive style of parenting towards babies and toddlers, changing toward more discipline as children grow older (Pels & de Haan, 2004).

4.2.2 Procedures

Caregivers were recruited via child care centers in two major cities in the Netherlands. Of a list of 63 centers, 44 centers met our inclusion criteria (they provided full-time child care for two- to four-years-olds and employed a culturally diverse staff), of which 22 centers (50%) agreed to participate. The center managers identified caregivers eligible for the study. The main reason for refusing participation was the expected workload. A few caregivers refused to participate due to objections to being filmed.

A trained researcher visited each of the caregivers while they were working with their usual groups of two- to four-year-olds. Each group was observed for approximately 4 to 5 hours in a single visit; the visits lasted all morning, and included lunch time. When two caregivers worked with the same group, the group was visited twice so that observations and other types of data could be collected separately for each caregiver. Each caregiver was filmed during two 15-minutes episodes of guided play, involving creative activity and construction play respectively. The creative activity and constructive play situation were part of the regular program of all centers. We expected to be able to observe both individual and group stimulating behaviors by the caregivers, and to evaluate caregivers' sensitive-responsiveness to the children, and their competence in organizing and structuring task situations and to give clear instructions and explanations to the children. We also filmed lunchtime, a typical care situation in all centers in which all children are involved. Together, these situations provided a representative

sample of the caregiver's childrearing behaviors during a normal day in child care. For each observation session, caregiver's were encouraged to act as they would normally do. As a consequence, there was some variation in how the situations were set up. Also the number of children involved in each of the situations varied per caregiver.

4.2.3 Measures
4.2.3.1 Caregivers' childrearing beliefs
Caregivers' childrearing beliefs were explored in a semi-structured, largely open interview. The interview focused on three central themes; autonomy and independence, children's social development, and rules and disciplining. Stimulating children's autonomy and independence, and stimulating children's self-development are currently official childrearing goals in Dutch child care centers (Riksen-Walraven, 2000); moreover they represent typical individualistic socialization goals (cf. Triandis 1995). Children's social development and group processes, as well as the use of rules and disciplining, were chosen as interview topics because they refer to important aspects of every day childrearing in child care; moreover they represent core themes of childrearing in collectivistic societies (cf. Triandis 1995). Caregivers were encouraged to express their ideas on these themes in a specific and concrete way by relating them to everyday experiences in their own work situation.

All interviews were audiotaped and transcribed verbatim. Using MAXQDA software, caregivers' responses were coded for the occurrence of spontaneously expressed childrearing beliefs that could be considered individualistic or collectivistic (for a more extensive description of the coding procedure, see Huijbregts et al., in press). In research on parenting beliefs it is assumed that the frequency of mentioning a particular idea or theme reflects its importance to the interviewee (cf. Harkness et al., 2000; Raeff, 2000). The raw frequencies were divided by the total number of codes in each interview and multiplied by 100, resulting in percentages. The coding procedure and coding system used in this study (see Table 1), closely corresponds to the coding schemes and procedures of Harkness and colleagues (2000) and Raeff (2000), with one notable exception. Harkness et al. and Raeff range beliefs on cognitive development among an individualistic orientation. In the current study, however, the importance attached to children's cognitive development and school readiness, and to instructing skills

appeared to be related to a collectivistic orientation. Toddlers' cognitive development was not an issue for Dutch caregivers, in the same way that it is not an issue for Dutch parents (cf. Janssens et al., 1999; Harkness et al., 2000). In contrast, the immigrant caregivers in this study appeared to attach much more importance to issues relating to children's cognitive development. For instance, they stressed the value of learning the Dutch language properly, and the need to foster school readiness skills such as counting, coloring within lines, and knowing the names of the colors. This emphasis probably stems from worries about the persistent educational disadvantages of immigrant children in Dutch society (cf. Leseman & van Tuijl, 2006). In a previous article we extensively described the cultural differences in Dutch and immigrant caregivers' childrearing beliefs (Huijbregts et al., in press). While Dutch caregivers mentioned independence as a socialization goal most, immigrant caregivers stressed collectivistic childrearing goals, such as the importance of children's obedience. The results further demonstrated that all caregivers valued aspects of both individualism and collectivism in childrearing, providing further support for the multidimensionality of childrearing beliefs (Bugental & Johnston, 2000; Harkness & Super, 1999; Kontos, Burchinal, Howes, Wisseh, & Galinsky, 2002; Tamis-LeMonda et al., 2008).

Table 1 Specification of the interview codes and constructs

Childrearing Beliefs – Interview constructs

Individualistic beliefs

Independence	i.e. autonomy, verbal assertiveness, children's own opinion
Self-confidence	i.e. self-esteem, feeling proud of oneself, individual expression
Individualistic view on learning	i.e. development is a cognitive constructive process, children have an active role in their own development
Actively stimulating	i.e. offering choices, dyadic interaction, explaining and talking
Creating opportunities	i.e. facilitating activities, observing children, facilitating exploration

Collectivistic beliefs

Sociable	i.e. sharing, friendship, social skills
Obedience	i.e. being polite, having respect for adults
Cognitive achievement	i.e. focus on language development, school readiness, cognitive development
Togetherness	i.e. playing together, having fun together, working together, learning from each other, especially in the context of child care
Collectivistic view on learning	i.e. development as a process of maturation, learning through observation, imitation and direct instruction.
Stimulating social dev.	i.e. stimulating social behavior, stimulating playing together
Authoritarian caregiving	i.e. punishing, stressing caregiver's authority, being harsh
Group management	i.e. group activities, involving a child in an activity with other children, dividing children in sub-groups

4.2.3.2 Caregivers' behavior

To evaluate caregivers' behavior we used a set of six rating scales that was recently developed by a consortium of researchers specialized in child care quality as part of a larger project commissioned by the Dutch government to evaluate child care quality in the Netherlands (Dutch Consortium for Child Care Research, NCKO; De Kruif, Vermeer, Fukkink, Riksen-Walraven, Tavecchio, van IJzendoorn, & van Zeijl, 2007; De Kruif et al., submitted). The rating scales *Sensitive Responsiveness, Respecting children's Autonomy, Structuring and Limit setting, Talking / Elaborating, Stimulating children's development, and Facilitating interactions*, with scale points ranging from 1, inadequate, to 7, excellent, were based on the well-known and widely used Caregiver Interaction Scale (CIS, Arnett, 1989), the scales developed by Erikson, Sroufe, and Egeland (1985), and the NICHD's Observational Record of the Caregiving Environment (ORCE; see NICHD ECCRN, 1996), but adapted to the Dutch child daycare system. The scales, moreover, reflected current consensus about developmentally appropriate practice in early childhood care in Western societies (cf. Bredekamp & Copple, 1997). The scale *Facilitating interactions* was new and specifically added to do justice to the fact that center-based child daycare involves groups of children. Below, we will briefly describe the scales; for a more extensive description, see De Kruif et al. (2007).

The scale *Sensitive responsiveness* refers to the ability to timely and appropriately respond to children's signals and needs, and to provide emotional support when needed. A high score (5 – 7) is given to a caregiver who provides emotional support when needed, and who recognizes children's signals and responds to these signals in a timely and effective manner. A low score (1 – 3) is given to a caregiver who doesn't succeed in giving children emotional support when needed. Such a caregiver either doesn't recognize children's signals, or responds inadequately or too late.

The scale *Respecting children's autonomy* refers to the caregivers' ability to interact non-intrusively, to promote independence, and to encourage children to make choices. A caregiver scoring high on this scale (5 – 7) offers children the opportunity to experiment and to solve their own problems, she respects and follows children's initiatives. A caregiver scoring low on this scale (1 – 3) is intrusive, she doesn't consider children's intentions to act or think independently, in stead, she is negative and may use physical discipline.

The scale *Structuring and limit setting* refers to a caregiver's ability to, sensitively and timely, organize children's environment and activities so that the children know exactly what is expected from them. A high score (5 – 7) is given to a caregiver who structures activities, sets limits to children's behavior if necessary, and who does this timely, effectively, and consistently. A low score (1 – 3) is given to a caregiver who either fails to set limits to children's behavior and to structure activities, or who excessively tries to control children's behavior. For the present study, we made two minor adjustments in the scoring procedure of this scale. First, we added that, to obtain a score of four or higher, a caregiver had to be authoritative, that is, she should structure the activity by explaining the rules and by negotiating with the children. A caregiver who structured the situation by physical or verbal disciplining, by raising her voice or giving orders, could not receive a score above three. A second amendment we made, was that always the middle score of four was given when the observed situation was considered quite well structured, but apparently without the necessity to structure the activity or to set limits to children's behavior explicitly. In these situations the children seemed to have internalized the rules and procedures.

The scale *Talking and elaborating* refers to the caregivers' ability to provide frequent and developmentally appropriate verbal interactions to promote children's language development, and their cognitive and social development. A caregiver who receives a high score on this scale (5 – 7) talks a lot with the children, stimulates them to put their feelings and intentions into words, and adapts the timing and content of her words to the children's cognitive level and current activities. A low score (1 – 3) is given to a caregiver who fails to talk or respond to children, and who doesn't stimulate children to use language. Low scores were further given when a caregiver mainly talks in a negative manner, or solely to correct children's behavior.

The scale *Stimulating development* refers to the caregivers' ability to offer children activities aimed at promoting their cognitive, language, motor or social development, within or as an addition to the normal curriculum. A caregiver who scores high on this scale (5 – 7) sees stimulating children's development as a goal of her interaction with the children. She uses everyday situations to stimulate children's development, for instance, counting the tableware when setting the table at lunch time. Low scores (1 – 3) are given to caregivers for whom stimulating children's development does not seem to have priority. Also, caregivers who

restrict children's exploration score low on this scale.

Finally, the scale *Facilitating interactions among children* refers to the caregivers' ability to take advantage of the social environment in child care centers, by acknowledging and encouraging positive interactions between children. Caregivers scoring high on this scale are aware of spontaneous positive interactions between children and name these or compliment children for interacting positively with each other. Furthermore, caregivers scoring high on this scale create situations to encourage such positive interactions. On the other hand, caregivers receiving low scores on this scale do not pay attention to children's positive interactions and do not stimulate such interactions. For all scales, middle scores (4) are given when a caregiver shows one of the above mentioned abilities in an inconsistent manner, or not with the majority of the children.

The three videotaped episodes were rated by a trained observer who was blind to the research hypotheses and the other data collected in the present study. Ten videotapes, roughly 20% of the data, were double coded by a member of the Dutch Consortium for Child Care Research. Inter-observer agreement was satisfactory, on average 89,6% and ranging from 70% to 100% . The ratings for the three situations were averaged to obtain a single score for each scale. Alpha's for the six observation scales ranged from .56 (Stimulating Development) to .81 (Talking/ Elaborating). Caregiver's stimulating behaviors and actions to facilitate interactions seemed to vary across situations, caregiver's childrearing behaviors associated with the other four scales were more balanced across the three situations.

4.2.3.3 Caregivers' characteristics

Caregivers received a questionnaire on demographic variables. They were asked to indicate their educational level on a six point scale ranging from 1 (junior vocational training) to 6 (university level), their age in years, the number of years working as a professional caregiver in child care, and the number of working hours per week.

4.2.3.4 Micro-cultural context factors

As almost all caregivers shared responsibility for a group of children with two other caregivers, they were asked to indicate the cultural background of these two colleagues. The variable Cultural Diversity of Staff was computed as the number of close colleagues with an immigrant background, ranging from 1 (both close

colleagues were Dutch) to 3 (both close colleagues were first- or second-generation immigrants). The variable Diversity of the Caregiver Team was computed as the number of caregivers with an immigrant background working in the center, ranging from 1 (0-33 % caregivers with an immigrant background) to 3 (67-100% of the caregivers had an immigrant background). Caregivers further indicated whether their group of children consisted of mainly native Dutch (scored 1), whether there was a mix in cultural backgrounds (scored 2) or whether the group consisted of mainly immigrant children (scored 3). To obtain an overall index *Cultural diversity of the child care center* the three cultural-context variables were pooled after Z-transformation (inter-correlations were sufficient, ranging from .30 to .55). Unfortunately, information on the cultural background of close colleagues was missing for two caregivers and eight caregivers did not fill out the questions about the cultural diversity of the team and the children's group. In constructing the index, missing values were replaced by the mean.

4.3   Results

First, the descriptives of caregivers' belief and behavior scores are presented in Table 2. The table shows that caregivers mentioned individualistic as well as collectivistic beliefs in the interviews. Children's independence and actively stimulating children's individuality were the most frequently mentioned individualistic themes. Among the collectivistic themes, children being sociable and developing a sense of togetherness were the most frequently mentioned. Table 2 further shows that caregivers, on average, were observed to be quite sensitive and responsive to children's needs and concerns, and that they respected and promoted children's autonomy fairly well. On average, caregivers also showed adequate structuring and limit setting. However, there was a considerable range in caregivers' behaviors in these respects. A striking finding, furthermore, was that, on average, caregivers received quite low scores for social, cognitive, motor, and language stimulation.

Table 2 Descriptives of caregivers' beliefs in percentages and practices on a 1 – 7 Likert scale (N = 57)

Caregivers' beliefs & practices	Means	SD	min	max
Individualistic beliefs				
Independence	14.9	5.7	3	33
Self confidence	3.8	2.5	0	9
Individualistic view on learning	1.5	1.4	0	5
Actively stimulating individuality	14.9	6.1	4	29
Creating opportunities	7.4	4.1	1	18
Collectivistic beliefs				
Sociable	15.1	5.2	3	26
Obedience	8.3	5.2	1	24
Cognitive development	2.3	1.6	0	6
Togetherness	12.4	5.1	4	27
Collectivistic view on learning	3.5	2.5	0	12
Stimulating social development	3.2	2.7	0	15
Authoritarian caregiving	9.5	4.6	2	21
Group management	4	1.9	1	12
Sensitive Responsivity	5.1	.72	3	6.3
Respecting Autonomy	4.9	.71	3.7	6.7
Structuring & Limit setting	4	.99	1.3	5.7
Stimulating Development	2.7	.85	1.3	4.3
Talking Elaborating	3.5	.93	1.7	5.7
Facilitating interactions	1.9	.86	1	4

Next, we examined whether caregiver's cultural childrearing beliefs were related to their actual childrearing practices. As is shown in Table 3, a number of statistically significant correlations between caregivers' expressed beliefs and observed behaviors as evaluated with the six observation scales were found, with some of the correlations corresponding to medium effect sizes (Cohen, 1988). The percentages of expressed beliefs that indicated the importance attached to actively stimulating children's development and creating developmental opportunities for children were positively related to caregivers' observed sensitive responsiveness, their ability to respect and promote children's autonomy, caregivers' ability to structure and set limits authoritatively, and their competence in stimulating children's development and in talking with and giving explanations to children. The percentages of beliefs mentioned in the interviews that indicated a collectivistic orientation, such as the emphasis put on children's obedience, the expressed approval of authoritarian childrearing strategies, and a view on learning and development as based on modeling and direct instruction, were found to be negatively related to caregivers' sensitive responsiveness, ability to structure and set limits in an authoritative manner, and ability to respect and promote children's autonomy. Also the emphasis on the development of cognitive school readiness skills was negatively related to most of the behavior ratings. Interestingly, there is an indication in the Table that the group management component in collectivistic childrearing beliefs, represented by the percentage of references made by the caregivers in the interview to group activities, involving a child in an activity with other children, dividing children in sub-groups and a few other concepts, is related to the observed competence of the caregivers to respect children's autonomy and to structure the – group – situation effectively and authoritatively. The correlations, however, are small. Finally, note that individualistic and collectivistic beliefs that address broad and abstract themes such as independence, self-confidence, sociability and togetherness were not or hardly correlated with behavior, whereas, in contrast, the more specific beliefs that refer to concrete actions in the daycare setting, did show the expected associations with most of the assessed behaviors.

Table 3 Correlations between caregivers' childrearing beliefs and their caregiving behavior

Childrearing Beliefs	Sensitive Responsivity	Respecting Autonomy	Structuring & Limit setting	Stimulating Development	Talking Elaborating	Facilitating interactions
Individualistic beliefs						
Independence	.02	.11	.25†	-.04	-.10	-.11
Self confidence	.10	.19	.12	.01	.07	.00
Individualistic view on learning	-.06	-.08	.09	-.09	.04	.24†
Actively stimulating individuality	38**	.27*	.27*	.22†	.20	.08
Creating opportunities	.15	.13	-.04	.33*	.39**	.20
Collectivistic beliefs						
Sociable	-.01	-.07	.02	-.21	-.22	-.02
Obedience	-.28*	-.28*	-.29*	-.19	-.23†	-.21
Cognitive development	-.22	-.32*	-.36**	-.20	-.09	-.07
Togetherness	-.07	.00	.11	-.06	-.02	.07
Collectivistic view on learning	-.33*	-.31*	-.54**	-.07	-.13	-.17
Stimulating social development	.10	.03	.03	.24†	.18	.21
Authoritarian caregiving	-.22	-.18	-.40**	.00	-.11	-.01
Group management	.15	.25†	.33*	-.04	.13	-.09

Note. † *p* < .10; * *p* < .05; ** *p* < .01

A series of stepwise multiple regression analyses was conducted to determine the degree in which caregivers' cultural childrearing beliefs accounted for the variance in the observation scales. The stepwise method of selecting the smallest set of statistically significant predictors was used because of the relatively small sample size relative to the number of possible predictors. The results are presented in Table 4 (only significant predictors are included). Caregivers' cultural beliefs predicted their scores on the observation scale Structuring and Limit setting considerably, with 45% of the variance explained. Significant predictors with negative regression weights were caregivers' beliefs about children's learning as occurring through modeling and direct instruction, and caregivers' emphasis on children's cognitive development and school readiness skills. Significant predictors with positive regression weights were caregivers' emphasis on aspects of group management and actively stimulating children's development. Interestingly, beliefs related to children's obedience and authoritarian caregiving did not add significantly to the prediction, despite the moderate correlations found with structuring and limit setting behavior and the obvious conceptual relation of the two.

Sensitive Responsiveness of the caregivers was also substantially predicted by caregivers' beliefs as expressed in the interviews. A significant positive contribution was found for beliefs about actively stimulating children's development, referring to the importance of explaining and talking with children and stimulation through dyadic interaction, and a significant negative contribution for expressing a collectivistic view on learning and development, together explaining 19% of the variance. Similarly, the observed Respect for autonomy of the caregivers was positively predicted by the expressed value of actively stimulating children's development and caregivers' focus on group management strategies and negatively by the importance attached to stimulating children's cognitive development and school readiness skills, explaining 20% of the variance. Again, beliefs related to children's obedience did not add significantly to the prediction of both measures, despite moderate correlations.

The remaining behavior measures, representing caregivers' competences in promoting social, cognitive and language development were less well predicted. Both Stimulating cognitive development and Talking and elaborating were best (and positively) predicted by beliefs that emphasized the value of creating opportunities for development as a means to stimulate development. Remarkably, none of the beliefs constructs predicted significantly caregivers' ability to facilitate

positive interactions between children (therefore, this scale is not included in Table 4).

Table 4 Stepwise regression analyses with caregivers' cultural beliefs predicting observed caregivers' behavior

	Sensitive responsiveness	Respect for autonomy	Structuring & Limit setting	Stimulating Development	Talking / Elaborating
Predictors:	β	β	β	β	β
Cognitive development		-.31*	-.25*		
Collectivistic view on learning	-.28*		-.43**		
Individualistic view on learning					
Actively stimulating development	.33*	.28*	.22*		
Creating opportunities				.35**	.39**
Stimulating social development				.26*	
Group management		.26*	.30**		
Total R^2	.19**	.20**	.45**	.15*	.14**

Note. † $p < .10$; * $p < .05$; ** $p < .01$

The second aim of this study was to determine the influence of caregiver characteristics and the childcare center's micro-cultural context on caregivers' behavior and to explore possible moderator effects of the context. Table 5, first, presents the correlations of caregiver and center characteristics with observed caregiver behavior. Modest, but statistically significant correlations were found for the Cultural diversity index. Cultural diversity of the center was negatively related to caregivers' scores on respecting and promoting children's autonomy, structuring tasks and setting limits authoritatively. Note that in the current sample caregivers

with an immigrant background were roughly equally distributed over centers, regardless the center's cultural diversity; immigrant background of the caregiver was not correlated with the cultural diversity index (r (57) = .17, p = .20). Neither caregivers' age, educational level, working hours, nor years of experience revealed correlations with observed behavior that were significant at $p < .05$.

Table 5 Correlations between caregiver and center characteristics and caregivers' childrearing behavior

Center and caregiver characteristics	Sensitive Responsivity	Respecting Autonomy	Structuring & Limit setting	Stimulating Development	Talking Elaborating	Facilitating interactions
Cultural diversity of the center	-.21	-.27*	-.35**	.05	-.09	-.05
Age	-.24†	-.21	-.25†	-.05	.12	.03
Educational level	.17	.17	.17	.20	.23†	.03
Experience	-.00	.08	.23†	-.07	-.04	.10
Working hours	-.12	-.24†	-.10	-.09	-.04	.05

Note. † $p < .10$; * $p < .05$; ** $p < .01$

To explore whether the micro-cultural context of the child care centers moderated the strength of the beliefs-behavior relationships examined above, the index Cultural diversity of the child care center was divided into two levels by median split, creating a group of caregivers working in centers low in cultural diversity, that is, with predominantly native Dutch colleagues and caring for mainly native Dutch children, ($n = 29$) and a group of caregivers working in centers high in cultural diversity, that is, with a higher number of caregivers with immigrant background and a bigger share of immigrant children ($n = 28$). Correlations of beliefs and behavior were recomputed separately for both groups. We focused on the more specific and concrete beliefs (nine in all) and examined the differences in correlations with the six observation scales. With a Fisher Z test we examined the 54 belief –

behavior correlations, to test whether these differed statistically significant be-tween the child care centers that were either culturally diverse, or had a little cul-turally diverse team and child population. In 30 cases a difference of $r \geq .25$ (weak to medium effect size) between the correlations in the two groups was found, 11 of these differences were $r \geq 50$ (strong effect, significant group differ-ences at $p < .10$), of these six were $\geq .50$ (strong to very strong effect, significant group differences at $p < .05$). In Figures 1 to 6 the two lines illustrate how in the six significant cases the relations between particular beliefs and behaviors dif-fered for the two groups. In centers high in cultural diversity, caregivers' empha-sis on cognitive development and school readiness skills was negatively related to the observed quality of their child-centered development stimulating behavior (r $(28) = -.52, p < .00$), whereas in centers low in culturally diversity no such rela-tion between beliefs on children's cognitive development and developmentally stimulating behaviors was found ($r (29) = .08, p = .68$; Fisher's $Z = 2.28, p = .02$; see Figure 1).

In centers high in cultural diversity, beliefs of caregivers on emphasizing the im-portance of actively stimulating children's personal development by offering them choices, involving them in dyadic interactions, and explaining rules to them, were not related to observed authoritative structuring and limit setting ($r (28) = .04, p = .83$), but in centers low in cultural diversity this correlation was strong and positive ($r (29) = .55, p = .00$; Fisher's $Z = -2.0, p < .05$; see Figure 2). In centers with little cultural diversity, a strong and positive correlation was further found between caregiver's beliefs on actively stimulating children's personal de-velopment and caregivers' observed ability to interact non-intrusively, promote independence, and encourage children to make choices ($r (29) = .51, p = .00$), while in centers that were culturally diverse, no such relation was found at all (r $(28) = .00, p = .98$; Fisher's $Z = -1.99, p < .05$; see Figure 3). Furthermore, in cen-ters with little cultural diversity, caregiver's beliefs on stimulating children's per-sonal development were positively related to their observed ability to facilitate interactions between children ($r (29) = .34, p = .08$), while in centers that were culturally diverse, a negative relation was found between beliefs on stimulating children's personal development and caregivers qualities in facilitating interac-tions between children ($r (28) = -.21, p = .29$; Fisher's $Z = -1.99, p < .05$; see Fig-ure 4).

In centers high in cultural diversity, the importance caregivers attached to stimu-

lating children's social development, for instance, by promoting that children play together, was positively correlated with the observed quality of their structuring and limit setting (r (28) = .29, p = .13), but in centers low in cultural diversity this correlation was negative (r (29) = -.42, p = 03; Fisher's Z = 2.57, p = .01; see Figure 5). Finally, in centers high in cultural diversity, caregivers' emphasis on stimulating children's social development was positively related to their observed competence to facilitate positive and cooperative interactions between children (r (28) = .52, p = .01), whereas no such relation was found in centers low in cultural diversity (r (29) = -.11, p = 56; Fisher's Z = 2.37, p = .02; see Figure 6).

The overall picture that arises from these results is suggestive and provides tentative support for the idea that compatibility of caregivers' beliefs with the wider cultural context of the center enables them to put their beliefs more effectively into practice. Beliefs classified as collectivistic, e.g., referring to the importance of cognitive development and school readiness, and valuing social development, were stronger related to observed behavior in the expected direction in centers high in culturally diversity, that is, with more colleagues and children with an immigrant background, than in centers with predominantly Dutch colleagues and Dutch children. Reversely, beliefs classified as individualistic, e.g. in this case, child-centered stimulation of children's personal development, were stronger related to practice in centers low in cultural diversity than in centers high in cultural diversity. However, caution is warranted in interpreting these results, because only six out of 54 possible beliefs-behavior connections that were examined, showed the moderator effect.
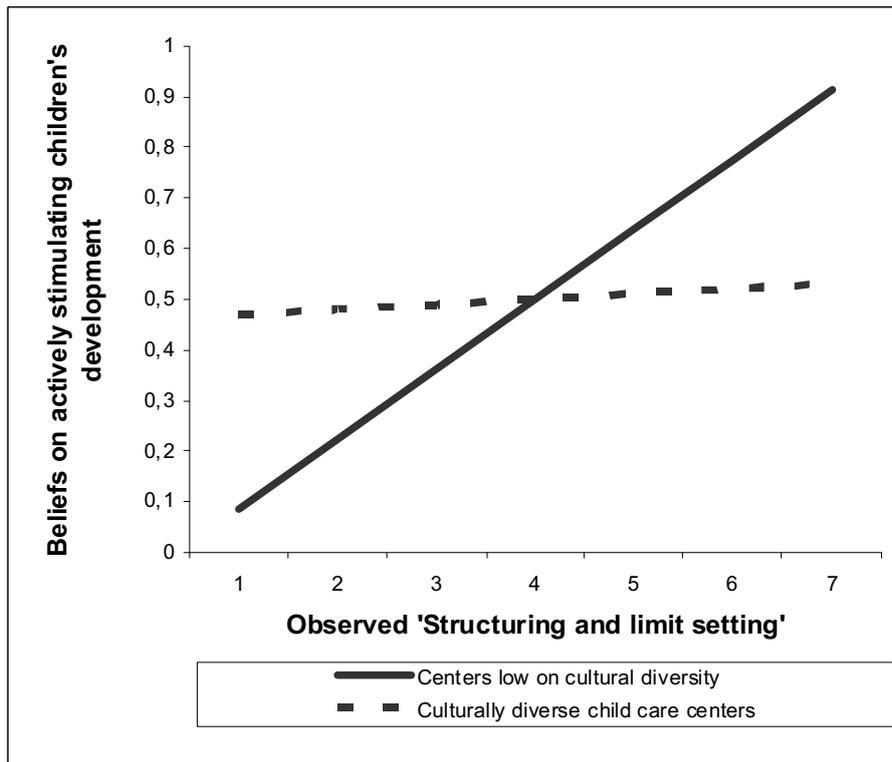
Figure 1
Correlations between caregivers' beliefs on children's cognitive development and school readiness and observed developmental stimulation in child care centers high (N = 28) and low (N = 29) in cultural diversity
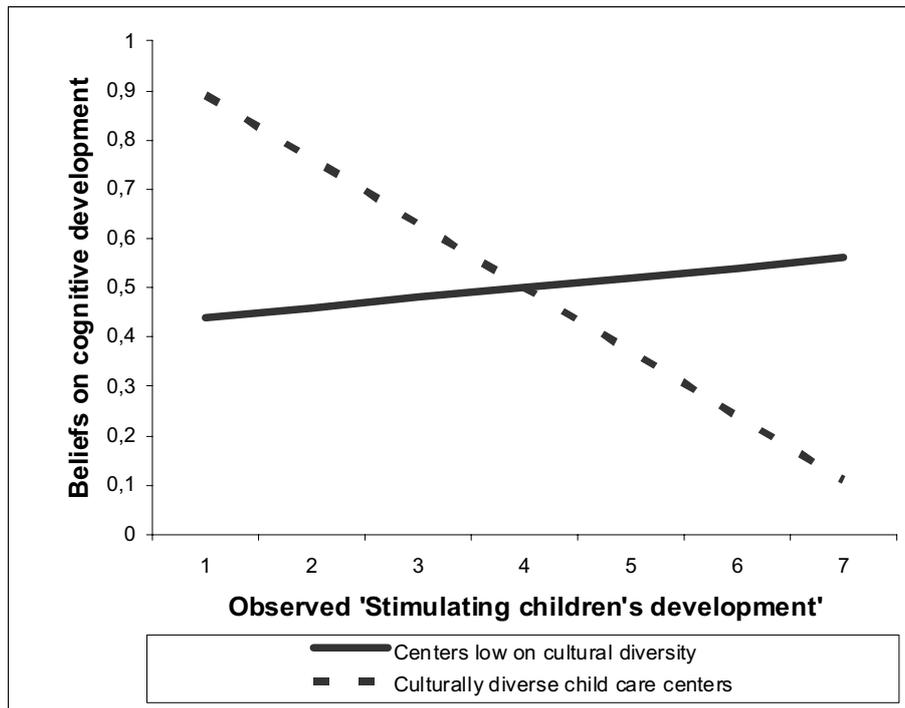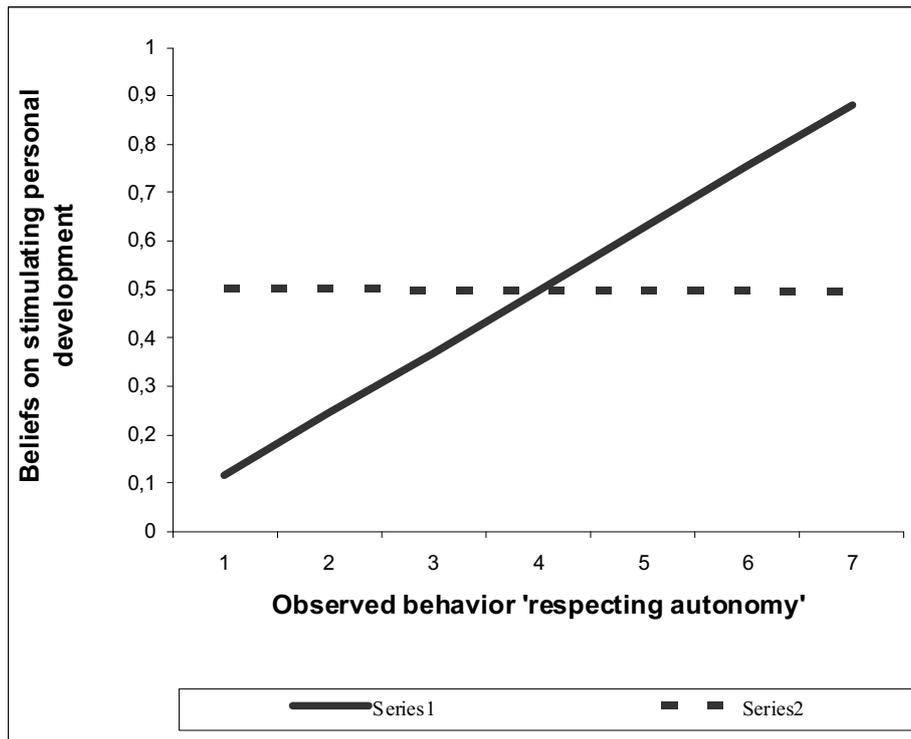
Figure 2
*Correlations between caregivers' beliefs on actively stimulating children's personal develop-
ment and observed non-intrusiveness and encouraging children's independence in child care
centers high (N = 28) and low in cultural diversity (N = 29)*
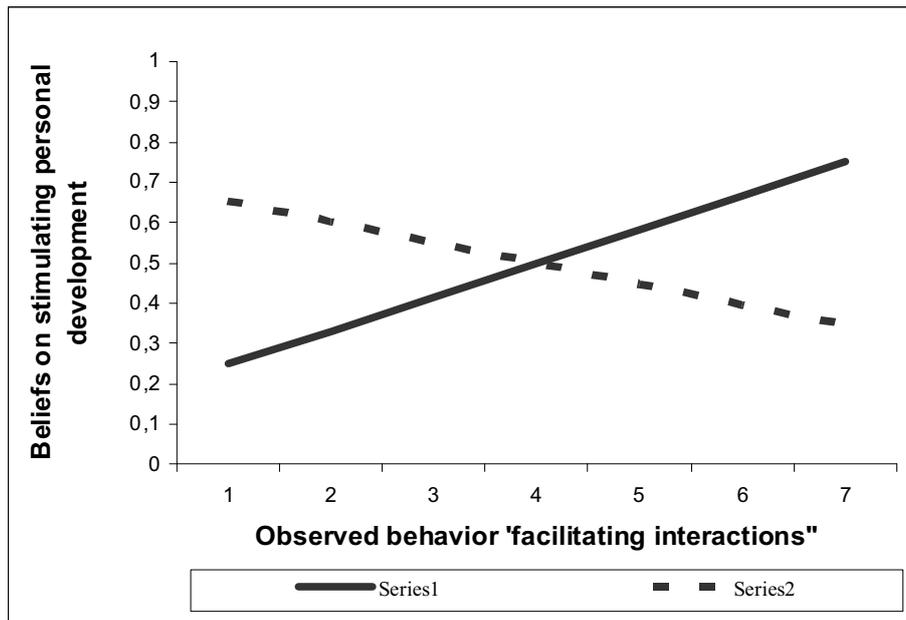
Figure 3
Correlations between caregivers' beliefs on actively stimulating children's personal develop-
ment and observed behaviors in structuring and organizing activities authoritatively in child
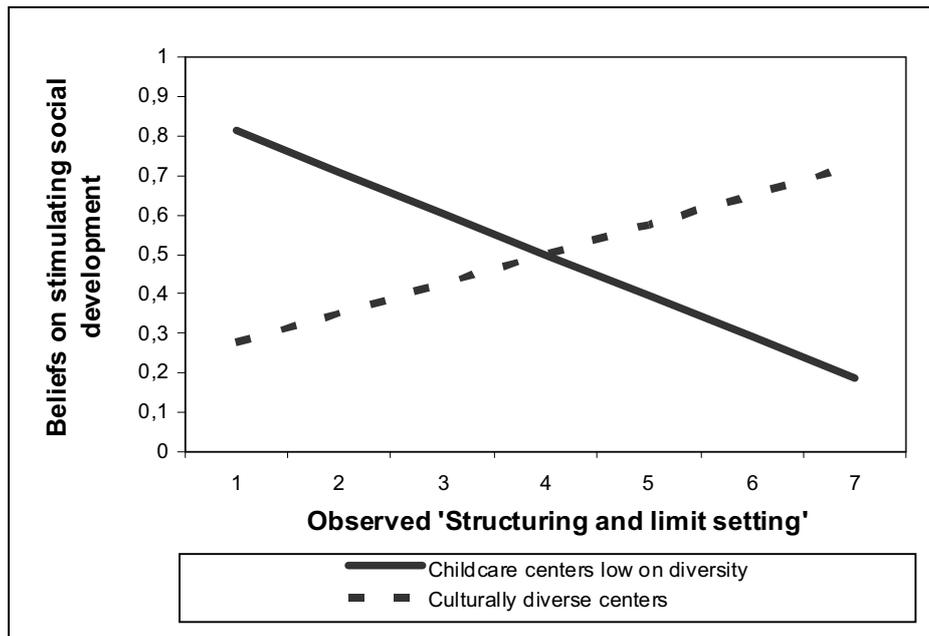*care centers high (N = 28) and low in cultural diversity (N = 29)*

Figure 4
Correlations between caregivers' beliefs on actively stimulating children's personal development and observed behaviors in facilitating interactions between children in child care centers high (N = 28) and low in cultural diversity (N = 29)

Caregivers' beliefs and behavior in culturally diverse center-based child daycare

Figure 5
Correlations between caregivers' beliefs on stimulating children's social development and observed behaviors in structuring and organizing activities authoritatively, in childcare centers high (N = 28) and low in cultural diversity (N = 29)

81

Figure 6
Correlations between caregivers' beliefs on stimulating children's social development and observed behaviors in facilitating interactions between children in child care centers high (N = 28) and low in cultural diversity (N = 29)
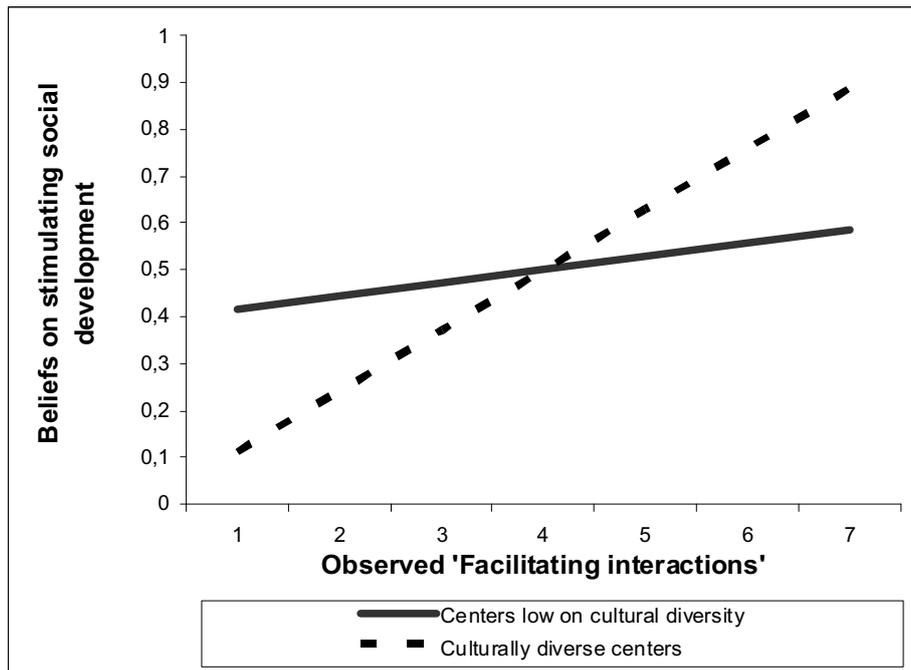
4.4   Discussion & conclusion

The present study examined the consequences of differing cultural beliefs for child rearing behaviors considered to be crucial for process quality in center-based child care. Evaluated were the sensitive-responsiveness and non-intrusiveness of caregivers towards children, their competence in authoritatively structuring and limit setting, and their competence in stimulating development and social interaction. In examining the belief-behavior relationships in child daycare, we attempted to improve on a number of methodological and conceptual flaws in previous research. By using a semi-structured interview method, caregivers were encouraged to express their beliefs on a similar level of specificity and concreteness as their observed behaviors (cf. Ajzen & Fishbein, 1977; Ajzen, 1996; Bugental & Johnston, 2000; Lorenz et al., 2007; Rubin & Chung, 2006). Moreover, the behavior observations were conducted in three typical childcare situations that, pooled together, provided us with a representative overview of caregivers' childrearing behaviors in the childcare center. In addition, by involving a multicultural sample of caregivers who were working in the same centers, we increased the variance of the independent variable, i.e., cultural beliefs. Finally, we explored moderator effects of the center's micro-cultural context on the belief – behavior relation.

Several statistically significant relations between caregivers' expressed beliefs and their observed behavior were found. In multivariate analyses, caregivers' beliefs proved to be moderate to strong predictors of caregiving practice. An interesting pattern of relations was found. First, beliefs with a more specific and concrete (behavioral) content were, overall, stronger related to the behavior ratings than beliefs with a more general and abstract meaning. Thus, neither the value attributed by caregivers to children's independence and self-confidence (individualistic beliefs), nor the importance attached by them to children's sociability and togetherness (collectivistic beliefs), appeared to be correlated with the observed behaviors. A possible explanation is that these general ideas reflect the official, taken-for-granted and widely shared educational goals of child daycare (e.g. independence, self-confidence, sociability), however, apparently without clear consequences for behavior. Another explanation is that they were defined on a too general and abstract level to have direct (observable) behavioral consequences (cf. Ajzen, 1996). In contrast, beliefs that addressed specific childrearing

strategies and situated childrearing behaviors, such as providing choices to children, explaining rules of conduct verbally, and the (appreciation of the) use of punishment and other forms of disciplining behavior, were moderately to strongly related to the observed behaviors.

Second, the pattern of correlations revealed dissociation between individualistic and collectivistic beliefs regarding behavior. Beliefs ranged among an individualistic orientation, such as the value attached by caregivers to actively stimulating children's autonomy and to creating opportunities for children's self-directed development, were positively related to almost all observation scales. Note that these scales were developed for the purpose of evaluating the process quality of Dutch daycare and reflected the current international consensus about developmentally appropriate practice in early childhood care (Bredekamp & Copple, 1997). Thus, our results indicate that the extent to which caregivers in center-based daycare are committed to individualistic childrearing beliefs is conducive to process quality as it is currently conceived, in particular to sensitive responsive, non-intrusive, authoritative, and development stimulating childrearing. In contrast, beliefs classified as more collectivistic, such as the importance attached to respecting hierarchic adult-child relations, the appreciation of authoritarian childrearing strategies, the emphasis put on children's cognitive development and school readiness, and a traditional view on learning and development, were mostly not or negatively related to the observation scales. Thus, our results seem to indicate that collectivistic child rearing beliefs, overall, are not compatible with current process quality standards in child daycare. In sum, a consequence of the increasing cultural diversity of child daycare might be that the current consensus about process quality will become less obvious and that increasing diversity, indeed, might even pose a threat to quality (Cryer & Burchinal, 2003).

However, before concluding this, we should consider the following exceptions to the pattern described above. First, we found that caregivers' group related beliefs, emphasizing the importance of group activities, group values (e.g., good cooperation), and certain group management strategies, which we ranged among a collectivistic childrearing orientation, were positively related to caregivers' observed competence in organizing children's activities in an authoritative way and in stimulating children's autonomy development in the group setting. Thus, at least some of caregivers' collectivistic ideas, i.e., those pertaining to group management, do seem to be compatible with current notions of process quality. Second,

and in striking contrast, we found virtually no relationships between caregivers' beliefs of whatever orientation and the behaviors that were thought to facilitate social interactions between children. Note that the scale Facilitating interactions was specifically developed to do justice to the group-based character of child daycare. Therefore, positive relationships with, in particular, the group management and social development beliefs were expected, which, however, were not found. On closer examination, the definition of the scale appeared to direct the observer's attention to caregiver's notice of and reaction to positive interactions between children, caregiver's response to negative interactions between children was not the focus of this scale. Furthermore, because of this focus on positive interactions between children, the observer's attention was directed to separate (dyadic) child-to-child interactions, which is not the same as a focus on the group (Dawes & Sams, 2004; Rogoff, 1998). Appropriate guidance of (dyadic) child-to-child interaction can be seen as an extension of the individualistic adult-child dyadic model underlying current process quality standards. Groups, however, involve multiple, often polyadic interactions, thus constitute far more complex social systems (cf. Rogoff, 1998). Adequate guidance of group processes can be captured to some extent by evaluating caregivers' structuring and limit setting, as we found, but ideally should be evaluated with separate, tailor-made evaluation instruments.

The results of the present study are in agreement with recent findings by Ahnert, Pinquart, and Lamb (2006), suggesting that the dyadic model is less applicable to group-based care. Based on a meta-analysis of 40 studies into the security of attachment relations of young children with parents and professional caregivers, these researchers found that the dyadic model of sensitive caregiving was a predictor of secure child-adult attachment in the family context, but not in the context of the daycare center. Group sensitivity, on the other hand, indicated by caregivers' observed attentiveness to the group as a whole and positive involvement in the group's activities, did significantly predict attachment security in center-based daycare. We may add that the availability of cognitions that support group sensitivity and suggest strategies of dealing with groups to caregivers is likely to enhance child care quality and to positively affect child outcomes.

The contrasting findings described above point to a fundamental problem. Observation scales based on the dyadic caregiver-child attachment model risk to be positively biased towards individualistic and negatively towards collectivistic

childrearing beliefs. However, given the group setting of child daycare, they may be less useful for assessing aspects of process quality in center-based daycare regarding social interaction and group management (Ahnert et al., 2006; Rosenthal, 1999; Singer, 1993). So, at least one other conclusion that can be drawn from the present results is that collectivistic beliefs and practices are easily classified as developmentally inappropriate and of low process quality, given current standards and evaluation instruments, although collectivistic ideas pertaining to how to deal with groups of children and how to promote cooperation, social cohesion, and social development may be very conducive for these aspects of process quality.

In addition to direct relations between caregivers' beliefs and practices, we explored possible moderator effects of the centers' cultural context on the belief-behavior relationship. Partly based on a conceptual analysis of the often problematic belief-behavior link, and partly based on indications from recent research (Wen et al., submitted), we expected that the opportunities for caregivers to put their beliefs into practice would crucially depend on the compatibility of their beliefs with the child care center's micro-cultural context, leading to differences in the strengths of the belief-behavior relationships as a function of that compatibility. Comparing belief-behavior correlations between caregivers working in centers that differed in cultural diversity, revealed an interesting pattern that confirmed our expectations. In child care centers that were rated as low in cultural diversity, with presumably a predominant individualistic orientation (see Huijbregts et al., in press), stronger relations were found between caregivers' individualistic beliefs and practices than in settings rated as high in cultural diversity, with presumably a stronger collectivistic orientation. Furthermore, in culturally more diverse centers considerable relations were found between caregivers' collectivistic beliefs and their behaviors, while no relations were found in culturally less diverse centers. A likely interpretation is that caregivers' beliefs are indeed more consistently expressed in behavior when they are attuned to the centers' cultural context.

The results, furthermore, suggest that caregivers may experience more support from their mental system of goals, values, and knowledge in dealing with the concrete everyday tasks in childrearing situations when working in a culturally compatible situation. Reversely, the lack of clear and consistent beliefs-behavior relationships in situations of less cultural compatibility suggests a state of disharmony and a lack of cognitive-motivational support. A consequence of a disharmonious situation could be that caregivers are more open to new ideas and new

86

childrearing strategies, thus more willing to adjust their beliefs and behavior. However, the incompatibility of beliefs and context could also lead to feelings of uncertainty and to inconsistent childrearing behaviors, lowering overall process quality, and to conflicts with colleagues or parents. Therefore, in view of the increasing cultural diversity in center based child care, findings like these deserve more attention in future research as well as in teacher education and in child care policy.

Several questions regarding the influence of the cultural context on caregiver' beliefs and practices remain. Unfortunately, the influence of the cultural context could not be investigated more thoroughly in this study. We do not know, for instance, how the process of influencing each other's beliefs and practices works. Possibly caregiver or center characteristics, such as, for instance, the availability of supervision and coaching, are decisive factors in this process. It also remains unknown at what ratio of caregivers with a particular cultural view or at what ratio of children with a particular cultural background, caregivers will adjust their beliefs and consequently their behavior or only adjust their behavior without changing their beliefs. In future research, it would be interesting to explore these questions in more detail, for instance, by studying the beliefs and practices of several caregivers working in the same center or in a similar context.

The sample size appeared to be a limitation in this study. Due to the limited sample size only six out of the 54 possible moderator effects were found to be statistically significant. It is not unlikely that future studies will fail to replicate the present findings. A further limitation concerns the observation scales. Despite the study's aim of measuring beliefs and behavior on similar levels of specificity and concreteness (cf. Ajzen & Fishbein, 1977; Ajzen, 1996; Lorenz, Melby, Conger, & Xu, 2007), the correspondence between the belief constructs and the behavior scales was still far from perfect. However, the fact that statistically significant (including moderate to strong) beliefs-behavior correlations were found for the more specific and concrete, but not for the more general and abstract beliefs, suggests that we were at least partly successful in measuring beliefs and behavior on the appropriate levels.

Implications & Conclusion

Understanding the role of cultural belief systems and their relationship to behavior is a key to improving caregivers' competences in child rearing and, thus, the

quality of caregiving (Kuhn & Udell, 2001). The results of this study emphasize the importance of taking the increased cultural diversity among caregivers and children into account in regulating the process quality of center based care, a highly valued goal among parents, educators, and policymakers alike. Ideas and practices from collectivistic cultures challenge established standards of quality that are based on the Western individualistic model. Thus, at least some reconciliation and adjustment is needed to reduce the tensions between different belief systems that became obvious in this study. Open-minded research that examines the effects of beliefs and practices from different cultural orientations on child outcomes will be essential to support this adjustment process in order to avoid cultural bias. On beforehand, given the present results, we expect ideas and practices from collectivistic cultures to enrich current views on process quality in child daycare especially regarding group management and social interaction.

The results of this study indicate that process quality in child care centers relevantly depends on caregivers' beliefs, thus can be enhanced by changing these beliefs. The main impetus for a change in beliefs may come from encounters with viewpoints that differ from one's own (Huijbregts et al., in press), especially when these encounters involve higher educated caregivers or managers, and are embedded in a system of supervision and in-service training (cf. Bugental & Johnston, 2000, Early, Maxwell, Burchinal, Alva, Bender, Bryant, et al., 2007; Sylva, Sammons, Melhuish, Siraj-Blatchford, Taggart, & Barreau, 2008). However, the moderator effect demonstrated in this study suggests that too big a discrepancy between particular caregivers' beliefs and the centers' orientation is a risk for quality and probably also for the caregiver's well-being and motivation. So, a change of beliefs through confrontation should be embedded in secure, respectful, and reciprocal staff and staff-to-parents communication (Kuhn & Udell, 2001). The study, furthermore, demonstrated that the more explicit event and context dependent beliefs were most relevant for behavior and most sensitive to the micro-cultural context. Therefore, the potential for professional training programs to improve reflective thinking among caregivers on the why's behind their practices, is more likely to be realized if they focus on the more specific and concrete childrearing beliefs of caregivers.

To conclude, cultural childrearing beliefs of caregivers in center-based daycare correlate moderately to strongly with behavior evaluations based on Western process quality standards, if the cultural beliefs of the caregivers are assessed with

respect to specific and concrete issues in everyday childrearing and related to similar specific and concrete behaviors, and if the cultural beliefs of the caregivers are compatible with the overall cultural orientation of the center. Individualistic beliefs are most compatible with the predominant Western view on process quality. However, individualistic beliefs are not related to, thus apparently not relevant for, caregivers' group management competence, whereas collectivist beliefs on group management clearly are. Examining caregivers' behavior exclusively from a Western, individualistic point of view, risks overlooking particular collectivistic childrearing practices, such as group management behaviors, that are probably also relevant for process quality and, ultimately, for child outcomes (cf. Ahnert et al., 2006). We propose to reconsider current consensus on the elements of process quality in child daycare in view of the central role played by group processes, that cannot be sufficiently captured by a dyadic child-to-child model of interaction, and to open up current thinking on quality in child daycare to collectivistic themes such as, in particular, group management.