INTRODUCTION

The aim of the present study was to contribute to an understanding of the meaning of parenting in different cultures as assessed by studying the relationship between parenting and attachment. Similarities and differences of attachment between mothers and their adolescent children in India and in Germany were investigated and it was asked if similarity of attachment between mothers and adolescents was influenced by parenting.

Since the seminal work of Mary Ainsworth and colleagues, attachment research has largely proved the link between sensitivity/responsiveness of primary caregivers and attachment security in childhood (e.g., Ainsworth, Blehar, Waters, & Wall, 1978). There is much evidence for the transmission of attachment from caregivers to children, although the processes of such transmission remain partially unexplained (e.g., van Ijzendoorn, 1995). Most attempts to bridge this transmission gap concentrate on attachment in infancy and childhood (e.g., Bernier & Dozier, 2003; Raval et al., 2001). According to Bowlby (1973), an internal working model of self and others is developed on the basis of early attachment experiences. This may be stable over time, or may change due to experiences and environmental factors such as family climate or negative life events (Lewis, Feiring, & Rosenthal, 2000; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000). Bartholomew and Horowitz (1991) distinguished four types of attachment in adulthood: secure attachment with a positive model of self and others, dismissing attachment with a positive model of self and negative of others, preoccupied attachment with a negative model of self and positive of others, and fearful attachment with a negative model of self and others. Other authors differentiate between attachment dimensions like closeness, dependence and anxiety (e.g., Collins & Read, 1990).

In adolescence various biological, cognitive, emotional, and social changes take place, affecting the parent-child relationship. Therefore, it seems necessary to clarify which factors influence attachment in this particular period of life. Changes in parent-child relations during adolescence may differ cross-culturally due to different developmental pathways which may be characterized by the culture-specific concepts of independence or interdependence (Greenfield, Keller, Fuligni, & Maynard, 2003; Rothbaum, Pott, Azuma, Miyake, & Weisz, 2000). While individualistic cultures emphasize the developmental pathway of independence which values the development of autonomy, in collectivistic cultures the pathway of interdependence prevails which highlights family

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relationships and obligations. To account for these different pathways, we examined samples of Indian and German mother-adolescent dyads.

**Culture specificities of India and Germany**

Beyond assumed differences in independence and interdependence between Germany and India, several objective indicators of cultural differences have to be considered. In India, 72% of the more than one billion inhabitants live in rural areas, while in Germany 86% of the 80 million inhabitants live in cities. The fertility rate in India is much higher than in Germany (2.9 against 1.4). In India 32% of the population are less than 15 years old, and only 5% are older than 65, while in Germany the number of people over 65 equals the size of the population under 15 (18% against 15%). About 30% of male and 52% of female Indians are illiterate, while in Germany the illiteracy rate is negligible. People in India are mainly Hindus (81%), but there is also a large percentage of Muslims (12%), while German people are mainly Christian (70%) and many people are without religious affiliation (CIA, 2003). India has been described by Hofstede (2001) as less individualistic than Germany (score 48 vs. 67), but as higher on power distance (score 77 vs. 35). This goes along with the notion that India is a highly hierarchically organized society.

Concerning parenting goals, the majority of German respondents in the study of Inglehart, Basañez, and Moreno (1998) valued independence as important (73%) while it was rated as important by only 30% of Indian respondents. On the other hand, obedience as well as good manners were more important for Indians than for Germans (56% vs. 22% and 94% vs. 67%).

In India, strong kinship networks and extended families prevail, although in urban compared to rural areas there are increasingly more nuclear families (Roopnarine & Hossain, 1992). Social and economic change have an impact on socialization practices, but traditional cultural beliefs, strongly linked to Hinduism, still influence child-rearing (Mishra, Mayer, Trommsdorff, Albert, & Schwarz, 2005; Saraswathi & Ganapathy, 2002). Traditionally, high interdependence and importance of the family prevail (Mishra, 1994; Saraswathi & Pai, 1997). This is partly indicated by extended obligations and duties of children, especially sons, towards parents, e.g., like taking care for them in old age (Verma & Saraswathi, 2002). In Germany, on the other hand, mostly nuclear families with two generations prevail, including parents and their not yet grown-up children. Although not living in the same household, adult children often live near to their parents, and report close emotional ties and mutual support (Lauterbach, 1995; Nave-Herz, 2002). While the relations in the nuclear family in individualistic societies may be similar to those in collectivist countries, the mean importance of the extended family is lower in individualistic countries (Georgas et al., 1997). Family relations in Germany are rather organized along the Western model of combining autonomy and relatedness and may be described as characterized by independence coexisting with interdependence (Rothbaum & Trommsdorff, in press).

**Attachment in adolescence**

It is widely held that the development of autonomy is an important task in adolescence (Grotevant & Cooper, 1985). Adolescents become more independent from their
parents, while peers gain in importance (Steinberg & Silverberg, 1986). While earlier research emphasized the separation of adolescents from their parents, today individuation is seen as a dual process of separation and connectedness: parents grant more independence and at the same time they remain an important source of support and advice for their adolescent children (Youniss & Smollar, 1985). Thus, autonomy does not necessarily develop at the expense of attachment (Allen & Land, 1999); it is even based on positive and close parent-child relationships similar to the secure-base phenomenon in childhood (Allen, Hauser, Bell, & O’Connor, 1994; Allen et al., 2003). Adolescents explore new ideas, values and life styles, but they can always rely on the secure base of their parents in case of difficulties. However, this research is mainly based on Western samples and does not account for cross-cultural differences in developmental pathways. As Rothbaum, Pott, et al. (2000) showed, changes in the parent-child relation in adolescence either follow a path of symbiotic harmony, as in Japan, where a stable relationship to parents and to peers persists; or it follows a path of generative tension, as in the U.S., transferring close relationships from parents to peers, challenging parental values and engaging in conflicts with parents. Similarly, according to Greenfield et al. (2003) the development of autonomy and relatedness is a universal task in adolescence, with cultures differing in the degree of importance of these two tasks. While the independent developmental pathway emphasizes autonomy, the interdependent pathway emphasizes parental control and family obligations.

**Parenting and Attachment**

Although attachment is a universal phenomenon, there may be cultural variations in the ways it develops. For example, cultural differences in the meaning of showing sensitivity have been reported by Rothbaum, Weisz, Pott, Miyake, and Morelli (2000). The meaning of certain parenting techniques also varies cross-culturally. While parental acceptance is universally related to positive child outcomes (e.g., Khaleque & Rohner, 2002), the results differ with respect to parental control which is perceived as constraint by adolescents from individualistic contexts, but experienced as a support by adolescents from collectivistic contexts (e.g., Rohner & Pettengill, 1985; Trommsdorff, 1995, 1999).

In a study by Karavasilis, Doyle, and Markiewicz (2003) on a mainly Canadian-born sample of children and adolescents, authoritative parenting was related to secure attachment in adolescence while neglecting parenting was related to avoidant attachment. In the present study it was asked whether different relations among parenting and attachment can be identified in widely differing cultures.

The first question of the present study was if there are mean differences in parenting and in attachment between the German and Indian samples. It was assumed that Indian mothers belong to a culture of interdependence, while German mothers belong to a culture of independence where parental control is regarded as interfering with adolescent development. Our expectation was that no mean differences would be found for attachment of mothers and of adolescents as well as for maternal acceptance, but Indian mothers would report to use more control than German mothers.

The second question was if maternal parenting mediates the relation between mothers’ and adolescents’ attachment (see figure 1). In order to test the mediation effect, two preconditions had to be fulfilled: maternal attachment had to be related to at-
attachment of adolescents, and maternal attachment had to be related to maternal parenting. We examined these questions separately for Germany and India.

Figure 1
Hypothetical model of maternal parenting as mediator for the relation between maternal attachment and adolescents’ attachment

METHOD

Participants

The present study is part of the cross-cultural “Value of Children and Intergenerational Relations” Study (see Trommsdorff & Nauck, 2001; Trommsdorff & Nauck, 2005). Participants were 300 Indian and 310 German mothers and their 14-17 years old children (female and male). The Indian respondents were recruited in the city of Varanasi and the rural surroundings of Varanasi (150 rural, 150 urban); the German sample was recruited in three different places, a middle size university town in East Germany (Chemnitz), a middle size university town in Southern Germany (Konstanz), and a large city from an urbanized industrialized region in North-Western Germany (Essen). The mean age of Indian mothers was 41 (SD = 6.2) and of German mothers 44 (SD = 4.9), adolescents were on average 16 years old (SD = 1.6 in India and SD = 1.1 in Germany). In India 49% of the adolescents were male, in Germany 44%. Seventy-four percent of the Indian adolescents currently attended school and had on average completed 9 years (SD = 4.4) of schooling. Thirteen percent had not received any schooling at all. In Germany 96% of the adolescents currently attended school and had on average completed 9 years of schooling (SD = 1.2). Indian mothers had on average completed 6 years of schooling (SD = 6.8) and 51% had no schooling at all, while German mothers had attended school on average 11 years (SD = 1.5). Indian mothers had on average 3.7 children (SD = 1.6), while German mothers had on average 2.3 children (SD = 0.9). Ninety-four percent of mothers and adolescents in the Indian sample belonged to Hinduism and 6% to Islam. Sixty-three percent of German mothers and 47% of German adolescents were catholic or protestant, while 32% of German mothers and 41% of German adolescents had no religion. These indicators are in line with the country specific aspects described earlier.
Procedure

The standardized face-to-face interviews were carried out by trained interviewers separately for each mother and each adolescent in their homes and lasted between 1 and 1½ hours. Each interviewee answered all the questions in the assigned sequence.

Measures

Self-reports of the mothers and their adolescent children were assessed for the following variables.

Parenting style. A short version of the Parental Acceptance-Rejection Questionnaire (e.g., Rohner & Cournoyer, 1994) was used to measure the mothers’ reports on their parenting style. The Acceptance scale consisted of ten items (e.g., “I say nice things to my child”) with reliabilities of $\alpha = .61$ (German mothers) and $\alpha = .86$ (Indian mothers) and the Control scale of four items (e.g. “I tell my child exactly when to be home”) with reliabilities of $\alpha = .56$ (German mothers) and $\alpha = .71$ (Indian mothers). Originally, parenting was assessed by a 4-point scale in the German and a 5-point scale in the Indian sample. In order to compare the means of both samples, we converted the Indian scale into a 4-point scale (1 = “Almost never true” to “Almost always true”).

Adult Attachment. The Adult Attachment Scale (Collins & Read, 1990) was used to assess the Attachment of mothers and adolescents (5-point scale from 1=“Strongly disagree” to 5=“Strongly agree”). The Avoidance scale, a combination of dependence and closeness (cf. Brennan, Clark, & Shaver, 1998; Gallo, Smith, & Ruiz, 2003), consisted of eight items (e.g., “I’m not sure that others will be there when I need them” or “I get nervous if someone tries to get too close to me”) with reliabilities between $\alpha = .71$ and $\alpha = .83$. The Anxiety scale with five items (“I often worry that my friends don’t really like me”) reached reliabilities between $\alpha = .69$ and $\alpha = .80$.

RESULTS

Mean differences between German and Indian respondents

In Table 1 are presented the mean values and standard deviations as well as the results of the t tests between the German and Indian samples for the relevant variables. As can be seen from these data, German mothers reported more acceptance (M=3.77, SD=.19) and less control (M=2.79, SD=.53) in their parenting than their Indian counterparts (M=3.26, SD=.48 and M=3.20, SD=.53). Indian mothers and Indian adolescents showed more avoidance (M=2.59, SD=.87 and M=3.02, SD=.81) than their German counterparts (M=2.44, SD=.61 and M=2.21, SD=.68) and Indian adolescents showed more anxiety than German adolescents (M=2.83, SD=1.02 against M=2.57, SD=.74).

Table 1
Means, Standard Deviations and t-Tests for All Variables

<table>
<thead>
<tr>
<th></th>
<th>Germany (N=310)</th>
<th>India (N=300)</th>
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<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>t</td>
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</tr>
<tr>
<td>1. Maternal Avoidance</td>
<td>2.44 .61</td>
<td>2.59 .87</td>
<td>2.51*</td>
<td>531</td>
</tr>
<tr>
<td>2. Maternal Anxiety</td>
<td>2.33 .63</td>
<td>2.39 1.05</td>
<td>.91</td>
<td>486</td>
</tr>
<tr>
<td>3. Maternal Acceptance</td>
<td>3.77 .19</td>
<td>3.26 .48</td>
<td>17.22**</td>
<td>391</td>
</tr>
<tr>
<td>4. Maternal Control</td>
<td>2.79 .53</td>
<td>3.20 .55</td>
<td>9.40**</td>
<td>608</td>
</tr>
<tr>
<td>5. Adolescents’ Avoidance</td>
<td>2.21 .68</td>
<td>3.02 .81</td>
<td>13.43**</td>
<td>582</td>
</tr>
<tr>
<td>6. Adolescents’ Anxiety</td>
<td>2.57 .74</td>
<td>2.83 1.02</td>
<td>3.53**</td>
<td>544</td>
</tr>
</tbody>
</table>

Note: +p < .10; *p < .05; **p < .01.

Similarities in maternal and adolescents’ attachment and mediation by maternal parenting

In Table 2 are reported the correlations between all variables. For the German mother-adolescent dyads, the more avoidant German mothers were the more avoidant and anxious were their adolescent children (r=.16, p<.01, and r=.17, p<.01), but anxiety of German mothers was not related to attachment of their offspring. No relation between maternal attachment and maternal acceptance was found, but German mothers reported to use more control the more avoidant (r=13, p<.05) and the more anxious (r=.21, p<.01) they were. Furthermore, the more use of control mothers reported, the more anxious were their adolescent children (r=.10, p<.10).

Thus, it was possible to test if maternal control is a mediator for the relation between maternal attachment and adolescents’ attachment in the German sample. However, the regression analyses did not indicate any mediation; in the regression analyses maternal avoidance predicted both adolescents’ avoidance and anxiety (see Table 3). The inclusion of maternal control in the regression analyses did not reduce the predictive value of maternal avoidance for adolescents’ avoidance and adolescents’ anxiety.
Table 3
Hierarchical Regression Analysis: Predicting Adolescents’ Attachment by Maternal Attachment and Maternal Parenting

<table>
<thead>
<tr>
<th></th>
<th>Germany (N=310)</th>
<th>India (N=300)</th>
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<tr>
<td></td>
<td>Adolescents’ Avoidance</td>
<td>Adolescents’ Anxiety</td>
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<tr>
<td>Step 1:Maternal Attachment AR²</td>
<td>.03*</td>
<td>.03**</td>
</tr>
<tr>
<td>Maternal Avoidance</td>
<td>.18</td>
<td>.09</td>
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<tr>
<td>Maternal Anxiety</td>
<td>-.01</td>
<td>.08</td>
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<tr>
<td>Step 2:Maternal Parenting AR²</td>
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<tr>
<td>Maternal Avoidance</td>
<td>.18</td>
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<td>Maternal Anxiety</td>
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<td>Maternal Acceptance</td>
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<td>.08</td>
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<tr>
<td>Maternal Control</td>
<td>-.16</td>
<td>.20</td>
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</tbody>
</table>

Notes: *p < .10. **p < .05. ***p < .01.

The same analyses were carried out for the Indian sample. As may be seen in Table 2, both maternal attachment dimensions were positively related to both attachment dimensions of adolescents. Indian mothers used more acceptance as well as more control the less avoidant (r= -.31, p<.01 and r= -.27, p<.01) and the less anxious (r= -.39, p<.01 and r= -.36, p<.01) they were. Furthermore, the more acceptance and the more control mothers reported as parenting style, the less avoidant (r= -.19, p<.01 and r= -.14, p<.05) and the less anxious (r= -.26, p<.01 and r= -.29, p<.01) were the adolescents. Thus, the mediation hypothesis could be tested in the Indian sample for maternal acceptance and also for maternal control. In the first step of regression analyses, adolescent attachment was predicted by attachment of mothers. Maternal anxiety was most predictive for adolescents’ avoidance and for adolescents’ anxiety. Introducing maternal parenting in the regression analyses did not significantly change the predictive value of maternal anxiety for adolescents’ avoidance and adolescents’ anxiety. Maternal control, however, was also predictive for adolescents’ anxiety in the regression analysis - the more control mothers reported to use the less anxiety did adolescents report (β= -.19, p<.05).

DISCUSSION

The first question of the present study was if parenting and attachment differed in Germany and India. As far as parenting was concerned, the results partly supported our expectations: Indian mothers reported to use more control than German mothers. This is in line with results from other studies comparing “Western” and “Eastern” parenting styles (e.g., Stevenson, Chen & Lee, 1992). Apart from that, it seems that Indian mothers show less acceptance towards their offspring. This could partially be explained by low variance on this variable in the German sample. However, an intracultural comparison of the parenting dimensions indicates that parenting of the German participants is characterized by more acceptance and less control, while in India acceptance and control are quite balanced. Regarding attachment, Indian mothers and adolescents showed more avoidance and Indian adolescents more anxiety than their German counterparts. One explanation for this unexpected result may be that we assessed attachment as a ge-
general and not a relationship-specific concept/construct, i.e., attachment towards the family may bring different results.

The main aim of the present article was to study the relationship between maternal attachment and adolescents’ attachment and to test the mediating role of parenting in this relation. Maternal attachment clearly predicted adolescent attachment. While in Germany maternal avoidance was influential for both attachment dimensions of adolescents, in India it was maternal anxiety. However, both scales were highly intercorrelated in all four samples. This questions the utility of two dimensions instead of one dimension measuring secure versus insecure attachment.

Contrary to expectation, the relationship between maternal and adolescent attachment was not mediated by parenting. Other intermediate processes may account for the attachment similarity between generations. However, some interesting relations between parenting and attachment were found. When German mothers use more control they also report to be more avoidant and anxious; in contrast, when Indian mothers use more control they report less avoidance and anxiety. According to Rudy and Grusec (2001) and Chao and Tseng (2002), authoritarian parents from a Western culture differ in several aspects from authoritarian parents in an Asian culture. This view is supported by the present results: control and attachment were differently related to each other in the Indian and in the German sample. Thus, Indian and German mothers who are similar in the use of control may differ on other characteristics such as attachment.

Another result was that while German adolescents show tendencies to be more anxious, Indian adolescents clearly report less anxiety the more control their mothers use. This result underlines cross-cultural differences in the meaning of control for adolescents as has been observed in other studies (e.g., Trommsdorff, 1995, 1999). Parental control may have the meaning of protection and care in India while it is perceived as constraint and overprotection in Germany. Cultural pathways of development affect the meaning of parenting. Control may be more acceptable and normal for adolescents who grow up in a culture of interdependence, while for adolescents in a culture of independence parental control may conflict with their striving for independence and autonomy. Depending on the cultural context, either interdependence or independence is socially accepted and expected as a normative developmental task. Parenting will differ accordingly. Maternal control gives the feeling of security and acceptance to Indian adolescents but not to German adolescents. This is not to say that control has only a negative meaning in Germany; our data also show a slightly positive correlation between acceptance and control reported by German mothers, however, this correlation is much higher in the Indian sample.

One shortcoming of the present study was the use of a single indicator for general attachment rather than a measure of relationship-specific attachment. Future research should additionally include adolescents’ perceptions of parenting which is a possible mediating factor. Intracultural analyses also could be employed to determine under which circumstances control undermines relatedness and autonomy (Rothbaum & Trommsdorff, in press), i.e., if acceptance, control and attachment are differently related to each other in different subgroups within each culture. Finally, gender differences should be taken into account in future research, as they are especially important in India. Nevertheless, by examining the culture-specific relationship between parenting and attachment in India and Germany the present study has added evidence to research on the cross-cultural differences in meaning of parenting and control.
REFERENCES


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![Gisela Trommsdorff](image)

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![Ramesh Mishra](image)