

## ***Independence and interdependence: The diversity of the Brazilian family from a cultural perspective***

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### **Abstract**

This study aimed to compare socio-demographic and psychosocial characteristics and maternal beliefs in families of two distinct contexts in Brazil, based on the prototypical cultural models of independence and interdependence. In total, 112 mothers living in two different cities (50 in a city with a high human development index - HDI - and 62 in another city with a low HDI) responded individually to a questionnaire. Through statistical analyses it was revealed that there were more differences when comparing socio-demographic variables than psychosocial variables related to the mother's infancy and current life. Results also indicated that there are differences between the contexts in relation to the value attributed and to the performance of primary care practices, child stimulation and socialization goals. Results from both contexts combined confirmed the expectations regarding the cultural models of independence and interdependence, indicating the relevance of these dimensions to the study of family and its diversity.

*Keywords:* Family; parental beliefs; parental practices; cultural models.

### **Independencia e interdependencia: La diversidad de la familia brasileña desde una perspectiva cultural**

#### **Resumen**

Este estudio tuvo como objetivo comparar características socio demográficas, psicosociales y creencias maternas en las familias de dos contextos distintos en Brasil, basado en el prototipo de los modelos culturales de la independencia e interdependencia. En total, 112 madres que viven en dos diferentes ciudades (50 en una ciudad con un alto índice de desarrollo humano - IDH - y 62 en otra ciudad con una bajo IDH) respondieron a un cuestionario individual. A través de análisis estadísticos, se reveló que había más diferencias al comparar las variables socio demográficas que variables psicosociales relacionadas con la infancia de la madre y la vida actual. Los resultados también indican que hay diferencias entre los contextos en relación con los valores atribuidos a las prácticas del cuidado primario, estimulación del niño y los objetivos de la socialización. Los resultados de ambos contextos combinado confirmó las expectativas con respecto a los modelos culturales de la independencia y la interdependencia, lo que indica la relevancia de estas dimensiones para el estudio de la familia y su diversidad.

*Palabras clave:* Familia; creencias de las madres; prácticas de las madres; modelos culturales.

Although family has been transformed rapidly in recent years (Aizpurúa, Jablonski & Féres-Carneiro, 2007), it plays an essential role in human development. In this sense, the evolutionary perspective has emphasized that family and, more specifically, parental care

are traits of the co-evolution of different human characteristics, such as the prolonged period of immaturity and dependence of the offspring (Geary & Flinn, 2001; Hrdy, 2001; Seidl-de-Moura, Oliva & Vieira, 2009).

Human behavior is generally adapted to the context in which it is inserted, comprising both ecological aspects of the environment, and symbolic and cultural aspects (Harkness & Super, 1986; Keller, 2005). In this sense, the family shows characteristics and values in each specific context" to "the family shows specific characteristics and values in each context, holding

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different beliefs regarding their role in a given culture. One possibility to understand that diversity is presented by Kagitçibasi (1996, 2005) and applied for understanding human development and parental behavior by Keller (2007).

Based on the cultural dimensions of individualism and collectivism (IC), Kagitçibasi (1996, 2005) constructed a model that relates the broader culture and the individual self through the process of socialization. In order to understand this model, it is necessary to distinguish between what Kagitçibasi called "IC normative" and "IC relational". The first is most commonly adopted in cross-cultural research in social psychology and reflects the values, conventions and social rules, which indicate whether the individual "should" subordinate him/herself to the interests of the group (collectivism) or not (individualism). On the other hand, the "IC relational" focuses on the self-other relationships, and may be independent (individualism) or interdependent (collectivism), and it is not necessarily related to "IC normative." It is on the 'relational dimension' that Kagitçibasi (1996, 2005) based her model. In the case of the dimensions of independence and interdependence, there is a differentiation between "interpersonal distance", which concerns the degree of connection to others (separated self and relational self) and "agency", which is defined by the degree of autonomy in the individual functioning (autonomy – the individual is orientated by his/herself own rules; heteronomy - the individual is orientated by others' rules). In this model Kagitçibasi (1996, 2005) demonstrates how the self emerges in a given context and points out to the need to examine the relationship between society and family-socialization process. According to the author, three different types of self are derived from three types of families:

1) Family traditionally characterized by global interdependence: prevalent in traditional rural societies, where intergenerational interdependence is a prerequisite for family life. In this type of orientation heteronomy and relational dimensions (interdependent self) are predominant. Children's role is to contribute throughout their life to the families' well-being, including providing care to parents in old age. Moreover, in some contexts the child has an economic value/utility, since he/she can help in supporting the family. Thus, high fertility is also characteristic of these families. Regarding raising practices, children's obedience is highly valued as a way to ensure their loyalty.

2) Individualist model of family based on independence: ideally prevalent in nuclear families from Western middle-class. The model describes the construction of self as unique and distinct (independent self), favoring personal goals and focusing on the

individual's needs and rights. In this model the dimensions of autonomy and separation are emphasized. Intergenerational independence is valued and care practices prioritize the development of children's self-confidence and independence. These characteristics are seen as requirements for a healthy development.

3) Families that combine the two previous models, involving independence from the standpoint of functioning, and interdependence in terms of interpersonal distance (autonomous-relational self): prevalent in traditionally collectivist contexts, which have been experienced a process of economic development. In these families, the involvement of children in terms of obedience and utilitarianism is no longer needed and valued. However, the emotional aspect related to interpersonal closeness remains desired. Thus, care practices continue to prioritize closeness once the separation is not a goal, but a way for children to develop autonomy.

The interdependent trajectory would be characteristic of traditionally collectivist societies, less educated, less urbanized and industrialized, with the prevalence of proximal style of parenting, with more contact, body stimulation, and shared attention. Physical care includes breastfeeding from two to four years; holding the baby more than 50% of the time in the early years, and body contact during day and night. In parallel, in this mode of parental investment, emotional care supports a long symbiosis to the mother and is characterized by long periods of care that occur together with other adult activities (Keller, 2007).

On the other hand, the independent trajectory would be characteristic of Western industrialized societies with high educational level. In these contexts, there is a predominance of distal style of parenting, more face-to-face contacts, more stimulating through objects, and exclusive dyadic attention. Physical care is characterized by a short period of breastfeeding (from one to three months), reduced periods of carrying the baby, especially in response to his crying, little body contact, and extensive use of cribs and strollers. This style promotes early independence and involves short periods of exclusive care and episodes of face-to-face interactions (Keller, 2007).

Finally, the autonomous-relational trajectory is linked to middle-class families, urban and educated in newly industrialized societies, which combine traditional and modern features. In these contexts, it has been found a predominance of proximal practices in compared to distal practices, but a lower valuation of proximal practices when compared to interdependent contexts.

From these considerations, one might ask what the predominant model would be in Brazil based on

the proposals of Kagitçibasi (1996, 2005) and Keller (2007). It is not easy to situate the cultural issue in family configurations, beliefs and parenting practices without taking into account the enormous variability in Brazilian contexts. Despite the relative unity of language, Brazilian culture has been mainly characterized by its diversity, openness, and dynamism. Much effort has been done to portray this diversity, relating it to the different regions of the country, to coastal versus urban locations, and to ethnic origins, among other aspects (Seidl-de-Moura et al., 2008; Vieira, Seidl-de-Moura, Lordelo et al. 2010).

While international cross-cultural research frequently compares Japanese to American culture, German to French culture, for instance, it is also important to analyze the intracultural differences in the countries. This perspective is particularly relevant in Brazil, given its continental size. Hence, studies have been conducted in different geographic regions of the country aiming to characterize values, beliefs and practices, in order to capture the variation in cultural models (Macarini, Martins, Sachetti & Vieira, 2010; Martins, et al. 2009; Seidl-de-Moura et al., 2008; Vieira, Seidl-de-Moura, Lordelo et al. 2010; Vieira, Seidl-de-Moura, Macarini, et al., 2010; Westphal, Vieira & Vieira, 2010). These studies indicate the existence of different belief systems among Brazilian mothers, which tend to differ mainly due to sociodemographic characteristics of the sample, with an emphasis on education, level of urbanization and city size. Mothers of higher educational level, living in more urbanized centers and larger cities, such as state capitals, tend to have values and beliefs more aligned to the independent model. In contrast, mothers who live in less populated and urbanized contexts, who, in general, have less level of formal education, tend to have more interdependent beliefs, supporting the models proposed by Kagitçibasi (1996, 2005) and Keller (2007).

However, these same studies, when analyzing the values and beliefs within a particular context, have verified the coexistence of independent and interdependent dimensions (Bandeira et al. 2009; Macarini et al. 2010; Martins et al. 2009; Seidl-de-Moura et al., 2008; Vieira, Seidl-de-Moura, Macarini et al., 2010; Westphal et al., 2010), which would lead one to believe that Brazil can be thought as an autonomous-relational context. In this sense, as pointed out in studies by Keller (2007), families' cultural patterns are understood as prototypical models varying from several forms and degrees among cultures and, indeed, can coexist within the same culture (Keller, Demuth & Yovsi, 2008). Differences in socioeconomic status of parents living in same geographical region may, for example, influence their beliefs and interaction with their children (Pic-

cinini, Tudge, Marin, Frizzo & Lopes, 2010), which enable the coexistence of different cultural models of parenting. Although the Brazilian context in general balances characteristics of both independent and interdependent families, it is possible that when comparing large and small cities, for instance, one can discriminate more prototypical contexts, either predominantly independent or predominantly interdependent. Thus, this study starts with this assumption and has the purpose to compare sociodemographic characteristics, psychosocial, and parental beliefs in families of two distinct contexts, which are supposedly closer to the poles of independence and interdependence. For selecting the contexts we used the Human Development Index (HDI) as a criterion, once it encompasses economic and social aspects present in the characterization of family cultural models, such as level of education (literacy rates and schooling), and income (GDP per capita) (PNUD, 2010).

The cities chosen were research locus of a larger project entitled "Investment and parental care: biological, ecological and cultural dimensions", which aimed to investigate aspects of parental belief systems and practices for raising children, seeking to connect them simultaneously to the ecological conditions relevant to reproductive success, and to cultural systems of beliefs about child rearing. Mothers who participated in this project were from 12 Brazilian cities, six small cities and six capitals of different regions of Brazil. In the present research we have chosen, among the twelve cities, the ones with the highest (a capital city) and the lowest HDI (a small city).

In agreement to the Brazilian literature, it is expected that both groups have the characteristics of the autonomous-relational model. In a previous study (Vieira et al., 2010), comparing a group of mothers of six inner cities to a group of mothers of six capitals in different regions of Brazil (south, north and northeast), it was found that both groups of mothers equally appreciated autonomy in terms of parenting practices and children's socialization goals. However, when the analysis was performed separately in each context, it was found that mothers in capitals show a balance between autonomy and interdependence, while mothers in inner cities valued more interdependence than autonomy.

It is believed that in the previous mentioned study (Vieira, Seidl-de-Moura, Macarini, et al., 2010), some differences may not have been pronounced (between capitals and inner cities) because the chosen cities had cultural, economic and social diversity, that is, the contexts were not homogeneous. Indeed, this is a feature of Brazil (Seidl-de-Moura et al, 2008). Thus, in the present study, we selected from Vieira, Seidl-de-Moura, Macarini, et al. (2010) study, two extreme contexts: one

group of participants (mothers) living in the city with highest HDI, and other group living in the city with the lowest HDI. We hypothesized that the first group has characteristics closer to an independent cultural, such as higher educational level, fewer children, lower levels of family closeness and social support, as well as greater appreciation for practices that promote children's autonomy. In the second case, it is expected that the predominant model is based on interdependence, in which mothers have lower educational level, more children, higher levels of family closeness, and more social support. In this last context it is also expected greater appreciation for practices and goals that promote interdependence among community members.

These assumptions were based on studies of Keller conducted in various countries, which showed a relationship between mothers' place of residence and the prevailing cultural models (Keller 2007; Keller, Abels & et al., 2007; Keller, Lamm & et al., 2006). However, these studies generally investigate people living in prototypical contexts, that is, individuals chosen for presenting features typically described in the cultural models of independence and interdependence. For example, they investigate and compare countries with higher levels of social and economic vulnerability such as India, Costa Rica and Cameroon, and other more economically developed countries, such as Germany and the United States. In this study we intend to do comparisons within a same country (Brazil), but in distinct cities, because of the reasons mentioned previously. If we find similarities, despite all socioeconomic and cultural differences, one could argue that certain characteristics are part of a larger context, which would define the country's identity. In the case of finding differences, it is possible to conceive local variable affecting mothers' conception on their life and family. Therefore, this study allows us to investigate the dynamic between the local contexts and the broader characteristics of the country.

## Method

### Participants

Participants in the study were 112 mothers, 50 residing in a capital (with the highest HDI) and 62 in a small city (with the lowest HDI). Participants were older than 20 year-old, with at least one child aged between 0 and 6 year-old. The sample of the capital context was composed by mothers aged between 21 and 49 year-old ( $M = 32.14$ ,  $SD = 6.37$ ), number of children between 1 and 4. Most of the mothers had one child ( $n = 30$ ) at the time of the data collection. Half of these mothers ( $n = 25$ ) were married or lived in a stable relationship within a nuclear family composition ( $n = 23$ ). Most

of them had a job ( $n = 38$ ), high level of education ( $n = 28$ ), and a monthly family income of over R\$ 4,000.00 ( $n = 20$ ) (US\$ 1.00 is equivalent by around of R\$ 2.00).

In the other context, participants were aged between 20 and 43 year-old ( $M = 27.39$ ,  $SD = 5.84$ ), the total number of children by family was between 1 and 6, and most of them had one ( $n = 30$ ) or two children ( $n = 16$ ) at the time of the data collection. Most of these mothers were married or lived in a stable relationship ( $n = 46$ ) within nuclear family composition ( $n = 32$ ), did not have a job ( $n = 36$ ), had average educational level ranging from complete to incomplete high school ( $n = 15$ ), and monthly family income up to R\$ 500 ( $n = 21$ ).

### Contexts of the study

The Capital context is situated in the southern coast of Brazil. The main economic activities of the city are: tourism, trade, and technological industry. With nearly 400,000 inhabitants, it has a high level of urbanization, keeping 354 health centers and 302 schools (from preschool up to high school level), including 138 preschools. There are also universities, libraries, and areas for cultural and leisure activities.

The context in the interior (small city) is located in the Northeast of Brazil and has approximately 25,000 inhabitants. The place is predominantly rural, with most of the population living outside the city. The main economic activity is the cultivation of tropical fruits. The city has nine health centers, and 156 schools, including 69 preschools.

### Instruments

The main instrument used in the larger project was a questionnaire, composed by closed questions and scales, divided into eight parts: demographic information, family circumstances during the mother's childhood, siblings and family size, data on sexuality and development of loving relationships, style of relationships, reproductive history, care and investment structure, quality of family life today, social support, and allocentrism.

Specifically for this research we used questions from Part 1, such as: age of mothers, number of people living in the house, number of rooms in the house, housing density (number of persons per room), number of children, monthly family income and mother's social class, number of mothers keeping a job, family configuration, mother's educational level and marital status.

From the second part of the questionnaire we used the following questions: whether the respondent's parents divorced during her childhood, material conditions during childhood, the existence of conflict between the mother or female caregiver and the respondent,

attitude of the father, stepfather, or other caregiver in relation to the respondent; attitude of the mother, stepmother, or other caregiver in relation to respondent, and number of siblings. In addition, we used the following questions from Part 7 of the questionnaire: quality of respondent's current family life, quality of respondent's relationship with her husband/partner, and the existence of conflict between the respondent and her husband. Questions related to the respondents' current and childhood quality of life were answered through the use of five-point scales.

In regards to care and investment aspects (Part 6), we used a question about the number of hours the mother spent with her child since he/she woke up until bedtime, as well as three scales that assess maternal beliefs and practices. The first one, called the Parenting Beliefs and Caring Practices Scales for early childhood (Martins, et. al., 2010), assesses the frequency of primary care and stimulation practices, and the importance attributed to these practices. The second scale, elaborated by Keller et. al. (2006), and adapted for the Brazilian context by Sachetti (2007), assesses beliefs about care practices in the child's first year of life in two dimensions: autonomous and relational practices. Finally, the scale of socialization goals, also elaborated by Keller et. al. (2006) and adapted by Sachetti (2007), assesses beliefs about what a child should learn or develop during the first three years of life in terms of autonomous and relational goals.

Finally, in the last part of the questionnaire (Part 8) we used two other scales. The scale for measuring social support (Griep, Chor, Faerstein, Werneck & Lopes, 2005) was used to assess the mothers' perceptions on the degree of support received in three dimensions: material support, emotional/information support, and positive social interaction /affective support. The degree of connection to the family of origin was assessed through an allocentrism scale, originally developed by Lay et al. (1998) and adapted in Brazil by Sachetti (2007). All scales had questions presented in a five-point Likert scale.

#### Procedure for data collection and analysis

The project was approved by the Ethics Committee at the universities in the participating states. Before the final collection, a pilot study was conducted in each state in order to analyze the adequacy of procedures and instruments, allowing each state to adapt idiomatic expressions according to the local usages. A book with guidelines was developed by the research group, which contained information on the preparation of material, as well as conduct rules to the interviewers during the meeting with the mothers and instructions for the application of instruments, aiming to ensure the standardization of collection procedures.

The recruitment of participating mothers occurred differently in each context. In the capital, in general, mothers were contacted through public and private centers, health facilities, and other participants. These mothers were first contacted by phone, when they decided their preferred place for the interview. Most of the interviews occurred in the mothers' place, the university or a daycare center. In the small cities, most of the participants were contacted by health officials, which led investigators to the homes of respondents. In some cases, the interviews occurred in the health center, while mothers waited for their appointments. In the first contact the researcher asked for cooperation, explaining the purpose of the research. After agreeing to participate in the study, the mothers were asked to sign the Consent Form. One copy of the consent form was given to the mother and another copy was placed in an envelope and sealed in the respondent's presence.

Because some mothers had low educational level, the application of the questionnaire took the form of interviews, which took one hour and thirty minutes in average. When the mother showed some difficulties in answering the scale questions we used a ruler with color gradations, from weakest to strongest, to assist her in the responses. In general, participants showed no difficulties in answering the questions.

The data were treated descriptively, obtaining frequencies and means separated by contexts. All comparisons were statistically tested using the t-test or chi-square.

## Results

### Characterization of samples

Participants living in capital were significantly older than those living in small city [32.14 ( $\pm 6.37$ ) and 27.39 ( $\pm 5.84$ ), respectively] [ $t(110) = 4.10; p < 0.001$ ], probably due to a lower age of the mother at birth of first child. Moreover, the mean for number of children in the capital was significantly lower than in the small city [1.52 ( $\pm 0.73$ ) and 1.95 ( $\pm 1.23$ ), respectively] [ $t(110) = 2.18, p < 0.03$ ]. Regarding the number of people in the house, there was a significant difference between capital and small city [ $t(110) = 3.73, p < 0.00$ ], with more people living in the last context [3.56 ( $\pm 0.88$ ) and 4.55 ( $\pm 1.69$ ), respectively]. Households in the capital tended to be larger than in the small city, and housing density was lower in the capital [0.53 ( $\pm 0.21$ ) and 0.93(0.65), respectively] [ $t(110) = 2.85, p < 0.05$ ], that is, in the small city houses were less comfortable, and had more persons per room.

It has been noted great discrepancy in the data concerning family income in the two contexts. In the capital, purchasing power was significantly higher

( $\chi^2 = 43.23$ ,  $p < 0.000$ ). The majority (78%) of women in the capital sample had a job, while in the small city only 41.9% of them had a job. In the capital most of the mothers were classified in social classes A and B (72%), while in the small city 91.9% of the mothers belonged to classes C and D.

In both contexts there is a predominance of nuclear families, with no significant differences between the two groups [Capital: 76% and small city: 51.6%]. On the other hand, in the small city it was found more nuclear families with extended configuration (19.4%) and extended single-mother families (19.4%) than in the capital, where single-mother families reached 12% of the total, and extended single-mother families reached 2%. Furthermore, 84% of mother living in capital and 75.8% of those living in small cities are married or they are on stable relationship with the conjugal.

Mothers in the capital had high levels of education: 58% of them had a college or graduation degree, and 26% had completed high school. In the small city, 37.1% of mothers had incomplete basic education and 38.7% completed high school or had started college; only 14.5% of mothers had a college or graduation degree in the small city.

When summarizing the results, we found large differences between mothers living in distinct contexts. In the capital, mothers were older, had predominantly higher educational level and higher family incomes, and were mostly employed. In the small city we found the opposite regarding income and educational level. In addition, households in the capital had greater number of rooms and lower housing density when compared to the small city. The capital sample had more women from upper social classes and fewer children than in the small city. It has been found some similar characteristics between contexts: the predominance of nuclear families, as well as the percentage of women in stable relationships.

### Psychosocial Characteristics

In total, twelve variables were used to compare the two contexts and only in three there were significant difference. The first was the attitude of the father, stepfather, or another caregiver in relation to the respondent [ $t(110) = 2.25$ ,  $p < 0.02$ ]. It has been noted that mothers in the capital rated their caregiver, father or stepfather as more affective during childhood than mothers from the small city. In relation to the number of siblings, mothers in the capital reported a lower number of siblings compared to mothers in the other context [ $t(110) = 3.88$ ,  $p < 0.00$ ]. Regarding the time the caregiver spent with children, there was once more a significant difference [ $t(110) = 5.59$ ,  $p < 0.00$ ]: mothers in small city reported spending more time with their children than mothers in the capital.

In the small city 73.8% of mothers reported not wishing to have more children, while in the capital 63.3% of mothers made the same assertion. Through the statistical analysis was found the desire of mothers in both contexts did not differ significantly. Other variables were similar in both contexts. When analyzing the material conditions in childhood we see that both groups of respondents deemed adequate conditions in their childhood. The reported existence of conflict with a parent or caregiver in the infancy was also similar in both contexts, with means between 1 and 2, which indicate a very low level of conflict between the participants and their mothers. The same tendency was found in relation to the existence of conflicts with the father or another male caregiver. In the case of parental divorce during the respondent's childhood, there was no significant difference between the contexts. Furthermore, no significant differences were found between the two contexts about the attitude of the mother, stepmother, or another female caregiver towards the respondent, as well as the quality of relationship between the spouses, the existence of conflicts with husband/partner, and the current quality of family life.

Therefore, mothers in both contexts are similar regarding their childhood and living conditions during growth and current life, showing exceptions in few aspects, such as father's attitude to the respondent in infancy, number of siblings, and time dedicated to their own children.

### Beliefs about maternal care practices and socialization goals

In relation to practices and their valuation by mothers we considered two dimensions of care: primary care and stimulation. In the first dimension, as it can be seen in Table 1, no significant differences between capital and small city were found. Furthermore, regarding stimulation practices there was a significant difference in the direction of the hypothesis: in the capital, mothers reported significantly more valuation and adoption of stimulation practices with their children.

Concerning practices and their valuation during the child's first year of life, it has been also analyzed two kinds of practices: autonomous and relational. There was no significant difference between the contexts in regards to autonomous practices. On the other hand, when considering relational practices, we can see a significant difference: in the small city there was a greater appreciation of relational practices compared to the valuation of these practices in the capital. With regard to socialization goals, it has been found a significant difference. Autonomous goals were significantly more valued by mothers in the capital, while relational goals had a greater appreciation in the small city.

Table 1

*Means, standard deviations and statistical results about maternal practices, importance attributed to practices and socialization.*

Subscales	Context		Statistical Test <i>t</i> (110)
	Capital Mean ( $\pm$ SD)	Small city Mean ( $\pm$ SD)	
<b>Practices Performed by Mother</b>			
Primary care	4.6 ( $\pm$ 0.33)	4.48 ( $\pm$ 0.44)	1.46
Stimulation	4.1 ( $\pm$ 0.67)	3.66 ( $\pm$ 0.72)	3.77**
	<i>t</i> (48) = 5.02**	<i>t</i> (60) = 7.86**	
<b>Importance Attributed to Practice</b>			
Primary care	4.52 ( $\pm$ 0.30)	4.53 ( $\pm$ 0.41)	0.16
Stimulation	4.43 ( $\pm$ 0.36)	4.17 ( $\pm$ 0.47)	3.16**
	<i>t</i> (48) = 1.45	<i>t</i> (60) = 6.24**	
<b>Practices in the first year of life</b>			
Autonomous	3.37 ( $\pm$ 0.76)	3.28 ( $\pm$ 0.69)	0.61
Relational	3.15 ( $\pm$ 0.79)	3.71 ( $\pm$ 0.65)	4.14**
	<i>t</i> (48) = 1.63	<i>t</i> (60) = 3.47**	
<b>Socialization goals</b>			
Autonomous	3.56 ( $\pm$ 0.65)	3.30 ( $\pm$ 0.69)	1.99*
Relational	3.31 ( $\pm$ 0.75)	3.57 ( $\pm$ 0.58)	2.04*
	<i>t</i> (48) = 2.72**	<i>t</i> (60) = 3.62**	

\*  $p < 0.05$ ; \*\*  $p < 0.01$ .

Although there were some differences in cultural models of independence and interdependence on childrearing related to contexts in which the mothers live, it has been noted that means were approximately 3, indicating an average valuation of both relational and autonomous practices and goals.

#### Social support and degree of proximity with other family members

There were no significant differences between the two contexts in Emotional/Information Support, Affective/positive social interaction Support and Total Support. In contrast, mothers living in the capital reported receiving significantly less material support than mothers living in the small city [ $t$  (81) = 3.46,  $p < 0.01$ ]. The means related to the scale assessing the proximity to other family members (allocentrism) also showed significant differences between the two contexts [ $t$  (110) = 3.76,  $p < 0.01$ ], indicating a greater emphasis on proximity to their families from respondents in the small city. This is a value associated to more collectivist contexts.

#### Discussion and Conclusion

This study aimed to compare sociodemographic characteristics, psychosocial characteristics and mater-

nal beliefs of mothers living in contexts with different level of HDI. Our assumption was that HDI could be used as a discriminating variable for cultural models of independence and interdependence, although we consider these dimensions to be poles in a continuum, instead of discrete opposite positions. Thus, we expected sociodemographic characteristics, psychosocial and maternal beliefs characteristic of models related to independence and interdependence to coexist in both contexts, as pointed out in other studies (Keller, 2002). We also expected to find differences between the contexts, such as the context with higher HDI to be situated in the independence pole, while the context with lower HDI to be closer to the interdependence pole.

Based on the results obtained in this study, we can affirm that, regarding beliefs related to childrearing, the autonomous-relational model predominated in both samples. This result can be deduced from the answers given by mothers in the scales that assess beliefs about parental care practices and development goals, since the means were in intermediate levels. However, we found specific features that differentiate mothers' responses as a function of socioeconomic conditions indicated by the HDI. In other words, mothers in the capital (with higher HDI) value more independence; in contrast, mothers in the small city (with lower HDI) value more interdependence.

Hence, it is clear that the environment influences in some ways mothers' practices and ways of thinking about their children. In this way, it is important to specify the conditions in the two different contexts considered in this study. The demographic contrast between the two samples conducted in this study showed some significant differences, particularly regarding the level of education, the number of children and, consequently, persons cohabiting in the home. However, it is necessary to stress that these samples do not accurately reflect the reality of each context, since participants were conveniently, rather than randomly recruited. The introduced bias probably reduced the existing differences, once the actual differences (as measured by the official census) can be even greater than the ones represented by the samples in this study, something that should be considered when interpreting the data.

Economic variables, such as family income, are also in accordance to the differences between the models. The ways of living in the capital context, which is highly urbanized and industrialized, seems to require the inclusion of mothers in the labor market as the primary mode of survival and, consequently, requiring from these same mothers a higher level of education, which leads to greater income and their inclusion in higher social classes. These facts help to understand the higher age of mothers in the capital. In this context mothers spend more time studying and/or working for extra income, and end up having children later. In the small city, however, the proportion of mothers without paid employment is high and educational level is low, which implies that mothers do not have necessarily a long period of study or a job, becoming this way more available to the child.

Moreover, in both contexts we noted similarities with respect to some sociodemographic characteristics. For example, families in general remain organized in a nuclear configuration. Considering the changes in family structures and the life in large cities, we could expect these results to be different in the capital context, compared to the small city. The latter, characterized by more traditional family arrangements, would supposedly present a higher percentage of nuclear families. The numbers found, however, were not much different, and in both contexts there is greater prevalence of nuclear structures. The prevalence of nuclear families, even in big cities, was reported by Aizpurúa, Jablonski and Feres-Carneiro (2007), analyzing the family changes in Brazil and Argentine. However, the authors emphasized that despite of the prevalence, the main change in recent days to show the reduction of this family configuration and the emergence of new types of family. The results of this present study are compatible with this change, since they point to the predominance of nuclear family

in both contexts, but also a significant number of single parents and extended families. Another similarity noted was mothers' marital status. It could be expected that in the small city, because of its traditional family structure, there were greater number married mothers or mother in stable relationships, unlike mothers in the capital. Results, however, showed that in both contexts there is a predominance of women in stable relationships or married.

Regarding psychosocial conditions, we have noted many similarities between the compared contexts. Even with a low income and less abundant material conditions, mothers living in the small city judged their material conditions in infancy as good enough. It is likely that assessments of living conditions are marked by subjective bias, that is, that mothers reported on how they perceive the environment they lived as children without necessarily making an objective assessment of the material resources available at the time. Data obtained in the survey seems to indicate that there is no direct relationship between the availability of economic resources and positive experience in terms of subjectivity (the subjective experience in this context).

Still on the psychosocial aspects of mothers' childhood and current life, we have noted significant differences between the contexts. For example, respondents in the capital have fewer siblings than participants in the small city. This result may indicate the specificities of each context in relation to care practices and investment in children. According to the model of Kagitçibasi (1996, 2005), high fertility is characteristic of interdependent traditional families, since each member has also economic value/utility for the family support. This does not occur in families from the individualism model, in which personal goals for each family member tend to be more important than the group as a whole. It is expected that in families based on the independent model the responsibility for the livelihoods and the household is more focused on parents. This would explain another difference between the capital and the small city: mothers in the first context spend less time with their children. In addition, some features in the capital context require from mothers an early return to their jobs after giving birth. For example, the lack of a broader network of support, such as relatives, friends or other people who help the family minimize the costs of caring for their children (for example, daycare services or baby-sitters).

Finally, we have noted a unique difference between mothers and their caregivers in childhood. Mothers in the capital reported their fathers or caregivers to be more affectionate than mothers in the small city. Given the modern conditions of family structure that takes less traditional shapes in larger urban centers, the role

of the father as equally responsible for childrearing, and not only as a provider, can explain why mothers in the capital report greater emotional connection to their fathers, when compared to mothers in the small city, where traditionally fathers work and mothers stay home. In "Ideal father and real father," Goetz and Vieira (2009) highlight historical changes that occurred in the father's role in Brazil. According to the authors, the father's role has been widened, overcoming traditional views on family provider.

Regarding maternal beliefs, the results are in line with most of the hypotheses and largely confirm the theoretical models assumed in this study (Kagitçbasi, 1996, 2005; Keller, 2007), as well as results found in other studies conducted in Brazilian contexts (Bandeira et al., 2009; Martins et al. 2009; Seidl-de-Moura et al., 2008, Vieira, Seidl-de-Moura, Macarini, et al., 2010, Westphal et al., 2010). In the capital, stimulation practices and socialization goals related to autonomy were more valued than in the small city. On the other hand, mothers living in the small city value more relational dimension, both to practices and socialization goals. Stimulation, which in this case practices of bodily manipulation and with objects besides face-to-face interaction, has been related to the development of children's individuality or, in accordance to Keller (2002). This set of practices, mainly stimulation by objects and face-to-face interaction, have been observed in mothers who generally live in highly urbanized and educated contexts, and who value the autonomous goals of socialization (Keller, 2007).

Thus, it is possible to affirm that today, in the Western capitalist world most parental investment has been focused on the development of children's socio-cognitive abilities, which would lead to self-improvement, educational achievements and valued careers. Moreover, this study demonstrates that in less urbanized settings such as small cities, where the mothers' educational level is still lower, there is a strong appreciation of relational practices such as body contact, emotional warmth, and contingent response to children's negative signals (such as crying). These practices, in turn, would be linked, according to Keller (2002) to the development of security (self insurance) and relatedness (social self), skills that enable children to enter their social group and to share the common goals.

Results concerning the allocentrism dimension are congruent with the differences between maternal beliefs, since they indicate that mothers living in the small city perceive themselves as closer to their family of origin than mothers in the capital. Thus, the degree of allocentrism indirectly shows how much the contexts value either individualistic or group goals. Perhaps the stronger connection between mothers and their family of origin in the small city also explains their higher

average in the dimension of material support, which implies the presence of people to help in practical daily activities, such as preparing meals, taking care of kids, etc.

In conclusion, data from this study support the view of Kagitçbasi (1996, 2005) and Keller (2007) on the existence of family types, beliefs and practices related to rearing children congruent with an intermediate model of self (autonomous-relational self), with simultaneous valorization of autonomy and personal closeness. At the same time, the results confirm the relationship between these models and the surrounding socioeconomic conditions, once the interdependent models are more prevalent in environment with scarce resources and where the ways for survival require less education.

Some limitations in this study, however, can be overcome in future researches, which will require a more detailed assessment of some aspects. First of all, it would be appropriate to provide more precise parameters for selecting the samples, taking into account the different variables that define the context, such as educational level and income of participants, access to education, information and cultural goods. The non random process of sampling in this study probably contributed to reduce the differences found between the two contexts.

We can also likely to find a deeper knowledge on childrearing if we have more refined tools for assessing life conditions of families, which could distinguish objectively measurable and comparable variables from those influenced by subjective bias. Subjective assessment of life conditions may be equally or more important than objective measurement, but their findings may lead to different conclusions, suggesting that the causal factors responsible for certain phenomena are conditions such as poverty or, alternatively, the way these conditions are evaluated.

It is also suggested that further research investigates more subtle and subjective aspects in the dimensions of independence and interdependence in childrearing, through qualitative research designs that allow capturing the meanings assigned to each dimension in different contexts. This would help in the understanding, despite the coexistence of the two dimensions in each context, on how people living in each context conceive these dimensions. Other prolific alternative in futures studies about childrearing is to associate verbal data with direct observation, in according suggestion mentioned by Bolsoni-Silva and Marturano, (2007).

## References

- Aizpurúa, R.I., Jablonski, B., Féres-Carneiro, T. (2007). Familias Brasileras y Argentinas: entre la tradición y la modernidad [Brazilian and Argentine families: between the tradition and the modernity]. *Interamerican Journal of Psychology*, 41(2), 189-196.

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- Bandeira, T.T.A., Moura, M. L. S., Vieira, M. L. (2009). Metas de socialização de pais e mães para seus filhos [Mothers' and father's socialization goals for their children]. *Revista Brasileira de Crescimento e Desenvolvimento Humano*, 19, 445-456.
- Bolsoni-Silva, A.T., Marturano, E.M. (2007). A qualidade da interação positiva e da consistência parental na sua relação com problemas de comportamentos de pré-escolares [The quality of positive interaction and parental consistency as related to behavior problems in preschoolers]. *Interamerican Journal of Psychology*, 41(3): 349-358.
- Geary, D. C., Flinn, M. V. (2001). Evolution of human parental behavior and human family. *Parenting: Science and Practice*, 1(1/2), 5-61.
- Goetz, E.R., Vieira, M.L. (2009). Pai real, pai ideal [Real father, ideal father]. Curitiba: Juruá, 104 p.
- Griep, R. H., Chor, D., Faerstein, E., Werneck, G. L., Lopes, C. S. (2005). Validade do constructo de escala de apoio social do Medical Outcomes Study adaptada para o português no Estudo Pró-Saúde [Construct validity of the Medical Outcomes Study's social support scale adapted to Portuguese in the Pró-Saúde Study]. *Cadernos de Saúde Pública*, 21(3), 703-714.
- Hrdy, S. (2001). *Mãe Natureza: uma visão feminina da evolução: maternidade, filhos e seleção natural* [Mother nature: A history of mothers infants, and natural selection]. Traduction: Álvaro Cabral. Rio de Janeiro, RJ: Campus. Original published in 1999.
- Harkness, S., Super, C. M. (1986). The Developmental Niche: A Conceptualization at the interface of child and culture. *International Journal of Behavioral Development*, 9; 545-569.
- Kagitçibasi, C. (1996) The autonomous-relational self: a new synthesis. *European Psychologist*, 1(3),180-186.
- Kagitçibasi, C. (2005). Autonomy and relatedness in cultural context: Implications for self and family. *Journal of Cross-Cultural Psychology*, 36(4), 403-422.
- Kärtner, J., Keller, H., Lamm, B., Abels, M., Yovsi, R. D., Chaudhary, N. (2007). Manifestations of autonomy and relatedness in mothers' accounts of their ethnotheories regarding child care across five cultural communities. *Journal of Cross-Cultural Psychology*, 38, 613-628.
- Keller, H. (2002). Development as the interface between biology and culture: A conceptualization of early ontogenetic experiences. In: H. Keller, Y. H. Poortinga, & A. Schöölmerich. *Between culture and biology: Perspectives on ontogenetic development* (pp. 215-235). Cambridge: Cambridge Press University.
- Keller, H. (2007). *Cultures of infancy*. Mahwah: Lawrence Erlbaum Associates.
- Keller, H., Abels, M., Borke, J., Lamm, B., Lo, W., Su, Y., et al. (2007). Socialization environments of Chinese and Euro-American middle-class babies: Parenting behaviors, verbal discourses and ethnotheories. *International Journal of Behavioral Development*, 31 (3), 210-217.
- Keller, H., Demuth, C., Yovsi, R. D. (2008). The multi-voicedness of independence and interdependence: The case of the cameroonians Nso. *Culture & Psychology*, 14, 115-144.
- Keller, H., Lamm, B., Abels, M., Yovsi, R., Borke, J., Jensen, H., et al. (2006). Cultural models, socialization goals and parenting ethnotheories: A multi cultural analysis. *Journal of Cross-Cultural Psychology*, 37(2), 155-172.
- Lay, C., Fairlie, P., Jackson, S., Ricci, T., Eisenberg, J., Sato, T., et al. (1998). Domain-specific allocentrism-idiocentrism: A measure of family connectedness. *Journal of Cross-Cultural Psychology*, 29, 434-460.
- Macarini, S. M., Martins, G. D. F., Sachetti, V.A.R.; Vieira, M. L. (2010). Etnoteorias parentais: um estudo com mães residentes no interior e na capital de Santa Catarina [Parental ethnotheories: a study with mothers living in the capital and countryside of Santa Catarina state]. *Psicologia: Reflexão e Crítica*, 23, 37-45.
- Martins, G. D. F., Macarini, S. M., Sachetti, V.A.R., Vieira, M. L., Seidl-de-Moura, M.L. (2009). Cuidado parental e apoio social em mães residentes na capital e interior de Santa Catarina [Childrearing practices and social support between mothers living in the capital and countryside of Santa Catarina]. *Interação* (Curitiba), 13, 25-35.
- Piccinini, C.A., Tudge, J., Marin, A. H., Frizzo, G.B., Lopes, R. C.S. (2010): The impact of socio-demographic variables, social support and child sex on mother-infant and father-infant interaction *Interamerican Journal of Psychology*, 44(2), 382-391.
- PNUD (United Nations Development Programme). Human Development and HDI. Retrieved in 07/13/2010 at <http://www.pnud.org.br/idh>.
- Sachetti, V. A. (2007). Um estudo das crenças maternas sobre cuidados com crianças em dois contextos culturais do estado de Santa Catarina [A study of maternal beliefs on care of children in two cultural contexts in Santa Catarina state]. *PhD thesis*, Graduate Program of Psychology, Universidade Federal de Santa Catarina.
- Seidl-de-Moura, M.L., Bandeira, T.T. A., Campos, K. N., Cruz, E. M., Amaral, G. S., De Marca, R. G. (2009). Parenting cultural models of a group of mothers from Rio de Janeiro, Brazil. *The Spanish Journal of Psychology*, 12, 506-517.
- Seidl-de-Moura, M.L., Lordelo, E. R., Vieira, M. L., Piccinini, C. A., Siqueira, J. O., Magalhaes, C.M.C. et al. (2008). Brazilian mothers socialization goals. Intracultural differences in seven Brazilian cities. *International Journal of Behavioral Development*, 32, 480-487.
- Seidl-de-Moura, M.L., Oliva, A. D., Vieira, M. L. (2009). Human development in a evolutionary perspective. *Avances en Psicología Latinoamericana*, 27, 252-262.
- Vieira, M. L., Seidl-de-Moura, M.L., Macarini, S.M., Martins, G.D.F., Lordelo, E.R., Tokumaru, R.S., et al. (2010). Autonomy and interdependence: Beliefs of Brazilian mothers from state capitals and small towns. *The Spanish Journal of Psychology*, 13, 816-824.
- Vieira, M. L., Seidl-de-Moura, M.L., Lordelo, E. R., Piccinini, C. A., Martins, G. D. F., Macarini, S. M., et al. (2010). Mother's beliefs about childrearing practices in seven Brazilian cities. *Journal of Cross-Cultural Psychology*, 41, 195-211.
- Westphal, J. P., Vieira, V., Vieira, M. L. (2010). O que mães pensam sobre seus filhos em três regiões distintas do estado de Santa Catarina [What mothers think on their children in three distinct regions in Santa Catarina State]. *Psicologia Argumento*, 28, 235-246.

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