

## Autonomy and Interdependence: Beliefs of Brazilian Mothers from State Capitals and Small Towns

Mauro Luis Vieira<sup>1</sup>, Maria Lucia Seidl-de-Moura<sup>2</sup>, Samira Mafioletti  
Macarini<sup>1</sup>, Gabriela Dal Forno Martins<sup>1</sup>, Eulina da Rocha Lordelo<sup>3</sup>,  
Rosana Suemi Tokumaru<sup>4</sup>, and Ângela Donato Oliva<sup>2</sup>

<sup>1</sup>Universidade Federal de Santa Catarina (Brazil)

<sup>2</sup>Universidade do Estado do Rio de Janeiro (Brazil)

<sup>3</sup>Universidade Federal da Bahia (Brazil)

<sup>4</sup>Universidade Federal do Espírito Santo (Brazil)

This study aimed to investigate characteristics of Brazilian mothers' beliefs system, in the dimensions of autonomy and interdependence. A group of 600 women, half from state capitals and half from small towns, participated in the study. They were individually interviewed with Scales of Allocentrism, Beliefs about Parental Practices and Socialization Goals. Paired and Independent samples t tests and Multivariate GLM were performed. The results indicate that although mothers from both contexts value autonomy, mothers inhabiting small towns considered the relational dimension as the most important; whereas mothers inhabiting capitals valued equally both dimensions, either in their beliefs about practices or in the socialization goals for their children. Mothers from small towns have a higher mean score for allocentrism than mothers living in capitals. Thus, place of residence proved to be a relevant variable in the modulation of maternal beliefs. Educational level was not a significant factor in the variables considered and with this group of mothers. The study results are discussed in terms of their contribution to the understanding of the complex relationship between dimensions of autonomy and interdependence in mothers' beliefs system.

*Keywords:* autonomy, interdependence, parents' belief system, socialization goals.

El propósito de esta investigación fue investigar las características del sistema de creencias de las madres brasileñas en las dimensiones de autonomía e interdependencia. Participaron en el estudio un grupo de 600 mujeres, la mitad proveniente de la capital y la otra mitad de pequeñas ciudades. Las mujeres fueron individualmente evaluadas en una Escala de Alocentrismo, creencias acerca de prácticas parentales y metas de socialización. Los datos se analizaron en función de pruebas t emparejadas e independientes, y análisis multivariado MLG. Los resultados mostraron que aunque las madres de ambos contextos valoraban la autonomía, las madres de ciudades más pequeñas consideraron más importante la dimensión relacional; mientras que las madres provenientes de capitales valoraban por igual las dimensiones relativas a su sistema de creencias parentales y las metas de socialización. Por otra parte, las madres de ciudades más pequeñas obtuvieron mayores puntuaciones en alocentrismo que las madres de las capitales. Asimismo, el lugar de residencia se consideró como un factor relevante en la modulación del sistema de creencias maternas. El nivel educativo no fue un factor significativo en las variables evaluadas ni con la muestra utilizada. En general, los resultados del estudio se discuten en términos de su contribución para la comprensión de las complejas relaciones entre las dimensiones de autonomía e interdependencia en el sistema de creencias de las madres.

*Palabras clave:* autonomía, interdependencia, sistema de creencias parentales, metas de socialización.

---

The authors are thankful to their colleagues and students who participated in many ways in the development of this project, and to the participants. The research was funded by The Brazilian National Research Council (CNPq).

Correspondence concerning this article should be addressed to Mauro Luis Vieira, Departamento de Psicologia, Universidade Federal de Santa Catarina, Campus Universitário, Trindade. 88040-900 Florianópolis, SC. (Brazil). Phone: +55-4837218606. Fax: +554837219984. E-mail: maurolvieira@gmail.com

Brazil is the largest South American country, with a population of more than 184 millions inhabitants. The country was colonized by Portugal (and not by Spain like most of Latin American countries), and received several groups of immigrants from Europe and Asia, as well as slaves from Africa, developing a diversified and plural society (Ribeiro, 1997; Torres & Dessen, 2006). The country has diverse geographic regions in relation to social, economic and cultural aspects. Campos and Gomes (1996) have argued that although these differences are present, there has been a trajectory toward the predominance of an urban symbolic system, leading to some homogeneity in cultural models regarding parenting in Brazil. Studies have been conducted to test this hypothesis and will be described below. In addition to the specific interest in understanding the characteristics of Brazilian children's developmental context, we believe that studies with Brazilian parents can contribute to the literature in the nature of parental belief systems.

In order to understand child development, it is necessary to consider the family environment in which she/he is raised, including parental practices of care and belief systems. These belief systems translate in part the environment in which the child lives (Goodnow, 1996) and can be considered as "motivational forces for action" (Keller, Demuth & Yovsi, 2008). Keller et al. (2008) point out that beliefs change slower than practices and that it is necessary to study them to understand parental behaviors and practices. Culturally, parental beliefs have been conceptualized as organized in *systems* or *ethnotheories*. They are characterized as organized sets of ideas, implicit in daily routines, judgments, choices and decisions, functioning as models for practices of care and socialization. Beliefs are intimately related to the physical environment in which the child lives; they are historically constructed and related to shared customs and practices. All these aspects constitute the *Developmental Niche* in which the child develops (Harkness & Super, 1996).

Belief systems are also part of broader cultural models. Two cultural models of self have been identified and studied according to their impact on the processes of child's development and socialization: autonomous or independent and interdependent. According to Keller (2007), the priorities in the construction of self in contexts in which autonomy and independence are valued are related to personal goals, focusing on individual needs and rights, and qualities such as self-control and ability to compete (Keller, Borke, Yovsi, Lohaus & Jensen, 2005; Keller, Borke, Jensen & Papaligoura, 2004). This model emphasizes the dimensions of autonomy and separation, characteristic of post-industrial urban societies with high educational levels (Kagitçibasi, 1996; 2005; 2007).

In the second model, interdependence, the self is conceptualized as fundamentally connected to the social group to which the individual belongs, generally the family. Priorities are the group goals and the focus is on social roles, duties and obligations. The individual is defined

as part of the social system, respecting its hierarchy, and aiming at harmonious relationships within it (Keller et al., 2004; Keller et al., 2005). The dimensions of heteronomy and relation are predominant in this model, which is most frequently observed in rural environments based on subsistence economies (Kagitçibasi, 1996; 2005; 2007).

Kagitçibasi (1996; 2005; 2007) has made an important contribution to the discussion of these two models, proposing a new model that includes an emphasis on both autonomy and relational aspects. In this model, the self is defined as autonomous in terms of agency, and relational in regards to interpersonal proximity. Evidences of this model have been identified in middle-class families, with high educational level and living in urban environments in societies with a cultural tradition of valuing interdependence (Keller et al., 2004; Keller et al., 2005).

Although there is a consensus that groups from some cultural contexts can be described in relation to these models, there is an ongoing fruitful debate regarding the nature, structure and relationships between the two dimensions of autonomy and interdependence of the self. The dichotomy autonomy-interdependence, generalized from the ideas of individualism and collectivism at the society level, has been questioned (Kagitçibasi, 2005; 2007; Keller et al., 2008). The tendency is to acknowledge the coexistence of the two dimensions with different emphasis on each of them, as proposed by Kagitçibasi (2007), who emphasizes the existence of different degrees of interpersonal proximity between self and others. Along the same lines, Keller et al. (2008) also consider the coexistence of both cultural and individual levels.

Brazilian investigations have found results in this direction. In relation to the goals that mothers have for their children, Seidl-de-Moura et al. (2008), in a study with a group of 350 mothers from the five geographic regions of the country, found that the group valued equally aspects related to autonomy and interdependence, favoring the development of an autonomous-relational self. Using the Socialization Goals Interview (SGI), adapted from Harwood (1992), mothers' answers were coded in five categories: Self-maximization, Self-control, Lovingness, Proper demeanor, and Decency, which reveal orientations towards both independency and interdependence. Comparisons among the means showed that Brazilian mothers placed more emphasis on self-maximization and proper demeanor than on the other categories, reflecting a pattern that fosters the development of children's autonomous-relational selves. Effects of city size (number of inhabitants) and educational level were observed. Mothers from larger cities and with highest educational levels value more autonomy than interdependence. Furthermore, intracultural variation was found in mothers' socialization goals from different cities in value balance of both dimensions, and the three different cultural models described in the literature were identified.

Vieira et al. (2010) focused on dimensions of beliefs about practices in the same group of 350 mothers, using an adapted version of Suizzo's inventory (Suizzo, 2002). Results indicated three dimensions of beliefs about practices: Stimulation (S), Proper presentation (PP) of the child, and Responsivity (R). Results also indicated that the group studied valued most PP, which refers to practices oriented by daily norms socially accepted, and S, related to practices aiming at the stimulation of children's development. Less importance was attributed to Responsivity – practices involving prompt responses to children's needs and to bonds of proximity and protection. Mothers' educational level predicted Stimulation scores. Although these two dimensions do not directly focus on models of autonomy and interdependence, we can hypothesize a relationship: that stimulation is characteristic of valuing an autonomous self, while PP, based on socially accepted norms and rules, speaks to a concern with the relationship of interdependence with group.

Based on a more restricted group of participants, Seidl-de-Moura et al. (2009) described aspects of parenting cultural models of a group of 200 primiparous Brazilian mothers from Rio de Janeiro, who had children less than 44 months-old. Mothers answered the Socialization Goals Interview (SGI), and an adapted version of an inventory of beliefs about practices of care, developed by Suizzo (2002). Data was analyzed in terms of categories of the SGI, scores on the inventory of practices, subcategories of Self Maximization (Feeling good about oneself; Personal and economic potentials; Psychological independence), and Decency (Avoidance of illicit behavior; Personal integrity and religious values). Confirming the tendency observed in the study with samples from all Brazilian regions, results showed that mothers from Rio de Janeiro share a cultural model of autonomy for their children, but that they also believe in the importance of their relationship to others. This model also includes a concern about the stimulation of the children's potential in several areas, as well as the way children are presented to others and behave in public. This model of autonomy has specific characteristics and is different, in some aspects, from the one observed in other cultures, such as German mothers in the study of Citlak, Leyendecker, Schölmerich, Driessen and Harwood (2008), who place more value on Self-control. In general, this group of mothers from Rio de Janeiro wants success for their children, especially economic and career-wise, but they do not want their children to succeed at any price, as it can be attested by their answers in the subcategories of Decency. The highest mean observed was in Personal integrity and religious values, which relates to basic societal standards, such as being hardworking and honest. This complements a pattern: mothers want their children to achieve success and realize their potential, but through hard work and with honesty. Another important aspect is the effect of mothers' educational level on the set of beliefs about autonomy.

Mothers with the highest levels of education attributed most importance to "self well-being" and those with less than high school education valued most the "development of the child's personal and economic potential".

Other investigations with groups of Brazilian mothers have presented results that suggest the presence of different patterns of parental belief systems in the country and the influence of the samples' socio-economic characteristics. (i.e. Lordelo, Fonseca & Araujo, 2000; Piovanotti, 2007; Ruela, 2006; Seidl-de-Moura et al., 2004). The importance of mothers' educational level to their beliefs about child rearing has been observed, confirming evidences in the literature (Goodnow, 1988; Keller et al., 2006; Miller, Manhal & Mee, 1991; Ribas, Seidl de Moura & Bornstein, 2003; Seidl-de-Moura et al., 2004; Suizzo, 2002).

Most of the Brazilian investigations were conducted with mothers who lived in cities. Two studies with mothers from Brazilian rural communities offer evidence of a predominance of an interdependence model in these contexts. One of them (Ruela, 2006) involved a group of women and their mothers from a rural community in the state of Rio de Janeiro, who answered an inventory on beliefs about practices. Echoing the results found in Vieira et al. (2010), the most valued dimension was "proper presentation of the baby in public". Ruela and Seidl-de-Moura (2007), in a study in the same community of 500 inhabitants, aiming to describe children's developmental niche, observed that children's care is shared by the mother with the extended family and other neighborhood members. Another investigation in another rural community, in the interior of a southern state (Santa Catarina), showed similar results (Kobarg & Vieira, 2008). As discussed above, we hypothesize that this may be an indication of a valorization of interdependence over autonomy, but this hypothesis needs testing. Besides, these were exploratory studies of one community, and a larger sample from non-urban contexts has not been tested. Studies in this direction have been conducted in other countries (i.e. Keller et al., 2004; Keller et al., 2005), indicating differences in cultural models between the two contexts (urban and rural).

The present study had the purpose to contribute to the literature on cultural models in parental beliefs systems, and to identify the dynamics of the dimensions of autonomy and interdependence in these models. It also aimed to bring evidence to the existing corpus of data on Brazilian mothers' beliefs about parenting. The studies conducted so far in the country have been important to understand the characteristics of the "developmental niche" of Brazilian young children, but some aspects of them should be considered. First of all, the context studied. Both Seidl-de-Moura et al. (2008) and Vieira et al. (2010) worked with participants from different regions of the country, contemplating in some way its diversity. However, all of the participants live in cities that are capitals from the country's states. If we want to consider the different modulation of autonomy

and interdependence in mothers' beliefs, it is necessary to include participants from contexts with different degrees of urbanization distributed nationwide, broadening the focus of the few studies conducted in rural communities (Korbarg & Vieira, 2008; Ruela, 2006; Ruela & Seidl-de-Moura, 2007). A second consideration is related to the instruments. The results of Seidl-de-Moura et al. (2008) were obtained with an interview with an open-ended question. Although this is a valid way to access mother's beliefs, we believe it is necessary to confirm the study's findings with a set of different instruments in the present investigation.

To collect the data, we adopted instruments previously used by Keller et al. (2006), in order not only to confirm the results found in Brazilian studies in state capitals samples, but also to compare the results in state capitals and small towns groups, and the results in other cultures. One last aspect was also considered in this investigation. Brazil still hosts a great degree of inequality. The country has high human development (longevity, knowledge and life quality), ranking in 70th place (out of 177 countries), with an HDI (Human Development Index) of .80 (according to the 2005 "Human Development Report", published in 2007). However, the country has a GINI index of .57, indicating high income concentration. Thus, we have to take into account that the access to material and cultural goods are not equally available to the country's population, especially in large urban centers.

Data from socio-demographic research shows that in Brazil, between the years of 1991 and 2000 there had been an increase in 17.2% in the population older than 25 years-old with university education (undergraduate or graduate level) (IBGE, 2000), whereas from 1940 and 2000 there was an increase of 45% in the population who could read and write (IBGE, 2007). The increase in educational levels is a factor that may exert a great influence in organizing people's daily activities and beliefs. This factor is also considered to have an effect on the way parents raise and educate their children (Biasoli-Alves, 2002). Seidl-de-Moura et al. (2008) have demonstrated the effect of city size, all state capitals in the study, in socialization goals. Mothers from the largest centers tend to value more autonomy than interdependence. Mothers' educational level is also a significant factor affecting their belief systems, as demonstrated in several studies previously cited. Their results indicated that mothers with high educational level tend to value more autonomy than mothers with low educational level. We will also consider this variable, in addition to the average income of the family, to test its influence in the models identified.

This investigation focused on mothers' beliefs about practices of child care in the first years of their children's lives, and their socialization goals. The degree of relationship of these mothers with their family of origin will also be assessed with an Allocentrism Scale, a measure that helped in the characterization of the participants' cultural models of self and the dimensions of their belief systems.

We hypothesized differences between state capitals and small towns groups: a tendency of mothers inhabiting state capitals to value autonomy over interdependence and to have lower scores in allocentrism than mothers inhabiting small towns. Finally, we hypothesized the effect of educational level and income in the two dimensions. Our hypothesis is that mothers with the highest educational level and highest income level will have lower scores in allocentrism and will tend to value autonomy more than interdependence in comparison to mothers with lower educational levels.

Thus, we consider that this study can bring a contribution to the literature, with a sample from different regions of a large country such as Brazil, and comparing two contexts. It can add to the Brazilian literature in the construction of an integrative model of parental systems. It has also social relevance because its data can support the understating of aspects of the developmental niche of Brazilian children in different contexts. The results and discussions can be useful to health and education professionals and parents; they can also subsidize public policies of intervention focusing on early development and parent-children relationships.

## Method

The group of participants included 606 women older than 20 years, who had at least a child less than six years-old, each half distributed by kind of contexts and state of residence. They were from six Brazilian states: Pará, Bahia, Espírito Santo, Rio de Janeiro, São Paulo and Santa Catarina. Participants were from two different contexts within each state: (a) state capitals – state capitals were chosen because of their economic and political relevance, the population diversity, and the variety of services available there. Women from the cities of Belém, Salvador, Vitória, Rio de Janeiro, São Paulo and Florianópolis were selected; (b) small towns – villages or small cities in each state with populations of less than 24,000 inhabitants. Table 1 includes socio-demographic data about the participants.

## *Instruments*

This study was part of a larger one aiming to investigate personal, ecological and cultural variables associated to patterns of maternal investment in Brazilian mothers. Based on the literature, a questionnaire was composed, including items from different scales, aiming to collect data on socio-demographic information, family history, social support, practices of child care, beliefs about practices, socialization goals and allocentrism. It included closed questions and Likert scales. The scales used in this investigation were translated by members of each city in the research group, submitted to the usual procedure of back-translation and their items were adapted to contemplate regional differences among participants.

Table 1

*Socio-demographic characteristics of the mothers in the two contexts (State capitals and small cities)*

Socio-demographic characteristics	State capitals Mean (SD)	Small towns Mean (SD)
Mothers' age	30.53 (6.59)	28.19 (6.03)
Years of schooling	12.64 (4.34)	8.9 (3.9)
Number of people living in the home	4.22 (1.58)	4.36 (1.53)
Number of rooms in the home	7.06 (2.93)	6.36 (2.63)
Number of room/people	1.84 (.88)	1.61 (.82)
Number of children	1.70 (.99)	1.85 (1.00)
Percentage of people living in urban areas	98.4 (2.41)	60.1 (23.00)

**Socialization Goals Scale** – adapted from Keller et al. (2006). It consists of a list of ten assertives that indicate opinions about goals parents have for their children's future during their first three years of life. In the original instrument (Keller et al., 2006), through the Principal Components Analysis, two dimensions were produced: autonomy (with five items) and relational goals (five items). An example of the first dimension is “to develop competitiveness” and of the relational dimension is “to learn to obey elderly persons”. Keller and colleagues report good Cronbach's Alphas ( $\alpha$ ) for both dimensions (autonomy = .93, and relational = .88).

**Beliefs about Parental Practices Scale** - adapted from Keller et al. (2006). It consists of a list of ten assertives that indicate mothers' opinions about the proper way to care for children during the first three years of age. The scale comprises two dimensions: relational practices (with five items and  $\alpha = .86$ ) and autonomous practices (five items and  $\alpha = .78$ ). The first includes items that emphasize body contact and the immediate satisfaction of babies' needs. One example is “A baby should always be near his/her mother so she can respond immediately to his/her signals”. The second dimension includes items dealing with the promotion of early child self-regulation, object stimulation and face-to-face interaction with items such as “It's good for the baby to sleep alone”.

**The Family Allocentrism Scale** – composed of 21 affirmatives that investigate family cohesion. Two dimensions considered are allocentrism and ideocentrism. Those dimensions are related to a set of personal values, which allow the identification of the proximity with other family members. An example of the first dimension is “The opinions of my family are important to me” and of the second dimension is “There are many differences between me and other members of my family”. The scale presented good consistency indexes in Keller et al. (2006) study, with alphas ranging from .74 to .89 (the whole sample). The original scale from Lay et al. (1998) was translated to Portuguese, submitted to the usual procedure of back-translation and adapted to contemplate regional differences among participants.

#### *Data collection*

Data was collected as part of a larger study sponsored by CNPq, the Brazilian Research Council, with the cooperation of researchers from six Brazilian universities. The proposal was submitted and approved by the ethics committees in the researchers' universities. All participants were informed about the aims of the research and signed an informed consent when they agreed to participate. A data collection manual was elaborated to guarantee the consistency of procedures and the research teams were trained. Pilot applications were conducted and the instruments were adjusted to the characteristics of the groups in the several locations. Mothers were individually interviewed at their homes or in places suggested by them. The application of all scales followed the same procedure: after reading out each sentence to the mothers, the interviewer asked them to indicate in a five-point scale their degree of agreement (completely disagree (1) to completely agree (5) to each sentence.

#### *Data reduction and analysis*

Data was coded, consolidated in a general spread sheet and submitted to various verifications by different teams. Means and standard deviations of the groups (state capitals and small towns) were calculated for each scale. Paired samples t tests were conducted, comparing the importance attributed by mothers to relational and autonomous practices and socialization goals, using significance levels of  $p < .001$ . Scores of mothers in both contexts in practices (relational and autonomous), socialization goals (relational and autonomous), and allocentrism were also compared by Independent samples t tests, with  $p < .001$ . Considering that there were differences in mean age and educational level between groups, two Multivariate GLM were performed. The first used place of residence and educational level as factors, age of mother as co-variable, and the scores on allocentrism, relational practices and goals as dependent variables. The second used place of residence and educational level as factors, age of mother as co-variable, and scores on autonomous practices and

goals as dependent variables. Both analyses used a power level of .70 and Kimball's significance level of .017 (global significance level of .05) for the two main interest effects and the one interaction tested.

## Results

Mothers inhabiting state capitals had a mean age of 30.53 ( $SD = 6.59$ ). Most of them (83%) had only one child and at the time of data collection was married or lived in a stable union (75.6%). They had been raised primarily in urban contexts (87.3%). Mothers inhabiting small towns had a mean age of 28.19 ( $SD = 6.03$ ). Most of them (81.8%) had only one child, was married or lived in a stable union (84.4%) and was raised in rural areas (62.9%). An association between the present place of residence and the place where mothers were raised was observed  $\chi^2(2) = 161.55, p < .001$ . The difference between mothers' age in the two residence places was significant  $t(593) = 4.56, p < .001$ . Mothers from the two residence places also differed significantly in their distribution among the four educational levels (1- less than junior high school; 2 - less than high school; 3 - incomplete undergraduate level; 4 - undergraduate or graduate level of education) considered  $\chi^2(3) = 72.28, p < .001$ : mothers from state capitals were more represented in the higher educational levels (3 and 4) (71.3% x 46.9%).

The importance attributed to the dimensions of autonomy and interdependence in the scales of childrearing practices and socialization goals varied in the two places of residence, indicating a particular balance in each place and partially confirming the literature. As expected, in small towns mothers valued more relational practices ( $M = 3.61; SD = .76$ ) than those related to autonomy ( $M = 3.33; SD = .74$ ),  $t(306) = 4.38, p < .001$ . The same occurred in regards to socialization goals: mothers in small towns emphasized more relational goals ( $M = 3.78; SD = .67$ ) than autonomy ones ( $M = 3.49; SD = .81$ ),  $t(306) = 7.06, p < .001$ .

A different pattern was observed in state capitals. Both dimensions were valued equally and no significant difference was found in the importance attributed to

autonomy ( $M = 3.35; SD = .78$ ) and relational practices ( $M = 3.36; SD = .81$ ). In addition, there was no difference between autonomous ( $M = 3.64; SD = .79$ ) and relational goals ( $M = 3.53; SD = .82$ ).

Mothers in small cities had a significantly higher score in relational practices ( $M = 3.61; SD = .75$ ) than mothers in state capitals ( $M = 3.36; SD = .81$ ),  $t(604) = 3.8, p < .001$ . Regarding the valorization of relational aspects, the same kind of difference was observed. Means of mothers from small towns were higher ( $M = 3.78; SD = .67$ ) than means of mothers in state capitals ( $M = 3.53; SD = .82$ ),  $t(604) = 3.98, p < .001$ . The result that most informs the general pattern of belief systems of Brazilian mothers is that no difference between both practices and socialization goals scores was observed in the autonomy dimension. This means that both groups of mothers valued equally this dimension. However, mothers from small towns put more emphasis on the relational dimension, both to socialization goals and beliefs about practices, than mothers living in capitals centers. The comparison between the two groups of mothers in the Allocentrism scale, which indicate the valorization of family relations, resulted, as expected by the literature, in higher scores for mothers in small towns  $t(604) = 3.54; p < .001$ .

Table 2 presents the results of the first GLM model applied using residence place and educational level as factors, age of mother as co-variable, and scores in allocentrism, relational practices, and relational goals as dependent variables. Results indicated a significant effect from two factors (place of residence and mothers' educational level) but no interaction between them. Test of between subjects indicated that with this model educational level affects the scores in both relational practices and goals, but not in allocentrism. Mothers with higher educational levels had lower mean scores on relational practices and goals than mothers with lower educational levels. Results of the second GLM analysis, with the scores on practices and goals of autonomy, were not significant for both factors. Thus, the hypothesis of the effect of educational level in the dimension of autonomy was not confirmed in this study of Brazilian mothers with the set of instruments adopted.

Table 2

*Multivariate General Linear Model analysis of main effects of context and mothers' educational level on mothers' scores on Allocentrism, Relational Practices and Relational Goals and Mother's age as co-variable (Wilks' Lambda)*

Effect	Value	F	Hypothesis df	Error df	p	Noncent. Param.	Power <sup>a</sup>
Intercept	.271	534.11 <sup>b</sup>	3	595	<.00	1602.35	1.00
Mother' age	.994	1.21 <sup>b</sup>	3	595	.30	3.65	.32
Context	.974	5.38	3	595	.001	16.15	.93
Educational level (EL)	.920	5.63 <sup>b</sup>	9	1448.00	<.001	40.99	.99
Context * EL	.985	1.03 <sup>b</sup>	9	1448.00	.86	6.63	.56

$\alpha$ . Computed using alpha = .05

Exact statistics

Because the results in the autonomy dimension were contrary to our expectations, we performed two extra Multivariate GLM analyses, one for each group of participants using mothers' educational level as the variable of interest and scores on autonomous practices and goals as dependent variables. Results were not significant for both groups of mothers. Mothers' educational level did not significantly affect mothers' attribution of importance to autonomy practices and goals.

### Discussion and conclusions

This study assumes that parental beliefs about how to care for children are related to the physical, social and cultural environment in which they live. The results obtained support this assumption, indicating the dynamics of a complex relationship between these beliefs and the place of residence in this group of Brazilian mothers. Mothers from both groups valued autonomy, but differed in the balance they established between autonomy and interdependence. Mothers from state capitals valued equally autonomy and interdependence, but mothers from small towns valued more relation and interdependence more than autonomy (in both practices and socialization goals). These results are consistent with a conception, previously discussed, of the modulation of the two dimensions (i. e. Keller, et al., 2008).

The results from mothers in small towns are consistent with previous studies conducted in Brazil (Kobarg & Vieira, 2008; Ruela, 2006; Ruela & Seidl-de-Moura, 2007), in which the valuing of the social group was expressed. Although the present investigation was not conducted in isolated rural communities, as in other studies cited, the small towns considered here have less than 24,000 inhabitants. In this way, social, economic and infrastructural facilities are limited when compared to those available in the state capitals. In capital cities, there are more opportunities for personal, educational and professional growth. However, because of the social inequalities still present in Brazil, these opportunities may not be available even in the cities.

The difference in ethnotheories found by other authors between urban and rural communities has been interpreted as a function of the social organization established in each context. As pointed out by Triandis (1989), life in large cities seems to increase competition and decrease loyalty among individuals of any given in-group, decrease social support from extended family, and produce individual isolation. This author has pointed out that individuals living in large cities focus less on the goals of any group they might belong to than on their own personal goals. Our results give support to this hypothesis, and extend its explanatory power beyond the rural versus urban dichotomy. We found that different degrees of urbanization influence ethnotheories along the dimensions of autonomy and interdependence. These results give support to the

current tendency to acknowledge the coexistence of the two dimensions with different emphasis on each of them (Kagitçibasi 1996, 2005, 2007; Keller et al., 2006; Keller et al., 2008).

Educational level was a significant factor only for the relational dimension. This is not consistent with some of the previous Brazilian (i.e. Seidl-de-Moura et al., 2008; Vieira et al., 2010) and international studies (Keller et al., 2006). Based on those results, we expected to find an effect of educational level in the autonomy dimension as well. The separate analyses brought more information to elucidate this question. Using mothers' educational level as a variable of interest and scores on autonomous practices and goals as dependent variables, the results were not significant. Educational level of mothers did not significantly affect the importance attributed to autonomy practices and goals by mothers in this study. Maybe the results of the scales used did not capture some nuances of the possible differences observed by Seidl-de-Moura et al. (2009), with a group of urban mothers in Rio de Janeiro. They found differentiated patterns in relation to mothers' educational level and the sub-categories in the Socialization Goals Inventory (SGI). The authors report that in the sub-category "development of the child's personal and economic potential", a significant effect of mother's educational level was observed, however not in the predicted direction. Mothers with the highest educational levels mentioned less the importance of this sub-category. In contrast, mothers with the highest educational level gave significantly more answers to the subcategory of "self well-being" than mothers with the lowest educational level. Thus, we may hypothesize that autonomy in mothers' beliefs in goals and practices are multidimensional and may need further investigation.

In fact, we have some evidence that points in that direction: a study conducted by Lordelo and Røthle (2009), comparing Norwegian and Brazilian socialization goals, found a critical difference in the meaning on how independence and respect concepts are understood. In Norway, women describe independence as an autonomous personal identity and as having free choice; respect means that the person should not try to change others' choices; to respect people is to accept their choices, even when these choices are different from yours. In Brazil, independence means to have the material resources for living without anyone's support and, as a consequence, not to be compelled to submit to other people. On the other hand, respect means to recognize and accept differences related to your position in a social hierarchy and to keep yourself in your own position.

Thus, although autonomy as a socialization goal can cover a larger set of meanings, some of them can be more valued by educated and middle-class people, whereas others may be more emphasized by people from low social class. If that is true, we should try to decompose that concept and test its descriptive power for different samples, in different contexts.

We believe the goals of this study were reached and its results open new perspectives to study the complexities of Brazilian mothers' cultural models, as well as the intricate relationship between the dimensions of autonomy and interdependence. It has the strength of including a large group of participants who lived in twelve different cities, representing different geographic regions - capitals and small cities - in Brazil, a country with continental dimensions. This is not so usual in studies of this nature. However, the study has limitations, which should be taken into account when discussing the results.

First of all, although large and varied, and contemplating some of the country's diversity, the group studied is not a representative sample of the Brazilian population of mothers. Thus, the results should not be generalized without caution. In addition, the great heterogeneity of the population in large urban centers, and the consequences of this phenomenon for families' daily lives (including ecological, social, cultural and psychological conditions) deserve specific discussions. Further studies need to take into account this heterogeneity. New investigations should broaden the focus from mothers to families and study families in their cultural and socio-economic conditions. They also should evaluate the implications of beliefs and parental practices in family dynamics for children's development. These are some of the directions intended by the authors' research groups.

In theoretical terms, results in the present study elicit some questions to be further pursued, especially in the understanding of the development of autonomous relational selves. Although differences were observed between the two contexts (capitals and small towns), characteristics of autonomy and interdependence are observed. This is consistent with the tendency to consider the coexistence of these dimensions and the different modulations between them (and inside them) instead of treating them as dichotomies (Kagitçibasi, 2007; Keller et al., 2008; Suizzo, 2007). This is especially important when we consider the potential problems when comparing different cultural groups, with their different languages. Even when the words share meanings, no guarantees exist on complete similarity, as we discussed above concerning the differences in meanings of words such as "respect" and "independence". Theoretical discussions will contribute to the development of new instruments allowing the assessment of multidimensional patterns, and the understanding of children's developmental niches.

## References

- Biasoli-Alves, Z. M. M. (2002). A questão da disciplina na prática de educação da criança, no Brasil, ao longo do século XX [The question of discipline in child education practices in Brazil throughout the 20th century]. *Veritatis*, 2(2), 243-259.
- Campos, M. M., & Gomes, J. V. (1996). Brazilian children: images, conceptions, projects. In C. P. Hwang, M. E. Lamb, & I. E. Sigel (Eds.), *Images of childhood* (pp. 143-166). Mahwah, NJ: Lawrence Erlbaum.
- Çitlak, R.; Leyendecker, B.; Schölmerich, A.; Driessen, R., & Harwood, R. L. (2008). Socialization goals among first - and second-generation migrant Turkish and German mothers. *International Journal of Behavioral Development*, 32(1), 57-66.
- Goodnow, J. J. (1988). Parents' ideas, actions, and feelings: models and methods from developmental and social psychology. *Child Development*, 59, 286-320.
- Goodnow, J. (1996). From household practices to parents' ideas about work and interpersonal relationships. In: S. Harkness, & C. Super, *Parents' cultural belief systems* (pp. 313-344). New York: Guilford Press.
- Harkness, S., & Super, C. M. (1996). *Parents' cultural beliefs systems: their origins, expressions, and consequences* (pp.1-23). New York: The Guilford Press.
- Harwood, R. L. (1992). The influence of culturally derived values on Anglo and Puerto Rican mothers' perceptions of attachment behavior. *Child Development*, 63, 822-839.
- IBGE (2000). Censo Demográfico – 2000. *Instituto Brasileiro de Geografia e Estatística* [Brazilian census. Brazilian Institute of Geography and Statistics]. Retrieved July 13, 2007, from <http://www.ibge.gov.br>.
- IBGE (2007). Estatísticas do século XX. *Instituto Brasileiro de Geografia e Estatística*. [Statistics of the 20<sup>th</sup> century. Brazilian Institute of Geography and Statistics]. Retrieved July 13, 2007 from <http://www.ibge.gov.br>.
- Kagitçibasi, Ç. (1996). The autonomous-relational self: A new synthesis. *European Psychologist*, 1(3), 180-186.
- Kagitçibasi, Ç. (2005). Autonomy and relatedness in cultural context: Implications for self and family. *Journal of Cross-Cultural Psychology*, 36, 403-422.
- Kagitçibasi, Ç. (2007). *Family, self, and human development across cultures: Theory and applications*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Keller, H. (2007). *Cultures of Infancy*. London: Lawrence Erlbaum Associates.
- Keller, H., Borke, J., Yovsi, R., Lohaus, A., & Jensen, H. (2005). Cultural orientations and historical changes as predictors of parenting behaviour. *International Journal of Behavioral Development*, 29(3), 229-237.
- Keller, H., Demuth, C., & Yovsi, R. D. (2008). The multi-voicedness of independence and interdependence: The case of the Cameroonian Nso. *Culture & Psychology*, 14(1), 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 Multicultural Analysis. *Journal of Cross-Cultural Psychology*, 37(2), 155-172.
- Keller, H., Yovsi, R., Borke, J. K., Jensen, H., & Papaligoura, Z. (2004). Developmental consequences of early parenting experiences: self-recognition and self-regulation in three cultural communities. *Child Development*, 75(6), 1745-1760.



- Kobarg, A. P. R., & Vieira, M. L. (2008). Crenças e práticas de mães sobre o desenvolvimento infantil nos contextos rural e urbano [Mothers' beliefs and practices about child development in rural and urban contexts]. *Psicologia: Reflexão & Crítica*, 21(3), 433-440.
- 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.
- Lordelo, E. R., Fonseca, A. L., & Araújo, M. L. V. B. (2000). Responsividade do ambiente de desenvolvimento: crenças e práticas como sistema cultural de criação de filhos. [Responsiveness of the developmental environment: beliefs and practices as a cultural system of childrearing] *Psicologia: Reflexão & Crítica*, 13(1), 73-80.
- Lordelo, E. R., & Röthle, M. (2009). Selvstendighet og respekt som sosialiseringsmål i ulike kulturer [Independence and respect as socialization goals in different cultures]. In: S. Mørreanet (ed), *Inspirasjon og kvalitet – med hjerte for barnehagefeltet* [Inspiration and Quality - with Commitment for the Field of Early Childhood Education]. Oslo: Pedagogisk Forum (in press).
- Miller, S. A., Manhal, M., & Mee, L. L. (1991). Parental beliefs, parental accuracy, and children's cognitive performance: A search for causal relations. *Developmental Psychology*, 27(2), 267-276.
- Piovanotti, M. R. (2007). *Metas de socialização infantil e crenças sobre práticas de cuidado parental na perspectiva de mães primíparas*. [Child socialization goals and childrearing beliefs in the primiparous mothers' perspective]. (Unpublished master's thesis), Universidade Federal de Santa Catarina, Brazil.
- Ribas, R. C. Jr., Seidl-de-Moura, M. L., & Bornstein, M. C. (2003). Socioeconomic status in Brazilian psychological research: II. Socioeconomic status and parenting knowledge. *Estudos de Psicologia*, 8(3), 385-392.
- Ribeiro, D. (1997). *O povo brasileiro: A formação e sentido do Brasil* [Brazilian people: The formation and meaning of Brazil]. São Paulo: Companhia das Letras.
- Ruela, S. F. (2006). *Um estudo intergeracional de crenças valorizadas por mães em uma comunidade rural do estado do Rio de Janeiro* [An inter-generational study about mothers' valued beliefs in a rural community in Rio de Janeiro]. (Unpublished master's thesis), Universidade do Estado do Rio de Janeiro, Brazil.
- Ruela, S. F., & Seidl-de-Moura, M. L. (2007). Um estudo do nicho de desenvolvimento de um grupo de crianças em uma comunidade rural. [A study of the developmental niche of a group of children in a rural community]. *Psicologia em Estudo*, 12(2), 315-324.
- Seidl-de-Moura, M. L., Ribas, R. C. Jr., Piccinini, C. A., Bastos, A. C. S., Magalhães, C. M. C., Vieira, M. L., et al. (2004). Conhecimento sobre desenvolvimento infantil em mães primíparas de diferentes centros urbanos do Brasil [Primiparous mothers' knowledge about child development in different Brazilian urban centers]. *Estudos de Psicologia*, 9(3), 421-429.
- Seidl-de-Moura, M. L., Lordelo, E., Vieira, M. L., Piccinini, C. A., Siqueira, J. O., Magalhães, C. M. C., et al. (2008). Brazilian mothers' socialization goals: Intracultural differences in seven cities. *International Journal of Behavioral Development*, 32(6), 465-472.
- Seidl-de-Moura, M. L., Targino, T., Nahum, K., Da Cruz, E. M., Amaral, G., & De Marca, R. (2009). Parenting cultural models of a group of mothers from Rio de Janeiro, Brazil. *The Spanish Journal of Psychology*, 12(2), 506-517.
- Suizzo, M. A. (2002). French parents' cultural models and childrearing beliefs. *International Journal of Behavioral Development*, 26, 297-307.
- Suizzo, M. A. (2007). Parents' goals and values for children: dimensions of independence and interdependence across four U.S. ethnic groups. *Journal of Cross-Cultural Psychology*, 38, 506-530.
- Torres, C. V., & Dessen, M. A. (2006). The Brazilian jeitinho: Brazil's sub-cultures, its diversity of social contexts, and its family structures. In: J. Georgas, J. W. Berry, F. J. R. van de Vijver, Ç. Kagitçibasi, & Y. H. Poortinga (eds.), *Families across cultures: A 30-nation psychological study* (pp. 259-266). Cambridge, UK: Cambridge University Press.
- Triandis, H. C. (1989). The self and social behavior in differing cultures. *Psychological Review*, 96, 506-520.
- Vieira, M. L., Seidl-de-Moura, M. L., Rimoli, A., Magalhães, C. M. C., Piccinini, C. A., Lordelo, E. et al. (2010). Mother's beliefs about childrearing practices in seven Brazilian cities. *Journal of Cross-Cultural Psychology*, 41(2), 195-211.

Received May 12, 2009

Revision received December 16, 2009

Accepted February 5, 2010