BABEŞ-BOLYAI UNIVERSITY

FACULTY OF PSYCHOLOGY AND EDUCATIONAL SCIENCES

DOCTORAL SCHOOL OF APPLIED COGNITIVE PSYCHOLOGY

THE RELATIONSHIP BETWEEN CULTURAL FACTORS AND THE PARENTAL BELIEFS OF MOTHERS OF PRESCHOOLERS FROM ROMANIA

EXTENDED SUMMARY OF THE PH.D. THESIS

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CLUJ-NAPOCA

2021

Keywords: cultural models; parental beliefs; situated cognition; parental ethnotheories; socialization goals; educational level

I. GENERAL INTRODUCTION

Research has shown that human development is culturally situated and does not follow a universal trajectory (Greenfield, 2018; Koster & Kartner, 2019; Levine, 2002; McClintock & Nuttin, 1969; Mone et al., 2014; Tamis-LeMonda et al., 2020). Out of the multiple variables that are associated with cross-cultural differences in human development, parental beliefs play an important role (Keller, 2018). We make this statement because caregivers` parenting beliefs are associated with the parental practices they use and with the way they structure the child`s social and physical environment (Becke et al., 2019; Lenne et al., 2019; Sinclair et al., 2005; Super & Harkness, 1986). In consequence, the general objective of the present research endeavour is to explore how culture influences parental beliefs, with a focus on ecosocial level, society level factors, individual level factors and situational factors that are associated with variations in parental beliefs.

In the present study, we conceptualized the relationship between culture and parental beliefs based on the Ecocultural Model of Development (see Figure 1; Keller, 2018; Keller & Kartner, 2013; Koster et al., 2018). This model explains the influence of culture on human development by focusing on how different ecocultural contexts influence the cultural models, socialization goals and parental ethnotheories of caregivers, respectively.

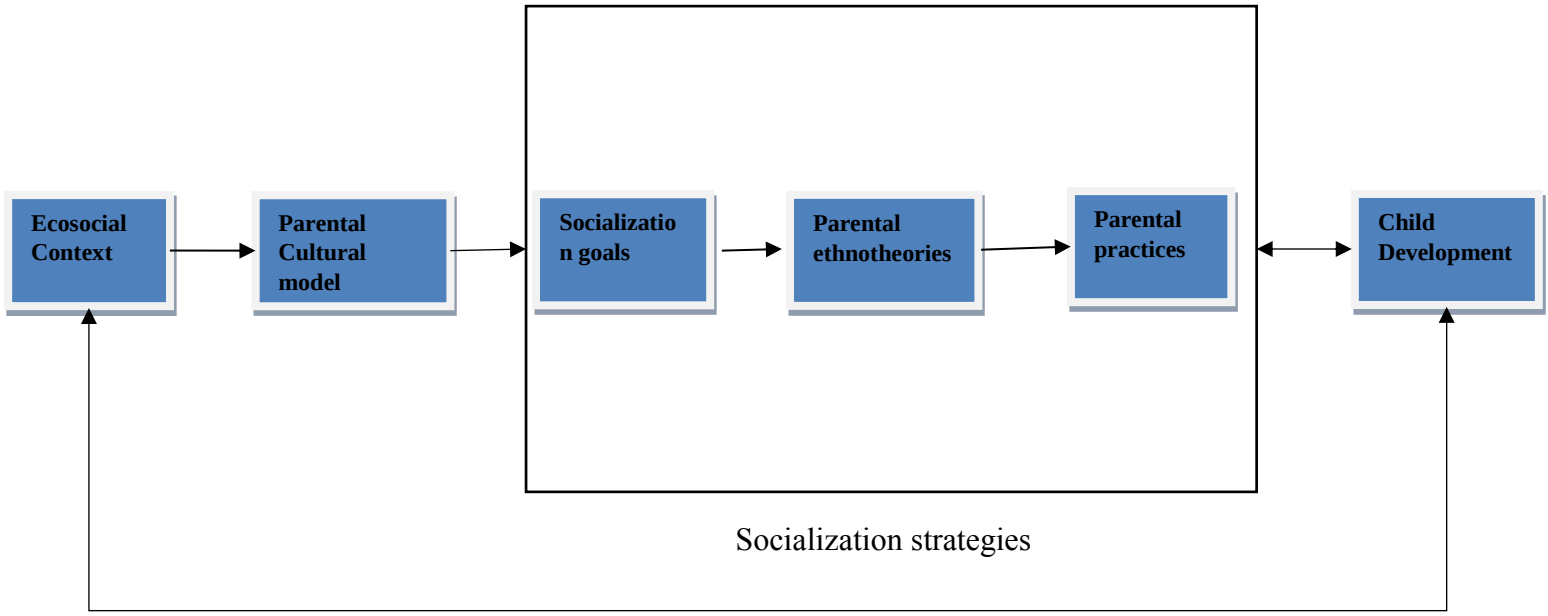

Figure 1. *The Ecocultural Model of Development*

Note. This figure is constructed based on the figure published in Keller and Kartner (2013)

According to the Ecocultural Model of Development (Keller & Kartner, 2013), different ecoscocial contexts are associated with different caregiver cultural models (a set of beliefs that are shared by the individuals from a community; Kushlev et al., 2012). In addition, according to Kagitcibasi (2017), there are two dimensions that combine to form the different cultural models: agency and interpersonal distance. Agency refers to the degree to which the individual defines himself/herself as functioning autonomously and can vary from autonomy (i.e., functioning on the basis of one`s own desires and motivations) to heteronomy (i.e., functioning on the basis of constraints from the outside; Kagitcibasi, 2017). Interpersonal distance refers to the degree to which the individual defines himself/herself as being connected with others and varies from separateness (i.e., separate self that is distinct from others) to relatedness (i.e., self is connected with others and defined as a function of the relational network in which it is embedded). By combining these two dimensions, we can obtain three prototypical cultural models (Keller & Kartner, 2013). The first cultural model, the independent cultural model, is characterised by the combination of separateness and autonomy. This model characterizes middle-class families from Western Individualistic societies that are typically organized as nuclear families, have few children conceived at later ages and have high levels of formal education and income (Greenfield, 2018; Keller & Kartner, 2013). The second model, the interdependent cultural model, is characterized by a combination of relatedness and heteronomy. This model appears in traditional Collectivistic societies with a subsistence-based economy, in the case of families that are typically organized as extended families, have many children conceived at younger ages, and have lower levels of formal education and income (Keller & Kartner, 2013). The third model is the autonomous-related one, that combines relatedness and autonomy. This cultural model is characteristic for middle-class families from non-Western Collectivistic societies that are exposed to social and economic transitions (e.g., transition to a market-based economy, increase in educational level, etc.; Mone & Benga, 2018). These families have high levels of formal education and income, being usually organised as nuclear families with fewer children, conceived at later ages (Keller & Kartner, 2013).

Parents` cultural models influence their socialization goals (Greenfield, 2018; Hamayel, 2018; Keller, 2018; Koster & Kartner, 2019). As such, parents with independent cultural models

value socialization goals related to autonomy (e.g., competitiveness, self-reliance) and separateness (e.g., uniqueness, independence; Keller, 2018). Parents with interdependent cultural models value socialization goals focused on heteronomy (e.g., obedience, respect for traditions) and relatedness (e.g., loyalty, relational harmony). Parents with autonomous–related cultural models value socialization goals that are focused on autonomy and relatedness.

Caregivers` socialization goals influence their parental ethnotheories. In the present study, parental ethnotheories refer to the beliefs that parents from a community share regarding optimal parenting practices (Mone et al., 2014; Super & Harkness, 1986). Past studies have shown that caregivers tend to consider as optimal those parenting practices that facilitate the attainment of their socialization goals (Bader et al., 2018; Keller, 2018). For example, caregivers of infants that have autonomous socialization goals tend to value parental practices that help them to attain these goals (e.g., face to face interaction, object stimulation; Keller & Kartner, 2013; Mone et al., 2014).

There are, however, a series of factors that influence parental beliefs and that have not been taken into consideration by the Ecocultural Model of Development or by the studies constructed based on this model. Firstly, we would like to mention Hofstede et al., (2010) cultural dimensions (Individualism-Collectivism, Power Distance, Masculinity-Femininity, Uncertainty Avoidance, Indulgence-Restraint). Individualism refers to the predilection for a diffuse social network, in which individuals are centred on taking care of themselves and their family. Collectivism is conceptualised as referring to a compact social network in which individuals, in exchange for loyalty, expect that the other members of the in-group will attend to their needs (Hofstede et al., 2010). Power Distance refers to the degree to which individuals with less power from a society consider that inequalities regarding power distribution are acceptable and unavoidable (Hofstede et al., 2010; Hofstede, 2011). Masculinity-Femininity refers to the degree to which gender roles overlap in a society. In Masculine cultures or societies, there is a focus on success, challenge, competition, advancement, earning, and being recognized. In addition, there is a clear delineation between gender roles (Ljunge, 2016). A Feminine society is one in which there is a focus on cooperation, modesty, consensus, relationships and quality of life. Additionally, there is high overlap between gender roles. In these societies, both men and women should be tender, modest and concerned with the quality of life (Hosfede et al., 2010). A fourth dimension of societal culture is Uncertainty Avoidance (Hofstede & McCrae, 2004). This dimension refers to the degree to which individuals from a society feel uncomfortable with uncertainty, ambiguity and

unpredictableness. A fifth dimension of Hofstede`s national culture dimensions is Long-Term Orientation-Short-Term Orientation (Hofstede et al., 2010; Hofstede, 1991). This dimension refers to the degree to which values oriented towards achieving future goals and attaining future rewards are encouraged in a culture. In Long-Term cultures, we can observe that values like perseverance and thrift are promoted because they are oriented towards future rewards. In Short-Term cultures, we can observe that values focused on the past and present (e.g., respect for tradition, preservation of face, fulfilling social obligations) are promoted. A sixth dimension of national culture is Indulgence-Restraint (Hofstede et al., 2010). This dimension refers to the degree to which a culture allows gratification of basic and natural human desires. In a culture characterised by Indulgence, there is a tendency to allow free gratification of these basic human desires linked to enjoying life and having fun. In cultures characterized by Restraint, there is a belief that the satisfaction of these needs has to be controlled and regulated by strict social norms.

These cultural dimensions are important cultural level factors that are linked to variations in the ecocultural context above and beyond differences in economic development (Hofstede et al., 2010). Consequently, these cultural dimensions might be associated with variations in caregiver`s cultural models and, as such, with variations at the level of parental beliefs and socialization goals. We explored this further in study 2.

Secondly, we wish to underline that parental beliefs and practices vary not only as a function of ecosocial context (e.g., family size), society level factors (e.g., Individualism-Collectivism) and individual level factors (e.g., cultural models), but also as a function of situational factors. More specifically, although there are cross-cultural differences regarding which of the cultural models is chronically activated, all cultural models can be situationally primed (Oyserman, 2017). This is possible because individuals, irrespective of cultures, are exposed to situations that lead to the development of an independent model and to situations that lead to the development of an interdependent cultural model. We explored this further in study 7.

Thirdly, we wish to mention that parents` characteristics also have an influence on parents` cultural models and socialization strategies. More specifically, parents` gender might influence their parenting beliefs and strategies, how they internalize cultural norms, and how they shape the ecocultural context in which they live (Cross, Bacon, & Morris, 2000). In study 2, we specifically focused on parental gender, because it has been associated with parenting beliefs and practices (McKee et al., 2007; Tulviste, 2013).

A fourth addition to the model is represented by the fact that we included the influence of parental beliefs on the physical and social setting in which the child develops. The Ecocultural Model of Development (Keller & Kartner, 2013) does not take into consideration the influence of parenting beliefs on how parents structure the proximal environment in which the child develops. The developmental niche theory espoused by Super and Harkness (1994) does take this influence in consideration. Moreover, there are studies that attest the fact that parents structure children`s environment as a function of their parental ethnotheories. More importantly, the way parents structure the child`s environment has consequences for how the child develops (Tudge & Doucet, 2004; Rogoff, 2018; Rosa & Tudge, 2013). Thus, we consider that it is important to include the physical and social settings of child development in the Ecocultural Model of Development. This addition to the model also stems from our belief that the proliferation of models that have a high conceptual overlap is a strategy of lower heuristic value, as compared to the optimization of theoretical models we already have. Based on this idea, we decided to integrate the Ecocultural Model of Development and the developmental niche theory. The combined model, as compared to the two models considered separately, is of higher heuristic value and specifies more paths through which parental beliefs influence child development.

To summarize, based on extant evidence, we decided to include four new variables in the Ecocultural Model of Development: 1) cultural dimensions; 2) situational factors; 3) parental characteristics; 4) the physical and social setting in which the child develops. In Figure 2 below, one can see the Extended Ecocultural Model of Development. We do not maintain that the causal pathways identified by us are exhaustive, but they reflect the review of the literature presented.

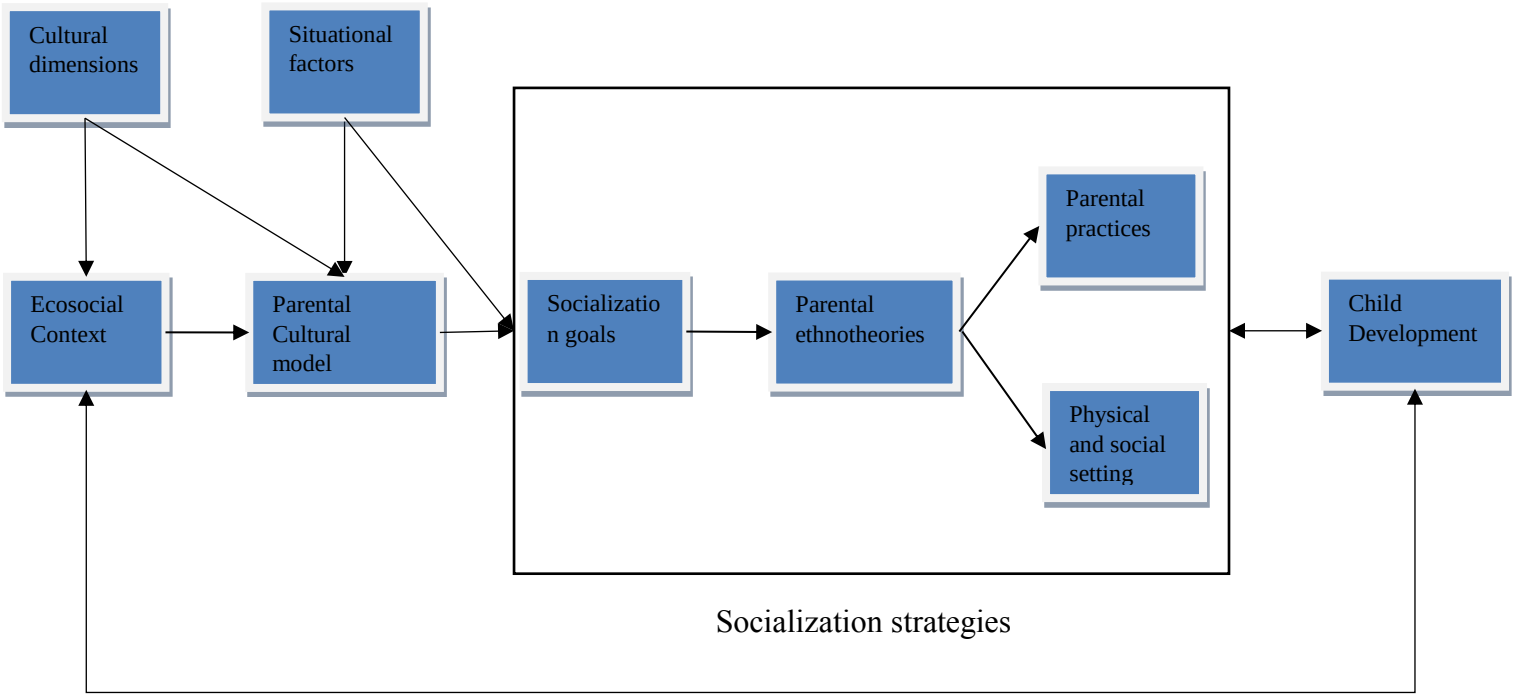

Figure 2. *The Extended Ecocultural Model of Development*

II. MAIN OBJECTIVE OF THE RESEARCH ENDEAVOUR AND OVERVIEW OF THE STUDIES

2.1. Main Objective Of The Research Endeavour

As we have shown before, variations at the level of parenting beliefs are associated with society, ecosocial , individual and situational level factors. As such, our main objective was to investigate how culture influences parenting beliefs of parents of preschoolers from Romania through ecosocial level, society level, individual level and situational level factors.

2.2. Overview of the studies

To reach our main objective we conducted seven studies. Out of these, two (studies 1 and 6) were theoretical and five were empirical (studies 2, 3, 4, 5 and 7). Each study had a specific objective that was conducive to attaining the main goal of the thesis.

In study 1, we conducted a review with the objective to analyze the current state of knowledge in respect to Romanian culture and its association with parental beliefs and practices. The review also focused on evidence pertaining to the impact of recent socioeconomic changes

that have taken place in the country. This was done to investigate whether these changes are associated with modifications in cultural orientations, as well as in prevalent parental beliefs and practices.

In study 2, our main objective was to investigate cross-cultural differences in regard to socialization goals, as a function of Hofstede`s six cultural dimensions. This objective was set because most (if not all) of the research that studied the relationship between culture and parental beliefs, did so only from the standpoint of Individualism-Collectivism. To achieve the objective of this study, we analyzed data from the sixth wave of the World Value Survey (WVS, 2014). The analysis was conducted with 39.705 individuals from 40 countries. In this study, we also wished to investigate if these society level factors moderate the association between individual level factors and parental beliefs. To do this, we investigated the relationship between Hofstede`s six cultural dimensions (society level factors), gender (individual level factor), and parental beliefs about socialization goals. Another strategy towards this end was to analyze the relationship between Power Distance (a society level factor), educational level (an individual level factor), and parental beliefs about socialization goals.

In studies 3 and 4, our objective was to construct and preliminary validate a questionnaire to measure parental ethnotheories of mothers of children aged between three and six years. The construction of this instrument was necessary because there was no questionnaire in the literature to measure parental ethnotheories regarding parenting practices that are focused on agency and interpersonal distance. In consequence, this questionnaire was constructed to evaluate parental beliefs about parenting practices through which a caregiver promotes autonomy or heteronomy and parenting practices through which a caregiver promotes separateness or relatedness. In study 3 we collected data from a sample of 397 mothers of preschoolers from Romania, while in study 4 we collected data from a sample of 222 mothers from Romania.

In study 5, our main objective was to explore the relationship between implicit and explicit components of mothers` cultural models, socialization goals and parental ethnotheories, in the case of mothers of Romanian preschool-aged children. We set this objective because all of the studies that investigated the relationship between caregiver`s cultural model and her/his parental beliefs, studied only the explicit components of cultural models (see Keller et al., 2006). Moreover, recent studies suggested that the implicit components of individual`s cultural models better predict their cultural belonging (Kitayama et al., 2009). As such, we decided to explore the relationship between

implicit and explicit components of mother`s cultural model, and her parental beliefs. To reach this objective, the study was conducted with a sample of 141 mothers of preschoolers from Romania.

In study 6, we conducted a review of the literature in order to explore the ways through which we could reconceptualize the influence of culture on human development through a Situated Cognition perspective or, more generally, an Embodied Cognition perspective. This was based on the fact that, in study 5, we identified that the implicit components of the cultural models were better predictors of parental beliefs. The implicit components of mothers` cultural models, and the distinction between them and the explicit components, were conceptualized based on the Cultural Task Analysis (Kitayama et al., 2009) model. This model is rooted in the Situated Cognition approach.

In study 7, our objective was to investigate the influence of situationally priming the agency dimension on parents` socialization goals and ethnotheories. This is, to our knowledge, the first study to experimentally manipulate the accesibility of a dimension of self construal and to test its effect on the assessment of different parental beliefs or ethnotheories. The study was conducted based on the Culture as Situated Cognition paradigm (Oyserman, 2017), and involved a sample of 74 mothers.

III. STUDY 1[1]

In the first study presented in the thesis, we focused on the Romanian culture, viewed through the lens of Hofstede, Hofstede and Minkov`s (2010) cultural dimensions, and the way it is related to parental beliefs and practices of parents from Romania. We also reviewed current evidence regarding the impact of recent socioeconomic changes that have taken place in the country, to investigate whether they are associated with changes in cultural orientations, as well as in prevalent parental beliefs and practices. Such an endeavor is significant, given the very few reviews that integrate research dedicated to the association between culture and parenting beliefs and practices, in the case of East-European countries, and in particular Romania. Figure 3 presents the variables of the Extended Ecocultural Model of Development on which we focused in the present study.

[1] Published as Mone, I., & Benga, O. (2018). Romania's cultural profile and recent socio-economic changes: Implications for parental beliefs and practices. *Studia Universitatis Babes-Bolyai, Psychologia-Paedagogia, 63*(2).

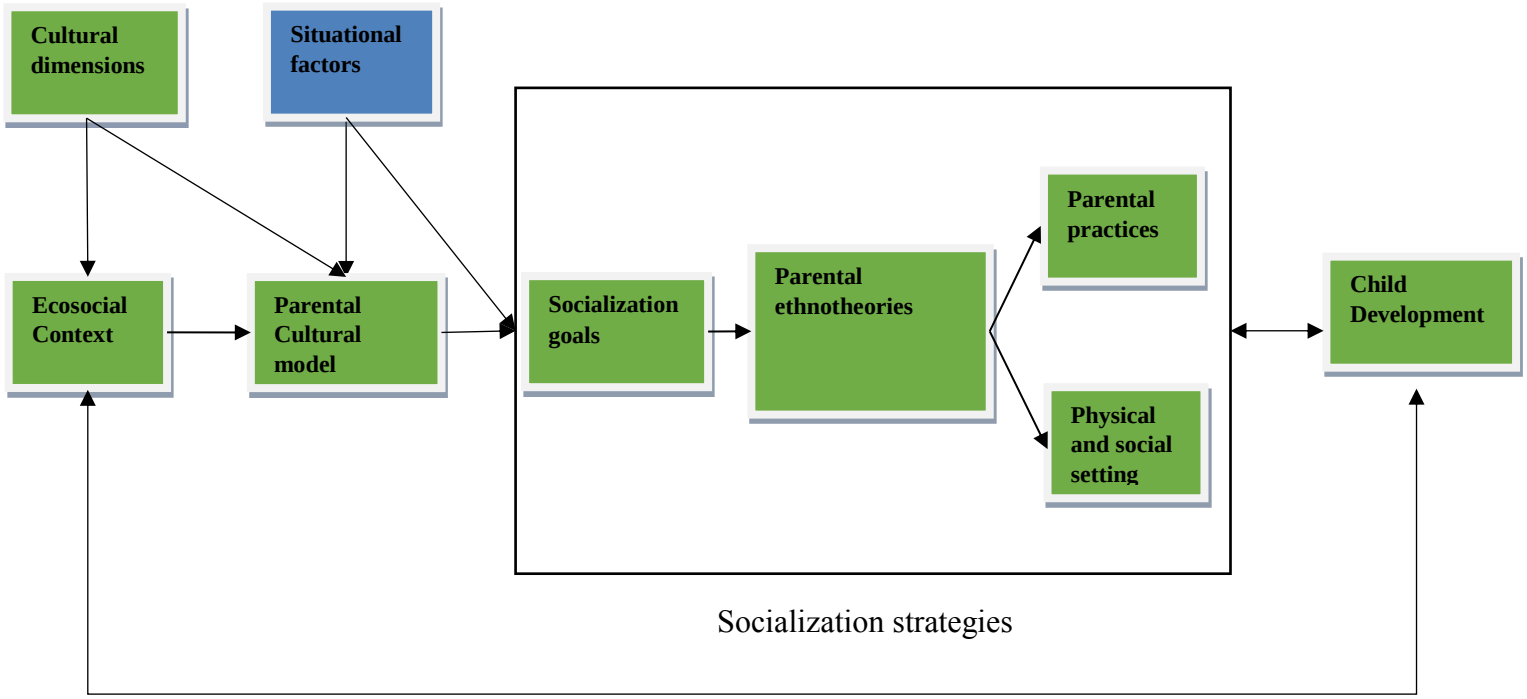

Figure 3.
The variables from the Extended Ecocultural Model of Development that are of interest in the present study (in green).

Firstly, we analyzed Romania`s standing on each of the six dimensions described by Hofstede et al. (2010) and we discussed how this might impact parenting beliefs and behaviors. According to Hofstede et al. (2010), Romania is a Collectivistic culture with high Power Distance. It is also a Feminine, high Uncertainty Avoidant culture that is focused on Restraint. Regarding the Long-Term Orientation, the score does not permit us to categorize the culture as being neither Long-Term, nor Short-Term Oriented. Based on Romania`s standing on Hofstede et al.`s (2010) dimensions, we can expect that in the case of families from this culture there would be a focus on hierarchy, with strict, rigid rules and a focus on child`s obedience and conformism. We would also expect a focus on the development of thrift, respect towards elders, relatedness, humbleness, self-control, and delay of gratification in the case of the child. Another expectation would be that girls and boys are socialized in similar ways. We would also expect children to be taught to avoid unknown, risky situations and to develop a need for predictability. Another expectation would be that children would develop a high level of social cynicism.

Secondly, we conducted a review of the studies which have focused on the association between socioeconomic changes in the case of Romania, on the one hand, and Romanian culture and prevalent parental beliefs and practices, on the other. Based on some of the studies reviewed, we can conclude that, with socioeconomic changes, there has been a shift towards an autonomous-related cultural model (Corapci et al., 2017; Gavreliuc & Ciobota, 2013; Friedlmeier &

Trommsdorff, 2011; Mansour et al., 2018; Mone et al., 2014; Wege et al., 2014). Other studies suggest that there has been an increase in autonomy, but provide us with no evidence regarding how the focus on relatedness has changed (Marici, 2015; Negru-Subtirica et al., 2015). Some studies even show that individuals from Romania have a higher level of autonomy than people from Individualistic cultures (Frost & Frost, 2000; Moza et al., 2018). Yet, other studies suggest that there is still a focus on heteronomy and relatedness in the Romanian culture and that the effect of socioeconomic change, at least in Romania, isn`t towards a greater emphasis on an independent or an autonomous-related model (Bond & Lun, 2014; David, 2015; Friedlmeier & Gavreliuc, 2013; Gavreliuc, 2012; Gavreliuc & Gavreliuc, 2012). These divergent sets of results suggest that the effects of socioeconomic changes aren`t as straightforward or linear as current models would suggest. They also indicate the need for more research that identifies reasons or moderating variables responsible for the divergent results.

One of the reasons for the divergent results might be the fact that socioeconomic change might differentially impact a society, based on the structure of its culture. For example, Mone, et al., (2016) provide evidence that indicates the fact that a country`s standing on Power Distance moderates the relationship between the educational level of individuals from that country and the socialization goals they endorse. The results of the study showed that the difference between those with high versus low education in valuing obedience and self-expression was smaller in high Power Distance cultures, than in low Power Distance cultures. As such, this might imply that an increase in the educational level in high Power Distance cultures such as Romania might lead to small modifications in the degree to which parents endorse obedience.

Interpreting the divergent results of these lines of research must also be based on the fact that economic and social development differentially impacts different communities from a society or country. As such, in rural communities from Romania, where education level and wealth are still lower and extended families with many children and young age at childbirth are still frequent, we still expect to observe interdependent cultural models with associated parenting strategies (Keller, 2018; Neculaesei & Tatarusanu, 2008)

Another reason for these divergent results might be that economic and social changes also differentially affect individuals of different ages. Friedlmeier (2006) compared how adolescents and their parents from 100 families perceive the changes that are taking place in Romania. More specifically, it was evaluated whether they perceived their future as being uncertain along with

their trust in others. Older samples perceived the future as being more uncertain and they had lower trust in others. Mothers and daughters perceived the future as being more uncertain than fathers and sons. This might be influenced by a more traditional distribution of gender roles and more difficulties in employment in the case of women (Friedlmeier & Gavreliuc, 2013). This suggests that economic, social, and political changes influence individuals differently, as a function of their age and even of their gender.

The discrepant findings might also be explained by the diverging methodologies used by different researchers. It is important that future studies will be conducted on a nationally representative sample, comprised of individuals from different communities, followed longitudinally. This type of design would allow us to longitudinally trace how socioeconomic change is associated with variations in the Romanian culture and prevalent parental beliefs and practices, and to compare the impact these changes have on different communities. Other types of designs that would be useful are studies that employ cohorts from different historical epochs, to have a more direct test of how the Romanian society and prevalent parenting beliefs and practices have been modified by socioeconomic and political change.

In conclusion, the present review brings important contributions, as it is the first synthesis of studies that have investigated Romanian culture and its impact on parental beliefs and practices. In addition, it specifically emphasizes the fact that current models of cultural and family change need to be more nuanced.

IV. STUDY 2[2]

4.1. Introduction

The six dimensions postulated by Hofstede et al. (2010) can be conceptualized as cultural level factors that can predict cross-cultural differences in parental beliefs and practices. Most of the extant studies have focused only on how Individualism-Collectivism is related to cross-cultural differences in socialization goals (e.g., Greenfield, 2009; Harkness et al., 2010; Li & Fung, 2020). Focusing on the Individualism-Collectivisim dimension led to numerous results that are valuable for how we understand cross-cultural variations in socialization goals. However, focusing on only one of the dimensions that define cross-cultural variations has certain limitations (Harkness et al., 2010; Oyserman, 2006). First, taking into consideration only Individualism-Collectivism might have the effect of confounding the influence of this cultural dimension with that of other cultural dimensions. Second, the effect of one dimension might be moderated by another dimension and this might lead to incongruent findings between studies, if we only take into consideration one of the dimensions. Third, some differences we observe between cultures can`t be explained if we focus on only one cultural dimension. For instance, mothers from France tend to value obedience more than mothers from other European countries (Suizzo, 2002). This difference is hard to explain if we evaluate the results only from the standpoint of Individualism-Collectivism. This difficulty arises because parents from France, which is an Individualistic culture (Hofstede et al., 2010), should put a higher emphasis on independence, not obedience. However, this difference becomes easy to explain if we also take into consideration the Power Distance dimension (Hofstede et al., 2010) and the fact that France has a score of 68 on this dimension, which makes it a culture with high Power Distance. This means that France is different from other European countries which tend to have lower scores on this dimension (Hofstede et al., 2010). A higher score of a society on the Power Distance dimension is associated with a higher value placed on hierarchy and obedience (Hofstede et al., 2010).

Based on the limitations inherent in approaching cross-cultural variations in socialization goals only from the standpoint of one cultural dimension, a first objective of study 2 was to investigate cross-cultural differences regarding socialization goals as a function of all of Hofstede

[2] Results from this chapter have been published as Mone, I. S., Benga, O., & Opre, A. (2015). PAPER# 97-Cross-cultural differences in socialization goals as a function of power distance, individualism-collectivism and educational level. *Romanian Journal of Experimental Applied Psychology*, *6*.

et al.` (2010) cultural dimensions (i.e., Individualism-Collectivism, Power Distance, Masculinity-Femininity, Uncertainty Avoidance, Long-Term Orientation-Short-Term Orientation, and Indulgence-Restraint).

Extant studies suggest that all of Hofstede et al`s (2010) cultural dimensions are associated with variations in human development and parental beliefs and practices. There is ample evidence that Individualism-Collectivism is associated with cross-cultural variations in the development of temperament and personality (Hofstede & McCrae, 2004; McCrae, 2001; McCrae et al., 2005a Rothbart & Derryberry, 1981; Putnam & Gartstein, 2016), child development (Gampe & Daum, 2018), parental beliefs (i.e., cultural models, socialization goals and parenting ethnotheories; Bond & Lun, 2014; Chen-Bouck & Patterson, 2020; Harnayerl, 2018; Keller, 2018; Minkov et al., 2018; Park et al., 2014), and parenting practices (Tudge et al., 2018; Yau & Watkins, 2018; Majdandzic, 2017). Power Distance is also associated with cross-cultural variations in the development of temperament and personality (Hofstede & McCrae, 2004; McCrae, 2001; McCrae et al., 2005a Rothbart & Derryberry, 1981; Putnam & Gartstein, 2016), parenting beliefs (Scwhab, 2013; Dermuth, 2013; Shearman & Dumlao, 2008), and parenting behaviours (Oetzel et al., 2013; Shearman & Dumlao, 2008). Masculinity-Femininity is additionally associated with variations in the development of temperament and personality (Hofstede & McCrae, 2004; McCrae, 2001; McCrae et al., 2005a Rothbart & Derryberry, 1981; Putnam & Gartstein, 2016), parenting beliefs (Ljunge, 2016), and parenting practices (Hofstede et al., 2010). Uncertainty Avoidance is furthermore associated with cross-cultural variations in human development and behaviour (Dwairy & Achoui, 2006; Hofstede & McCrae, 2004; McCrae, 2001; McCrae et al., 2005) and parenting beliefs (Hofstede et al., 2010). Long-Term Orientation-Short Term Orientation is, in addition, associated with cross-cultural variations in human development (Hofstede & McCrae, 2004; McCrae, 2001; McCrae et al., 2005a Rothbart & Derryberry, 1981; Putnam & Gartstein, 2016), parenting beliefs (Hofstede et al., 2010). Indulgence-Restraint is also related to human development (Putnam & Gartstein, 2016, Reyes, 2017) and parental beliefs (Gelfand et al., 2011).

Hofstede et al.`s (2010) cultural dimensions might not only predict cross-cultural differences in socialization goals but also influence how socialization goals vary within a culture. More specifically, these dimensions might moderate the association between individual level variables (e.g., gender, educational level) and socialization goals. Based on current literature (Alampay & Jocson, 2011; Ljunge, 2016; Wittenberger et al., 2017) and on Hofstede et al`s (2010)

theorizing, we considered that gender might be an individual level variable whose relationship to socialization goals might be moderated by Hofstede`s cultural dimensions. However, most of the extant evidence only suggests that Masculinity-Femininity moderates the relationship between gender and socialization goals. There is little or no evidence concerning the relationship between the other cultural dimensions, gender and socialization goals. As such, a second objective of this study was to explore the relationship between cultural dimensions, gender and socialization goals. This is an exploratory attempt, unguided by hypotheses, as there is a lack of former studies to investigate this interaction.

Educational level is another individual level factor whose association with socialization goals might be moderated by Hofstede`s cultural dimensions (Gavreliuc & Gavreliuc, 2014; Hofstede et al., 2010; Kohn & Schooler, 2010). Hofstede et al. (2010), Kohn and Schooler (1969) and Gavreliuc and Gavreliuc (2014) presented evidence which suggested that Power Distance might moderate the association between educational level and socialization goals. As such, our third objective was to investigate if Power Distance moderates the relationship between educational level and mother`s socialization goals. This objective was an exploratory one and, as such, there were no hypotheses formulated. Pursuing this objective is especially important, because there are theoretical models which predict that, with rises in wealth and educational level, parents start to value autonomy, independence, and separateness. In addition, they start to display parental practices typical of parents from individualistic cultures (e.g., Greenfield, 2018). However, the characteristics of parents` culture (e.g., the standing of a particular culture on Power Distance) might moderate the association between their educational level and the socialization goals they valued.

In figure 4 below, we present the Extended Ecocultural Model of Development. The boxes in green represent the variables from the Extended Ecocultural Model we focused on in this study. More specifically, we focused on how cultural dimensions are associated with parental socialization goals. Additionally, we focused on how cultural dimensions are associated with variations in the relationship between parental characteristics (i.e., gender and educational level) and socialization goals.

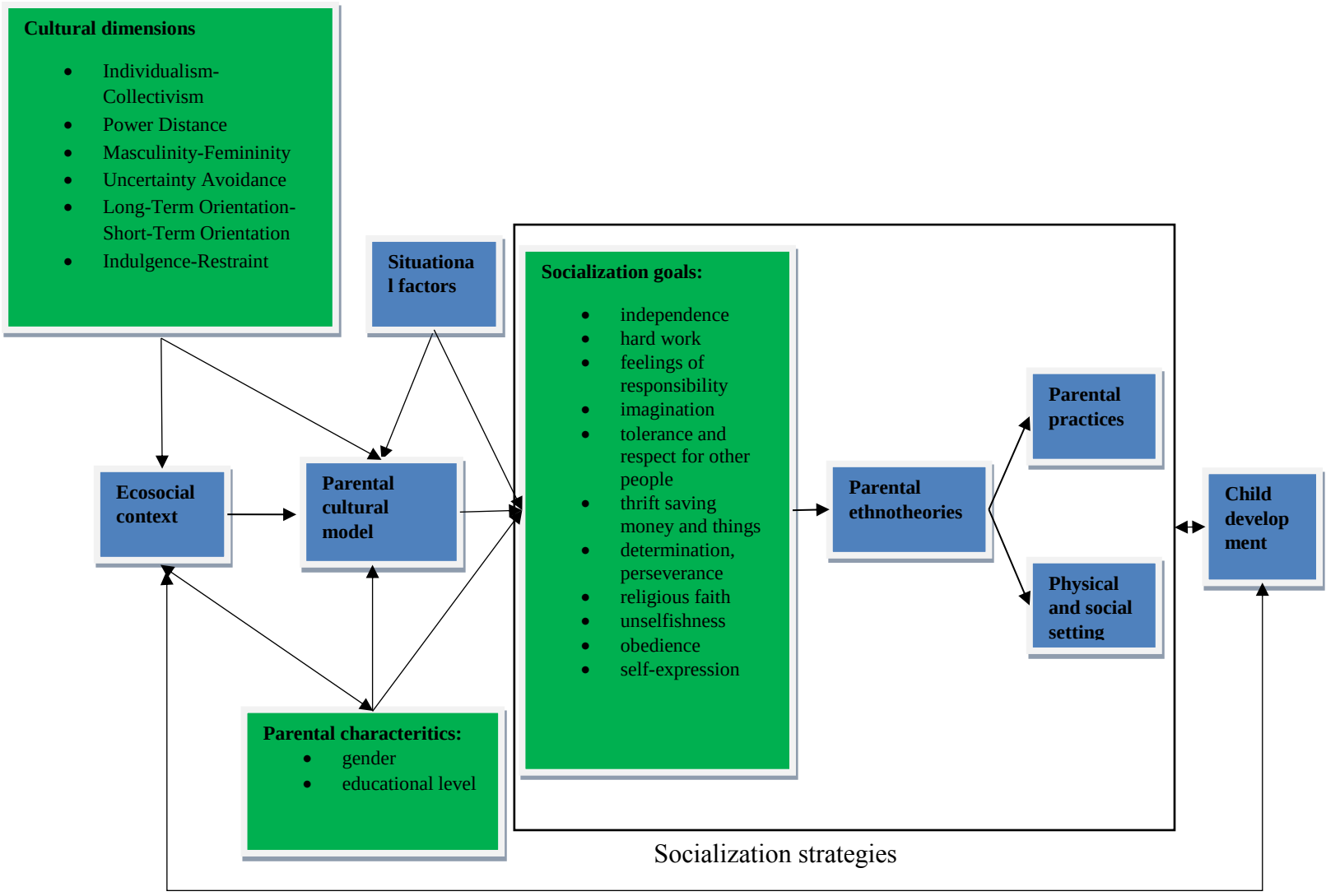

Figure 4.
The variables from the Extended Ecocultural Model of Development that are of interest in the present study (in green).

4.1.1. **Objectives And Hypotheses**

Objectives:

- To investigate cross-cultural differences regarding socialization goals as a function of Individualism-Collectivism, Power Distance, Masculinity-Femininity, Uncertainty Avoidance, Long-Term Orientation-Short-Term Orientation, and Indulgence-Restraint.

- To explore the relationship between cultural dimensions, gender and socialization goals.

- To investigate if Power Distance moderates the relationship between educational level and mother`s socialization goals.

Hypotheses:

H1: Regarding Individualism-Collectivism, we expected that, when controlling for the other cultural dimensions, parents from Individualistic countries, as compared to those from Collectivistic countries, will be more likely to mention independence, imagination, and self-expression, as socialization goals. In contrast, they will be less likely to mention obedience, unselfishness, tolerance and respect for other people and religious faith.

H2: Concerning Power Distance, we expected that, when controlling for the other cultural dimensions, parents from high Power Distance cultures will value obedience as a socialization goal more than parents from low Power Distance cultures. In contrast, they will value independence less.

H3: With regards to Masculinity-Femininity, we expected that, controlling for the other cultural dimensions, individuals from Masculine societies, as compared to those from Feminine societies, will value determination and perseverance more, as socialization goals. In contrast, they will value tolerance and respect for other people and unselfishness less.

H4: In regards to Uncertainty Avoidance, we expected that, controlling for the other cultural dimensions, individuals from high Uncertainty Avoidance cultures, as compared to those from low Uncertainty Avoidance cultures, will value independence as a socialization goal less. In contrast, they will value obedience more.

H5: With respect to the Long-Term Orientation-Short-Term Orientation dimension, we expected that, controlling for the other cultural dimensions, individuals from Long-Term cultures will value thrift, determination and hard-work, as socialization goals, more than individuals from Short-Term cultures.

H6: Regarding the Indulgence-Restraint dimension, we expected that, controlling for the other cultural dimensions individuals from Indulgent cultures will value thrift as a socialization goal less than individuals from Restraint cultures.

Research questions:

- Are Hofstede`s et al`s (2010) cultural dimensions associated with variations in the relationship between gender and socialization goals?
- Does Power Distance moderate the relationship between educational level and socialization goals?

4.2. Method

4.2.1. **Participants**

We selected 39.705 individuals from 40 countries for the sample used in this study (Argentina, Australia, Brazil, Chile, China, Taiwan, Colombia, Germany, Ghana, India, Iraq, Japan, Jordan, South Korea, Lebanon, Libya, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Nigeria, Pakistan, Peru, Philippines, Poland, Romania, Russia, Singapore, Slovenia, South Africa, Spain, Sweden, Thailand, Trinidad and Tobago, Turkey, Ukraine, Egypt, United States and Uruguay). The data were taken from the Sixth Wave of the World Value Survey which took place between 2010 and 2014 (WVS, 2014). To access this data, we sent a request by using the following website: http://www.worldvaluessurvey.org/wvs.jsp. We only included the countries for which we could obtain scores on all of Hofstede`s (2011) six cultural dimensions. In addition, we only included participants that reported having at least one child.

The mean age of individuals from the sample was 48.14 years (SD = 15.23) and it varied between 18 and 99 years. As regarding the gender of the participants, 43.8 % were male and 56.2% were female. The mean age of men was 49.48 (SD = 14.82), varying between 18 and 98 years. The mean age of women was 47.09 (SD = 15.47), varying between 18 and 99 years. The mean number of children was 2.57 (SD = 1.55), with men having a mean number of children (SD = 1.55) and women having a mean number of 2.57 children (SD = 1.54). To investigate statistics concerning the educational level of the overall sample, and of men and women taken separately, see Table 1.

To be able to investigate the association between the six cultural dimensions and the probability of a parent to mention a socialization goal, each country received a code that indicated its position on each of the six dimensions. More precisely, each country received a score of 0 if it

was Collectivistic (i.e., it had a score of under 50 on the Individualism-Collectivism dimension) or a score of 1 if it was Individualistic (i.e., it had a score of over 50 on the Individualism-Collectivism dimension, Hofstede et al., 2010). As regarding the Power Distance dimension, each country received a score of 0 if it had low Power Distance (i.e., a score of under 50 on this dimension) or 1 if it had high Power Distance (i.e., a score of over 50 on this dimension, Hofstede et al., 2010). With regards to the Masculinity-Femininity dimension, each country received a score of 0 if it was Feminine (i.e., a score of under 50) or 1 if it was Masculine (i.e., a score of over 50). With respect to the Uncertainty Avoidance dimension, each country received a score of 0 if it was low on this dimension (i.e., a score of under 50) or 1 if it was high on this dimension (i.e., a score of over 50). Concerning Long-Term Orientation-Short-Term Orientation, each country received a score of 0 if it was Short-Term Oriented (i.e., a score of under 50) or 1 if it was Long-Term Oriented (i.e., a score of over 50). Regarding Indulgence-Restraint, each country received a score of 0 if it was characterized by Restraint (i.e., a score of under 50) or a score of 1 if it was characterized by Indulgence (i.e., a score of over 50, Hofstede et al., 2010).

4.2.2. **Instruments**

4.2.2.1. **Socialization goals**

Participants from each country were asked to select five qualities that children should learn at home from a list of eleven qualities: independence; hard work; feelings of responsibility; imagination; tolerance and respect for other people; thrift saving money and things; determination, perseverance; religious faith; unselfishness; obedience; self-expression. As we can see, the participants were asked if they value socialization goals that could be categorized as being autonomous (e.g., independence, self-expression) and socialization goals that could be categorized as being relational (e.g., unselfishness, feelings of responsibility). In the case of each socialization goal, the participant received a score of 1 if that goal was mentioned as an important quality for the child to develop or a score of 2 if the goal wasn`t mentioned as an important quality. We only included in our sample individuals who mentioned between 1 and 5 socialization goals.

4.2.2.2. **Educational level**

Participants from each country were asked to report the highest educational level they have attained by selecting one of the following options: 1 = no formal education; 2 = incomplete primary

school; 3 = complete primary school; 4 = incomplete secondary school: vocational/technological type; 5 = complete secondary school: vocational/technological type; 6 = incomplete secondary school: university preparatory type; 7 = complete secondary school: university preparatory type; 8; some university studies, no degree; 9 = university studies with degree.

4.2.2.3. **Gross National Income per capita**

Estimates of Gross National Income per capita, calculated with the Atlas method for 2014, were obtained for all the countries from http://data.worldbank.org/indicator/NY.GNP.PCAP.CD except for Taiwan (Hofstede & McCrae, 2004). GNI per capita for Taiwan was retrieved from https://eng.stat.gov.tw/point.asp?index=1.

4.2.3. **Procedure**

The data utilized in this study come from the Sixth Wave of the World Values Survey (2016) and have been collected through face to face interviews with nationally representative samples that were made up of people over the age of 18. In each country, the interviews were conducted either face to face or telephonically by professional organizations, with a principal investigator supervising data collection in each country. Following a solicitation we made to http://www.worldvaluessurvey.org/wvs.jsp we received a database that contained the data used in the present study. To reach our objectives, we only included people that reported having at least one child. In addition, we included only the part of the interview that focused on socialization goals and the part that focused on educational level.

To reach our first objective and investigate if there are cross-cultural differences regarding socialization goals as a function of Hofstede`s six cultural dimensions, we conducted a series of logistic regressions. While conducting these analyses, we controlled for GNI per capita of the country, number of socialization goals mentioned by the parent and parent gender. We controlled for number of socialization goals mentioned by parents because those that mentioned more socialization goals were more likely to endorse each of the eleven socialization goals. We controlled for gender in the first phase to investigate cross-cultural differences with variance due to gender partialled out. In the second phase, we explored the relationship between each cultural dimension, parental gender and the probability of mentioning the different socialization goals

4.3. **Results**

4.3.1. **Statistical Analysis Pertaining To The First And Second Objective**

4.3.1.1. **Statistical analyses pertaining to independence**

As a first step, we ran a logistic regression model ($\chi 2$ (9) = 3362.900, p = .000) in which **independence** was entered as a dependent variable (see Table 4).

Table 4.

Logistic Regression of Independence on Hofstede`s Cultural dimensions

	Independence		
	b (SE)	*OR*	*OR* 95% C.I [LL, UL]
GNI per capita 2014	.01*** (.00)	1.01	[1.009;1.012]
Number of socialization goals	.51***(.02)	1.66	[1.615;1.716]
Parent gender	-.01 (.02)	1.02	[.973;1.058]
Individualism-Collectivism	-.25*** (.04)	.77	[.713; .847]
Power Distance	-.48***(.05)	.62	[.56;.68]
Masculinity-Femininity	.05* (.02)	1.05	[1.005;1.103]
Uncertainty Avoidance	-.67*** (.03)	.51	[.488;.541]
Long-Term Orientation-Short-Term Orientation	.34*** (.03)	1.40	[1.321;1.479]
Indulgence-Restraint	-.29*** (.03)	.75	[.706;.792]
Constant	-1.61*** (.10)	.20	

Notes.*OR*=odds ratio; In the case of GNI per capita 2014 and number of socialization goals mentioned, a higher OR indicates that the higher the GNI per capita or the number of socialization goals mentioned, the higher the probability of mentioning the socialization goal. In the case of gender, the OR indicates the probability of an individual mentioning a goal if he is male vs. female. In the case of each dimension this indicates the probability of an individual mentioning a goal if he/she is from a culture that is high on the respective dimension vs. a culture that is low on that dimension. In the case of Individualism-Collectivism it tells us the probability of an individual mentioning independence when he/she is from and Individualistic culture vs. a Collectivistic culture. In the case of Power Distance, it tells us the probability of an individual mentioning independence when he/she is from a high Power Distance culture vs. a low Power Distance culture. In the case of Masculinity-Femininity, it tells us the probability of an individual mentioning independence when he/she is from a Masculine culture vs. a Feminine culture. In the case of Uncertainty Avoidance, it tells us the probability of an individual mentioning independence when he/she is from a high Uncertainty Avoidance culture vs. a Low Uncertainty Avoidance culture. In the case of Long-Term Orientation-Short-Term Orientation it tells us the probability of an individual mentioning independence when he/she is from a Long-Term oriented culture vs. a Short-Term oriented culture. In the case of Indulgence-Restraint, it tells us the probability of an individual mentioning independence when he/she is from an Indulgence culture vs. a Restraint culture.*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

We ran the analysis conducted in the first step again, but we entered a new step in the logistic regression model ($\chi 2$ (15) = 3410.204, p = .000) in which we included the interaction between gender and each cultural dimension. The only significant interactions were between Power Distance and gender (b = -.37, *SE* = .10, *OR* = .69, p = .000) and between Uncertainty Avoidance and gender (b = .12, *SE* = .05, *OR* = 1.13, p = .023). Females in low Power Distance countries were more likely than males to mention independence (b = .19, *SE* = .04, *OR* = 1.21, p = .000). In contrast, in high Power Distance countries, males were more likely to mention independence (b = -.10, *SE* = .02, *OR* = .90, p = .000). Concerning Uncertainty Avoidance, the relationship between gender and the independence socialization goal wasn`t significant in either low (b = -.02, SE = .04, *OR* = .98, p = .575) or high Uncertainty Avoidance cultures (b = -.02, *SE* = .02, *OR* = .98, p = .337)

4.3.1.2. **Statistical analyses pertaining to hard work**

In the second step, we ran a logistic regression model ($\chi 2$ (9) = 3105.000, p = .000) in which **hard work** was entered as a dependent variable (see Table 5).

Table 5.

Logistic Regression of Hard Work on Hofstede`s Cultural dimensions

	Hard Work		
	b (SE)	*OR*	*OR* 95% C.I [LL, UL]
GNI per capita 2014	-.02***(.00)	.98	[.975;.978]
Number of socialization goals	.42***(.02)	1.52	[1.478;1.565]
Gender of parent	-.17***(.02)	.85	[.813;.884]
Individualism-Collectivism	-.18***(.04)	.84	[.771; .914]
Power Distance	-.33*** (.05)	.72	[.656;.792]
Masculinity-Femininity	-.21*** (.02)	.81	[.778;.852]
Uncertainty Avoidance	-.70*** (.03)	.50	[.472;.524]
Long-Term Orientation-Short-Term Orientation	.49*** (.03)	1.63	[1.541;1.730]
Indulgence-Restraint	-.21*** (.03)	.81	[.764;.855]
Constant	-.39*** (.09)	.68	

Notes.OR=odds ratio; For more explanations see table 4.

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

We ran the analysis conducted in the second step again, but we entered a new step in the logistic regression model ($\chi 2$ (15) = 3182.999, p = .000) in which we included the interaction between gender and each cultural dimension. The only significant interactions were between Masculinity-Femininity and gender (b = -.23, SE = .05, OR = .79, p = .000), between Uncertainty Avoidance and gender (b = -.21, SE = .05, OR = .81, p = .000), between Long-Term vs. Short-Term orientation and gender (b = .19, SE = .05, OR = 1.21, p = .000) and between Indulgence and gender (b = .140, SE = .05, OR = 1.15, p = .015). Concerning Masculinity-Femininity, the relationship was significant only in Masculine cultures (b = -.28, SE = .03, OR = .76, p = .000) with men more likely to mention the goal. In regards to Uncertainty Avoidance, the relationship was slightly weaker in low Uncertainty Avoidance cultures (b = -.12, SE = .04, OR = .89, p = .004) than in high Uncertainty Avoidance cultures (b = -.15, SE = .02, OR = .86, p = .000), with men valuing hardwork more in both cultures. With respect to Long-Term-Short-Term Orientation, the relationship was only significant in Short-Term Oriented cultures (b = -.215, SE = .000, OR = .81, p = .000), with males valuing hardwork more than females. In regards to Indulgence-Restraint, the relationship was slightly stronger in Restraint cultures (b = -.133, SE = .03, OR = .88, p = .000) than in Indulgence cultures (b = -.163, SE = .03, OR = .85, p = .000), with males valuing hardwork more than females in both types of culture.

4.3.1.3. **Statistical analyses pertaining to feelings of responsibility**

In the third step, we ran a logistic regression model ($\chi 2$ (9) = 3433.646, p = .000) in which **feelings of responsibility** was entered as a dependent variable (see Table 6).

Table 6.

Logistic Regression of Feelings of Responsibility on Hofstede`s Cultural dimensions

	Feelings of Responsibility		
	b(*SE*)	*OR*	*OR* 95% C.I [LL, UL]
GNI per capita 2014	.01***(.00)	1.01	[1.008;1.012]
Number of socialization goals chosen	.59***(.02)	1.80	[1.751;1.854]
Gender of parent	.01(.02)	1.01	[.959;1.052]
Individualism-Collectivism	.67***(.05)	1.96	[1.779; 2.157]
Power Distance	.73*** (.05)	2.08	[1.874;2.305]
Masculinity-Femininity	.09***(.03)	1.09	[1.035;1.151]
Uncertainty Avoidance	.46*** (.03)	1.59	[1.501;1.681]

Long-Term Orientation-Short-Term Orientation	.72*** (.03)	2.05	[1.917;2.184]
Indulgence-Restraint	.04 (.03)	1.04	[.980;1.109]
Constant	-3.318*** (.10)	.04	

Notes.OR=odds ratio; For more explanations see Table 4

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

We ran the analysis conducted in the third step again but we entered a new step in the logistic regression model ($\chi 2$ (15) = 3441.172, p = .000) in which we included the interaction between gender and each cultural dimension. There was no significant interaction between gender and the six cultural dimensions.

4.3.1.4. Statistical analyses pertaining to imagination

As a fourth step we ran a logistic regression model ($\chi 2$ (9) = 1011.710, p = .000) in which **imagination** was entered as a dependent variable (see Table 7).

Table 7.

Logistic Regression of Imagination on Hofstede`s Cultural dimensions

	Imagination		
	b(*SE*)	*OR*	*OR* 95% C.I [LL, UL]
GNI per capita 2014	.00***(.00)	1.00	[1.002;1.006]
Number of socialization goals chosen	.437***(.02)	1.55	[1.479;1.620]
Gender	-.190***(.03)	.83	[.787;.870]
Individualism-Collectivism	.27*** (.05)	1.31	[1.175; 1.452]
Power Distance	-.13* (.06)	.88	[.782;.992]
Masculinity-Femininity	.07**(.03)	1.07	[1.013;1.136]
Uncertainty Avoidance	-.13*** (.03)	.88	[.830;.934]
Long-Term Orientation-Short-Term Orientation	.12*** (.04)	1.13	[.83;.93]
Indulgence-Restraint	.06 (.04)	1.06	[.99;.14]
Constant	-3.46*** (.14)	.03	

Note.OR=odds ratio; For more explanations see Table 4

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

We ran the analysis conducted in the fourth step again but we entered a new step in the logistic regression model ($\chi 2$ (15) = 1036.148, p = .000), in which we included the interaction

between gender and each cultural dimension. The only significant interaction was between gender and Indulgence-Restraint (*b* = .17, *SE* = .07, *OR* = 1.18; *p* = .023). In Restraint cultures, the relationship was stronger (*b* = -.28, SE = .03, *OR* = .76; *p*= .000) than in Indulgence cultures (*b* = -.09, *SE* = .04, *OR* = .915; *p* = .019), with males valuing imagination more than females.

4.3.1.5. **Statistical analyses pertaining to tolerance and respect for other people**

As a fifth step we ran a logistic regression model ($\chi 2$ (9) = 1011.710, *p* = .000) in which **tolerance and respect for other people** was entered as a dependent variable (see Table 8).

Table 8.

Logistic Regression of Tolerance on Hofstede`s Cultural dimensions

	Tolerance and respect for other people		
	b(*SE*)	*OR*	*OR* 95% C.I [LL, UL]
GNI per capita 2014	.01***(.00)	1.01	[1.009;1.013]
Number of socialization goals mentioned	.57***(.01)	1.77	[1.719;1.819]
Gender	.06**(.02)	1.07	[1.019;1.114]
Individualism-Collectivism	.37*** (.05)	1.44	[1.310; 1.582]
Power Distance	.25*** (.05)	1.28	[1.161;1.431]
Masculinity-Femininity	.04 (03)	1.04	[.993;1.098]
Uncertainty Avoidance	.54*** (.03)	1.72	[1.633;1.818]
Long-Term Orientation-Short-Term Orientation	-.15*** (.03)	.87	[.814;.919]
Indulgence-Restraint	.37*** (.03)	1.46	[1.370; 1.554]
Constant	-2.89*** (.09)	.06	

Note.OR=odds ratio. For more explanations please see Table 4.

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

We ran the analysis conducted in the fifth step again but we entered a new step in the logistic regression model ($\chi 2$ (15) = 2792.178, *p* = .000) in which we included the interaction between gender and each cultural dimension. The only significant interactions were between gender and Individualism-Collectivism (*b* = .28, *SE* = .09, *OR* = 1.32; *p* = .003), gender and Masculinity-Femininity (*b* = .11, *SE* = .05, *OR* = 1.11; *p* = .036), and between gender and Uncertainty Avoidance (*b* = .12, *SE* = .06, *OR* = 1.13; *p* = .025). In respect to Individualism-Collectivism, the relationship between gender and the tolerance and respect for other people goals was significant only in Individualistic cultures (*b* = .20, *SE* = .05, *OR* = 1.23, *p* = .000), with

females more likely to mention tolerance than males. In regards to Masculinity-Femininity, the relationship between gender and the tolerance and respect for other people goal was only significant in Masculine cultures (*b* = .13, *SE* = .03, *OR* = 1.14; *p* = .000), with females more likely to mention tolerance and respect for other people than males. Concerning Uncertainty Avoidance, the relationship was significant only in high Uncertainty avoidance cultures, (*b* = .07, *SE* = .03, *OR* = 1.07; *p* = .010), with females more likely to mention this goal than males.

4.3.1.6. **Statistical analyses pertaining to thrift, saving money and things**

As a sixth step we ran a logistic regression model ($\chi 2$ (6) = 2642.228, *p* = .000) in which **thrift, saving money and things** was entered as a dependent variable (see Table 9).

Table 9.

Logistic Regression of Thrift on Hofstede`s Cultural dimensions

	Thrift saving money and things		
	b (*SE*)	*OR*	*OR* 95% C.I [LL, UL]
GNI per capita 2014	-.00(.00)	1.00	[.997;1.000]
Number of socialization goals mentioned	.580***(.02)	1.79	[1.723;1.853]
Gender of parent	.05*(.02)	1.05	[1.004;1.093]
Individualism-Collectivism	.34***(05)	1.40	[1.278; 1.538]
Power Distance	.46** (.05)	1.58	[1.421;1.752]
Masculinity-Femininity	-.05** (.02)	.95	[.905;.993]
Uncertainty Avoidance	-.26*** (.03)	.77	[.732;.810]
Long-Term Orientation-Short-Term Orientation	.73*** (.03)	2.07	[1.962;2.199]
Indulgence-Restraint	-.11*** (.03)	.90	[.847;.953]
Constant	.04 (.07)	1.04	

Notes.OR=odds ratio; For more details see Table 4.

*p ≤.05, **p ≤.01, ***p≤.001

We ran the analysis conducted in the sixth step again, but we entered a new step in the logistic regression model ($\chi 2$ (15) = 2667.720, *p* = .000) in which we included the interaction between gender and each cultural dimension. The only significant interactions were between gender and Power Distance (*b* = .31, *SE* = .08, *OR* = 1.37; *p* = .000) and between gender and Masculinity-Femininity (*b* = .18, *SE* = .05, *OR* = 1.19; *p* = .000). With respect to Power Distance, the relationship was significant only in high Power Distance cultures (*b* = .07, *SE* = .02, *OR* = 1.07,

p = .004) with females mentioning thrift with a higher probability than males. Regarding Masculinity-Femininity, the relationship was only significant in Feminine cultures (b = -.18, SE = .03, OR = .83, p = .000), with males mentioning thrift with a higher probability than females.

4.3.1.7. **Statistical analyses pertaining to determination and perseverance**

As a seventh step we ran a logistic regression model ($\chi 2$ (6) = 607.881, p = .000) in which **determination and perseverance** was entered as a dependent variable (see Table 10).

We ran the analysis conducted in the seventh step again but we entered a new step in the logistic regression model ($\chi 2$ (15) = 2205.589, p = .000) in which we included the interaction between gender and each cultural dimension. The only significant interaction was between gender and Masculinity-Femininity (b = .12, SE = .05, OR = 1.12, p = .016). Regarding Masculinity-Femininity, the relationship was significant only in Feminine cultures (b = -.18, SE = .03, OR = .83, p = .000), with males valuing determination and perseverance more than females.

Table 10.

Logistic Regression of Determination and Perseverance on Hofstede`s Cultural dimensions

	Determination and perseverance		
	b (*SE*)	*OR*	*OR* 95% C.I. [LL, UL]
GNI per capita 2014	.01***(.00)	1.01	[1.012;1.015]
Number of socialization goals mentioned	.59***(.02)	1.81	[1.742;1.881]
Gender of parent	-.12***(.02)	.89	[.852;.928]
Individualism-Collectivism	.02 (05)	.96	[.878; 1.054]
Power Distance	-.02 (.05)	.98	[.885;1.083]
Masculinity-Femininity	-.03 (.02)	.98	[.930;1.023]
Uncertainty Avoidance	.07** (.03)	1.07	[1.015;1.125]
Long-Term Orientation-Short-Term Orientation	.27*** (.03)	1.31	[1.233;1.384]
Indulgence-Restraint	-.07* (.03)	.94	[.882;.994]
Constant	-3.69*** (.12)	.03	

Note.OR=odds ratio; For details see Table 4

*p ≤.05, **p ≤.01, ***p≤.001

4.3.1.8. **Statistical analyses pertaining to religious faith**

As an eight step we ran a logistic regression model ($\chi 2$ (6) = 5474.221, p = .000) in which **religious faith** was entered as a dependent variable (see Table 11).

Table 11.

Logistic Regression of Religious Faith on Hofstede`s Cultural dimensions

	Religious faith		
	b (*SE*)	*OR*	*OR* 95% C.I [LL, UL]
GNI per capita 2014	-.02***(.00)	.98	[.979;.983]
Number of socialization goals mentioned	.56***(.02)	1.74	[1.680;1.805]
Gender	.21***(.02)	1.23	[1.175; 1.286]
Individualism-Collectivism	-.59*** (05)	.56	[.509; .610]
Power Distance	-.49*** (.05)	.61	[.557;.678]
Masculinity-Femininity	-.02 (.03)	.98	[.932;1.032]
Uncertainty Avoidance	-.00 (.03)	1.00	[.939;1.056]
Long-Term-Orientation-Short-Term Orientation	-1.56*** (.03)	.21	[.197;.224]
Indulgence-Restraint	-.28*** (.03)	.75	[.71;.80]
Constant	-1.74*** (.11)	.18	

Note.OR=odds ratio; For more explanations please see Table 4

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

We ran the analysis conducted in the eight step again but we entered a new step in the logistic regression model ($\chi 2$ (15) = 7487.524, p = .000) in which we included the interaction between gender and each cultural dimension. The only significant interaction was between gender and Masculinity-Femininity (b = -.14, SE = .05, OR = .87, p = .010). With respect to Masculinity-Femininity, the relationship was stronger in Feminine cultures (b = .24, SE = .03, OR = 1.28, p = .000) than in Masculine cultures (b = .14, SE = .03, OR = 1.15, p = .000), with females more likely to mention the religious faith socialization goal than males.

4.3.1.9. **Statistical analyses pertaining to unselfishness**

As a ninth step we ran a logistic regression model ($\chi 2$ (6) = 1712.576, p = .000) in which **unselfishness** was entered as a dependent variable (see Table 12).

Table 12.

Logistic Regression of Unselfishness on Hofstede`s Cultural dimensions

	Unselfishness		
	b (SE)	*OR*	*OR* 95% C.I [LL, UL]
GNI per capita 2014	.01***(.00)	1.01	[1.010;1.014]
Number of socialization goal mentioned	.51***(.02)	1.66	[1.598;1.730]
Gender	.03(.02)	1.03	[.989;1.081]
Individualism vs. Collectivism	-.38 (.05)	.68	[.620; .749]
Power Distance	.45*** (.05)	1.56	[1.410;1.732]
Masculinity vs. Femininity	.19*** (.03)	1.22	[1.157;1.275]
Uncertainty Avoidance	-.08*** (.03)	.93	[.877;.977]
Long-Term Orientation vs. Short-Term Orientation	-.54*** (.03)	.58	[.547;.620]
Indulgence vs. Restraint	.25*** (.03)	1.29	[1.211;1.364]
Constant	-3.75*** (.07)	.02	

Note.OR=odds ratio; For more explanations please see Table 4

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

We ran the analysis conducted in the ninth step again but we entered a new step in the logistic regression model ($\chi 2$ (15) = 1724.082, p = .000) in which we included the interaction between gender and each cultural dimension. The only significant interaction was between gender and Long-Term Orientation-Short-Term Orientation (b = -.14, SE = .06, OR = .88, p = .012). With respect to Long-Term Orientation-Short-Term Orientation, the relationship was significant only in Short-Term Orientation cultures (b = .07, SE = .03, OR = 1.07, p = .015) with females more likely to mention unselfishness than males.

4.3.1.10. **Statistical analyses pertaining to obedience**

As a tenth step we ran a logistic regression model ($\chi 2$ (6) = 4287.438, p = .000) in which **obedience** was entered as a dependent variable (see Table 13).

Table 13.

Logistic Regression of Obedience on Hofstede`s Cultural dimensions

	Obedience		
	b (*SE*)	*OR*	*OR* 95% C.I [LL, UL]
GNI per capita 2014	-.01***(.00)	.99	[.984;.988]
Number of socialization goals mentioned	.28***(02)	1.33	[1.284;1.367]
Gender	.08***(.02)	1.08	[1.036;1.130]
Individualism-Collectivism	-.27*** (.05)	.77	[.702; .837]
Power Distance	-.11* (.05)	.90	[.813;.985]
Masculinity-Femininity	-.07*** (.03)	.94	[.891;.983]
Uncertainty Avoidance	.52*** (.03)	1.68	[1.583;1.778]
Long-Term-Orientation-Short-Term Orientation	-.910*** (.03)	.403	[.378;.428]
Indulgence-Restraint	.36*** (.03)	1.44	[1.36;1.52]
Constant	-1.76*** (.10)	.17	

Note.OR=odds ratio; Please see Table 4 for more explanations.

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

We ran the analysis conducted in the tenth step again but we entered a new step in the logistic regression model ($\chi 2$ (15) = 1724.082, p = .000) in which we included the interaction between gender and each cultural dimension. The only significant interaction was between gender and Power Distance (b = .20, SE = .10, OR = 1.22, p = .043). The relationship between gender and the obedience socialization goal was significant only in high Power Distance cultures (b = .14, SE = .02, OR = 1.15, p = .000), with females mentioning this socialization goal more often than males.

4.3.1.11. **Statistical analyses pertaining to self-expression**

As an eleventh step we ran a logistic regression model ($\chi 2$ (6) = 672.579, p = .000) in which **self-expression** was entered as a dependent variable (see Table 14).

Table 14.

Logistic Regression of Self-Expression on Hofstede`s Cultural dimensions

	Self-expression		
	b (*SE*)	*OR*	*OR* 95% *C.I* [LL, UL]
GNI per capita 2014	-.00**(.00)	1.00	[.996;.999]
Number of socialization goals mentioned	.53***(.02)	1.70	[1.619;1.774]
Gender	.06**(.03)	1.06	[1.014;1.116]
Individualism-Collectivism	.53** (.05)	1.70	[1.537.;1.875]
Power Distance	-.03 (.06)	.97	[.869;1.088]
Masculinity-Femininity	.06 (.03)	1.062	[1.007;1.121]
Uncertainty Avoidance	.54*** (.03)	1.72	[1.617;1.831]
Long-Term-Orientation-Short-Term Orientation	.40*** (.03)	1.50	[1.400;1.596]
Indulgence-Restraint	-.08** (.04)	.92	[.861;.987]
Constant	-4.40*** (.14)	.01	

Note.OR=odds ratio. For more explanations see Table 4.

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

We ran the analysis conducted in the eleventh step again but we entered a new step in the logistic regression model ($\chi 2$ (15) = 1406.836, p = .000) in which we included the interaction between gender and each cultural dimension. The only significant interaction was between gender and Indulgence-Restraint (b = -.15, SE = .07, OR = .86, p = .026). The relationship was significant only in Restraint cultures (b = .10, SE = .03, OR = 1.11, p = .000), with females more likely to mention the self-expression goal.

4.3.1.12. **Summary of the results pertaining to the first and second objective**

We summarized the results of our analyses, relative to our hypotheses, in table 15. It is important to mention that not all of the results are presented in the table, only those that are relevant for our hypotheses.

Table 15.

Results of study 2 in regards to the first objective

	Individuals from countries that have a score below 50 on this dimension are more likely to mention:	Individuals from countries that have a score above 50 on this dimension are more likely to mention:
Individualism-Collectivism	Independence, Religious faith, Obedience	Imagination, Self-expression, Tolerance and respect for other people
Power Distance	Independence, Obedience	
Masculinity-Femininity		Altruism
Uncertainty Avoidance	Independence	Obedience
Long-Term Orientation-Short-Term Orientation		Hardwork, Thrift, Determination
Indulgence-Restraint	Thrift	

Notes. See in green the results in concordance to our hypotheses and in red results that do not support our hypotheses.

We also found that several interactions between gender and the various cultural dimensions were significant. Please inspect Table 16, to view a summary of the results we obtained relative to the second objective.

Table 16.

Results of study 2 in regards to the second objective

	Males	Females
Individualism-Collectivism		
Individualism		Tolerance and respect for other people[+]
Collectivism		
Power Distance		
High Power Distance	Independence[+]	Thrift[*], Obedience[*]
Low Power Distance		
Masculinity-Femininity		
Masculinity	Hard work[*]	Tolerance and respect for other people[*]
Femininity	Thrift[*], Determination[*]	Religious Faith[+]
Uncertainty Avoidance		
High Uncertainty Avoidance	Hard work[+]	Tolerance and respect for other people[+]
Low Uncertainty Avoidance		Unselfishness[+]
Long-Term Orientation-Short-Term Orientation		
Long-Term Orientation		
Short-Term Orientation	Hard work[+]	
Indulgence-Restraint		
Indulgence		
Restraint	Hard work[+], Imagination[+]	Self-expression[*]

Notes. [A] In the case of each of the six cultural dimensions, there is a row for countries who score high on that dimension (i.e., above 50) and a row for countries who score low on that dimension (i.e., below 50), In addition there is a column for males and a column for females When a socialization goal is marked with *, the relationship between gender and that goal is significant only in the cultural group who scores either high or low on that dimension, as indicated by the row on which it appears. In addition, the column in which the socialization goal appears indicates the gender that is more likely to mention that socialization goal. For example, in the case of Masculinity-Femininity, the difference between males and females regarding the probability of mentioning hard work is significant only in Masculine cultures, not in Feminine cultures.
[B] In the case of each of the six cultural dimensions, there is a row for countries who score high on that dimension (i.e., above 50) and a row for countries who score low on that dimension (i.e., below 50). In addition there is a column for males and a column for females. When a socialization goal is marked with [+], the relationship between gender and that purpose is stronger in the cultural group who scores either high or low on that dimension, as indicated by the row on which it appears. In addition, the column in which the socialization goal appears indicates the gender that is more likely to mention that socialization goal. For example, in the case of Masculinity-Femininity, the difference between males and females regarding the probability of mentioning religious faith is greater in Femininity cultures.

4.3.2. **Statistical Analyses Pertaining To The Third Objective**

To reach our third objective and explore if Power Distance moderates the relationship between educational level and socialization goals, we used a series of logistic regressions. We conducted eleven logistic regressions, one for each of the socialization goals measured. In each of these logistic regressions, GNI per capita from 2014, number of socialization goals chosen and

gender were introduced as control variables and Power Distance, mean centered educational level, and the interaction between Power Distance and educational level as predictors. In the following we will report only the results pertaining to the interaction between Power Distance and educational level in predicting each goal. For a full report of coefficients, please inspect the thesis.

4.3.2.1. Statistical analyses pertaining to independence

The interaction between Power Distance and educational level significantly predicted the **independence** goal, *b* = .07, *SE* = .01, *p* = .000, *OR* = 1.07. In the case of high Power Distance countries, the association between educational level and the independence goal was stronger (*b* = .07, *SE* = .01, *p* = .000, OR = 1.08) than in the case of low Power Distance countries (*b* =.03, *SE* = .01, *p* = .002, OR = 1.03). In both of these types of culture, people with a higher educational level were more likely to mention independence as a socialization goal.

4.3.2.2. Statistical analyses pertaining to hard work

The interaction between Power Distance and educational level significantly predicted the **hard work** goal, *b* = -.06, *SE* = .01, *p* = .000, *OR* = .95. The association between educational level and the hard work goal was significant only in the case of high Power Distance cultures (*b* = -.04, *SE* = .01, *p* = .000, *OR* = .96), with higher educational levels being associated with a lower probability of mentioning hard work.

4.3.2.3. Statistical analyses pertaining to feelings of responsibility

The interaction between Power Distance and educational level significantly predicted the **feelings of responsibility** goal, *b* = .12, *SE* = .01, *p* = .000, *OR* = 1.13. The association between educational level and the feelings responsibility goal was significant only in the case of high Power Distance (b = .10, SE = .01, p = .000, OR = 1.10), with a higher educational level being associated with a higher probability of mentioning feelings of responsibility.

4.3.2.4. Statistical analyses pertaining to imagination

The interaction between Power Distance and educational level significantly predicted the **imagination** goal, *b* =- .11, *SE* = .01, *p* = .000, *OR* = .90. The association between educational level and the imagination goal was weaker in the case of high Power Distance cultures (*b* = .05,

SE = .01, *p* = .000, *OR* = 1.05) than in the case of low Power Distance (*b* = .16, *SE* = .01, *p* = .000, *OR* = 1.17), with a higher educational level being associated with a higher probability of mentioning imagination in both types of culture.

4.3.2.5. Statistical analyses pertaining to tolerance and respect

The interaction between Power Distance and educational level didn`t significantly predict the tolerance and respect for other people goal, *b* = -.02, *SE* = .01, *p* = .204, *OR* = .99.

4.3.2.6. Statistical analyses pertaining to thrift, saving money and things

The interaction between Power Distance and educational level significantly predicted the **thrift, saving money and things** goal, *b* = .13, *SE* = .01, *p* = .000, *OR* = 1.13. The association between educational level and the thrift, saving money and things goal was weaker in the case of high Power Distance cultures (*b* = -.01, *SE* = .01, *p* = .027, *OR* = .99) than in the case of low Power Distance cultures (*b* = -.11, *SE* = .01, *p* = .000, *OR* = .89), with a higher educational level being associated with a lower probability of mentioning thrift in both types of culture.

4.3.2.7. Statistical analyses pertaining to determination and perseverance

The interaction between Power Distance and educational level significantly predicted the **determination and perseverance** goal, *b* = .04, *SE* = .01, *p* = .000, *OR* = 1.04. The association was stronger in the case of high Power Distance cultures (*b* = .10, *SE* = .01, *p* = .000, *OR* = 1.10) than in the case of low Power Distance cultures (*b* = .08, *SE* = .01, *p* = .000, *OR* = 1.08), with a higher educational level being associated with a higher probability of mentioning determination.

4.3.2.8. Statistical analyses pertaining to religious faith

The interaction between Power Distance and educational level significantly predicted the **religious faith** goal, *b* = -.171, *SE* = .01, *p* = .000, *OR* = .843. The association was significant only in the case of high Power Distance cultures (*b* = -.13, *SE* = .01, *p* = .000, *OR* = .88), with a higher educational level being associated with a lower probability of mentioning the religious faith goal.

4.3.2.9. Statistical analyses pertaining to unselfishness

The interaction between Power Distance and educational level significantly predicted the **unselfishness** goal, *b* = -.10, *SE* = .01, *p* = .000, *OR* = .91. The association was significant only in the case of low Power Distance (*b* = .09, *SE* = .01, *p* = .000, *OR* = 1.094), with higher educational levels being associated with a higher probability of mentioning the unselfishness goal.

4.3.2.10. Statistical analyses pertaining to obedience

The interaction between Power Distance and educational level significantly predicted the **obedience** goal, *b* = .04, *SE* = .01, *p* = .000, *OR* = 1.04. The association between educational level and the obedience goal was weaker in the case of high Power Distance cultures (*b* = -.12, *SE* = .01, *p* = .000, *OR* = .89) than in the case of low Power Distance cultures (*b* = -.17, *SE* = .01, *p* = .000, *OR* = .85).

4.3.2.11. Statistical analyses pertaining to self-expression

The interaction between power distance and educational level significantly predicted the **self-expression** goal, *b* = .09, *SE* = .01, *p* = .000, *OR* = 1.10. The association was stronger in the case of high Power Distance cultures (*b* = .13, *SE* = .01, *p* = .000, *OR* = 1.13) than in the case of low Power Distance cultures (*b* = .05, SE = .01, *p* = .000, OR = 1.05), with a higher educational level being associated with a higher probability of mentioning the self-expression goal.

4.3.2.12. Summary of the results pertaining to the third objective

To inspect a summary of the results we obtained in regards to the third objective, see Table 17.

Table 17.

Results of study 2 in regards to the third objective

	Low Educational level	High Educational level
Power Distance		
High Power Distance	Religious faith*, Hard work*	Independence+, Determination+, Feelings of Responsibility*
Low Power Distance	Thrift+, Obedience*	Imagination+, Unselfishness*

Notes. [A] When a socialization goal is marked with *, the relationship between educational level and that purpose is significant only in the cultural group who scores either high or low on Power Distance, as indicated by the row on which it appears. In addition, individuals of the educational level indicated by the column in which the socialization goal appears more frequently mention that socialization goal. For example, in the case hard work, the difference

between individuals with high and low educational level is significant only in High Power Distance cultures, not in Low Power Distance cultures.

[B] When a socialization goal is marked with [+], the relationship between educational level and that purpose is stronger in the cultural group who scores either high or low on Power Distance, as indicated by the row on which it appears. In addition, individuals of the educational level indicated by the column in which the socialization goal appears more frequently mention that socialization goal. For example, in the case Thrift, the difference between individuals with high and low educational level is greater in High Power Distance cultures than in Low Power Distance cultures.

4.4. **Discussions**

The present study had three objectives. The first one was to investigate cross-cultural differences regarding socialization goals as a function of Hofstede et al`s (2010) six cultural dimensions. The second one was to explore the relationship between cultural dimensions, gender and socialization goals. The third one was to investigate if Power Distance moderates the relationship between educational level and parent`s socialization goals.

In regard to our first objective, our results indicate that there are some relationships between the six cultural dimensions and the socialization goals that were measured. Most of the associations we identified were congruent with past theorizing and research. However, we also found some interesting and unexpected associations. For instance, we found that Individualism-Collectivism was positively associated with thrift. This finding runs contrary to the fact that thrift should be opposed to the value of self-expression (Inglehart, 1997), because this value is associated with spending money and owning things (Park et al., 2014). However, it is congruent with the fact that, in developed countries, there is a focus on sustainable development and on preserving resources and materials (e.g., Dincer, 2000; Lund, 2007). Another interesting and unexpected finding was that Individualism-Collectivism was associated negatively with independence. This finding seems to indicate that independence, as a socialization goal, was mentioned more frequently in Collectivistic cultures. This is in contradiction with the predictions of prevalent models (see Greenfield, 2018; Kagitcbiasi, 2007; Keller & Kartner, 2013) and with the results of some studies (Bond & Lun, 2014; Wang & Tamis-LeMonda, 2003) which indicate that independence is a central socialization goals of parents from Individualistic cultures. Similarly to Park et al. (2014), we consider that parents from Collectivistic cultures valued independence more than parents from Individualistic cultures, because independence was interpreted not as the ability to act based on one`s own intentions and desires (Kagitcibasi, 2017), but as the ability to autonomously carry out tasks and responsibilities. This explanation is strengthened by the fact that self-expression, which

is more clearly associated with autonomy, was valued more in Individualistic cultures than in Collectivistic cultures. This explanation remains tentative and must be further explored.

The negative association between Power Distance on the one hand, and obedience and religious faith on the other, is also surprising if we take into consideration the predictions of current theoretical models (Hofstede et al., 2010). One possible explanation for these unexpected findings might be the fact that, in low Power Distance cultures, where independence and self-expression of the child are promoted, parental control is more difficult. In consequence, parent-child conflicts are more frequent and, as a result, the need for child obedience is more frequently felt (Park, 2014). A possible explanation in regards to the unexpected negative association between Power Distance and religion, is that religion might be valued not because it is a mechanism of control, but rather because it gives social cohesion (Kasmo et al., 2015).

In addition, the finding that hard work is less valued in Masculine cultures is unexpected. However, it might be explained by the fact that in Masculine cultures, there is a focus on earnings and prestige. As a consequence, hard work might not be valued because it is interpreted as referring to physically demanding labour. This type of labour is usually associated with a lower level of prestige, with lower pay and is less challenging (Rho, 2010). The fact that in Masculine cultures unselfishness was more frequently mentioned is also an unexpected finding. Based on previous findings, we would have expected that unselfishness is more important in Feminine cultures. One possibility is that unselfishness was associated with having enough resources to share, which might be considered a sign of high earning.

The fact that individuals from low Uncertainty Avoidance cultures valued hard work more is congruent with the notion that people from such cultures have a higher feeling of control and, as a consequence, they attribute their success to the effort they placed to attain it (Moza et al., 2018). This might make them more inclined to work hard, as they would feel that their effort will produce a change (Moza et al., 2018). The fact that they value hard work runs counter to Hofstede et al.`s (2010) observation that in low Uncertainty Avoidance cultures, individuals work hard only when needed. Also, the finding that individuals from low Uncertainty Avoidance cultures value unselfishness might be explained by the fact that in these cultures, where there are less worries about resources, people might be more inclined to share. However, this explanation is in conflict with the fact that thrift is also more valued in these types of cultures. However, the value placed on thrift might come from the fact that individuals from low Uncertainty Avoidance cultures are

more focused on recycling and repairing things themselves. This explanation is congruent with the fact that used cars are more frequently employed in this type of cultures (Hofstede et al., 2010). The higher frequency with which determination and perseverance are mentioned in high Uncertainty Avoidance cultures might be associated with the fact that there is a more intense working pattern in these cultures and determination is a key characteristic if one is to function efficiently in such an environment (Hofstede et al., 2010).

Another unexpected finding of this study is that obedience was more frequently mentioned in Indulgent cultures. In contrast, independence and self-expression were more frequently mentioned in Restraint cultures. These findings run counter to the fact that Indulgent cultures are loose societies in which self-expression and independence are valued, while Restraint cultures are tight societies in which self-expression and independence should not be encouraged (Gelfand et al., 2018). However, these findings might be explained by the fact that, in Indulgent cultures, there is less of an emphasis on socializing the child`s discipline and self-control. This might lead to frequent difficulties concerning parental control and to frequent conflicts with children. As such, parents from these cultures might express a higher need for child obedience. This is a tentative explanation and this type of dynamic should be tested and explored further.

We also found some interesting patterns in respect to our second objective. Firstly, our results suggest that, in Individualistic cultures, females, as compared to males, might be more oriented towards relationships (Cross et al., 2011). Secondly, our results suggest that, in high Power Distance cultures, gender might be one of the variables that structure social hierarchies, with males having more power than females. Thusly, they place a higher value on independence and a lower value on obedience and thrift. Thirdly, we can observe that in the case of socialization goals, Hofstede`s statement that the differences between males and females are lower in Feminine societies, with both genders focusing on cooperation, relationships and quality of life, doesn`t apply. In addition, the differences between genders, in the case of socialization goals, are higher in Feminine cultures, with males more likely to mention determination and thrift in these cultures. However, the gender profiles of people from Masculine cultures were confirmed, with males valuing hard work more and females valuing tolerance and respect more (Hofstede et al., 2010). Fourthly, our findings suggest that in high Uncertainty Avoidance cultures, females are more focused on relationships, while males are more focused on hard work. Fifthly, males from Short-Term cultures might be more similar with individuals from Long-Term cultures in that they value

effort and working towards a purpose. Sixthly, these results suggest that gender roles are more strictly prescribed in Restraint than in Indulgent cultures (Hofstede et al., 2010).

We also found some interesting results pertaining to our third objective. More specifically, we found that in high Power Distance cultures, there was a positive association between educational level and the probability of mentioning independence, feelings of responsibility, determination and self-expression. In contrast, there was a negative association between educational level and the probability of mentioning hard work and religious faith. This seems to indicate that, in the case of high Power Distance cultures, the power differential between individuals from the higher and lower socioeconomic strata is also evident in their socialization goals. This difference in the socialization goals of individuals from the higher and lower socioeconomic strata might be associated with the intergenerational transmission of the socioeconomic differences existent between families. More specifically, individuals from the higher socioeconomic strata might socialize their children to be autonomous, independent and to be able to self–express themselves. In contrast, individuals from the lower socioeconomic strata might socialize their children to be heteronomous and hard-working. Because of their socialization, children of individuals from the higher socioeconomic strata might be more adapted to a modern school and work environment in which autonomy, curiosity, and creativity are encouraged. As such, they might have access to better education and better paying jobs. The results also support Hofstede`s (2011) assumption that the differences between individuals with higher power (i.e., with a higher educational level, highers social status and more economic resources) and those with lower power (i.e., with a lower educational level, lower social status and fewer economic resources) are greater in high Power Distance cultures. More specifically, we are referring to the assumption that individuals with lower power have a higher focus on authoritarian values and obedience than individuals with higher power, this difference being more pronounced in high Power Distance countries.

In low Power Distance countries, individuals with higher educational levels were more likely to mention imagination and unselfishness, while individuals with lower educational levels were more likely to mention obedience and thrift. As we can observe, the differences between individuals were fewer in low Power Distance cultures. However, there are still some differences in the degree to which individuals with differing educational levels focus on socializing a child to be autonomous and independent.

Our results regarding the interaction between Power Distance and educational level suggest that current models need to nuance their oversimplifying predictions concerning the effects of socioeconomic development on the parenting beliefs of parents from a certain culture. Our results clearly reveal that Power Distance might influence how increases in the educational level of parents might influence their socialization goals.

This study is valuable, being the first that took into consideration all of Hofstede`s dimensions and collected data from a sample which was composed of individuals from numerous countries. Hence, our results are a first step towards a more nuanced understanding of cross-cultural variations in socialization goals. As stated, part of the results is in concordance with Hofstede`s model and with previous literature. In contrast, other results bring more nuances to the model and to predictions concerning the cross-cultural variations in socialization goals. Another important contribution is that we explored how culture moderates the association between gender and socialization goals. In consequence, our results offer important insights into how parental beliefs differ between genders as a function of the characteristics of a culture, as defined by Hofstede et al. (2010).

The present study also has a series of limitations . First, to test our hypotheses, we used data that was already collected. This approach had some limitations. More specifically, the socialization goals questionnaire provided socialization goals that were vague and ambiguous. As such, there might have been interindividual and cross-cultural differences in how parents interpreted these goals. Another limitation of the present study was that child gender was not assessed. Consequently, we couldn`t explore how child socialization goals vary as a function of child gender. Another important aspect to consider is that we should treat small effects found in this study with caution as we had a very large sample. Hence, we might have committed a Type I error.

In conclusion, in spite of these limitations, our study is highly relevant and leads to several innovations and applications in theory and practice. Our results suggest that the Ecocultural Model of Development would be greatly enhanced if the six cultural dimensions would be taken into consideration. We state this because adding the cultural dimensions will aid us in making more nuanced predictions regarding how socialization goals vary cross-culturally. It will also nuance the predictions we make regarding the effect of social and economic development on the parental beliefs of caregivers from a society. The results of our study also indicate that including the

interaction between the six cultural dimensions (society level factors), on the one hand, and gender and educational level (individual level factors) on the other, in the Ecocultural Model of Development, could be useful.

V. STUDY 3

5.1. Introduction

The objective of the present study was to construct and to preliminary validate a questionnaire that measures the parental ethnotheories of mothers of 3- to 6-year-olds regarding the promotion of autonomy (vs. heteronomy) and the promotion of relatedness (vs. separateness). The construction of this scale was necessary because there is a lack of instruments for the measurement of parental ethnotheories that mothers of preschoolers have, with respect to the promotion of autonomy (or heteronomy) and relatedness (or separateness). Most of the extant instruments that focus on parental ethnotheories do not consider the distinction made by Kagitcibasi (2017) between agency and interpersonal distance, regardless if they measured beliefs about parenting practices, child competence, social relationships or technology use. As such, existent instruments that measure parental ethnotheories cannot be used to investigate the influence of culture on parental ethnotheories concerning parenting practices through which the caregiver can promote the autonomy (or heteronomy) or relatedness (or separateness) of the child. Moreover, they cannot be used to investigate the association between the degree to which caregivers` cultural models are focused on autonomy (or heteronomy) and relatedness (or separateness), and the caregivers` parental ethnotheories regarding the promotion of autonomy (or heteronomy) and relatedness (or separateness).

To overcome this limitation, in the present study, we report the development and validation of a questionnaire that measures parental ethnotheories with regards to parenting practices promoting the autonomy (or heteronomy) and the relatedness (or separateness) of the child. In addition, this instrument was constructed to measure the parenting ethnotheories of mothers whose children were aged between 3 and 6 years.

5.1.1. Conceptualization Of Autonomy vs. Heteronomy Promotion And Of Relatedness vs. Separateness Promotion

In the present thesis we propose a novel conceptualization of autonomy vs. heteronomy promotion and of relatedness vs. separateness promotion, respectively. Firstly, we propose that

autonomy promoting parental practices are practices through which one promotes the capacity of the child to be an agent that is governed by his own wishes, intentions and motivations (Kagitcibasi, 2013). More specifically, we refer to practices through which: a) one offers reasons and explanations for the demands addressed to the child; b) one offers options to the child and encourages his initiatives; c) one minimizes the use of control techniques (Grolnick, 2002; Grolnick & Seal, 2008; Kagitcibasi, 2005; Norimatsu, 1993). In contrast, the promotion of heteronomy refers to practices through which one promotes the ability of the child to be an agent governed from the outside (Kagitcibasi, 2013). Heteronomy promoting practices are practices through which: a) one doesn`t offer motives and explanations for the demands addressed to the child; b) one doesn`t offer options to the child and doesn`t encourage initiative; c) one maximizes control techniques (Grolnick, 2002; Grolnick & Seal, 2008). We conceptualize the promotion of relatedness as referring to the encouragement of the child`s need for affiliation and connection (Liu et al., 2005; Dennis et al., 2007). Relatedness promoting parental practices are parental practices through which: a) one promotes the abilities of the child to initiate and maintain contact with others; b) one promotes the child`s abilities to harmoniously interaction with others (e.g., promoting cooperation; Liu et al., 2005; Whiting & Whiting, 1973; Garcia, Rivera, & Greenfield, 2015). By contrast, the promotion of separateness is manifested through: a) the promotion of the child`s initiatives of spending time alone; b) the promotion of the child`s ability to express his own wishes, opinions and emotions while interacting with others (Zeng & Greenfield, 2015; Yu, 2002; Norimatsu, 1993).

5.1.2. **Objective of the study**

The objective of the current study was to construct and preliminary validate a questionnaire that measures the parental ethnotheories of mothers of 3- to 6-year-olds.

In figure 5 below, we present the Extended Ecocultural Model of Development. The box colored in green represents the variables from the Extended Ecocultural Model that we focused on in this study.

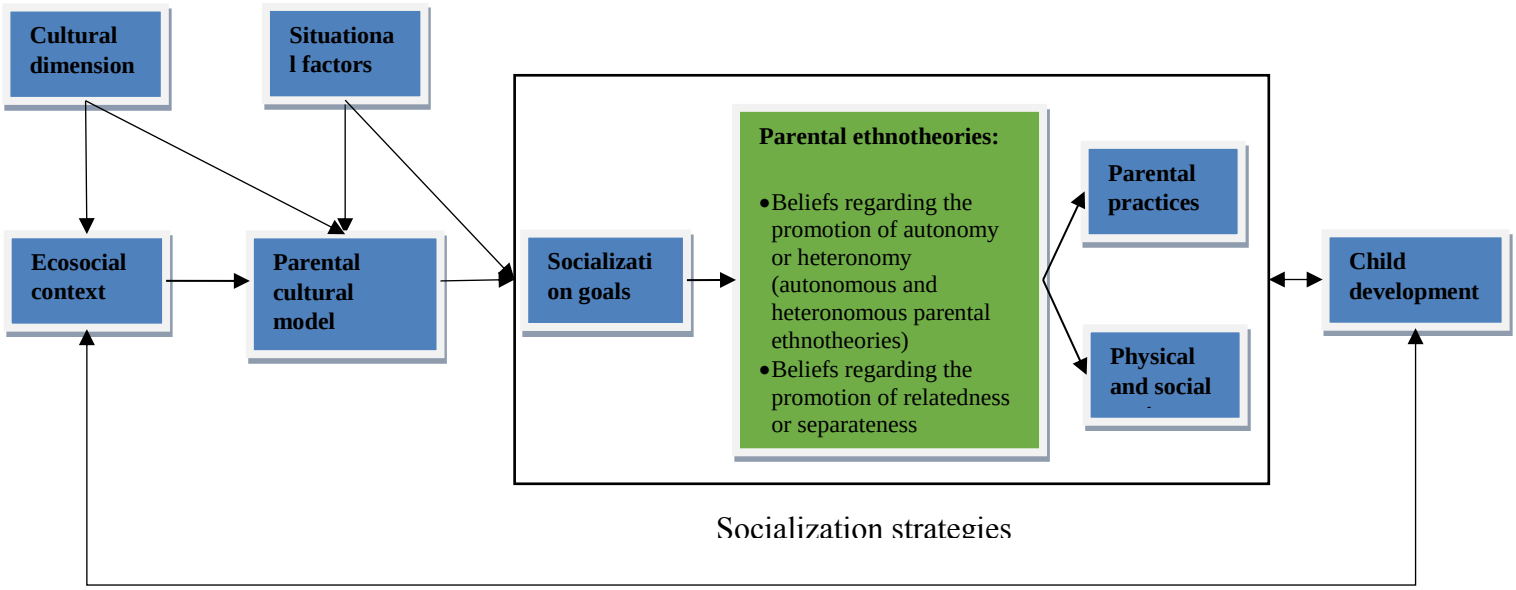

Figure 5.
The variables from the Extended Ecocultural Model of Development that are of interest in the present study (in green).

5.2. Methods

5.2.1. Procedure And Participants

We constructed a pool of initial items based on our conceptualization of the promotion of autonomy (or heteronomy) and the promotion of relatedness (or separateness) and on existing questionnaires (ex., Parenting Style Dimensions Questionnaire, Robinson, Mandeloc, Olsen, & Hart, 1995; Parenting Attitude Scale, Grolnick, Benjet, Kurowski, & Apostoleris, 1997; Parenting Context Questionnaire, Grolnick, Ryan, & Deci, 1991). The initial pool of items contained 94 items (see Appendix 1).

To assess the content validity of these items, we created an assessment form that was distributed to three researchers with expertise in cross-cultural research and in child development research. At the end of this step, we obtained a final pool of 64 items.

In the second phase, we pretested the constructed questionnaire , entitled the Preschooler Parenting Ethnotheories Questionnare (PPEQ), by distributing it to a sample of 10 mothers from Cluj–Napoca, whose children were aged between four and six years. To pretest the questionnaire,

we used the Three Step Interview (Hak, der Veer, & Jansen, 2008). More precisely, this interview was used to analyse the cognitive processes employed by mothers when responding to the questionnaire.. As a result of the interview, some items were modified, and some were eliminated.

In the third phase, in order to explore the factor structure of the questionnaire and its construct validity, we distributed the Preschooler Parenting Ethnotheories Questionnaire, which was now comprised of 57 items, along with the Self-Construal Scale (Vignoles et al., 2016), to a sample of 375 mothers of children aged between three and six years. The mean age of the mothers was 34.9 years (SD = 5.56). The mean age of the children was 59.89 months (SD = 11.39).

5.2.2. **Instruments**

5.2.2.1. **Sociodemographic questionnaire**

Mothers completed a questionnaire on several sociodemographic characteristics.

5.2.2.2. **Parenting Ethnotheories**

The questionnaire developed during this study, namely the Preschooler Parenting Ethnotheories Questionnaire (PPEQ), was built with the purpose to assess the parental ethnotheories of mothers with children aged between 3 and 6 years, regarding the promotion of autonomy (or heteronomy) and relatedness (or separateness). Respondents were asked to express their agreement with the importance of various parental practices presented in the items, on a scale from 1 (Strong Disagreement) to 6 (Strong Agreement).

5.2.2.3. **Self-construal**

To assess the self-construal of individuals, we utilized the Self-Construal Scale. This questionnaire was also validated by applying it to a Romanian sample (Vignoles et al., 2016). This scale has 62 items that are grouped in seven scales. Each of these scales represent different ways in which one can be independent or interdependent. The seven subscales are: Self-reliance vs. Dependence on Others (8 items); Self-containment vs. Connection to others (11 items); Difference vs. Similarity (9 items); Self-interest vs. Commitment to others (9 items); Consistency vs. Variability (8 items); Self-Direction vs. Receptiveness to influence (8 items); Self-expression vs. Harmony (9 items).

5.3. Results

5.3.1. Results Of Exploratory Factor Analysis

After the pretest phase, we distributed the questionnaire in its final form. Before exploring the factor structure and construct validity of the questionnaire, we screened the data (Tabachnick & Fidell, 2013). Out of the whole sample, 299 participants or cases had complete data. The missing data was not Missing Completely at Random (Little MCAR test resulted in $\chi^2 = 3744.85$ ($df = 3379$, $p = .00$)) However, in the case of the present study, we can infer that the missing data followed a MAR pattern because the probability that a score was missing could be predicted based on other variables included in the model (the scores of other items; Tabachnick & Fidell, 2013). The missing data imputation was implemented in NORM 2.03 (Schafer, 1997; Graham, 2012) busing an EM (expectation maximization) algorithm.

To explore the factor structure we conducted analyses on both the imputed data set and on the dataset which contained only the complete cases. Based on several considerations we decided to keep the factor solution obtained by analysing the full data set (N = 299 participants). First, the missing data followed a MAR pattern. Second, the factor solution obtained with the imputed and with the complete dataset was the same. Third, Gorsuch (1983) suggested to keep only those factors that surface when we utilize more strategies of factor analysis and factor extraction.

We report here the factor analysis conducted on the full data set. To explore the factor structure of the PPEQ questionnaire, comprised of 57 items, we utilized a principal axis factor analysis with the oblique rotation of factors (promax; Thompson, 2004). Fifteen factors had eigenvalues greater than Kaiser`s criterion of 1 and explained together 48.83%. However, in the case of this analysis, extracting factors based on Kaiser`s criterion was not efficient, because we had 299 participants, 57 variables and a mean communality of 0.49. The scree plot analysis suggested that a four factor solution is optimal. By conducting the MAP test, we observed that the solution with seven factors produced the lowest mean squared partial correlation. By conducting the parallel analysis with syntax written by Connor (2000), we obtained 10 factors that had eigenvalues greater than the mean eigenvalues calculated by using the randomly generated datasets. When we utilized the syntax written by Connor (2000) to generate 1000 datasets through permutation of the collected datasets, we obtained the same number of factors.

In the case of this analysis, out of all the solutions, the four factor one seemed to be the most interpretable. Next, we will describe the four factors obtained by analysing the data set that contained only complete cases. The first factor (Cronbach α = .92) had 25 items with loadings of more than .40 and, by inspecting the items, we decided to label it "beliefs regarding the promotion of autonomy and relatedness". This scale contained items that referred to practices through which autonomy can be promoted. Moreover, it contained items that referred to practices through which relatedness can be promoted. The second factor (Cronbach α = .83) was labelled "beliefs regarding the promotion of heteronomy" (10 items). This label was chosen because the factor contained items referring to the promotion of heteronomy (see appendix 4). The third factor (Cronbach α = .67), with 4 items, was labelled "beliefs regarding the promotion of the ability of the child to spend time alone". This label was selected because the factor contained items that referred to situations in which the parent promoted the ability of the child to spend time alone. The fourth factor (Cronbach α = .41) contained four items and was labelled "beliefs regarding the necessity to control the tendency of the child to stick out".

To assess the convergent and divergent validity of the questionnaire we conducted a series of Pearson correlations. Through these analyses, we investigated the relationship between the four components of parental ethnotheories measured by the PPEQ, the components of one`s self-construal measured by the Self-Construal scale (Vignoles et al., 2016), and mother`s educational level. For these analyses, we used only the subscales of the Self-Construal scale that had an internal consistency greater than .60.

Tabel 22.
Pearson correlations between PPEQ subscales, Self-Construal subscales and mother`s educational level

	1	2	3	4	4	5	6	7	8
1. Promotion of autonomy and relatedness	1								
2. Promotion of heteronomy	-.16**	1							
3. Promotion of the ability of the child to spend time alone	.04	.06	1						
4. Necessity to control the tendency of the child to stick out	-.02	.09	.05	1					
4. Difference vs. Similarity	.02	-.13*	.-01	-.17**	1				
5. Self-Direction vs. Receptiveness to influence	.03	-.08	.09	-.06	.26**	1			
6. Self-reliance vs. Dependence on Others	.27**	-.19**	-.02	-.10	.22**	.328**	1		
7. Consistency vs. Variability	.27**	-.14**	-.14**	.02	.-13*	.074	.354**	1	
8. Mother`s educational level	.16**	-33**	.01	-.01	.19**	.026	.103	-.044	1

Note. $*p \leq .05$, $**p \leq .01$

5.4. Discussions

The objective of this study was to construct and preliminarily validate a questionnaire that assesses parental ethnotheories concerning parental practices in the case of mothers with children 3 to 6 six years old.

In the first phase, we pretested the questionnaire by means of an expert committee. In the second phase, we applied the Three Step Interview (Hak et al., 2008), as a further stage in pretesting the questionnaire. In the third phase, we explored the factor structure of the scale and its construct validity. As a result of these processes, we obtained a four-factor structure, with the following factors: "beliefs related to the promotion of autonomy and relatedness" (25 items), "beliefs related to the promotion of heteronomy" (10 items), "beliefs related to the promotion of the ability of the child to spend time alone" (4 items), **"**beliefs related to controlling the child`s tendency to stick out" (3 items). The factor structure obtained is congruent with the results of other studies (Mone et al., 2014; Corapci et al., 2018). These studies have shown that autonomous-related parental ethnotheories are prevalent in the case of middle-class mothers from Romania. In the case of this study, by collecting data from a sample of mothers of 3- to 6-year-olds, we obtained results which suggested that mothers who consider important to promote the tendency of the child to interact harmoniously with others also considered important to promote the ability of the child to be autonomous. This result suggested that Romanian mothers of preschoolers, at least in our sample, have autonomous-related parental ethnotheories. This conclusion is substantiated by the fact that the mean of mother`s scores on the beliefs regarding the promotion of autonomy and relatedness subscale was the highest (*M* = 4.36) as compared to the scores on the other subscales of the PPEQ.

In this study, we also investigated the convergent validity of our questionnaire. As such, the results suggested that the degree to which mothers value the promotion of autonomy and relatedness was negatively correlated with the degree to which mothers valued beliefs regarding the promotion of heteronomy. In addition, it was positively correlated with mothers' educational level. These results are congruent with data which showed that there is a positive association between parents` educational level and the degree to which they valued autonomous parental ethnotheories (Greenfield, 2018; Keller, 2018). They are also congruent with studies showing that in Collectivistic societies exposed to socioeconomic growth, mothers with a high educational level have autonomous-related parental ethnotheories (Kagitcibasi, 2017; Keller et al., 2006; Corapci et al., 2018). The results also suggested that the degree to which mothers valued autonomous-related parenting ethnotheories was positively associated with their beliefs

regarding self-reliance and consistency across contexts, respectively. These results are also congruent with past studies. More specifically, in the case of individuals who have a self-construal focused on autonomy, past studies have also identified a high value placed on self-reliance and the belief that the self is consistent across contexts (Vignoles et al, 2016; Markus & Kitayama, 1991; Markus & Kitayama, 2003; Keller, 2007). Extant research also indicates that individuals who have self-construals focused on autonomy tend to value parental ethnotheories that include beliefs about the promotion of autonomy. It is also important to notice that, although the degree to which mothers valued autonomous-related parental ethnotheories correlated with the degree to which they valued self-reliance and being consistent, it did not correlate with being different. This underlines the divergent validity of the scale, because a belief that one is different from others is a component of self-construal which focuses on separateness. Individuals whose self-construal is focused on separateness tend not to consider important to promote the child`s relatedness. The results also suggested that there is a negative correlation between mothers` educational level and the degree to which they considered important to promote the child`s heteronomy. This is congruent with results of previous studies which have found that mother`s educational level is negatively correlated with the degree to which she values ethnotheories focused on heteronomy (Greenfield, 2009, 2018). The degree to which mothers valued the promotion of heteronomy was also negatively associated with the degree to which they valued self-reliance, with the belief about being different from others and with the belief that the self is consistent across contexts. These results are congruent with the fact that beliefs concerning one`s dependence on others, beliefs with respect to one`s similarity to others, and beliefs pertaining to the fact that the self is fluid across contexts are components of a self-construal focused on heteronomy (Markus & Kitayama, 1991; Markus & Kitayama, 2003). Individuals who have self-construals focused on heteronomy tend to value parental ethnotheories which are also focused on heteronomy. The degree to which mothers considered important to promote the ability of the child to spend time alone was negatively correlated with their perception that the self is constant across contexts. This finding substantiates our conclusion that mothers from our sample had autonomous-related ethnotheories. We state this because beliefs which refer to the consistency of the self are a component of the autonomous self (Vignoles et al., 2016). In the case of mothers who have autonomous-separate cultural models, a focus on autonomy in the case of their cultural models tends to be associated with a focus on promoting separateness. In contrast, in the case of mothers who have autonomous-related cultural models, a focus on autonomy in the case of their cultural models tends to be associated with a focus on promoting relatedness (Keller, 2018). The degree

to which mothers valued parental practices through which they could control the child`s tendency of sticking out was negatively associated with the degree to which they considered that they are different from others. This is consistent with the results of former studies. The belief that one is similar to others is part of the autonomous related self (Kagitcibasi, 2017). The autonomous related self is associated with a high value placed on the child`s ability to interact harmoniously with others and on the child defining himself/herself as a function of the relationships he/she is in. (Kagitcibasi, 2017; Keller, 2007).

This questionnaire brings about several contributions. First, it may advance research in this domain, by offering an instrument to assess parental ethnotheories regarding parenting practices, in the case of mothers with preschool-aged children. Second, it may also facilitate the identification of parental beliefs associated with an optimal development of the child, in a certain cultural context. As a consequence, this instrument can facilitate the development of programs that will be better suited to the culture of a specific individual. Third, at a conceptual level, this new instrument brings an element of novelty through the distinction it makes between parental beliefs regarding the promotion of autonomy (or heteronomy) and parental beliefs regarding the promotion of relatedness (or separateness).

A very important practical contribution of this study, besides offering an instrument to evaluate parental ethnotheories, is that we constructed an instrument that can be used by practitioners to measure parental ethnotheories. As such, they can adapt their interventions so as to be more culturally-sensitive.

Our study also has a series of limitations. A first limitation is that only one cultural group was used to explore the factor structure of the questionnaire. Although we did sample from different cultural subgroups from Romania in order to increase the variability of parental ethnotheories, the variability is limited in comparison with the situation in which we would have sampled parents from different countries and cultures. A second limitation comes from the fact that, in order to assess the convergent and the divergent validity of the questionnaire, we employed the Self-Construal scale (Vignoles et al., 2016). The subscales of the Self-Construal scale had low internal consistency and this affected our ability to accurately assess the relationship between mother`s beliefs as measured by our questionnaire and mother`s self-construal. Another limitation of the study is the fact that scales did not have an equal number of items loading on them. More specifically, the first subscale had 25 items, the second subscale had 10 items, and the third and fourth subscales had 4 items each. Future studies should focus on elaborating new items to improve the PPEQ subscales. An explanation for the unequal number of items might be related to the fact that the items referring to autonomy promotion and

those referring to relatedness promotion loaded on the same factor. In contrast, the items pertaining to heteronomy and separateness grouped on separate factors. Based on Kagitcibasi`s (2017) theory, we would have expected that the items concerning autonomy promotion and those concerning heteronomy promotion would have loaded on the same factor because both type of items pertain to the agency dimension. In addition, we would have expected that the items which referred to relatedness promotion and those which referred to separateness promotion would have also loaded on the same factor because both types of items pertain to the interpersonal distance dimension. This would have led to subscales with similar numbers of items. However, our results were not convergent with Kagitcibasi`s (2017) theory. These results might have been a product of the fact that we sampled individuals from a homogenous cultural group, characterized by homogenous cultural models. These cultural models focused on autonomy and relatedness. The factor structure obtained reflects this fact, as autonomy and relatedness load on the same factor while items pertaining to the promotion of heteronomy and to the promotion of separateness load on separate factors. The way the items on the different factors is an explanation of why they contain different numbers of items.

Also, part of our results might be the consequence of methodological artefacts. For example, the surface similarities (i.e., they all contained the word *alone*) of the items that compose the subscale "beliefs regarding the promotion of the child`s ability to spend time alone" might explain why they were grouped in a single factor.

As a conclusion, this study explored the factor structure of a newly developed questionnaire that assesses parental ethnotheories pertaining to the promotion of autonomy and relatedness in the case of mothers of preschoolers from Romania. The results suggested that the mothers had an autonomous-related parenting ethnotheory and that the questionnaire had good convergent and divergent validity.

VI. STUDY 4

6.1. Introduction

The current study is focused on exploring the factor structure of the PPEQ by using data collected from a new sample. We conducted this study based on several reasons. First, there was a need to investigate if the factorial structure obtained in study 3 is a stable one. Second, the scales of the PPEQ did not have an equal number of items. Third, there was a possibility that the factor structure obtained in study 3 was due to methodological artefacts. More specifically, we are referring to the fact that items which belonged to the "promoting the ability of the child to spend time alone" scale had high surface similarity. As such, to overcome the limitations associated with the unequal number of items and with the possibility of the scale being a product of methodological artefacts, we decided to add items to the PPEQ questionnaire. We also modified some of the existing ones and we applied the modified scale to a new sample to explore its factor structure.

6.1.1. **Objective**

The objective of the current study was to optimize and preliminary validate the PPEQ questionnaire.

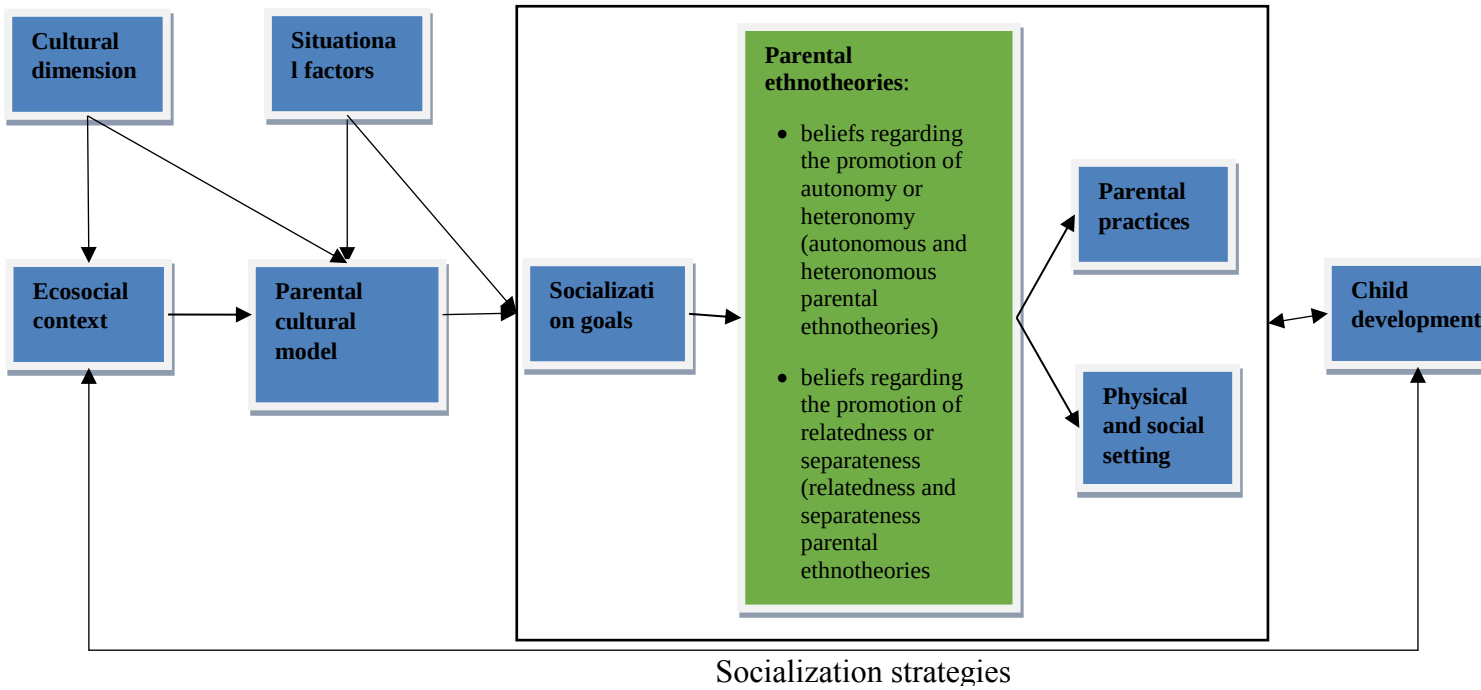

Figure 6.
The variables from the Extended Ecocultural Model of development that are of interest in the present study (in green).

6.2. Method

6.2.1. Participants

The modified PPEQ questionnaire was completed on-line by 222 mothers from Romania with children aged between 34 and 84 months. The mean age of mothers (*N*=218) that participated in the study was 33.06 years (*SD* = 4.15). The mean age of the child was 53.46 months (SD = 12.52). With respect to child gender, 48.6% of the children were male and 51.4% were female.

6.2.2. Instruments

6.2.2.1. Sociodemographic questionnaire

Mothers completed a questionnaire on several sociodemographic indices.

6.2.2.2. Parenting ethnotheories

In this study we utilized a modified version of the Preschooler Parenting Ethnotheories Questionnaire (PPEQ), a questionnaire which measures parental ethnotheories of caregivers that have children 3 to 6 years old. The modified questionnaire has 56 items. This modified version was obtained by eliminating the items from the PPEQ obtained in the third study that didn`t load on any dimension. We also reformulated three of the items. In addition, we introduced new items in the case of some of the scales that had fewer items.

6.2.3. Procedure

To recruit mothers, we posted invitations in many on-line groups that included as members Romanian mothers of 3 to 6 years old children. The mothers that were interested received a link that led to the informed consent form. If the mothers agreed to the informed consent, they were forwarded to the sociodemographic questionnaire and to the PPEQ.

6.3. Results

In the first phase, we screened the database to establish if the data have been correctly introduced. The number of participants that had no missing data was 208. Conducting the Little MCAR test generated a $\chi^2 = 165.979$ ($df = 174$, $p = .66$), which was not significant indicating that the missing data was Missing completely at Random (MCAR). As such, missing data was estimated by using an EM (expectation maximization) algorithm for covariance matrices, which was implemented in NORM 2.03 (Schafer, 1997; Graham, 2012).

We decided to keep the factor structure obtained by analysing the imputed data set because the missing data were Missing Completely at Random. In addition, the factor structure that emerged when we analysed the imputed data set was the same as the factor structure obtained when we analysed the data set without imputed data. Consequentially, in the following, we will report the results of the analysis that was done with estimates of missing data. To explore the factor structure of the PPEQ questionnaire we conducted a principal axis factor analysis with the oblique rotation of factors (direct oblimin) because we expected that the factors were correlated. Because we did not find any correlations between factors that were greater than 0.4 we decided to use an orthogonal rotation, namely varimax. The Kaiser-Meyer-Olkin (KMO; Kaiser, 1970) test confirmed that the sample was adequate because the obtained value was .77. Also, Bartlett`s test led to a χ^2= 4798.733 (*df* = .1540, *p* = 00) which means, that per ensemble, the correlations were significantly different from 0. In addition, the determinant of the R matrix was greater than 0.00001 suggesting that extreme multicollinearity was not present. Sixteen factors had eigenvalues greater than Kaiser`s criterion of 1. These factors explained 50.94% of the variance. As we discussed before, Kaiser`s criterion tends to overestimate the number of factors that we should keep (Nunnally & Bernstein, 1994) and, as a function of the number variables, the significance of the eigenvalue differs. To establish the number of factors to keep, we used the scree plot, the MAP test (Velicer, 1976), and Horn`s (1965) parallel analysis.

The scree plot analysis suggested that we should keep five factors. Utilizing the MAP test also suggested keeping five factors. The parallel analysis suggested keeping 12 factors. Taking into consideration the convergence of two methods with respect to the five factor solution and the higher interpretability of this solution, we decided to extract five factors. To extract the factors, we conducted a principal axis factor analysis with orthogonal rotation (varimax). The first factor had 18 items with loadings greater than .40. By inspecting the items, we observed that this factor was equivalent to the first factor obtained in study 3. As such, this factor was labelled "beliefs regarding the promotion of autonomy and relatedness". This factor contained items that referred to the promotion of autonomy and relatedness. The second factor found in this study was equivalent to the second factor found in study 3. In consequence, it was labelled "beliefs regarding the promotion of heteronomy". This factor was composed of 11 items which referred to the promotion of heteronomy. The third factor, with 4 items, was equivalent to the third factor found in study 3. Consequentially, we labelled it "beliefs about the promotion of the ability of the child to spend time alone". This factor contained items concerning situations in which the parent promoted the ability of the child to spend time alone.

The fourth factor identified in this study had two items and referred to the situation in which the parent facilitated the interaction between the child and his peers from kindergarten („When I`m at the play pen or in other contexts where children are present, the parent must encourage the child to spend time playing with others, rather than playing alone"; „The parent must support the child in developing close relationships with other children from his kindergarten") The fifth factor, with 4 items, was conceptually similar with the fourth factor identified in the previous study. However, it focused more on beliefs pertaining to the promotion of the ability of the child to stick out rather than on beliefs with respect to the need to control the ability of the child to stick out. With reference to internal consistency, the first scale had a Cronbach α = .86, the second scale had a Cronbach α = .83, the third scale had a Cronbach α = .71, the fourth scale had a Cronbach α = .60 and the fifth scale had a Cronbach α = 61.

To assess the convergent and divergent validity of the questionnaire we conducted a series of Pearson correlations (see Table 22).

6.4. Discussions

The objective of this study was to revise the PPEQ questionnaire and to preliminary validate the revised version.

As a result of exploring the factorial structure of the revised PPEQ version, we obtained a structure similar to the one found in the study 3. These results suggested that the factor structure obtained was a robust one as it was replicated in two studies. The findings of this study also lend more evidence to the claim that mothers from Romania have an autonomous-related model that guides their parental ethnotheories (Mone et al., 2014; Corapci et al, 2018). We state this because beliefs regarding the promotion of autonomy and beliefs regarding the promotion of relatedness were grouped in the same subscale and were evaluated most favourably.

An unexpected finding was the one that the subscale "beliefs regarding the promotion of the child`s interaction with peers from kindergarten" emerged as a subscale that was distinct from the subscale which contained beliefs concerning the promotion of relatedness. It is possible that the two items which make up the "beliefs regarding the promotion of the interaction of the child with his colleagues from kindergarten" were grouped in a separate factor due to superficial resemblances between sentences. An additional possibility is that, for Romanian mothers, the two behaviours to which the items refer to do not constitute parental practices through which relatedness is promoted.

The construction of this instrument is important as it facilitates the investigation of parental ethnotheories and their correlates in the case of Romanian mothers of preschoolers. It

is also the first scale that focuses on parental ethnotheories by taking into consideration the dimensions postulated by Kagitcibasi (2017). Of course, from this derives our first limitation. To be more precise, we sampled only a cultural group and the obtained factor structure reflects how parental beliefs are structured in this case. As such, we did not obtain a subscale reflecting the agency dimension, with items referring to autonomy promotion and heteronomy promotion, and a subscale reflecting the interpersonal distance dimension, with items referring to separateness and relatedness promotion. Such a factor structure might be obtained in future studies in which this questionnaire is validated by applying it to samples from different cultural groups, with a larger variety with respect to how the two dimensions of Kagitcibasi (2017) are combined. This being said, the questionnaire is a valid and useful tool for investigating the parental ethnotheories of mothers from Romania. The development of an instrument for the evaluation of maternal ethnotheories in the case of mothers of preschoolers will surely facilitate research in this domain.

Another limit of the study consists of the unequal distribution regarding the number of items that load on the different factors regardless of our approach of supplementing the scales. It is possible that the items we constructed were not representative for how parents conceptualized heteronomy, separateness or the need to control the child`s tendency to stick out. Future studies should elaborate new items for the subscales which have fewer items.

Practically speaking, this scale can be used to optimize educational or family interventions where there is a need to interact with parents and children from different cultural contexts, as it offers the possibility of assessing their parental beliefs. This is important because parental beliefs guide parental behaviours and the way in which parents structure the child`s environment (Keller, 2017). It also offers a means of assessing if there are discrepancies between how parents and teachers view the optimal ways of interacting with children. This is important because these discrepancies have been shown to affect the child`s school performance (e.g., Lavelli, Doge, & Birghin, 2015).

In conclusion, conducting this study led to the construction of an instrument that will help to investigate parental ethnotheories of mothers of preschoolers and their correlates. The findings of this study also offer valuable information about the way parental ethnotheories of Romanian mothers are structured.

VII. STUDY 5[3]

7.1. Introduction

The objective of the present study was to explore the relationship between the educational level, the implicit and the explicit components of the cultural model, the socialization goals and the parental ethnotheories of mothers of preschool-aged children from Romania. As we discussed in the general introduction, the Ecocultural Model of Development (Kartner & Keller, 2013) proposes that the ecocultural context influences parents' cultural models, which in turn shapes their socialization goals, therefore influencing their parental ethnotheories. Caregivers' educational level is one of the most important indices of the ecocultural context (Kartner & Keller, 2013) and has been shown to influence parents' cultural models and beliefs (Greenfield, 2018; Keller et al., 2016). As such, in this study we aim, for the first time, to test the Ecocultural Model of Development by also including educational level. More specifically, we want to investigate if there is an indirect effect of educational level on caregivers' parental ethnotheories through their cultural models and socialization goals.

Regarding mother`s cultural model, we decided to focus not just on the explicit beliefs that compose the model (i.e., explicitly stated norms, values or self-construals; Kagitcibasi, 2017), but also on the implicit components (i.e., implicit psychological tendencies which result from the engagement in cultural tasks, Kitayama et al., 2009). We made this decision because recent studies showed that the implicit components of individuals` cultural models can be used more efficiently than the explicit ones to differentiate between individuals from different cultures (Kitayama et al., 2009).

Studies that compared the degree to which implicit measures of participants` cultural models, as compared to explicit measures, can predict the cultural group to which the participants belong, have been constructed based on the Cultural Task Analysis Paradigm (Kitayama & Imada, 2010; Mone, Benga, & Ionescu, 2014). This paradigm focuses on the way in which norms and imperatives of a culture influence and shape individuals' cognitive functioning. As such, this paradigm focuses on the link between **cultural mandates, cultural tasks and psychological tendencies** (Kitayama et al, 2009). The first component, **cultural mandates**, refers to those ideals or purposes that are promoted, prioritised and shared within a

[3] Results from this chapter have been published as Mone, I. S., & Benga, O. (2020). The relationship between education, agency, and socialization goals in a sample of mothers of preschoolers. *Journal of Family Studies*, 1-21.

certain cultural group. In Individualistic cultures, for example, independence is a cultural mandate, while in Collectivistic cultures, interdependence is a cultural mandate. The second component, **cultural tasks**, refers to a specific culturally-approved procedure through which individuals can attain the cultural mandates. For example, in Individualistic cultures, which prioritise independence as a goal, individuals can reach this goal through several cultural tasks: expressing idiosyncratic traits of self, self-promotion or pursuing personal goals (Kim & Markus, 1999; Oishi & Diener, 2001). In Collectivistic cultures, in which interdependence is a cultural mandate, individuals can reach this goal through other cultural tasks: harmoniously interacting with the group, self-effacing, and pursuing group goals (Kitayama et al., 2009). The third component postulated by the model consists of the **psychological tendencies** of the individuals or, more specifically, to their predispositions regarding cognitive processing, emotions and behaviours (Kitayama & Imada, 2010). By frequently engaging in certain cultural tasks, specific psychological tendencies are created and consolidated. In the beginning, to complete these cultural tasks one has to invest effort. However, if one systematically engages in these cultural tasks, performance becomes automatized and the completion of the task no longer requires effort (Bargh & Chartrand, 2000; Kitayama et al., 2009). To conclude, the repeated engagement in a series of cultural tasks leads to changes in the cognitive and neural development of an individual (Schwartz & Begley, 2003). Moreover, it leads to the creation of a series of automatic psychological tendencies that were useful in completing the cultural tasks to which the individual was exposed. For example, the frequent engagement in cultural tasks that are meant to achieve the cultural mandate of independence, like self-promotion or following a personal goal, requires that one uses a set of specific cognitive processes. More specifically, the individual is required to focus his/her attention on stimuli relevant for personal goals, to make decontextualized decisions or to separate himself/herself from the social context in which he/she functions. As such, involvement in these tasks leads to the development of a specific type of psychological tendencies. More specifically, we are referring to psychological tendencies like attributing the behaviours of others to their internal characteristics (Kitayama et al., 2009) or focusing attention on an object, separate from the context in which it is embedded (Masuda & Nisbett, 2001). We are also referring to the tendency to experience disengaging emotions, like pride (Kitayama et al., 2006), or to perceive the self as consistent, regardless of context (Suh, 2002). Frequently engaging in cultural tasks through which one attains the cultural imperative of interdependence, such as harmoniously interacting with others or following groups goals, leads to the development of implicit psychological tendencies that are useful for completing these tasks. More precisely, we are referring to tendencies such as

focusing on the relationship between stimuli and context, experiencing socially engaging emotions, and attributing other individuals' behaviour to context. These implicit psychological tendencies, which are an implicit index of individuals' cultural models, can be measured by assessing the way individuals self-regulate their behaviour in certain tasks.

To measure the explicit and the implicit components of mothers` cultural models we decided to focus on measuring the specific components that form the different cultural models (i.e., agency and interpersonal distances) and not on the cultural models themselves as it has been done in most former studies (e.g., Keller et al., 2006, Mone et al., 2014). More specifically, we did not measure the degree to which mothers have an interdependent cultural model or self, an independent cultural model or an autonomous-related cultural model. Instead, in contrast with previous research, we focused on measuring agency and interpersonal distance, the dimensions that combine to compose the cultural models (Kagitcibasi, 2017). Doing so is essential because it is important to see exactly how the two dimensions are associated with parental beliefs and practices.

7.1.1. Objectives and Hypotheses:

Objective:

- To explore the relationship between the educational level, the implicit and the explicit components of the cultural models, the socialization goals and the parental ethnotheories of mothers of preschool-aged children from Romania.

In Figure 7 below, we highlighted the variables we are focusing on in the present study, by using the green colour.

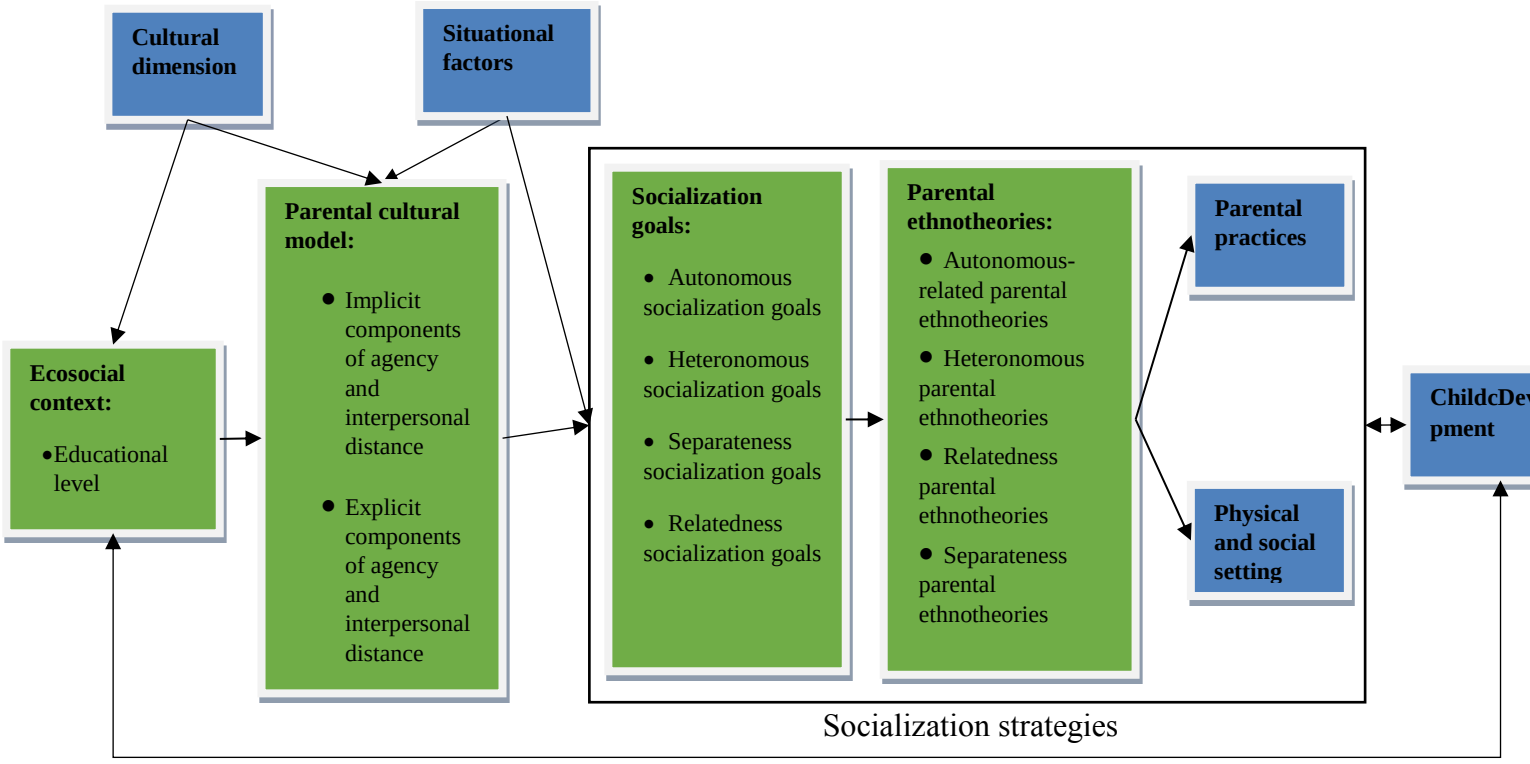

Figure 7.
The variables from the Extended Ecocultural Model of Development that are of interest in the present study (in green).

Hypotheses:

We formulated two hypotheses regarding the relationship between educational level, the implicit indices of the agency dimension, autonomous and heteronomous socialization goals, and autonomous-related and heteronomous parenting ethnotheories.

H1: There will be an indirect effect of the educational level on autonomous-related parenting ethnotheories through mothers` attributional style, an implicit index of the agency dimension, and through their autonomous socialization goals.

H2: There will be an indirect effect of the educational level on heteronomous parenting ethnotheories through mothers' attributional style, an implicit index of the agency dimension, and through their heteronomous socialization goals.

We also formulated two hypotheses regarding the relationship between educational level, the explicit indices of the agency dimension, autonomous and heteronomous socialization goals, and autonomous-related and heteronomous parenting ethnotheories.

H3: There will be an indirect effect of the educational level on autonomous-related parenting ethnotheories through the level of valuing self-direction in action, an explicit index of the agency dimension, and through autonomous socialization goals.

H4: There will be an indirect effect of educational level on heteronomous parenting ethnotheories through the level of valuing conformity to rules and tradition, an explicit index of the agency dimension, and through heteronomous socialization goals

In addition, we formulated two hypotheses regarding the relationship between educational level, the implicit indices of the interpersonal distance dimension, relatedness socialization goals, and autonomous-related and separateness parenting ethnotheories.

H5: There will be an indirect effect of educational level on autonomous-related parenting ethnotheories through implicit attitudes toward independence, an implicit index of interpersonal distance, and relatedness socialization goals.

H6: There will be an indirect effect of educational level on separateness parenting ethnotheories through implicit attitudes toward independence, an implicit index of interpersonal distance, and relatedness socialization goals.

In addition, we formulated two hypotheses regarding the relationship between educational level, the explicit indices of the interpersonal distance dimension, relatedness socialization goals, and autonomous-related and separateness parenting ethnotheories.

H7: There will be an indirect effect of educational level on autonomous-related parenting ethnotheories through inclusion of others in self, an explicit index of interpersonal distance, and relatedness socialization goals.

H8: There will be an indirect effect of educational level on separateness parenting ethnotheories through inclusion of others in self, an explicit index of interpersonal distance, and relatedness socialization goals.

Inspect Figure 8 for a visual representation of these hypotheses.

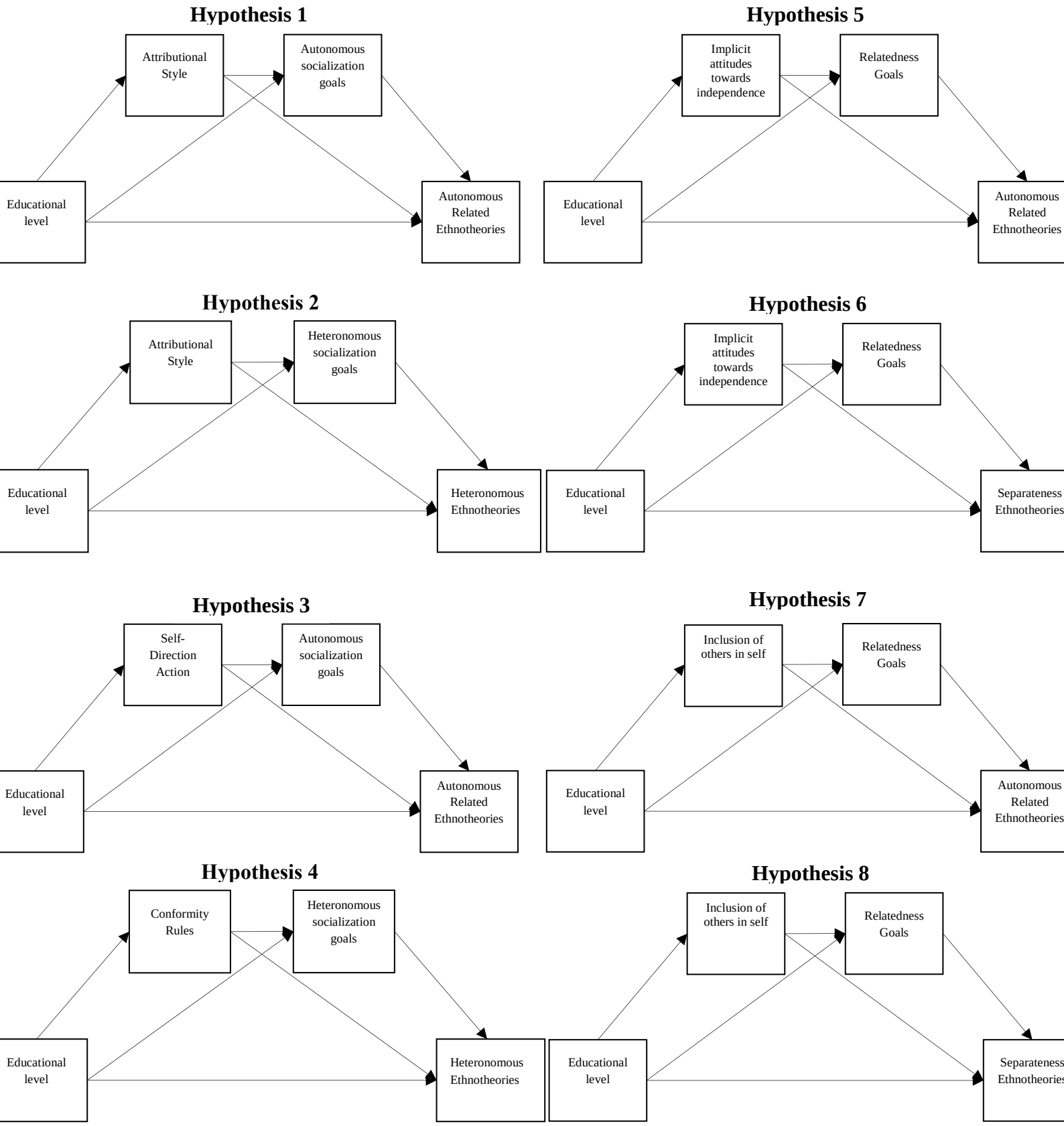

Figure 8.
The hypotheses of the present study.

7.2. Method

7.2.1. Participants

In this study we sampled 141 mothers of preschool aged children. The mean age of the mother was 32.81 (SD = 5.70). The mean age of the child was 55.16 months (SD = 13.64). Regarding the gender of the child, 51.1% of the children were male and 48.9% were female.

7.2.2. Instruments

7.2.2.1. The implicit component of agency

To measure implicit tendencies associated with the agency dimension (Kagitcibasi, 2005), we decided to focus on the attributional style of the individual (Kitayama et al., 2009; Kitayama, et al., 2006; Choi, Nisbett, & Norenzayan, 1999). To measure individuals' attributional style, four vignettes were successively presented to each participant (Kitayama et al., 2009). In two of these vignettes, the participants read about an individual that manifested a socially desirable behaviour (ex., football player that organizes free camps for needy children). In the other two vignettes, the participants read about an individual that manifested a socially undesirable behaviour (ex., a teacher that forces children to take costly meditations). In the case of each participant, half of the vignettes presented female characters and half presented male characters. After each vignette, the participant had to evaluate four items regarding the reasons for which the participant acted the way he/she did (e.g., "Certain characteristics of the situation were the main influence on the way <Name of character> behaved") on a scale from 1 (strongly disagree) to 7 (strongly agree). Based on the participants` answer to the questions, a score was obtained which reflected their attributional style. The larger the score, the more participants tended to attribute others` behaviour internally. The lower the score, the more the participants tended to attribute others` behaviour externally.

7.2.2.2. The implicit component of interpersonal distance

To measure implicit tendencies associated with the interpersonal distance dimension (Kagitcibasi, 2005) we decided to focus on implicit attitudes towards independence. These implicit attitudes refer to the implicit evaluative associations that the mother has regarding independence (Park, Uchida, & Kitayama, 2015). We evaluated participants' implicit attitudes towards independence with the Implicit Association Task (IAT; Greenwald et al., 1998; Park, Uchida, & Kitayama, 2015). We utilised this task to evaluate the strength of the associations between personal verbs and positive adjectives and of the association between relational verbs

and positive adjectives. A stronger association between personal verbs and positive adjectives than between relational verbs and positive adjectives indicates a more favourable implicit attitude towards independence. To obtain an index of implicit attitude towards independence we utilised the improved algorithm developed by Greenwald, Nosek and Banaji (2003). A higher score reflects a more positive implicit attitude towards independence.

7.2.2.3. **The explicit component of agency**

To measure the explicit dimensions of agency we used the Portrait Values Questionnaire Revisited (PVQ-RR) scale developed by Schwartz et al., (2012). More specifically we chose to use the subscale that assessed the degree to which participants valued Self-direction Action (i.e., freedom to guide one`s own actions; Cronbach $\alpha =$ .68) because it offered an index of autonomy. In addition, we chose to use the Conformity-Rules (i.e., compliance to rules, laws and formal obligations; Cronbach $\alpha =$ .65) scale because it offered an index of heteronomy. To obtain a score that shows us the degree to which the individual considers one of the 19 values important, one has to average the scores of the items that assess the respective value. The bigger the score, the more important that value is for the individual.

7.2.2.4. **The explicit component of interpersonal distance**

To assess the explicit components of interpersonal distance, we used the version of the Inclusion of Others in Self Scale (IOS; Aron, Aron, & Smollan, 1992) developed by Uskul, Hynie, and LaLonde (2004). More specifically, we decided to use the general IOS (Cronbach $\alpha =$ .69) score which reflects the degree to which we generally include others (i.e., family, friends, acquaintances and strangers) in the self. The higher the score, the more we tend to include others in the self.

7.2.2.5. **Socialization goals**

To assess mothers' socialization goals, we used a questionnaire which consisted of 45 items that evaluated the long-term socialization goals that parents had for their children (Goals and Values in Adulthood Questionnaire; GVAQ; Suizzo, 2007). More specifically, we decided to use the Agency & Self-Direction subscale (11 items; Cronbach $\alpha =$ .87) of the GVAQ as an index of autonomous socialization goals. In addition, the Tradition & Conformity subscale (10 items; Cronbach $\alpha =$ .77) was used as an index of heteronomous socialization goals. The score obtained for the Relatedness scale (4 items; Cronbach $\alpha =$ .90) was used as an index of

relatedness socialization goals. The higher the score of an individual on a subscale, the more the individual considers that the socialization goals represented by the subscale are important.

7.2.2.6. **Parenting ethnotheories**

Parental ethnotheories were assessed using a questionnaire built and validated in the third and fourth studies of this doctoral thesis, the PPEQ. The questionnaire was made up of 39 items. The participants were asked to express their agreement with the presented items on a scale from 1(Strongly Disagree) to 5(Strongly Agree). The questionnaire has four subscale: beliefs regarding autonomy and relatedness promotion (18 itemi; Cronbach $\alpha =$ .86), beliefs regarding heteronomy promotion (11 itemi; Cronbach $\alpha =$ .83), beliefs regarding the promotion of separatness (6 itemi; Cronbach $\alpha =$ .69), beliefs regard the promotion of the ability of the child to stick out (4 itemi; Cronbach $\alpha =$ .58). The larger the score, the more the respondents consider that the parental practices described by the items are important.

7.2.2.7. **Validation**

All the stimuli and the tasks used in this study were adapted and piloted by applying them to samples of students. The questionnaires were back-translated by teams of four translators who had high proficiency in both English and Romanian.

7.2.3. **Procedure**

Mothers were contacted, informed and invited to participate in the study via kindergartens. Mothers that were interested were invited to participate in a session in the kindergarten during which they received more information about the study and completed an informed consent. After completing the informed consent, the mothers completed the IAT task, the attributional style questionnaire and the IOS. The order in which the mothers completed these questionnaires was counter balanced. After completion, the mothers received an envelope with the rest of the questionnaires. The participants filled in these questionnaires at home and then returned them to the kindergarten in a sealed envelope.

7.3. Results

7.3.1. Data preparation

Before conducting the analysis, we screened the data (Tabachnick & Fidell, 2007). All imputation models were done in R (R Core Team, 2018), by using the mice package (van Buuren & Groothuis-Oudshoorn, 2011).

Variable	*M (SD)*	% of missing data
1. Educational level	4.90(1.63)	4.3
1. Attributional Style	1.14 (1.34)	10.6
2. Self-direction Action	4.67 (.93)	7.1
3. Conformity-Rules	4.21 (1.02)	9.9
4. Implicit attitude towards independence	-.04 (.41)	2.8
5. Inclusion of others in self	5.98 (.82)	5.0
6. Autonomous Socialization Goals	8.86 (1.11)	7.1
7. Heteronomous Socialization Goals	8.66 (1.23)	5.0
8. Relatedness Goals	7.69 (1.70)	5.0
9. Autonomous Related Parenting Ethnotheories	4.93 (.38)	11.3
10. Heteronomous Parenting Ethnotheories	2.80 (.66)	12.8
11. Separateness Parenting Ethnotheories	3.60 (.56)	9.2

Table 31.

Mean, standard deviation and percentage of missing data for variables of interest

7.3.2. Main analyses

To reach our objective, we first ran a series of Pearson correlations to explore the relationship between the variables of interest (see Table 32). Attributional style, an implicit measure of the agency dimension, was significantly associated with valuing socialization goals focused on conformity and tradition (r = -.33, p = .000). In addition, it was significantly associated with valuing autonomous-related parental ethnotheories (r = .22, p = .030) and with valuing heteronomous parental ethnotheories (r = -.41, p = .000). As such, mothers that tended to attribute other people`s behaviour to internal characteristics, also tended to value socialization goals focused on tradition and conformism less. In addition, they tended to value autonomous-related parental ethnotheories more and heteronomous parental ethnotheories less.

Table 32.
Correlations between studied variables with imputed data

	1	2	3	4	5	6	7	8	9	10	11
1. Attributional style	1										
2. Implicit attitude towards independence	.03	1									
3. Self-direction action	.17*	.02	1								
4. Conformity to rules	.08	.18	.01	1							
5. Inclusion of others in self	-.02	-.05	-.07	.12	1						
6. Autonomous Socialization goals	.02	.20*	.09	.01	.09	1					
7. Heteronomous Socialization goals	-.33***	.16	-.09	.02	.22*	.60***	1				
8. Relatedness socialization goals	-.16	.21*	.04	.25**	.07	.37***	.46***	1			
9. Autonomous-Related parental ethnotheories	.22*	.07	.05	.09	.13	.34***	.12	.14	1		
10. Heteronomous parental ethnotheories	-.41***	.06	-.12	-.06	.03	.08	.47***	.30**	-.21*	1	
11.Separateness parental ethnotheories	.07	.04	.14	-.09	.11	.27***	.10	.21*	.34***	.01	1

Note. *$p \leq .05$, **$p \leq .01$

Valuing conformity to rules, an explicit measure of the agency dimension, correlated positively with valuing socialization goals focused on relatedness (r = .25, p = .009). As such, mothers that valued conformity to rules also tended to value socialization goals focused on relatedness.

As regarding the implicit attitude towards independence, there was a significant association with agency and self-directedness goals (r = .20, p = .020) and with relatedness goals (r = .21, p = 016). As such, mothers who tended to have a more positive implicit attitude towards independent action also tended to value socialization goals concerning agency and self-directedness and socialization goals which focused on relatedness.

In regards to inclusion of others in the self, an explicit index of interpersonal distance, we found a positive correlation with the degree to which mothers valued socialization goals focused on tradition and conformity (r =.22, p = .009). As such, mothers who tended to include others in self more, also tended to value socialization goals focused on tradition and conformity.

To test our hypotheses, we conducted a series of multiple mediation models by using path analysis implemented in R (R Core Team, 2018) via the lavaan package (Rosseel, 2012) and the semTools package (Jorgensen, Pornprasertmanit, Schoemann, & Rosseel, 2018). In order to estimate free parameters, the Maximum Likelihood (ML) estimation method was used. In

order to test the indirect effects, we used bootstrapped analyses. Each model we tested was saturated (i.e., *df* = 0). As such, we will not report any fit indices.

Out of all the hypotheses we tested, only the second hypothesis was confirmed. To test this hypothesis we conducted a path analysis so as to test the indirect effect of educational level on heteronomous ethnotheories through attributional style and through heteronomous socialization goals (see model 2 in figure 11). The total effect of educational level on heteronomous ethnotheories was significant, *b* = -.10, *SE* = 0.03, *p* = .001, Bca *CI* [-.163, -.039]. The indirect effect of educational level on heteronomous ethnotheories through attributional style and through heteronomous socialization goals was significant, *b* = -.1, *SE* = 0.01, *p* = .043, Bca *CI* [-.038, -.003]. For the other path coefficients, see figure 17.

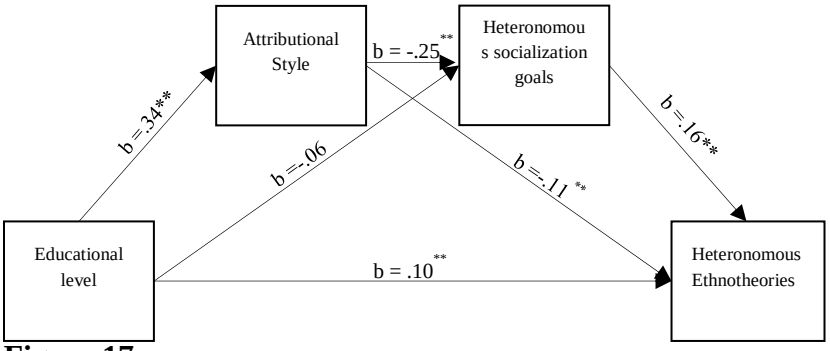

Figure 17.

The predicted relationship between educational level, attributional style, heteronomous socialization goals and heteronomous ethnotheories
Note. *$p \leq .05$, **$p \leq .01$

7.4. Discussion and conclusions

The objective of the study was to explore the relationship between the cultural models (implicitly and explicitly measured), socialization goals and parental ethnotheories of mothers of preschool-aged children from Romania. To reach our objective, we firstly analysed the associations between the variables of interest. From the results obtained from this step we can draw two major conclusions. First, the implicit indices of mothers` cultural models were related to more types of parental beliefs than the explicit indices of their cultural model. This is in concordance with studies which suggested that the implicit components of individuals` cultural model lead to better predictions of their cultural belonging than the explicit components of their cultural model. (Kitayama et al., 2009; Park, Uchida, & Kitayama, 2015). The fact that the implicit components of mothers` cultural models were related with more aspects of their

parental beliefs could be a product of the fact that the explicit measures of individuals` cultural models face validity threats that do not affect the implicit measures (Heine, Lehman, Peng, & Greenholtz, 2002). More specifically, the responses the subjects give to these explicit measures can be influenced by social desirability, while the responses they give to implicit measures can`t (Kitayama et al., 2009).

A second important conclusion drawn from these results is that the associations between the implicit components of mothers` cultural models and their parental beliefs indicated that the mothers have an autonomous-related model. In contrast, the associations between the explicit components of mothers` cultural models and their parental beliefs suggested that mothers have a heteronomous-related cultural model. The difference we observed between how the implicit and the explicit layers of mothers` cultural models were associated with their parental beliefs might have been a product of the quick societal and economic transitions that Romania has been exposed to (Mone, Benga, & Susa, 2014). More specifically, there is a possibility that, at the level of explicit discourse, there is still a focus on values specific to a heteronomous model, characteristic of parents from a Collectivistic culture. However, recent socioeconomic changes might have led to the fact that mothers engage more frequently in cultural tasks through which the cultural mandate of independence is reached. The frequent engagement in these types of tasks leads to the development of implicit tendencies specific to mothers from Individualistic cultures (Kitayama et al., 2019). However, engaging in this type of tasks might lead to slower changes at the explicit level (Hofstede et al., 2010).

To reach our research objective, we also tested several mediation models which focused on the relationship between mothers` educational level, their cultural models (implicitly and explicitly measured), their socialization goals and their parental ethnotheories. Only one of the tested mediation models was significant. Specifically, we found a significant indirect effect of educational level on heteronomous parenting theories through mothers` attributional style and through their tradition and conformity socialization goals. More precisely, mothers who tended to have a higher educational level also had a tendency to attribute others` behaviour internally. This attributional tendency was associated with a lower value placed on socialization goals related to tradition and conformity. A lower value placed on tradition and conformity goals was associated with valuing heteronomous parental ethnotheories less. This result was in accordance with past studies which showed that socialization goals mediate the link between parents` cultural models and their parental ethnotheories (Keller et al., 2006). This result was also congruent with theories and studies which state that there is an influence of parents`

socioeconomic context on their cultural models, socialization goals and parental ethnotheories (Chen, 2018; Greenfield, 2018; Keller, 2018; Mone, Benga & Opre, 2016).

This study also had a series of limitations. A first limit is represented by the restricted variability regarding the cultural group from which the mothers came. This limit restrained the variability of mothers` educational level, of their cultural models and of their parental beliefs. Thus, it lowered the probability of identifying an effect. Another limit of the present study refers to the instruments we used. Some of our instruments had low internal consistency (the PVQ-RR scales). This placed a limit on the magnitude of the association we could observe between the studied variables.

In conclusion, our study leads to valuable contributions because it is the first to compare the associations of explicit and implicit components of one`s cultural model to one`s parental beliefs. As such, the main theoretical contribution of this study is that it nuances how we conceptualise and measure the individual`s cultural model. As such, it expands the model set forth by Kartner and Keller (2013), by emphasizing that it is important to take into consideration not only the explicit components of parents` cultural models, but also the implicit ones. It is also one of the first studies to test the relationship between an index of socioeconomical context, caregiver`s cultural model, and her parental beliefs, with a sample of mothers of preschoolers. The results offer partial support for the idea that the socioeconomic context in which caregivers live influences their cultural models, socialization goals and parental ethnotheories.

VIII. STUDY 6[4]

Based on our finding that only implicit indices of parental cultural models are associated with parental socialization goals and ethnotheories, the objective of this review was to explore the ways through which we could reconceptualize the influence of culture on human development through a Situated Cognition or more generally an Embodied Cognition perspective. In Figure 18, you can inspect the variables of the Extended Ecocultural Model of Development on which we focus in the present study.

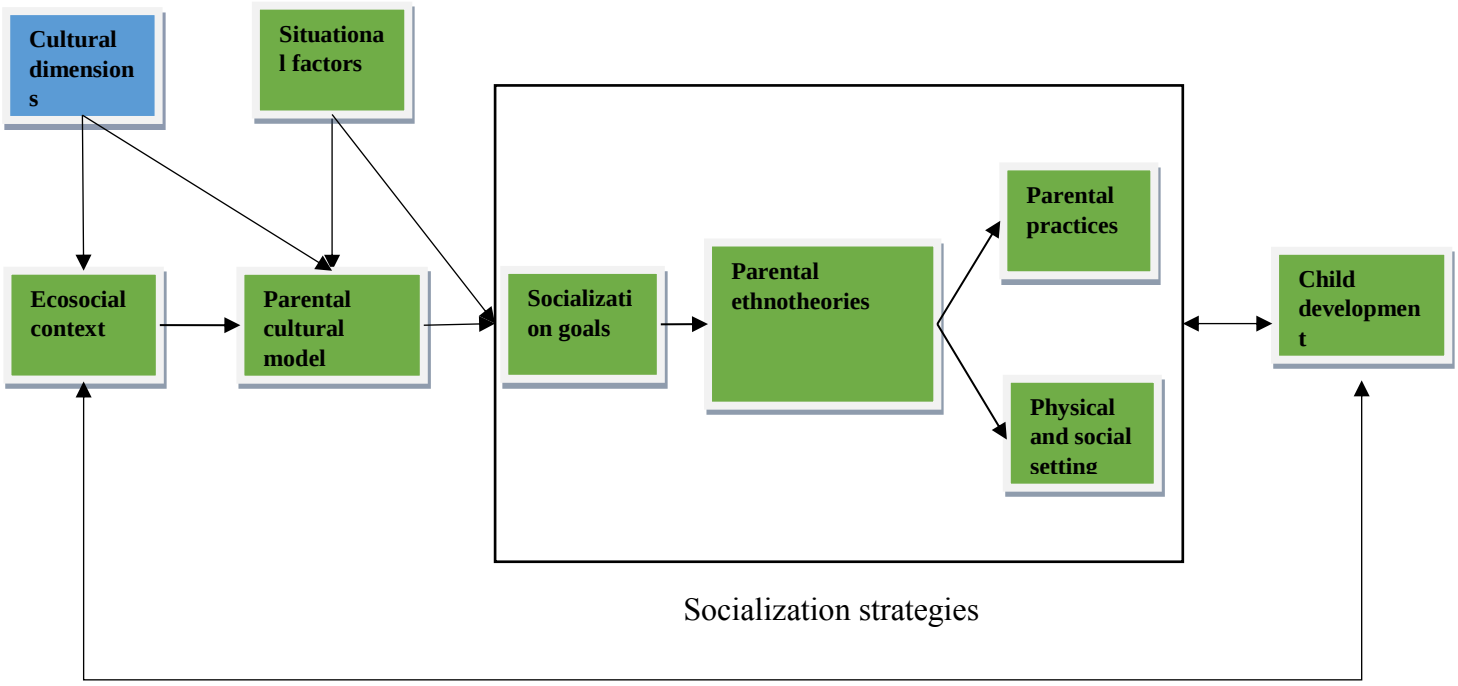

Figure 18.
The variables from the Extended Ecocultural Model of Development that are of interest in the present study.

8.1. Classical View On Culture

Most theories of culture agree that culture is constituted by a shared system of meanings which is made up of abstract values, beliefs or norms (e.g., Hofstede et al., 2010; Greenfield, 2018). Based on this view, the focus in several developmental research is on the way parental beliefs have an impact on parental behaviors and subsequently on child development (Harkness, Super, Bermudez, Moscardino, et al., 2010; Keller, 2018).

[4] Published as Mone, I., Benga, O., & Ionescu, T. (2014). Grounding development in culture: How to study the influence of culture on development. *Studia Universitatis Babes-Bolyai, Psychologia-Paedagogia*, *59*(2).

8.2. Embodied/Situated Cognition Framework And The Reconceptualization Of Culture

A possible alternative to the perspective on culture previously described is based on the Embodied Cognition or framework, out of which the grounded cognition approach is a sub-branch. The Embodied Cognition approach states that cognition cannot be separated from perception and action and that higher order cognition is fundamentally shaped by our bodies (Barsalou, Breazeal & Smith, 2007; Ionescu & Vasc, 2014). Furthermore, the grounded cognition account sees our representations as grounded in "the environment, situations, the body and simulations in the brain's modal systems" (Barsalou, 2010, p.717).

Based on the assumptions of the Grounded Cognition and Situated Cognition frameworks, we can speculate that culture is not to be identified with a system of abstract norms and values. Instead, culture can be conceptualized firstly as the shared practices, artifacts, ways of relating, and institutions of a community; and secondly, culture expresses the sensory-motor calibration of individuals from the respective community (based on Soliman & Glenberg, 2014). There is no duality between abstract norms on one hand and behavior on the other (Soliman & Glenberg, 2014). The different way people from different cultures develop, think, act and feel are hence brought about by the fact that they interact with different environments.

The main focus of this chapter is to emphasize the heuristic value of reconceptualizing culture from an Embodied, Situated Cognition perspective. In this vein, we will review some of the mechanisms that influence development, and will analyze them from a grounded perspective. This endeavor is brought about by the fact that the “classical view” on culture can lead to a duality between the abstract norms of a culture and the behavior of the individuals living in that culture (Soliman & Glenberg, 2014). This duality is problematic because it is difficult to predict parental practices from parental beliefs (Matsumoto, 2006). Moreover, sensory-motor behaviors and collective artifacts help us differentiate between cultures, while abstract norms and beliefs don’t. This suggests that an approach informed by the grounded cognition framework is required if we are to understand how culture influences development (e.g., Kitayama & Imada, 2010; Park et al., 2015).

8.3. Ways In Which Development Is Grounded In Culture

Development might become grounded in culture through a multitude of mechanisms. We have chosen to analyze, as possible mechanisms, the situations, tools, cultural tasks and bodily actions children from a culture are provided with.

Tools. One route via which development becomes grounded in culture might be represented by the tools a culture uses and how they are used in interaction with parents. Wilson

(2010) introduces the concept of cognitive retooling, which refers to the fact that the cognitive practices or tools that people from a culture frequently use lead to a recalibration of their cognitive system. The concrete tools activate certain sensory-motor networks when learned, which will become part of the child's cognitive system (see the Situated Simulation Theory, Barsalou, 2017). The translators of tool use for children are parents who, via parental practices, make sure that their children will be able to solve problems in a way that is adapted to the immediate environment, in other words to the local culture. Thus, concrete tools become part of the cognitive system and shape its functioning.

Cultural tasks. The cultural context in which individuals operate is made up of different cultural tasks. These can be construed as a structured set of goals and the procedures one can enact to attain those goals (Kitayama & Imada, 2010). Individuals from different cultures might develop differently because they habitually engage in different kind of cultural tasks from birth onwards (Markus & Kitayama, 2010; Kitayama et al., 2018). As a consequence, they develop habitual, automatic and non-self-reflective tendencies way before they develop explicit beliefs about the self (Park et al., 2016).

Bodily actions. Development might be grounded in culture through the fact that children are encouraged to use certain culturally specific bodily actions (e.g., ways to walk, eat, stand or dance, Barsalou, Barbey, Simmons & Santos, 2005). This fact is important because, if mental representations are simulations of the states that the body had when learning, then individuals with different bodily characteristics and actions should form fundamentally different mental representations (Casasanto, 2009). Hence, the intercultural differences in the encouragement of different bodily actions will shape the way a child's cognitive system develops.

8.4. Conclusions

The main focus of this chapter was to provide a different perspective on the way culture influences child development through the way parents raise their children. As such, we tried to pinpoint some specific mechanisms through which culture is represented and determines development. Specifically, we focused on the tools, tasks, and bodily actions that children interact with or are subjected to everyday.

The ideas sketched here suggest some modalities through which the Embodied Cognition Paradigm might explain previous results from research on culture and development. Using the Embodied Cognition framework, we can specify the mechanisms through which caregiving customs and the physical and social settings impact the development of children.

For instance, material tools give rise to an individual's cognitive tools and leads further to specific ways to solve problems. These tools are provided by parents in everyday settings, becoming a mechanism that shapes the cognitive systems of children. Moreover, we might predict that using different tools will lead to different types of developing one and the same ability, because of the different motor programs that shape representations (i.e., handwriting is based on particular motor movements for each letter, while using the keyboard implies the same movement for all the letters). Moreover, the new tool (i.e., the keyboard) might also have beneficial effects due to the different locations that the letters have. This can have the effect of a better hand-eye coordination. Thus, the analysis of tools might take us to a deeper comprehension of the causes of development and to understanding specific developmental trajectories. So, we see that this new approach explains previous results and also makes new insightful predictions.

Adopting a grounded perspective about the way culture influences development will also take us a step closer towards a unified psychology. Traditionally, psychology has compartmentalized the study of the human mind in cultural, social and cognitive partitions, each with its own conceptual paradigm and explanations (Soliman, Gibson & Glenberg, 2013). An integration of these segments might take the study of human development, and ultimately the understanding of the human mind, to a more comprehensive picture. Sensory-motor mechanisms might be the key link between them: they embody cognition and they embody culture.

And this takes us further to the idea that culture itself is embodied: rather than study the abstract values and norms of a culture, it is better to investigate the embodiments of culture. Going back to parents, there are for sure parental beliefs that are generalized or abstracted from repeated practices. What we argued here is that parental practices come first and that beliefs are consequences that are not the key elements in shaping the development of children. It is rather through repeated actions that parents guide development, and these actions are grounded in the concrete aspects of a culture.

IX. STUDY 7

9.1. Introduction

In the current study, we aimed to test if the accessibility of a dimension of mothers` cultural models (i.e., beliefs that are shared by individuals from a community; Keller & Kartner, 2013) influences parental socialization goals and parental ethnotheories. To reiterate, we based the conceptualization of the relationship between mothers` cultural models and parental beliefs on the Ecocultural Model of Development (Keller & Kartner, 2013). According to this framework, culture influences caregivers` socialization goals and parental ethnotheories via their cultural models. However, most of the studies that investigated the relationship between caregivers` cultural models, their socialization goals and their parenting ethnotheories were correlational (e.g., Keller et al., 2006; Mone et al., 2014). Thus, they could not investigate the causal psychological mechanisms through which culture influences parental socialization goals and ethnotheories (Oyserman & Lee, 2008).

A possible solution that would allow us to empirically investigate certain mechanisms through which culture influences parental beliefs could be to reconceptualise culture from a Situated Cognition perspective. From the perspective of Culture as Situated Cognition, individuals from all cultures develop a series of culturally-based associative knowledge networks (e.g., independent or interdependent cultural models). These associative knowledge networks, once activated, influence how individuals process information, how they interpret their experiences, and how they respond to them (Oyserman & Yan, 2017). Oyserman (2018) states that there are cross-cultural differences regarding which of the cultural models (i.e., that of independence or that of interdependence) is chronically activated. However, regardless of culture, people develop both the cultural model of independence and the cultural model of interdependence and, as such, regardless of culture, each of these cultural models can be situationally primed.

Former studies indicated that priming independence leads to a higher valorisation of autonomous and separateness goals and actions, while priming interdependence leads to a higher valorisation of heteronomous and relatedness goals and actions (Oyserman & Lee, 2008). Based on Kagitcibasi`s (2017) theory, we propose that the effect of priming a cultural model on mothers` socialization goals and parental ethnotheories is a result of the specific components that are activated when the cultural model is primed. As such, we suggest that in the case of the independent cultural model, the activation of the autonomy component is associated with a higher valorisation of socialization goals and parental ethnotheories focused on autonomy, while the activation of the separateness component is associated with a higher

valorisation of separateness goals and parental ethnotheories. In contrast, we posit that in the case of the interdependent cultural model, the activation of the heteronomy component is associated with a higher valorisation of socialization goals and parental ethnotheories focused on heteronomy, while the activation of the relatedness component is associated with a higher valorisation of socialization goals and parental ethnotheories focused on relatedness

Based on the previous discussion, in the present study, our aim was to prime autonomy/heteronomy and to observe the effects of this priming on mothers` socialization goals and parental ethnotheories. Autonomy and heteronomy are facets of the agency dimension (Kagitcibasi, 2017). We chose to focus on a specific component of the parental cultural model and not on the cultural model as a whole, because it is important to identify how this specific component relates to parenting beliefs.

9.1.1. Objective and hypotheses

Objective

To explore the influence of the accessibility of autonomy and heteronomy on parents` socialization goals and parental ethnotheories.

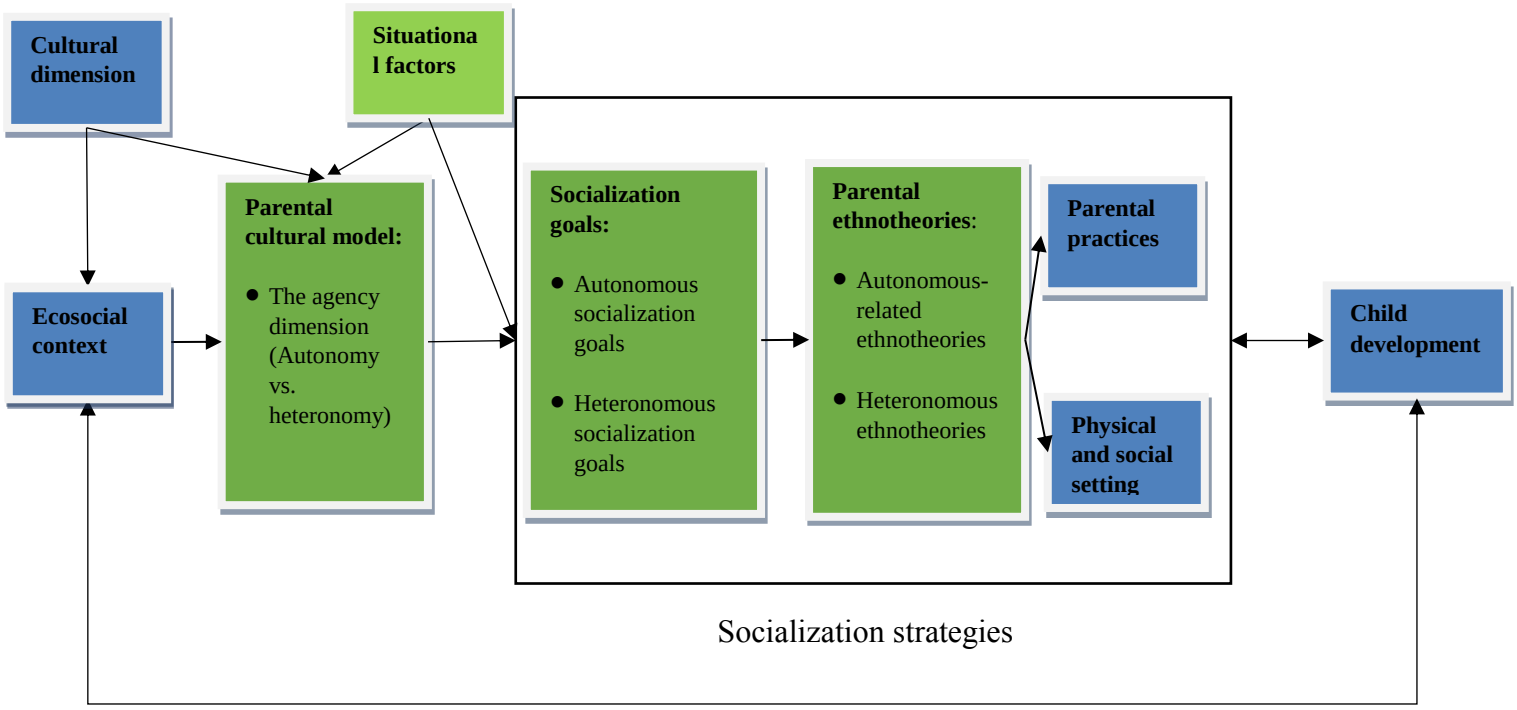

Figure 19.
The variables from the Extended Ecocultural Model of Development that are of interest in the present study (in green).

Hypotheses

H1: Mothers primed with autonomy will value autonomous socialization goals and autonomous-related parental ethnotheories more than mothers primed with heteronomy.

H2: Mothers primed with heteronomy will value heteronomous socialization goals and heteronomous parental ethnotheories more than mothers primed with autonomy.

9.2. Method

9.2.1. Participants

In this study we sampled 74 mothers living in urban regions from Romania. The mean age of the mothers from the sample was 34.12 years (SD = 6.56). The mean age of their children was 54.81 months (SD = 14.43). As regarding the gender of the child, 56.8% of the sample were female and 43.2% were male

9.2.2. Instruments

9.2.2.1. Sociodemographic questionnaire

All participants completed a questionnaire which contained questions regarding several sociodemographic characteristics.

9.2.2.2. Agency priming

To prime autonomy and heteronomy, respectively, we used the scrambled sentence task, developed by Hodgins, Brown, and Carver (2007), based on a task created by Bargh et al. (1996). During this task, participants were presented with 30 strings made up of five randomly placed words. In the case of each string, the participants were asked to select four words and to rearrange them so as to form a grammatically correct sentence. There was only one correct way to arrange the words so as to generate a meaningful and correct sentence. In the autonomy priming condition, the words from 15 of the strings could only be arranged to form a sentence which had a meaning that was associated with autonomy (e.g., "I choose my friends"). The words from the other 15 strings could only be arranged to form a sentence which had a meaning that was neutral (i.e., not associated with autonomy or heteronomy; e.g. "Their office is closed"). In the heteronomy priming condition, the words from 15 of the strings could only be arranged to form a sentence which had a meaning that was associated with heteronomy (e.g.,

"They demand our subordination"). The words from the other 15 strings could be arranged to form a neutral sentence.

The sentences that were used in this task were constructed based on Kagitcibasi`s (2017) conceptualization of autonomy and heteronomy. The construction of the sentences was also based on the sentences that were used in the task developed by Hodgins et al. (2007).

Pilot study

Before using them to prime participants, the sentences were pretested in two phases. We constructed 90 sentences, 30 for each category (neutral, autonomy and heteronomy). The sentences were assessed by 30 undergraduate and doctoral level students. The students gave feedback regarding the wording of the sentences and of the instructions. Out of the 90 sentences that were constructed, we chose 15 sentences pertaining to autonomy, 15 sentences pertaining to heteronomy and 15 neutral sentences. The sentences from the different categories did not differ regarding how difficult it was to construct them F (2) = 1.89, p = .165 or how easy it was to understand them F (2) = 1.13, p = .333. In addition, all of the sentences were categorized as we expected by at least 86% of the participants. The sentences and instructions were also modified as a result of the feedback.

After this phase, we applied the priming task, the GVAQ, the PPEQ questionnaire and a funnel interview to 23 undergraduate students with a mean age of 21.34 (SD = 2.36), in order to receive feedback on the final form of these instruments. Only two participants were aware of the connection between the prime and the questionnaires. As such, less than 10% of the sample was aware of the connection between the prime and the questionnaires. This threshold is important because Bargh & Chatrand, (2000) stipulated that, if more than 10% of the sample are aware of the relationship between the prime and the questionnaire, it is probable that all individuals from the sample were aware of the influence of the prime.

9.2.2.3. Socialization goals

To assess mother`s socialization goals, we used the score obtained for the Agency & Self-Direction scale (10 items; Cronbach α = .90) of the Goals and Values in Adulthood Questionnaire (GVAQ; Suizzo, 2007), as an index of autonomous socialization goals. We also used the score obtained for the Tradition & Conformity scale (9 items; Cronbach α = .88) of the GVAQ as an index of heteronomous socialization goals. The score obtained for the Relatedness scale (4 items; Cronbach α = .65) was used as an index of relatedness socialization goals. The higher the score of an individual on a subscale, the more the individual considers that the socialization goals represented by that subscale are important.

9.2.2.4. **Parenting ethnotheories**

In the present study, we used only two subscales of the Preschooler Parental Ethnotheories Questionnaire (PPEQ, Mone & Benga, 2018). More specifically, we used the subscales which measured parental beliefs regarding autonomy and relatedness promotion (18 items; Cronbach $\alpha = .90$) as an index of autonomous-related parental ethnotheories. In addition, we used the beliefs regarding heteronomy promotion (11 items; Cronbach $\alpha = .85$) subscale as an index of heteronomous ethnotheories. The larger the score of a participant on a subscale, the more the respondent considers that the parental practices described in that subscale are important.

9.2.2.5. **Funnel interview**

To probe for awareness regarding the association between the priming task and the participants` responses to the other questionnaires, we gave participants an open-ended questionnaire that followed the protocol of the funnel interview (Bargh & Chartrand, 2000). In the case of the current study, only one participant (1.4% of the sample) was aware of the connection between the priming task and the questionnaires.

9.2.3. **Procedure**

Mothers of 3- to 6-year-olds that were interested to participate in this study were randomly distributed in one of two experimental groups (i.e., autonomy or heteronomy promotion). The mothers gave their informed consent and completed a sociodemographic questionnaire, the scrambled sentence task, the GVAQ, the PPEQ and then the funnel interview in a quiet room situated in their children's kindergarten. At the end of the study, all participants received a full debriefing regarding the objective of the study and the results that were obtained.

The design included an autonomy and a heteronomy promotion condition but not a control condition. We chose this strategy because, although control groups are essential for experimental designs, it is ambiguous what their function is in cultural priming studies. More specifically, we cannot assume that participants from the control group do not have any of the cultural mind-sets primed and active. As such, the significance of the differences between the control group and the experimental groups is ambiguous.

9.3. Results

To test our hypotheses, we employed the Null Hypothesis significance testing approach. We also conducted a series of Bayesian analyses (e.g., Dienes, 2011). By calculating Bayes factors, one can ascertain if the data provides support for the null hypothesis or for the alternative hypothesis. We make this statement because the Bayes factor is a continuous measure of the degree of support that the evidence brings for the null hypothesis or for the alternative hypothesis (Dienes, 2011). This cannot be obtained by using the Null Hypothesis significance testing approach. A Bayes factor lower that 1 suggests that the null hypothesis is supported while a Bayes factor greater than 1 suggests that the alternative hypothesis is supported. However, it is important to mention that substantial evidence for the null hypothesis is suggested by a Bayes factor < .33, while substantial evidence for the alternative hypothesis is suggested by a Bayes factor > 3. A Bayes factor between .33 and 3 suggests that the evidence is inconclusive (Dienes, 2008). Another advantage of calculating Bayes factors is that one can use these thresholds as optional stopping rules. More specifically, data collection can be stopped after substantial evidence has been found for the null hypothesis or for the alternative hypothesis (Dienes, 2008).

To calculate Bayes factors one has to construct a prior distribution of the expected effect size (Ziori & Dienes, 2015). We constructed an informed prior distribution as a half-normal distribution with a mode of 0. The effect size observed for the scrambled sentence task (d = .32) by Oyserman and Lee (2008) was entered as the SD of the half-normal distribution.

Out of the entire sample of 74 mothers, only the data from 71 mothers were entered in the final analysis, because 3 mothers did not have complete data for the PPEQ questionnaire. Out of these 71 mothers, 36 were included in the heteronomy promotion condition and 35 in the autonomy promotion condition.

To test our first hypothesis, we ran a series of independent sample t tests and Bayesian independent sample t tests. These t tests were conducted so as to compare participants primed with autonomy with those primed with heteronomy regarding the degree to which they endorsed autonomous socialization goals, relatedness socialization goals and autonomous-related ethnotheories. On average, participants that were primed with autonomy valued autonomous socialization goals (M = 9.19, SD = .86) more than participants primed with heteronomy (M = 9.13, SD = 1.04). This difference, however, was not statistically significant, t (69) = -.28, p = .390, *BCa* 95% CI [-.52; .39], with a Cohen`s d = 0.063. The Bayesian factor B = .72 suggested that the evidence was inconclusive. Regarding autonomous-related ethnotheories, participants primed with heteronomy (M = 4.44, SD = .38) valued this type of ethnotheory more than

participants primed with autonomy (*M*=4.30, *SD* = .44). This difference, however was not significant, *t* (69) = 1.35, *p* = .090, *BCa* 95% *CI* [-.05; .32], with a Cohen`s *d* = 0.34. The Bayesian factor *B* = .30 suggested that there was substantial evidence for the null hypothesis.

To test our second hypothesis, we ran a series of independent sample t tests and Bayesian independent sample t tests. These t tests were conducted so as to compare participants primed with autonomy and those primed with heteronomy regarding the degree to which they endorsed heteronomous goals and heteronomous ethnotheories. On average, participants that were primed with autonomy valued heteronomous goals (*M* = 8.86, *SD* = 1.07) more than participants primed with heteronomy (*M* = 8.27, *SD* = 1.51). This difference was statistically significant, *t* (69) = -1.89, *p* = .031, *BCa* 95% *CI* [-1.23; .01], with a Cohen`s *d* = 0.45. The Bayesian factor *B* = 0.25 suggested that there was substantial evidence for the null hypothesis. This Bayesian analysis compared the degree of support of the evidence for the alternative hypothesis that the mean of the heteronomous primed participant is greater than the mean of the autonomy primed participants with the null hypothesis. However, the NHST tests suggested that there was a statistically significant difference between the groups but that the mean of those in the autonomy primed group was higher. As such, we decided to also run a Bayesian analysis to test the alternative hypothesis that the mean of the autonomy primed participants is higher. This Bayesian analysis yielded a *B* = 3.43 which suggested that there is substantial evidence for the alternative hypothesis. Regarding heteronomous ethnotheories, participants primed with heteronomy (*M* = 2.56, *SD* = .82) valued this type of ethnotheory less than participants primed with autonomy (*M* = 2.83, *SD* = .55). This difference was marginally significant, *t* (69) = -1.61, *p* = .056, *BCa* 95% *CI* [-.60; .07], with a Cohen`s *d* = 0.38. The Bayesian analysis yielded a *B* = 0.273 which suggested that there was substantial evidence for the null hypothesis. This Bayesian analysis compared the degree of support of the evidence for the alternative hypothesis that the mean of the heteronomous primed participant was greater than the mean of the autonomy primed participants, with the degree of support for the null hypothesis. However, the NHST tests suggested that there was a significant difference between the groups, but that the mean of those in the autonomy primed group was higher. As such, we decided to also run a Bayesian analysis to test the alternative hypothesis that the mean of the autonomy primed participants was higher. This Bayesian analysis yielded a *B* = 2.44 which suggested inconclusive evidence, but supportive for the alternative hypothesis. As such, we found substantial evidence that those primed with the heteronomy did not value heteronomous ethnotheories more but we could not exclude the hypothesis that those primed with autonomy valued this type of ethnotheories more.

As we can see from the above analyses, the Bayesian factors suggest that the evidence was substantial in the case of almost all of the hypotheses we tested. As such, we can conclude that the sample size attained a minimum necessary to test if the evidence supports one hypothesis or the other. We state this because, as mentioned before, we can use the Bayes factor as a stopping rule and stop data collection after we have substantial evidence for the null hypothesis or for the alternative hypothesis.

9.4. **Conclusions**

The general objective of this study was to investigate the influence of the accessibility of autonomy and heteronomy on parental socialization goals and parental ethnotheories. Our results suggested that there was no difference between the groups regarding the valorisation of autonomous socialization goals and regarding autonomous-related ethnotheories. These results are not in accordance with the results of previous studies (Greenfield, 2018; Keller, 2018). However, our findings suggest that mothers primed with heteronomy valued tradition and conformity goals and heteronomous ethnotheories less than mothers primed with autonomy. As such, our findings suggested that the priming paradigm did not function as we expected. Based on Keller and Kartner`s (2013) and on the fact that past studies suggest that mothers from Romania have an autonomous-related parental ethnotheory, we expected that priming autonomy would lead to a higher emphasis placed on socialization goals and ethnotheories associated with autonomy.

One of the possible explanations of our findings is that the sentences used for the heteronomy priming condition primed a feeling of autonomy deprivation, and not heteronomy (Radel, Pelletier, & Sarrazin, 2012). Autonomy deprivation is associated with a tendency to reassert autonomy (Radel et al., 20120). This need to reassert their autonomy might have been expressed through the fact that they consistently assessed any goal or parental strategy related to the promotion of heteronomy as being less important (Radel et al., 2011; Van Prooijen, 2009).

It is possible that we produced autonomy deprivation because we presented items which described situations in which participants considered that it is not legitimate to be controlled. There are studies which suggest that presenting individuals who have a cultural model focused on autonomy with sentences that describe themselves as being heteronomous leads to the feeling that their autonomy is thwarted (Radel et al., 2012). However, we suggest that not all descriptions of an individual being heteronomous lead to a feeling of autonomy thwarting. More specifically, we consider that only descriptions of situations in which one is heteronomous, but

in which one does not consider heteronomy to be legitimate lead to a feeling of autonomy thwarting. We make this statement because in each culture, there are situations in which being heteronomous is legitimate and situations in which it is not (Kakihara, 2006).

Our study has several limitations. A first limitation is the small sample size. The sample size used for the study was not optimal in order to detect small effect sizes (e.g., d = .32). However, this concern is somewhat mitigated by the fact that, when we used Bayes optional stopping rules, we observed that we had significant evidence either for the null or for the alternative hypothesis, in the case of almost all of our predictions. Another limitation is that the instrument through which we measured parental ethnotheories had a subscale which combined autonomy with relatedness. This is a limitation because, if our results would have suggested that priming autonomy leads to a higher valorisation of autonomous-related ethnotheories, we would have had difficulties in interpreting this result. More specifically, we would not have known if the effect observed was caused by the fact that autonomy priming leads to a higher valorisation of the autonomy component of parental ethnotheories, of the relatedness component of parental ethnotheories or of both. An additional limitation of our study is that we did not consider the legitimacy of heteronomy, in the case of the situations to which we referred when we constructed the priming task. Further studies should investigate the situations in which participants consider that being heteronomous is legitimate and in which they consider that it is not.

Despite its limitations, our study significantly improves our understanding of the mechanisms through which culture influences parental beliefs, since it is, as far as we know, the first attempt to experimentally test a mechanism through which culture influences parental beliefs. In addition, the results of this study offer suggestions on how parental valorisation of socialization goals and ethnotheories varies, as a function of the degree to which the situation primes the feeling of autonomy thwarting. This suggests that it is valuable to reconceptualise the influence of culture on parental cognition and behaviour from a Situated Cognition perspective. The findings of our research are also important because they offer evidence which suggest that parents` cultural models are not static, stable characteristics. As such, although there might be differences between cultures regarding the caregivers` cultural model that is more frequently active, both the cultural model of independence and that of interdependence can be situationally primed, regardless of the individual`s culture of provenance.

X. GENERAL DISCUSSIONS

As we have stated in the introduction, our **main objective** in this research endeavour was to investigate how culture influences parenting beliefs of parents of preschoolers from Romania, by focusing on ecosocial, societal, individual, and situational factors. Regarding the ecosocial level, we chose to focus on parents' educational level as an important index of the context in which they live. Concerning the society level, we decided to focus on Hofstede et al.`s (2010) six cultural dimensions. With reference to the individual level, our focus was on parental gender. With regards to the situational level, we focused on situational primes which activated a cultural mindset focused on autonomy or a cultural mindset focused on heteronomy. As previously discussed, each study focused on how at least one of these factors were related with parental beliefs, in order to provide potential explanations for the association between culture and parenting beliefs. In addition, some of the studies focused on how the interaction between different factors was associated with cross-cultural variations in parental beliefs. We also focused on how certain factors and the interaction between them were associated with intra-cultural variations and with cross-cultural variations in intra-cultural variations (e.g., how the intra-cultural variation in socialization goals as a function of educational level varied between cultures, as a function of the standing on Power Distance each culture has).

As a result of this process, the studies we conducted led to a series of theoretical and methodological innovations. We also made some steps towards constructing a framework that permits the integration of factors at different levels of analysis (i.e., ecosocial level, society level, individual level and situational level). If we are to accurately understand what is universal and what is culture-specific in human development, it is important that we take into consideration factors at all these different levels. With this objective in mind, we elaborated the Extended Ecocultural Model of Development and embarked on a research enterprise to explore the links between the different components of this enriched model and to test hypotheses derived from it.

10.1. Theoretical contributions of the present thesis

Table 34.
Summary of main theoretical contributions

Theoretical contributions regarding the Ecocultural Model of Development
• We provided evidence which supports the Ecocultural Model of Development in general, as well as as its validity when applied to mothers of preschoolers (a population on which the model hasn`t been applied before).
• We provided the first evidence which supports the claim that mothers` cultural models causally influence their parental beliefs, by constructing and implementing an innovative experimental approach.
• We devised and implemented a piecemeal approach to the conceptualization and analysis of the maternal cultural model.
• We proposed a more fine-grained approach regarding the conceptualization of the variables of interest, when replicating previous findings.
• We provided evidence regarding an extended part of the mediation model theorized by the Ecocultural Model of Development (ecosocial context->cultural model->socialization goals->parental ethnotheories).
• We provided a new conceptualization of parental ethnotheories regarding the promotion of autonomy vs. heteronomy and of the promotion of relatedness vs. separateness, in the case of mothers of preschoolers.
Theoretical contributions regarding the Extended Ecocultural Model of Development
• We constructed the Extended Ecocultural Model of Development, which also takes into consideration the influence on parental beliefs and human development of society level, individual level and situational level factors.
• We provided evidence pertaining to new hypotheses derived from the Extended Ecocultural Model of Development.
• We provided evidence suggesting that mothers have available different cultural models that can be situationally activated. This is an important and innovative contribution, as previous models state that mothers have a single cultural model, which is conceptualized as being a stable trait.
• We reconceptualized mothers' cultural models so as to emphasize that it has both explicit and implicit components. In addition, we provided evidence which suggests that the implicit components have a higher predictive value.
• We reviewed possible pathways through which we could reconceptualise the influence of culture on human development through a Situated Cognition/Embodied Cognition framework.
Theoretical contributions regarding the beliefs of mothers from Romania
• We provided evidence regarding the cultural models of mothers of preschoolers from Romania.

• We provided evidence regarding the effect of social and economic transitions on the implicit and explicit components of Romanian mothers` cultural models.
• We provided evidence regarding the socialization goals and parenting beliefs of mothers of preschoolers from Romania.
• We offered the first comprehensive synthesis and overview of the current research regarding Romanian parents` cultural models, parenting beliefs and practices.

Please inspect table 34 for a summary of the theoretical contributions of the present thesis. In the paragraphs that follow, we detailed the impact of those contributions.

An important contribution of the present thesis, regarding the Ecocultural Model of Development, is that we provided evidence that supports the model in general and, more specifically, its use for studying mothers with children who belong to another age group than the one most frequently targeted by previous studies (i.e., mothers of infants, Keller & Kartner, 2013). More precisely, the Ecocultural Model of Development was used here to investigate how culture is related to the parenting beliefs of mothers of 3- to 6-year-old children. This is important, because we provided evidence which supports the validity of the model by focusing on a different age group than that previously targeted. In addition, it is important because there is a dearth of studies that focus on how culture influences parental beliefs of mothers of preschoolers.

Another essential and innovative contribution of the present thesis is that we provided, in study 7, the first experimental evidence to support a claim of the Ecocultural Model of Development (Keller et al., 2004), namely that parents' cultural models influence their parental beliefs. This is valuable evidence, because it suggests a causal link between the parental cultural model and parenting beliefs. This is also an important and innovative first step towards the advancement of the manner in which we investigate the influence of culture on parental beliefs, because most studies that were conducted prior to this were of a correlational nature.

An additional contribution of the present thesis is that we proposed and implemented a more piecemeal approach to the conceptualization and the analysis of the parental cultural model than that employed in previous studies (e.g., Keller et al., 2004; Mone et al., 2014). The dominant approach in the literature has been to investigate how the different cultural models as wholes are influenced by different factors and how they, in turn, influence parenting beliefs and practices. In contrast, we proposed a more granular analysis. More specifically, we investigated

how the two specific dimensions that combine to form the different models (i.e., agency and interpersonal distance; Kagitcibasi, 2017) are influenced by the different societal, individual and situational level factors. Additionally, we investigated how they influence parenting socialization goals and beliefs.

A further contribution is that we employed this granular approach of conceptualizing variable of interest when we replicated previous findings from the literature. More specifically, we clearly distinguished between agency and interpersonal distance when conceptualizing mothers` cultural models, socialization goals and parenting ethnotheories in order to replicate the studies conducted by Keller et al. (2014) and Mone et al. (2014). This allowed us to also adopt a more finer-grained approach to measurement of these variables and to test if the results obtained by Keller et al. (2014) and Mone et al. (2014) were a consequence of the instruments used. It also allowed us to further explore how specific dimensions of mothers` cultural models were related to specific socialization goals and parenting ethnotheories.

A particular contribution of the present thesis is that we provided evidence, for the first time, regarding an extended part of the mediation model described by the Ecocultural Model of Development, by investigating if caregivers' cultural models and socialization goals mediate the link between ecosocial context and parental ethnotheories. Former studies have tested only components of this extended mediational model (ex., the relationship between cultural model, socialization goals and parental ethnotheories; Keller et al., 2004; socialization goals and parental ethnotheories; Gernhardt et al., 2014).

An additional theoretical contribution was the creation of a new conceptualization of parental ethnotheories regarding the promotion of autonomy vs. heteronomy and regarding the promotion of relatedness vs. separateness, in the case of mothers of preschoolers. This conceptualization was based on extant research and it also follows a more granular approach, as we differentiated between the promotion of autonomy vs. heteronomy and the promotion of relatedness vs. separateness. This is a valuable theoretical contribution as it paves the way for further research in this domain.

Besides testing a series of central claims of the Ecocultural Model of Development and improving upon the methods through which these claims are habitually tested, we also extended the model. As such, an additional contribution of the thesis is that, based on current literature, we built the Extended Ecocultural Model of Development that, besides the ecosocial level which was a primary focus of the initial model, also takes into consideration the influence of society level (i.e., Hofstede`s cultural dimension), individual level (i.e., gender) and situational level characteristics on parental beliefs.

One more contribution of the thesis is that, besides proposing the Extended Ecocultural Model of Development, we also provided evidence which illustrates how the added factors, namely, cultural dimensions, situational factors, and individual level factors are related to parenting beliefs. As such, we not only proposed an Extended Ecocultural Model of Development, but we also tested new hypotheses that derived from it. Study 2 was among the first studies to investigate the relationship between all of Hofstede`s cultural dimensions and cross-cultural variability in parental beliefs. This study was necessary because extant research had almost exclusively studied the Individualism–Collectivism dimension and its correlates. In the same study, we also provided evidence in regard to how cultural dimensions interact with parent gender in predicting cross-cultural variations in socialization goals. In addition, we explored how the relationship between parental educational level and socialization goals varies between High Power Distance countries and Low Power Distance countries. In study 7, we conducted an experimental study in which we investigated the possibility of situationally manipulating the mothers` cultural models and we explored the effects of this manipulation on parental beliefs.

A further theoretical contribution regarding the extension of the model is that we provided evidence which suggests we cannot assume parents have a single cultural model. Moreover, we cannot consider that parental cultural model is akin to a static, immutable trait, as previous theoretical frameworks have assumed. Instead, our results suggest that parents have multiple cultural models which can be activated by different situations, as a function of the utility of the model for dealing with those situations. This suggests that a major revision should be made to the Ecocultural Model of development to include the concept of parents having multiple cultural models which can be situationally activated.

An additional theoretical contribution was made regarding the conceptualization of mothers` cultural model. More specifically, we extended the concept of cultural model to include the implicit components of one`s cultural model, not only the explicit components. The evidence generated by study 5 suggests that the implicit level components have a higher predictive value.

Another important theoretical contribution is that we offered potential pathways through which one could achieve a reconceptualization of the relationship between culture, parental beliefs and child development from a Situated/Embodied Cognition framework. The value of this reconceptualization comes from the fact that it is supported by results from our studies and past research and it can lead to the generation of new hypotheses. Additionally, it can explain

observations that are not explainable by the classic framework (e.g., situational variability in cultural models).

In addition to testing claims of the Ecocultural Model of Development and extending it, we also provided important evidence regarding the cultural models and parental beliefs of mothers from Romania as well as regarding the manner in which recent social and economic changes have affected these models and beliefs.

As such, another contribution of this thesis is that the results of our studies, particularly studies 1,3, 4, and 5, suggested that Romanian mothers, especially those from the middle-class, have an autonomous-related cultural model. This is convergent with the results of previous studies (Benga et al., 2019; Mone et al., 2014). The current results also shed some light on the debate regarding the effect that recent social and economical changes have had on the culture of Romania (Friedlmeier & Friedlmeier, 2012; Friedlmeier et al., 2013; Gavreliuc & Gavreliuc, 2018; Mone & Benga, 2018), by suggesting that, in the case of a specific group of Romanian individuals (i.e., middle-class mothers of preschoolers), there might have been a transition to an autonomous-related model.

A contribution of our thesis that is related to the previously mentioned one is that we produced evidence which helped us to understand the dynamics of change, in the case of explicit and implicit components of parents` cultural models, during a period of social and economic transitions. This contribution is essential, because there is a need for data regarding the effect of such transitions on parental beliefs. Moreover, this is the first empirical endeavour that offers information on how these transitions affect implicit, and not only explicit components.

A further contribution is that we also provided evidence pertaining to the socialization goals and parenting ethnotheories of mothers of preschoolers from Romania.

The present thesis also offered the first comprehensive synthesis and overview of the current research regarding Romanian parents` cultural models, parenting beliefs and practices. This contribution is important because there was a need for a review that critically analyses and integrates the research conducted in this domain.

10.2. Methodological advances of the current thesis

Please inspect in table 35 below the methodological advances of the current thesis. There is also a more detailed presentation of these contributions, immediately following the table.

Table 35.
Summary of main methodological contributions

• We tested new hypotheses derived from the Extended Ecocultural Model of Development.
• We constructed a task which can be used to empirically test the influence of mothers` activated cultural models on their parental beliefs. This is one of the first attempts to causally test this relationship.
• We used rigorous and multistep procedures to pilot and pretest the instruments we employed and to adapt them to the population we studied.
• We piloted and adapted a series of instruments so as to measure the agency and interpersonal dimensions of mothers` cultural models.
• We replicated previous findings with a more finer-grained approach in regards to the measurement of the variables of interest.
• We provided a template for the measurement of both implicit and explicit components of mothers` cultural models.
• We constructed, piloted and validated a questionnaire that measures the parental ethnotheories of mothers of preschoolers.
• We used a sample of individuals from 40 cultures, so as to test how cultural dimensions are associated with parental beliefs.
• We used rigorous and complex statistical procedures that allowed us to test our hypotheses, some of which were focused on complex statistical models (e.g., logistic regression to test moderation models, factorial analyses with multiple statistical procedures to determine appropriate number of factors, path analyses to test multiple mediation models, independent t tests and Bayesian statistics in order to test differences between groups, multiple imputation procedures to impute missing data).

An innovative contribution of the present thesis is that we tested new hypotheses derived from the Extended Ecocultural Model of Development regarding the association between society level (Hofstede`s cultural dimensions), individual level (parental gender), and situational level (situational priming of cultural models) factors on mothers` cultural model and parenting beliefs.

A different but essential methodological contribution of the thesis is that we constructed a task which can be used to empirically test the influence of mothers` activated cultural model on their parental beliefs. This is the first study to use such an experimental paradigm and its implications are very important and innovative, in that it paves the way for constructing experimental studies targeting the influence of culture on parenting beliefs. This is essential, if we take into consideration that previous approaches were of a correlational nature.

Another methodological contribution of our thesis is that we used rigorous and multistep procedures to pilot and pretest the instruments we employed and to adapt them to the population we studied. This approach assured that our items and stimuli adequately measured the variables of interest and that the participants interpreted them in the manner in which we intended.

An important methodological innovation of the present thesis is that we adapted and piloted a series of instruments so as to measure the agency and interpersonal dimensions of parents` cultural models. This is essential because it allows us to test the hypotheses of existent theoretical models concerning culture`s influence on human development. It has also allowed us to achieve a more granular analysis of the two dimensions and to explore how the two dimensions of parents` cultural models are related to specific types of socialization goals and beliefs. This is important because, as we stated previously, former studies (Keller et al., 2004; Mone et al., 2014) employed instruments which combined elements of agency and interpersonal distance when measuring cultural models, socialization goals and parenting ethnotheories.

Another contribution is that we employed a granular approach when measuring variables of interest, in an effort to replicate previous findings from the literature. More specifically, we replicated the studies conducted by Keller et al., (2014) and Mone et al., (2014) by using more finely grained instruments, which distinguished between the agency and interpersonal dimension of mothers` cultural dimensions and which had a more granular approach to measuring socialization goals and parenting ethnotheories. This allowed us to test if the results obtained by Keller et al. (2014) and Mone et al. (2014) were a product of the instruments used and to further explore how specific dimensions of mothers` cultural models were related to specific socialization goals and parenting ethnotheories.

An additional contribution of the present thesis is that we provided a template for the measurement of both implicit and explicit components of mothers` cultural models. This is a very important contribution, because it provides valuable measurement strategies to researchers that are interested in adopting a Situated Cognition approach to the relationship between culture and parental beliefs.

A further methodological advancement of our thesis is that we constructed, piloted and validated a questionnaire that measures the parental ethnotheories of mothers of preschoolers, about parenting practices through which autonomy, heteronomy, relatedness, and separateness can be promoted. This is one of the first instruments that measures this specific concept. The present thesis offers evidence which supports the viability of this instrument when used with mothers of preschoolers from Romania. However, future studies should also test its psychometrical qualities with other populations.

In addition, in order to test how cultural dimensions predict cross-cultural variations in parenting beliefs and how they interact with other variables in doing so, we analysed data that was collected from respondents that belong to 40 countries. This approach gave us the necessary cultural variability and statistic power in order to test our hypotheses.

Another important contribution of our thesis is that we used rigorous and complex statistical procedures that allowed us to test our hypotheses, some of which were focused on complex statistical models (e.g., logistic regression to test moderation models, factorial analyses with multiple statistical procedures to determine appropriate number of factors, path analyses to test multiple mediation models, independent t tests and Bayesian statistics in order to test differences between groups, multiple imputation procedures to impute missing data).

10.3. Practical implications of the current thesis

Table 36.
Summary of main practical contributions

• We facilitated culturally sensitive assessments by constructing conceptualizations and instruments through which one can measure the parental beliefs of mothers of preschoolers.
• We facilitated future interventions by offering a conceptual and empirical basis pertaining to the cultural profile and parental beliefs of mothers of preschoolers from Romania.
• We facilitated the inclusion of the implicit components of mothers` cultural models in future interventions by offering an empirical basis, a new conceptualization and a new measurement approach relevant to these implicit components.

• We facilitated the inclusion of situational factors in future interventions which target mothers` parental beliefs or practices, by providing evidence which supports the importance of these factors and a conceptualization of these situational influences.
• Our approach offered a possible template for interventions which are constructed based on a multilevel approach, because we focused on factors from different levels and their interaction, as influences on parental beliefs and practices.

Concerning the practical implications of our study, we facilitated culturally sensitive assessments by constructing conceptualizations and developing instruments through which one can measure the parental beliefs of mothers of preschoolers and this will greatly help to develop culturally sensitive assessments and interventions (Keller, 2018).

Another practical implication is that we facilitated future interventions because we generated conceptualizations and results pertaining to the cultural profile and parental beliefs of mothers of preschoolers from Romania, a cultural group not very well represented in literature. This will facilitate other investigations which focus on this sample and it will also facilitate the development of interventions focused on this population. More specifically, the fact that mothers have a cultural model focused on autonomy and relatedness and that this model is adaptive in this cultural context might be of great importance, because it suggests possible components that interventions should target; in addition, it suggests what types of parental beliefs and behaviours are normative in the Romanian context.

We facilitated the inclusion of the implicit components of mothers` cultural models in future interventions by offering an empirical basis, a new conceptualization and a new measurement approach relevant to these implicit components. More specifically, through adding the implicit component of parental cultural model to our theoretical models, by conceptualizing the way in which it develops, and by investigating the way in which it is associated with parental beliefs, we offered new information that will help to understand which factors guide parental beliefs and behaviours and how to change these factors.

In addition, we facilitated the inclusion of situational factors in future interventions which target mothers` parental beliefs or practices, by providing evidence which supports the importance of these factors and a conceptualization of these situational influences. By providing evidence pertaining to how different situations can impact parenting beliefs, we offered suggestions for new directions in the case of parenting interventions. As such, our evidence

suggests that it is important to analyse the daily situations in which a parent is immersed, in order to understand and change his/her beliefs and practices.

Another important contribution of our thesis is that we offered a possible template for interventions which are constructed based on a multilevel approach, because we focused on factors from different levels and their interaction, as influences on parental beliefs and practices. As such, our studies can help orient parenting interventions towards multiple levels which influence parenting beliefs and practices. For example, an intervention which focuses on these multiple levels might analyse and target the situations in which the parent is immersed, the personal characteristics of the parent, the cultural dimensions that define the society in which he/she functions, and the ecosocial context in which he/she lives.

10.4. Limitations of current thesis

Our research approach had certain limitations, besides those underlined in each Discussions session. First, we would like to underline that there are few instruments constructed to evaluate beliefs regarding agency and interpersonal distance separately. As such, it was necessary to construct instruments and to adapt the existing ones, so that they measure the constructs we were interested in. This is clearly an approach that is not optimal, comparative to the situation in which we would have used instruments specifically built to measure the constructs of interest. As such, future research should be centred on developing appropriate instruments for studying the variables of interest.

An additional limitation that permeated almost all of the studies (except the second one) was that, although we sampled different cultural subgroups, our mothers came only from Romania, and not from different societies, and we did not systematically sample from different ethnicities. As such, this might have affected our cultural variability. Future studies should test the extended Ecocultural Model of Development with samples from different societies and from different ethnic groups. However, we do want to emphasize that mothers were part of differing cultural subgroups, as is emphasized by their answers to the questionnaires and tasks that measured their cultural models and by studies which show that the different regions from which the mothers were sampled have differing cultural profiles (Neculaesei, 2016).

10.5. Conclusion

In conclusion, the present thesis brings important methodological, theoretical and empirical contributions, which help us to better understand how culture shapes parental beliefs and human development in the specific case of mothers of preschoolers from Romania, but also

more generally, in the case of mothers of preschoolers from different societies. In addition, this thesis will further feed the development of Cross-Cultural Developmental Psychology, since it provides a series of instruments that allow us to approach research topics previously unapproachable.

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