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# Culture and Development: Developmental Pathways to Psychological Autonomy and Hierarchical Relatedness (2)

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# Culture and Development: Developmental Pathways to Psychological Autonomy and Hierarchical Relatedness (2)

## Abstract

This paper proposes to conceive of the cultural models of psychological autonomy and hierarchical relatedness as cultural scripts that direct the socialization of offspring generations. The earliest social experiences in the natural environment during the first months of infants' life are considered to organize consequent developmental tasks and their achievements. Our considerations are based on the component model of parenting that conceives of parenting systems and interactional mechanisms as independent components of parenting that form culture specific profiles. We particularly concentrate on contingency as the prompt reactivity to infant signals and warmth as the physical and/or emotional closeness. Specific consequences in terms of supporting psychological autonomy and hierarchical relatedness are discussed.

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## Introduction

The conceptions of individualism/collectivism or independence/interdependence have received considerable attention throughout different domains of psychology during the last decades. Besides serving as descriptors of differences in personality and denominators for social categories, individualism (independence) and interrelatedness (interdependence) can also be considered as detailing cultural scripts for development and socialization. However, substantial criticism has been raised both in terms of conceptual as well as methodological issues (for a summary see Keller, 2012; Oysermann, Coon, & Kemmelmeier, 2002). Therefore, we<sup>1</sup> have proposed to specify the core assumptions concerning these different world views, i.e. autonomy and relatedness not as a matter of more or less, or present or absent, but as universal human needs that emerge in different modes in order to correspond to contextual demands and inform cultural value systems. We understand different conceptions of autonomy and relatedness as representing normative orientations, that cultural communities construct and co-construct as shared realities in specific domains of life, and that are transmitted and negotiated between generations. Yet, they also represent individual psychologies that affect perception, motivation, affect regulation, and social behavior in characteristic ways (Keller 2011; Keller & Kärtner, 2013; Markus & Kitayama, 1991). We propose to conceive of the earliest everyday situations between infants and their caregivers as the locus for the first processes differentiating the emerging selves of infants according to the prevailing cultural standards. Social experiences are shaped by different modes of parenting which can be understood as expressions of the allocation of investment as responses to different sociocontextual demands from an evolutionary perspective (Keller, 2002). Development is constituted through individual acquisition processes, which define life trajectories as unique. The propensity for cultural learning in terms of the relative ease of acquiring developmentally appropriate knowledge, thus, constitutes the evolutionary heritage.

## Cultural Conceptions of the Self

It is commonly acknowledged from anthropological and psychological perspectives that cultures differ with respect to their conceptions of the self (Kagitcibasi, 1997) with a special focus on the calibration of ego and other orientations. Moreover, relationships between the individual and the group are developmental themes throughout the lifespan. Over the last decades, basically two conceptions have been elaborated:

The independent construal of the self (Markus & Kitayama, 1991; cf. also individualistic, egocentric, unique, private, ideocentric) expresses the notion of personal distinctness and separateness with an emphasis on unique personal attributes, abstracted from social responsibilities and duties. These "agencies" are conceived of as independent,

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<sup>1</sup> Throughout this paper I use the plural form when referring to the own work, thus acknowledging the fact that most of the research has been conducted in collaboration with various collaborators. Their contributions are highly appreciated.

assertive, competitive, self-assured, efficient, self-sufficient, and direct (Church & Lonner, 1998).

The interdependent construal of the self (cf. also sociocentric, relational; allocentric; collectivistic) describes an individual who is fundamentally connected with other human beings, who experiences him or herself as part of an encompassing social relationship, subordinating individual interests to the group by being attentive, respectful, dependent, empathic, self controlled, dutiful, self-sacrificing, conforming, and cooperative. The orientation towards the social norm, which is guiding the individuals' behavior (Triandis, 1989), is supposed to maintain social harmony among the members of the group, who may have to share scarce resources, to tolerate their views, and to minimize conflicts. The individual co-agency is defined through the assigned place in the society, i.e., the social role that is often rooted in religion like the Hindu ideal of interpersonal fusion or the Confucian conceptions of oneness and bonding of persons.

It is commonly understood that the independent conception of the self is prevalent in Western cultures (“...some sizable segment of American culture, as well as... many Western European cultures...”, Markus & Kitayama, 1991, p. 225) whereas the interdependent conception of the self is attributed mainly to non-Western cultures (“...Japanese culture as well as...other Asian cultures, also African cultures, Latin American cultures, and many Southern European cultures.”, Markus & Kitayama, 1991, p. 225).

Although there is convincing face validity in the anthropological literature (e.g. Gottlieb, 2004; Lancy, 2008; Seymour, 1999) for differences in orientations towards self-centeredness or other orientation in self-conceptions across cultural environments, there are nevertheless conceptual and methodological issues that need attention.

We argue that at the core of individualism and independence a particular mode of autonomy can be identified that characterizes an individual as differentiated from others through stable ego boundaries enacting its self in own intentions, preferences, wishes, cognitions, emotions, and exerting free will. Thus the inner world of mentalizing, reflecting, and valuing choices as maximizing own options and self-realization are central and dominate communal and action guided expressions of autonomy. This conception of autonomy also defines relationships as self-selected and self-determined negotiations between independent individuals. Thus relatedness is not less important than autonomy but defines it in a particular mode. We therefore regard this conception as the prototype of psychological autonomy. We further argue that at the core of collectivism and interdependence a particular mode of relatedness can be identified that characterizes individuals as communal agents guided by a sense of connectedness in a hierarchical social system. Obligations and responsibilities are expressed in services to the community that are enacted in dutiful behaviors. Autonomy is conceived of mainly as action autonomy, i.e. the responsible, self-determined and socially driven performance of behavioral necessities. We regard this type as prototype of hierarchical relatedness. It is important to note that these two conceptions are neither poles of one dimension, nor are they emphasizing either autonomy or relatedness as more important. Both prototypes value autonomy and relatedness as basic to the human psyche, yet in different modalities.

Since they are independent of each other they can moreover appear in different combinations in forming hybrid types (Keller, 2011; Keller & Otto, 2011; Keller & Kärtner, 2013).

Besides the definition, dimensionality, and measurement issues pertaining to the predominance of questionnaires and scales operationalizing independence/interdependence or individualism/collectivism (e.g., Kagitcibasi, 2007; Matsumoto, 1999; Oysermann et al., 2002), also the definition of culture as country or region needs to be reconsidered. Especially ecological and economic conditions define social complexities with consequences for value systems and thus children's learning environments. There are proposals in the literature relating historical to ecological conditions in the sense that hunting and gathering societies placed more vigor on assertiveness, achievement and self-reliance, whereas agricultural (pastoral) communities especially valued conscientiousness and compliance (Berry, 1976). Although socialization practices are considered as important (cf. also Whiting, & Whiting, 1977) in shaping adult psychologies and thus self-ways, these cultural value systems have only been recently considered by developmentalists as offering orientations towards different developmental scripts (cf. Keller & Greenfield, 2000; Keller, 2007).

In this article, the idea is introduced that the cultural values related to autonomy and relatedness are translated into early socialization environments. We particularly focus on the systems and modes of parenting during the first years of life. We assume that parenting is based on a universally evolved behavioral repertoire, from which the culture selects and reinforces particular styles (Greenfield, 2002). Thus, parenting is conceived of as intergenerational link for the transmission of cultural values.

### **The Developmental Context of Parenting**

Infants all over the world have a primary motivation to relate to people. Attachment and bonding constitute phylogenetically deep-rooted systems that exist already in rodents. Protection from predators and the regulation of diverse physiological and behavioral systems in the offspring are considered to represent the main selective forces. The early relationship formation is crucial for the survival of the infant, since its altriciality at birth needs to be compensated by motivated caretakers who provide the infant with food, shelter, warmth, and hygiene. Beyond caregiving in these primary modes, infants are dependent upon a specific social environment, providing them with social responses as well as stimulation in order to prompt support and facilitate the psychological development in different domains. For securing physical and psychological care, infants are able to attract their caregivers' attention and elicit caregiving motivation reliably with a special repertoire of inborn characteristics like the babyiness (Kindchenschema) and attachment behaviors like crying, smiling, looking, and vocalizing (Bowlby, 1969). The immaturity of the newborn (e.g., convergence and acuity in vision are not yet established, the memory span covers only seconds, and vision and movement are not coordinated) has been regarded as a consequence of hominid brain development, which necessitates a

physiological preterm birth. On the other hand, it allows infants to invest all possible resources into their own growth and development in order to be better prepared as adults (Alexander, 1987). Infants participate actively in their development with selective attentional foci, which seem to be based on evolved universal central tendencies or epigenetic rules. They prefer the human face over other perceptual displays and they behave differently towards persons as compared with objects. They detect event as well as person-based contingencies, i.e., the perception of temporal relationships between two consecutive events, expect social responsiveness from their interactional partners, and develop early preferences for familiar over unfamiliar persons. They can be consoled by body contact and want to be held and carried.

Parents are equipped with complementary behavioral propensities to deal with the peculiarities of infants' behaviors. Since essential parts of parenting behaviors towards infants are usually not cognitively controlled or intentionally performed (e.g., spontaneous raising of the voice to a higher pitch during "baby talk", mimical mirroring, face-to-face distance regulation), they are regarded as expressions of a universal behavioral repertoire that is triggered by the presence of a baby. Although experiences with babies facilitate parenting, it is basically existent without explicit learning, since it is even displayed in children as young as 2 to 3 years, performed by both sexes, and appears in virtually all investigated cultures. Despite its evolutionary foundation, substantial differences in prevalence and mode of parenting styles across cultures are obvious. We have summarized these differences in distal (prevalence of face-to-face contact, object stimulation, and verbal exchanges) and proximal (body contact and body stimulation) styles of parenting (Keller, 2007).

These social interactional regulations form the basis of relationship formation. Attachment theory (Bowlby, 1969; Ainsworth, Blehar, Waters, & Wall, 1978) in particular has become prominent in promoting the view that early relationship (attachment) formation is rooted in preceding social interactions, which are supposed to be translated into internal models (internal working model, Bowlby, 1969), from which the representation of the social relationships as well as the closely intertwined model of the self evolves. Although classical attachment theory needs to be reconceptualized in cultural terms (see Otto & Keller, in press) the basic premise of the Bowlby/Ainsworth conception can still be maintained: the social environment teaches the infant an interpretation of the self and others. The operation of these processes partly outside the realm of consciousness is associated with an increasing resistance to change. The first social experiences therefore have a special significance for the foundation of developmental continuity, without preventing change at any later stage. However, coherence in individual development is a necessity for coordinated responses to the environment.

Based on empirical evidence, we promote the view that with about three months of age, a first manifestation of relationship quality has been achieved (Keller, 2007). Infants' social behavior at that age can be regarded as a consequence of preceding social experiences and predicting concurrent (e.g., amount of crying as well as subsequent developmental outcomes in terms of later developmental tasks, Keller et al., 2004). The behavioral systems of parenting, that are briefly introduced above are modulated by

behavioral mechanisms, i.e. the nature of attention (exclusively dyadic or shared and co-occurring), the susceptibility towards positive and/or negative infant signals, contingency as the prompt reactivity towards infants' signals, and warmth as closeness and affectivity.

The following discussion centers especially on the mechanisms of contingency and warmth. They are especially prone to illustrate the conceptual model of independent components presented here. In the literature, contingency and warmth are usually conceived of as a unitary construct, as expressed e.g. in the concept of sensitivity as alertness to infant signals, appropriateness and promptness of response, and flexibility of attention and behavior (Ainsworth et al., 1978). Another example is Papousek and Papousek's (1995) conception of intuitive parenting, as the immediate, appropriate, and warm behavioral regulation in response to infant signals. This quality is regarded as the essence of parenting during the first year of life and regarded as crucial for the prediction of developmental outcomes (Ainsworth et al., 1978).

However, there are doubts that contingency and warmth in fact form inseparable entities. Especially Kevin MacDonald (1992) has proposed to contrast warmth with security as basically independent affectionate systems. He argues, that maternal behavior, which provides security, i.e. predictability does not need to be emotionally warm and tries to verify the assumption of two separate functional systems with results from studies of Ganda and Gusii. We could confirm empirically that contingency and warmth can be understood as independent dimensions of parenting that are complementary to infant needs when forming early representations of relationships as well as self-construals. In a factor analytical study of different interactional measures assessed in videotaped free-play situations from two German samples of mothers with their three months old babies ( $n1 = 14$ ;  $n2 = 31$ ) and one US-American study ( $n = 12$ ) with a comparable socioeconomic background, we identified a three-factor solution consisting of a non-verbal contingency factor, a verbal contingency factor, and a sensitivity/warmth factor. This exploratory analysis provided the first evidence for the independence of behavioral contingency and warmth. In order to further explore the interactional structure of parenting behavior, we conducted a longitudinal study with 63 Northern German middle-class mothers and their three months old infants. Data analysis was equally based on videotaped parent-infant interactions in free-play home situations each comprising about 15 minutes. Trained observers assessed contingency on the basis of face-to-face interactional exchange with a micro-analytical computer-based procedure. Two chance-corrected indices of contingency were computed. Different trained raters assessed affectionate, warm parenting from the same video sequences. Results demonstrated that warmth and contingency are independent components of parenting (Keller, Lohaus, Voelker, Cappenberg, & Chasiotis, 1999). These analyses are conducted with participants from one cultural environment, i.e. middle-class German families, who reportedly adhere to the model of psychological autonomy (Keller & Kärtner, 2013). In order to qualify these results on a global scale, we need cross-cultural comparisons. Therefore, warmth and contingency are presented in the following as idealized prototypical conceptions from the perspective of different cultural models (for a full discussion of the component model, cf. Keller, 2002, 2007).

## Warmth

Warmth has been recognized as an important parenting dimension since the early parenting style studies during the fifties and sixties, mainly as the opposite of parental control across many different cultures (see also Rohner's approach of acceptance/rejection, see e.g., Rohner & Pettengill, 1985). Warmth is described as giving and expressing affection (positive affective exchange, openness and accessibility, nurturance, understanding, empathy, and acceptance). Behavioral expressions like hugging, kissing, or holding are indexed as expressing warmth. Most studies, however, address school children and adolescents.

The expression of warmth in interactional situations with infants comprises the mutual sharing of affective displays as well as empathic affect as expressed e.g., in tonal and vocal parameters of the voice. However, the expression of facial warmth is related to the face-to-face parenting system, which may be regarded as constituting the phylogenetically newest mode of parenting (Keller, 2002). Parental warmth seems to have a longer tradition as part of the body contact system. The function of body contact in primates, especially grooming, has been qualified as fostering group coherence. Different primate societies spend up to 30% of their waking hours with reciprocal grooming which affects the release of endorphins, helping to soothe the groomed partner, and hence allow the development of trust. Body contact warmth also mediates emotional regulation in the human infant, e.g., reducing negative affect (carrying and close proximity are the worldwide most popular responses to distress). It seems to play an important role for the development of social and emotional competence and is considered to be an important condition for the development of helping behavior and sharing. Besides fostering social coherence, warmth seems to relate to the development of social imitation and role taking. Especially within the context of social learning theory, it has been demonstrated that children imitate adult role models more when they display warm and affectionate behavior (as well as powerful models) as compared with cold and distant behavioral models (Bandura, Ross & Ross, 1961). Maternal nurturance increases imitation from daughters (Mussen & Parker, 1965) and parental warmth predicts identification with parents (Hetherington & Frankie, 1967). Warm and positive affectionate parent-child relationships "...are expected to result in the acceptance of adult values by the child, identifying with the parent, and a generally higher level of compliance" (MacDonald, 1992, p. 761). However, there are vast cultural differences with respect to the amount of parental warmth as mediated by body contact and/or facial expressions that infants experience (Keller, 2007). We therefore propose to conceive of warmth in terms of affective exchanges in the distal mode as part of psychological relatedness regarding the prototype of psychological autonomy. Warmth in terms of bodily closeness in the proximal mode of parenting may be regarded as the predominant socialization in the model of hierarchical relatedness.



## Contingency

In interactions with babies, parents as well as caretakers display a propensity for prompt responsiveness to infant cues in general. There are different time spans reported in the literature, which are considered as prompt ranging from 2 seconds to 5-7 seconds, mainly as responses towards distress signals. There is however evidence, that parents in fact respond much faster to a substantial part of infants' mainly non-distress signals within a latency window of 200 to 800 ms (Papousek & Papousek, 1991). The necessity for the short time span seems to be related to infants' restricted memory capacity, since habituation studies have demonstrated that infants during the first months of life do not learn that events belong together if the distance between them exceeds one second. The parental contingency matches infants' contingency detection mechanisms, which are present from birth on. The perception of temporal relationships is discussed to constitute a general mechanism of information processing which extends to social as well as non-social events. With this capacity, infants can relate events to their own actions. Contingency perception does not seem to be dependent upon specific affective displays, although infants enjoy matched affect. However, the infants' experience of environmental as well as behavior-based contingency results in positive affect, whereas the violation of contingency expectations is accompanied by negative affect and distress. Thus, contingency detection seems to be self-rewarding.

The function of the contingency experience based on non-distress face-to-face interaction is considered to promote the acquisition of early perceptually based self-knowledge by learning that behavior has consequences and by seeing their actions reflected in others. Consequently, contingency has been mainly related to the development of beliefs about personal effectiveness and the predictability of others' behavior. Contingency detection in the interactional context of face-to-face situations is linked to (exclusive) mutual visual attentiveness and eye contact by establishing a turn-taking structure that constitutes a preverbal dialogue. The developmental consequence of the contingency experience during early interactions can, thus, be related to the development of control beliefs, which determine a conception of the self as a causal agent. In an empirical study we could demonstrate that early contingency experience in the face-to-face modus are related to the development of mirror self-recognition, i.e., infants experiencing high levels of contingency in early interactional exchanges develop self-recognition in the mirror earlier than children who have less exposure to facial contingency experiences (Keller, Kärtner, Borke, Yovsi, & Kleis, 2005).

Due to the prevalence of the parenting system of face-to-face behavior (Keller, 2002) and the impact which is laid in conversational turn-taking, the contingency experience differs substantially across cultures. Especially in Western industrialized, i.e., competitive societies, extensive early face-to-face exchange seems to path the way for developing an individualistic self that relates to the cultural model of psychological autonomy (Keller, 2007; Keller & Kärtner, 2013). Anthropologists, however, have observed contingency in the proximal mode of parenting as well. Bambi Chapin (in press) has observed interactional exchanges in Sri Lankan mother-infant interactions and found a prevalence of

bodily contingencies, i.e. mothers responding contingently to infants' bodily signals. Similar observations have been made in other oriented cultures with a high prevalence of body contact and carrying (hips and back cultures, LeVine, 1984; see also Seymour, 1999). The perception of bodily signals is only possible in the context of close bodily proximity; moreover responses are already displayed to tiny signals often, so that the response seems to be anticipatory. Rothbaum, Pott, Azuma, Miyake, and Weisz (2000) have described these anticipatory parental reactions as blurring the ego boundaries of the baby, which support the development of an interrelated self. Thus, the same interactional mechanism, enacted in different modes of parenting can serve different developmental outcomes.

### Outlook

We have proposed to understand the panhuman dimensions of autonomy and relatedness at the core of the cultural conceptions of individualism/collectivism and independence/interdependence. In order to overcome conceptual and methodological issues, different modes of autonomy and relatedness are proposed that are contingent to eco-social demands and represented as normative cultural belief systems. Moreover, we have proposed that mundane early everyday experiences form the cradle for the acquisition of cultural knowledge pertaining to the self and the self in relation to others. Based on the component model of parenting (Keller, 2002, 2007), we differentiate parenting system and interactional mechanisms which are basically independent from each other since they may have evolved at different times during the primate phylogeny to solve adaptive problems. Therefore, they can be assumed to have different developmental consequences. In reality, they occur as mixtures that promise adaptational values to differing contextual demands. As consequences of these early childhood experiences diverging developmental pathways may result across the lifespan. Earlier experiences influence later trajectories, yet in a non-deterministic way – change is a characteristic of humans throughout the lifespan. Nevertheless, change is easier during early phases of development than during later ones – i.e., environmental learning takes longer during later developmental phases. However, this may not be a linear model, since the very early experiences may be of greater impact than following ones, since they set the stage for differing developmental pathways. Infants' early culturally defined learning is part of an intergenerational transmission process of norms and values, based on biological predispositions. Although the empirical support for long-term consequences of these early experiences in the predicted sense is still scarce, especially with respect to non-Western middle-class samples (cf. Henrich, Heine & Norenzayan, 2010), there is nevertheless promising evidence to pursue these traces further. The proposed framework could be an important step in accumulating theory-based evidence for cultural pathways of development. It allows a conceptualization of development, which is rooted in universal principles that are nevertheless contextually shaped and ontogenetically acquired, thus overcoming ethnocentric conceptions of development.

### Websites for more information

<http://nifbe.de/das-institut/forschung/entwicklung/team/114-prof-dr-heidi-keller>  
<http://www.psych.uni-osnabrueck.de/mitarbeiter/hkeller/hkeller.html>  
<http://www.culturalpathways.uni-osnabrueck.de/>

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### About the Author

Heidi Keller, PhD, is a Professor of Psychology in the School of Human Sciences of the Osnabrueck University, Germany, and the director of the research unit "Culture, Learning and Development" of the Lower Saxonian Institute of Early Childhood Education and Development. Her main interest concerns the conception of development as the interface between biology and culture. Her research program consists in cultural analyses of infants' early socialization contexts and their developmental consequences in different cultural environments. She is also interested in the development of dysfunctional pathways in different cultural environments. She has published different textbooks and handbooks of child development and is on the editorial board of several developmental and cross-cultural journals. She had been awarded the Nehru chair professorship at the MS University of Baroda and has been a fellow-in-residence of the Netherlands Institute of Advanced Studies (Nias). She has taught at the MS University of Baroda, India, the

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### **Questions for Discussion**

1. What are the definitions of independent and interdependent construals of the self?
2. Why is infant's early relationship formation crucial for later development?
3. What is behavioral contingency and which developmental consequences can be expected upon the experience of contingency?
4. What does interactional warmth mean and which developmental consequences can be expected from the experience of warmth?
5. Why is parenting a cultural activity?
6. What are the cultural biases of the classical definition of parental sensitivity?
7. Why is the component model of parenting culturally sensitive?
8. What are the evolutionary roots of the component model of parenting?