

Introduction

The conceptions of individualism/collectivism or independence/interdependence have received considerable attention throughout different domains of psychology during the last two decades. Besides serving as descriptors of differences in personality and demarcators for social categories, individualism (independence) and interrelatedness (interdependence) can also be considered as detailing cultural scripts for development and socialization. With this, they represent value systems, that cultural communities construct and co - construct as shared realities in specific domains of life, 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 (Markus & Kitayama, 1991). We propose to conceive of the earliest interactional 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. The interactional experiences are shaped by different modes of parenting which can be understood as expressions of the allocation of investment as responses to different socio contextual 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.

Individualistic and Interrelated 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. The relationships between the individual and the group are also developmental themes throughout the lifespan. Over the last decades, basically two conceptions have been elaborated:

1. 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, assertive, competitive, self assured, efficient, self-sufficient and direct (Church, & Lonner, 1998).
2. 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" (Keller, & Eckensberger, 1998) is defined through the assigned place in the society, i.e., the social role which 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). Except cultural/regional differences, especially ecological and economic constraints with consequent social demands can be identified as correlates of these self conceptions. The orientation towards self centeredness or other orientation in personality functioning has accordingly been related historically 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 these styles of personality functioning, individualism and interrelatedness have only been recently considered by developmentalists as offering value orientations defining different developmental scripts (cf. Keller, & Greenfield, 2000). Based in earlier ethological conceptions of development and supported by recent neurophysiological and brain research, the early experiences have been recognized as grounding subsequent developmental processes.

In this chapter, the idea is introduced that cultural values are translated into early socialization environments, especially the systems and modes of parenting, which are based in a universally evolved behavioral repertoire, from which the culture selects and reinforces particular styles. 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 baby schema (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 become "better adults". Infants participate actively in their development with selective attentional foci which seem to be based in 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. 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 evolve. Without subscribing to orthodox attachment theory, it can generally be concluded that the social environment teaches the infant an interpretation of the self, long before self reflexivity has developed. The operation of these processes outside the realm of consciousness is associated with an increasing resistance to change. The first interactional 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.

The Role of Sensitivity Reconsidered

As has been argued, parenting is understood as an evolved answer to adaptive problems that our ancestors had to face. 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 which is triggered by the presence of a baby. Although experiences with babies improve 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. Nevertheless, substantial differences in prevalence and mode of parenting across cultures are obvious. There is an expanding literature on identifying salient early interactional parameters which allow the description of differences in

parenting style. Especially from an attachment theory perspective parental - mostly maternal - sensitivity is of key interest since Ainsworth strong claim for an universal association between sensitive mothering and subsequent attachment security (Ainsworth et al., 1978). Sensitivity has been unitarily defined as alertness to infant signals, appropriateness and promptness of response and flexibility of attention and behavior. Its evaluation, especially from a cross cultural perspective, however, is controversial. Although there is empirical evidence that sensitivity towards infants' interactive cues contributes to later attachment security, the effect sizes are only low to medium (correlations from .10 to .30) and the amount of variance accounted for by the significant findings is small. Moreover, there are studies which do not reveal this relationship at all. Disentangling the complex nature of the sensitivity construct, therefore, seems to promise more insight into the early developmental regulations as well as their developmental consequences.

A Component Model of Parenting (CMP)

Based in empirical evidence, we promote the view, that a first developmental result in relationship formation is achieved much earlier than attachment theory proposes. We conceive of the three month' time span as a first manifestation of relationship quality. Infants interactional behavior at that age can be regarded as a consequence of preceding interactional experiences and predicts concurrent (e.g., amount of crying as well as subsequent developmental outcomes. Besides the nature of dyadic attention (exclusive or shared and co-occurring) and the sensitivity towards positive and/or negative infant signals, basically two interactional mechanisms can be identified during early interactional exchanges, which are supposed to form independent components of parenting: contingency as the prompt reactivity towards infants signals and warmth as positive acceptance and affectivity. Contingency and warmth reflect basic parenting qualities which are complementary to infants needs when forming early representations of relationships as well as self construals. The independent conception of warmth as a parenting dimension is based in MacDonald's (1992) proposition to contrast warmth with security as often intertwined but basically independent affectionate systems which are both constitutive of attachment. He points out, that maternal behavior, which provides security need not to be emotionally warm and tries to verify the assumption of two separate functional systems with results from studies of Ganda and Gusii. Warmth and contingency are presented in the following as idealized prototypical conceptions which neglect the fact, that contingency always transports some form of warmth and warmth always expresses some mode of contingency.(for a full discussion of the component model, cf. Keller, 2002).

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. 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 constitutes 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 altruism 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. Maternal nurturance increases imitation from daughters and parental warmth predicts identification with parents. 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. However, there are vast cultural differences with respect to the amount of parental warmth as mediated by body contact that infants experience. The experience of parental warmth as a predominant socialization environment can accordingly be related to the development of an interrelated self, as described above.

Contingency

In interactions with babies, parents (as well as caretakers in general) display a propensity for prompt responsiveness to infant cues. 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 msecs (Papousek, & Papousek, 1991). The necessity of the short time span seems to be related to infants restricted memory capacity, since habituation studies have demonstrated that infants 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 in 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. 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 (Keller, & Eckensberger, 1998).

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 prevalence of the parenting system of face to face behavior (Keller, 2002) and the impact which is laid in conversational turn taking differ substantially across cultures. Especially in Western industrialized and, thus, competitive societies, extensive early face to face exchange seems to path the way for developing an individualistic self.

First empirical evidence for the CMP

Based on several observational studies, we can report first empirical evidence for the CMP during infancy. 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 ($n_1 = 14$; $n_2 = 31$) 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). In a follow - up of these mother - infant pairs, 43 dyads could be observed in the laboratory Strange Situation procedure, when the infants

were 12 months of age. In a standard fixed series of separation and reunion episodes between mother, child and a female stranger, the infant is put under increasing stress in order to activate the attachment system. Behavioral analyses included attachment security and different social contact seeking and avoiding behaviors during the episodes of reunion. The results revealed that maternal sensitive warmth and behavioral contingency predicted different aspects of later attachment behavior. Infants' social contact behavior was related to earlier warmth, while attachment security was related to earlier maternal contingency. Although the amount of explained variance was small, the data nevertheless support the view that infants' early experiences of behavioral contingency might strengthen confidence in acting effectively and thus establish security of self regulation, leading to independent autonomy. The experience of warmth and emotional closeness, on the other hand, may strengthen the ability to relate to others and depend on their social support (cf. Voelker, Keller, Lohaus, Cappenberg, & Chasiotis, 1999). The independence of warmth and contingency has been confirmed with four samples of German mother child dyads, as well as Greek, Costa Ricans, rural Indians and rural Cameroonian Nso participants.

Outlook

We have proposed that individualism and interrelatedness as dimensions of self construals emerge as consequences of early childhood experiences, especially being shaped by parenting styles fostering contingency and/or warmth, which may prompt diverging developmental pathways across the lifespan. Differing conceptions of the self can be regarded as adaptations to the contextual demands, especially competitiveness or cooperation as primary social orientations. Infants early culturally defined learning, thus, is part of an intergenerational transmission process of norms and values, based in biological predispositions. Although the empirical evidence for long-term consequences of these early experiences in the predicted sense is still scarce, and other factors like genetic influences certainly also contribute to behavioral adaptations, the framework nevertheless allows to derive concrete research questions that can be tested, preferably in cross cultural longitudinal studies. Moreover 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.

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Questions for Discussion

1. How are independent and interdependent construals of the self defined?
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?