

The Supportive Role of Fathers for Childrens' Development of the Authentic Self:

A View Through the PSI Lense

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Abstract

This chapter will address a critical component for the development of the authentic self, that is, emotion regulation with reference specifically to the supportive role of fathers. Personality Systems Interactions (PSI) theory opens a window for more detailed answers addressing children's needs for individual support by fathers during childhood. In my adult-study, I retrospectively assessed quantity and quality of mother-child and father-child relationships and two different sources of childhood stress: fear of emotional loss and fear of material loss. In addition, I assessed the adult's ability to self-regulate emotions (i.e., action versus state orientation) and several indicators of self-development and self-growth derived from PSI theory. In my analyses on the relationships between childhood stress and self-development, I focused on the role of supportive father-child interactions. Findings show that the experience of stress itself is not as relevant for the development of the authentic self as the way childhood stress is compensated through adequate emotion regulation and individual support by care givers (here: fathers) during stressful times. The application of PSI theory sheds more light on the supportive role of fathers in self-development and resilience building.

This chapter starts by briefly introducing Julius Kuhl's *Personality Systems Interactions* (PSI) theory with its specific underlying modulation assumptions. I will elaborate on the development of an authentic self on the basis of Julius Kuhl's definition of the self. Next, I give an overview over findings on the relationship between childhood stress and self-development and address the role of the father in self-development. Then, I present excerpts of my own research on the relationships between childhood stress, and parental support, and self-development. The results are differentiated for boys and girls with a special focus on the father's contribution to the development of the authentic self. The chapter closes with a discussion and conclusion that summarizes and highlights key findings.

Theoretical Foundation

PSI theory (Kuhl, 2000, 2001; see also Kazén & Quirin, chap. 2, this volume) originates among other sources in the experimental psychology of personality and serves as the theoretical foundation of this contribution. In contrast to other theories of personality, it focuses on a dynamic interaction of psychological systems. According to PSI theory, behavior is often not caused by a single system such as habits, thoughts, or intentions but better understood in terms of the functionality and interaction of several systems. The concept of personality is examined at several levels relating to functional abilities as well as processes influencing actions.

Essentially, four different cognitive macro systems interact dynamically to guide people's experience and action. Their activation and interaction is modulated by positive and negative affect. The differentiation of the cognitive systems is based on older approaches that distinguish between holistic intuition and analytical thinking such as Hippocrates and the personality theory by C. G. Jung. The latter postulates four cognitive functions (thinking, feeling, intuiting, sensing) without accounting for the modulation and interaction of these functions in the way of PSI theory.

Within the framework of PSI theory, the interaction among the four systems is characterized primarily by a top-down modulation of two elementary cognitive systems (i.e., *intuitive behavior control* and *object recognition system*) through two complex cognitive systems (i.e., *intention memory* and *extension memory*). Each elementary system is antagonistically connected with a specific complex system. Their dis- and reconnection is further modulated through affect.

First, intention memory (Jung's thinking) inhibits intuitive behavior control (Jung's intuiting). They are reconnected through positive affect which is important for action control. In this, the reward system serves the satisfaction of needs via positive affect and provides a corresponding search motivation for the enactment of difficult goals through suitable action. Second, extension memory (Jung's feeling) inhibits an object recognition system (Jung's sensing). This top-down modulation is disturbed through negative affect. In this system configuration, the punishment system is active. The object recognitions system promotes the perception of objects which represent a danger to the individual, which can take place at different levels of biological (hunger, thirst, sleep etc.) or psychological (self-actualization, relationship etc.) needs. Extension memory serves to reduce the negative affect resulting from those dangerous objects.

These modulation assumptions are elaborated below because they represent the core of PSI theory and explain two central aspects of a fully functioning personality: *action control*, that is, the ability to carry out difficult intentions, and *personal growth*, for example, learning through mistakes.

First Modulation Assumption

The first modulation assumption describes the dynamic interaction of intention memory and intuitive behavior control. It posits that positive affect revokes the inhibition of the antagonism between the two systems and in this way activates the reward system. Thus,

intentions are smoothly translated into action. A significant precondition for this dynamic is that an intention has been formed and activated. Initially, this inhibits behavior to allow analytical problem solving and planning of action steps (see also Goschke & Bolte, chap. 7, this volume). The inhibition is removed and intention memory recoupled with intuitive behavior control by positive affect. According to Kuhl, intentional action requires a transfer of information from intention memory to its output system. This is achieved by restoring positive affect. However, reduced positive affect is necessary to form conscious intentions and initiate analytical problem solving (Kuhl, 2000, 2010).

Second Modulation Assumption

The second modulation assumption is concerned with the object recognition system and its connection with extension memory. This refers to the potential integration of individual, isolated representations from the object recognition system (e.g., a scary noise, an experience of failure) into extension memory. The latter system contains integrated feelings, especially self-representations, personally relevant biographical events, and multiple options for action. Negative affect activates object recognition and impedes or blocks access to extension memory. Activation of extension memory, in contrast, reduces negative affect, allows the integration of new experience, and gives an overview over action alternatives. In case of state orientation, negative affect cannot be easily down-regulated, object recognition prevails, and self-access is blocked (see also Baumann, Kazén, & Quirin, chap. 16, this volume). Integrative processes such as learning from negative experience are a vital source for the development of an authentic self. However, they require emotion regulation competencies.

The modulation assumptions elucidate a coherent image of the dynamic interactions among the four cognitive macro systems and two affective systems – namely the reward and punishment systems. They contribute to an understanding of action control (i.e., enacting

difficult intentions) and self-growth (i.e., integrating new experiences).

Development of the Authentic Self

One of the first questions regarding the development of the authentic self is what exactly is to develop and how is the self to be defined? The question of whether the self exists, or what its meaning and definition would be, has been viewed from different perspectives of psychoanalysis, religion, and biology. All those disciplines connect the 'self' with different meaning and content (Leary, 2007; Leary & Tangney, 2003). In his PSI theory, Julius Kuhl describes that the 'I' involves conscious representations of the will with all of the restrictions in processing capacity associated with consciousness. The self, in contrast, is based on unconscious representations of own needs, goals, and wishes and should not be confused with the 'I' or conscious self-concepts.

According to Kuhl, unconscious, holistic, and parallel-distributed processes take up the essential part of processing in the self and circumvent the capacity limitations of conscious processing. Kuhl describes the 'self' as a highly complex system, which "forms an integrated and intentional interaction from the disconnected parallel or mixed action at the lower levels of experience and behavior" (Kuhl, 2010). Thus, from a personality psychology perspective, the self represents a dynamic governing center for our personality that mainly works implicitly and contains the sum of our knowledge gained by life experience. The self forms the core of our changing dynamic personality within the respective degree of the state of maturity. Here the biographically acquired experiential knowledge serves the functions of filtering and integrating perceptions and supports further learning (for a similar self-as-process view see Ryan, chap. 14, this volume) . This governing center, which often is dismissed in discussions of philosophy and neuroanatomy (Singer, 2004), is understood as a kind of system constellation of neuronal circuits that depends on and is adapted to the context. Experience generates very different 'final products' of thinking, feeling, and acting

(wanting). Here the respective cognitive processing strongly depends on corresponding pre-experiences, imprinting, and values (cf. Lakoff & Johnson, 1980).

Unlike adults, children in their development are incapable of forming constructs, which are hierarchically organized and internally consistent. This ability will only mature in late adolescence to early adulthood. So the development of the authentic self is meant to define that form of self-development, which comes as close as possible to the internal scheme of development, that is, which approximates the ‘true’ nature of the individual most closely, which Kuhl calls the ‘proto-self’ (cf. Kuhl, 2010; see also Sheldon, chap. 15, this volume).

In this chapter, I concentrate on some essential aspects for the development of the authentic self: learning experiences within specific contexts that lead to corresponding self-competencies. My focus is on the special contribution of the father for the self-development of the child. Specifically, I investigate the child’s emotion regulation and search-motivation. The latter is a ‘healthy’ form of achievement motivation within a setting of experienced emotional stress caused by fear of material or emotional loss.

The subsequent section will be concerned with adaptive reactions caused by stress and their effects on self-development. Thereafter, I elaborate on the supporting role of fathers for sons and daughters. The end of the chapter allows an enlarged view of the paternal role for the development of authentic selves of their sons and daughters.

Stressors and Self-Development

Emotional Stress

When exposed to emotional stress, there is an immediate tendency to dispose of it as quickly as possible in order to regain a sense of well-being. In this situation, the individual’s temperament – understood as a reflection of the excitability of the nervous system (excited in a sensory and activated in a physical way) – represents an energetic basis for the respective behavior (Pribram & McGuinness, 1975, 1992).

This energetic basis can be understood as a kind of foundation for later adaptive reactions. Corresponding adaptive reactions include emotional expressions of anger and irritation, expressions of negative affect in mimics and gestures, and other spontaneous, unreflected reactions. The intensity and quality of emotional expression and spontaneous adaptive reaction depends on emotion regulation, that is, the ability to regulate spontaneous impulses independently in favor of more suitable, sustainable, and rather long-term actions.

The ability to regulate emotions independently (by oneself), is based on a learning process which initially takes place by means of a healthy playful interaction between the close attachment figure and the child. In any case, the ability to regulate emotions must be learned from other individuals (Bernier, Carlson, & Whipple, 2010; Reeck, Ames, & Ochsner, 2016). This learning process starts early on with the external regulation by the first attachment figures; it is consolidated through constant repetition of prompt and appropriate feedback to the child's emotional expression. At some point, the child starts to internalize this initially external regulation so that it becomes available as his own competence. The external modulation of the child's emotional expression through the attachment figure instigates a learning process for self-regulation competence (Kopp, 1989). Experiences of being promptly comforted when expressing sadness or anxiety and encouraged when expressing frustration are decisive for later emotion regulation competence of children and adults (Kuhl, 2001).

Emotional stress is a special challenge for self-regulatory competencies because short-term attempts to reduce negative emotions are often in opposition to more mature patterns of long-term coping. Under the stress constellations examined here, competencies for self-regulation can be regarded as the more mature mental accomplishments. According to Tice, Bratslawsky, and Baumeister (2001), emotional stress works against the use of higher cognitive processes such as impulse control because it leads to short-term adaptive reactions instead of self-regulatory processes intended for the long-term. A great number of studies has

confirmed that emotional stress has especially negative consequences for personality functioning and health when emotion regulation competencies are low (Brooks & Goldstein, 2003; Strayhorn, 2002).

The quality of the relationship and interaction between parents and child seems to be of essential significance. Hirschauer, Aufhammer, Chasiotis, and Künne (chap. 21, this volume), for example, found parental empathy to be associated with children's scholastic performance. Furthermore, children displaying aggressive or hostile behavior have a four times higher likelihood of having mothers or fathers, who react rather critically and less warm-heartedly during interactions (Richman, Stevenson, & Graham, 1982; see also Caspi et al., 2004). Finally, genetic susceptibility factors (e.g., dopamine-related gene polymorphism) intensify the effects of (un)supportive rearing environments: Whereas children with genetic risk have worse developmental outcomes under unsupportive environments compared to children without genetic risk, they profited most from supportive environment (Bakermans-Kranenburg & Ijzendor, 2011). This shows that positive relationship experiences can (over)compensate genetic risk factors and stimulate higher levels of self-development. Even under adverse conditions, self-development can be instigated through positive relationship experiences with attachment figures, for example, from the family circle (father, siblings, godparents, mentors) (Jenkins, 1992). Considered in terms of the PSI-theory, the salient point seems to be the fact that in spite of experiences of stressors it is possible to feel closeness and warmth with suitable attachment figures, so that the individual is capable to cope with negative affects by self-confrontation, which provides access to higher functions of self-regulation (see Kuhl, 2010; Künne & Kuhl, 2014).

The Role of the Father in Self-Development

For a long time, developmental research about the role of fathers was marked by deficit constructs. Based on a traditional understanding of gender roles, early research on

fathers mostly focused on the absent father. The role of the father was associated with his function as the "breadwinner" (Bernhard, 1981), that is, the father was responsible for the economic safeguarding and the protection from external threats (Seiffge-Krenke, 1997).

In the wake of an increasingly changed view of gender roles in society, the image of the father is changing as well as his role in the development of the child. The father is no longer reduced to the role of the "breadwinner". With increasing age of the children, the distinctive function of the father comes into sharper focus especially relating to the respective definition of gender, to the body of the child and its stimulation by means of play, leisure activities and motor activities, and in terms of fostering independence. Compared to mothers, fathers interact differently with their children: they have less physical contact in general, an inclination to more exciting forms of play, more intense visual and acoustic stimulation, and generally a playful way of interaction. For fathers in their interaction with their children it seems to be much more decisive if a son or a daughter is present.

Girls are treated rather protectively and more carefully (Shulman & Seiffge-Krenke, 1997), altogether they receive significantly more emotionality and closeness than boys. Boys are brought up to be more daring and are made aware of higher expectations (oriented towards discipline). Fathers encourage and trust the independence of both genders about four years earlier than mothers (Scheib, 1994).

The Present Study

In my own research (Liesenfeld, 2014), I aimed at clarifying especially the role of fathers for the development of emotion regulation and an authentic self. The sample consisted of 87 adults who participated in two measurement waves that were about one year apart. At T1, they filled in numerous questionnaires from Kuhl's development-oriented scanning (EOS) including measures for their current stress level and the personality disposition of action versus state orientation (i.e., self-regulation

competencies). At T2, participants filled in a biographical questionnaire on the retrospective memories of their childhood with respect to experiences of stress and the supportive role of mothers and fathers during stressful times. In addition, a semi-structured interview tried to illuminate coping competencies that contribute to self-growth.

Even if retrospective descriptions have to be interpreted with caution, existing longitudinal findings already provide good causal substantiation for some of the results that I will present here. Moreover, I aimed at subjecting a number of new constructs and measures to a first plausibility test. In this chapter, I present only parts of the measures, analyses, and findings.

Measures at T1

From the large questionnaire package, only a few scales were relevant for the present study.

Stress in everyday life. To evaluate whether self-regulation competencies really suffice or not, it is important to consider them in conjunction with subjective experiences of stress. For this reason, two different stress scales were assessed. First the *demands* scale measures the current stress level caused by unforeseen difficulties, too high or too many demands, and unfulfilled intentions. In function-analytical terms, this leads to an activation of intention memory, a reduction of positive affect (e.g., frustration, listlessness), and, in turn, an inhibition of action (i.e., intuitive behaviour control), which implies an additional source of stress. This form of stress is ‘action-induced’ (Kuhl, 2001) and requires self-motivation competencies. Second, the *threats* scale covers emotional, and experience-oriented stress from undesired changes, unpleasant experiences, or emotional uncertainties (emotional threat) associated with feelings such of anxiety and uncertainty. Competencies for self-

soothing are particularly relevant to deal with this form of threat-related emotional stress.

Action and state orientation. The high versus low ability to self-regulate emotions (i.e., action vs. state orientation) was assessed with two scales from the action control scale (ACS; Kuhl, 1994; Kuhl & Beckmann, 1994). *Prospective action orientation (AOD)* measures the ability to up-regulate positive affect and to stay initiative under demanding conditions. It helps to implement intentions evens in complex and difficult situations. *Action orientation after failure (AOF)* measures the ability to down-regulate negative affect and disengage from past failure. It helps to reduce rumination and to maintain self-access and high levels of performance under threatening conditions.

In contrast, the state-oriented poles (low scores on AOD and AOF) are associated with performance decrements due to hesitation and rumination under demands and threats, respectively. Thus, state orientation is an action paralysis due to persevering, uncontrollable cognitions about past, current, or future states. Their action-oriented counterparts, in contrast, are able better able to regulate emotions. This allows them to concentrate on a given task and to implement intentions into actions.

Measures at T2

The biographical questionnaire and semi-structured interview were retrospective accounts of childhood experiences. From the large pool of variables, only a few were relevant for the present study.

Childhood stress. Two scales assessed childhood stress. *Fear of emotional loss* measures the subjective feeling of lacking emotional closeness to caregivers or being afraid of losing important attachment figures. *Fear of material loss* describes

the subjective feeling of being worried about not having control over a sufficient amount of material goods, even if there is no real existential crisis.

Helpful support during childhood. Participants retrospectively rated how helpful they experienced important attachment figures (e.g., mother, father, and others) in their childhood during times of stress.

Parent-child relationships. For each parent separately, the quantity and quality of the parent-child relationships were assessed retrospectively for three age spans: 0-6 years, 7-12 years, and 12 years and older. The quantity was measured by the perceived *availability* of the mother and the father, respectively. The quality of the relationship was measured by one's own experienced *well-being* in the relationships with the mother and the father, respectively.

Self-growth. Several ratings grasped indicators of personal (self)growth due to self-confrontational coping with negative events. The variable *valuing acquired competencies* measures the perceived value of personal competencies that participants acquired through experiences with their parents during their childhood. The variable *boosts from negative experiences* measures the extent to which participants feel they learned and profited from negative experiences during childhood. It indicates positive adaptation processes and the integration of negative experiences in to the self. Similarly, the variable *handicaps from negative experience* measures the extent to which participants experience negative consequences out of negative childhood experiences. These subjective handicaps indicate an incomplete integration of “negative packages” from parents.

Transmission. Participants rated the extent to which their own (negative or difficult) childhood experiences have a positive impact on their own children. It indicates a mature intergenerational transmission of own experiences.

Mature emotion regulation (as an adult). Several variables indicate a higher maturity in emotion regulation in participants' adulthood. *Interactive emotion management* measures the competency to find emotionally viable solutions for both parties in conflict resolution. *Verbal expression of negative emotions* describes the ability to adequately express negative emotions verbally. *Emotion regulation* combines the competency to perceive, regulate, and manage own emotions in a way that is suitable for the situation as well as the parties involved.

Self-access (as an adult). Several variables can be understood as indicators for the degree of self-access in participants' adulthood. The variable *self-congruency* combines reaching self-compatible goals, being content with own decisions in the past, and identification with current profession. *Integrative achievement motivation* measures the tendency to perform creatively, holistically, and in alignment with own values.

The measures from my biographic questionnaires and semi-structured interviews are self-evaluations and subjective assessments of the individual's perception and experience. In contrast to common measures of stress regulation competencies, I widened my perspective to the study of higher cognitive abilities for the integration of painful experiences and their constructive transformation in an expansion of the self (i.e., self-confrontational coping). The functional-analytic approach of PSI theory sheds light on the topic of personal growth. According to the modulation assumptions of PSI theory, action control and personal growth are facilitated through dynamics interactions between lower and higher cognitive functions that are fostered through emotional dialectics. A high ability to self-regulate emotions allows people to endorse negative emotions, confront the self with them, and integrate them into the self in order to grow as a person. Thus, self-growth is not a simple process but affords dynamic interactions between multiple systems (object recognition, extension memory, and

negative affect).

Correlations

In Table 1, the correlations between study variables are listed separately for women (daughters) and men (sons). The results indicate that, overall, daughters responded more strongly to supportive father-child relationships than sons, that is, paternal support (i.e., father's availability and well-being with fathers) was associated with a greater number of competencies in daughters than in sons. The correlations function as a kind of pre-analysis and directive for subsequent mediation and moderation analyses.

The correlations indicate that fathers have a supportive role for the self-development of daughters (see left side in Table 1). For example, "handicaps from negative experiences" correlates negatively with paternal availability throughout the entire childhood. That is, women experience less handicaps from stressful biographical experiences the more they experienced a solid paternal presence. For daughters, availability of and well-being with fathers is associated with lower fragmentation of painful events. Especially early well-being with fathers seems to foster daughter's active integration of negative events and developmental boosts. Furthermore, the ability to regulate emotions in a mature way (e.g., to find sustainable and emotionally coherent solutions for both sides in conflicts) correlates positively for daughters with paternal availability and warmth during early childhood.

The correlations also indicate a supportive role of fathers for their sons (see right side in Table 1). For example, early well-being with the father (at the age of 0-6 years) correlates positively with a mature intergenerational transmission of childhood experiences to one's own children. Furthermore, men's emotion regulation competence is correlated positively with paternal presence in early childhood as well as early well-being with the father recollected retrospectively.

Mediation Analyses

The study aimed at understanding the effects of childhood stress and parental support on the development of emotion regulation and an authentic self. As a first approach to this question, I searched for mediators in the relationship between the helpful support during childhood and self-growth (e.g., boosts from negative experiences, valuing acquired competencies). As reviewed above, self-regulatory competencies play a vital role for self-growth. These competencies are learned in positive and supportive relationships. Therefore, I expected self-regulation (i.e., action orientation) to mediate the relationship between helpful support and self-growth. However, action orientation is only relevant under stress. According to Kuhl's theory of action control, action versus state orientation rarely shows any main effects but interacts with stress. Action-oriented people do not show their regulatory potential under relaxed conditions. Similarly, state-oriented people do not suffer unless they encounter stress (cf. Baumann, Kaschel, & Kuhl, 2005). Therefore, I focused on interactions (i.e., AOF x threats and AOD x demands) in order to test the hypothesis that mediating role of action orientation under stress.

The self-regulatory competence in adulthood (i.e., action orientation) may indicate whether appropriate self-regulatory competencies have been developed in childhood. Thus, the model allows to test whether childhood stress (i.e., low helpful support) has negative effects on self-growth via its negative impact on self-regulatory competencies.

In Figures 1 and 2, the mediation models are illustrated for two aspects of self-growth: valuing acquired competencies and boosts from negative experiences. The findings confirm the assumption that helpful support during childhood increases the ability to cope with demands (AOD x demands) and increases, in turn, the capacity for self-growth. More specifically, Figure 1 reveals a direct relationship between helpful support and the tendency to value one's acquired competencies. Helpful support during childhood also increases adults' ability to cope with demands. This coping ability, in turn, increases the positive

valuation of competencies that people have learned in the interactions with their parents during childhood. Figure 2 reveals that the indirect path from helpful support through demand-coping to self-growth is also observed for the ability to integrate negative relationship experiences with the parents into the self and transform them into developmental boosts.

These mediation findings do not yet differentiate the corresponding experiences of support according to father and mother. This is considered in the next analyses.

Moderation Analyses

The moderation analyses aimed at testing whether availability of mother and father moderated the effects of childhood stress on various aspects of self-development, including self-regulation competencies and search-oriented forms of achievement motivation. For selected dependent variables, I conducted a series of four hierarchical regression analyses with parental availability (either mother or father) and childhood stress (either fear of emotional or material loss) entered in Step 1 and their interaction term in Step 2. In the present chapter, I concentrate on findings for the father. Note that, within the group of participants reporting a highly available father, the mean was 3.96. This represents nearly the exact mean (4.00) of the 7-point scale so that this value rather indicates an "adequate" rather than "high" availability of father. The mean within the group of "low availability of father" was 2.96.

Childhood stress related to emotional loss. The findings show that for men's self-development, fathers are especially important for buffering detrimental effects of childhood stress related to emotional loss. As illustrated in Figure 3, men who experienced high fear of emotional loss during childhood show impaired self-congruence as adults when the father was not adequately present during their childhood. In contrast, men who experienced high fear of emotional loss during childhood show high self-congruence as adults when the father

was available. This is consistent with the positive correlations between paternal support and son's self-competencies in adulthood (see Table 1): Sons, who retrospectively reported higher availability of and well-being with the father revealed higher values in indicators of self-growth and higher emotion regulation. The present interactions further differentiate the correlations. For sons, fathers seem to be especially important for attenuating emotional fears and their detrimental effects on self-development. For daughters, in contrast, fathers did not buffer the detrimental effects of emotional fears on self-development. In a similar vein, mothers were less important for attenuating emotion-related stress effects on the self-development of their sons especially from age span 7 to 12 years on.

The findings show the impact of a specific constellation of childhood stress (i.e., emotional fears) and parental support (i.e., father's presence) for personal growth of men (but not women). Theoretically, these findings can be motivated with the role of the father as "encourager" (cf. Grossmann et al., 2002) and in his role as same-sex-ideal image for the development of the male archetype. If the encouragement part is lacking, it fosters rather unfavorable competencies in sons.

Childhood stress related to material loss. While examining the two stressors of fear of material versus emotional loss, I assumed that fear of material loss is a qualitatively different form of emotional stress than fear of emotional loss. I also assumed that this qualitative difference between the stressors would yield different findings for sons and daughters in interaction with the presence of the father.

Based on an understanding of the father's role as a provider, the presence of the father might play a big role both, for sons and daughters, in such a stress constellation – albeit in a different direction. The results revealed that, in a stress constellation of fearing material loss, sons reacted much more negatively to a higher presence of their parents, especially the mother, while daughters reacted much more positively. Especially during material insecurity,

daughters needed paternal as well as maternal presence for coping with stress. Figures 4 and 5 illustrate the results regarding aspects of self-development for daughters in a setting of fear of material loss: Fear of material loss seems to have an inhibiting effect on aspects of self-development for daughters with insufficient paternal presence. The regression analyses for sons did not yield any significant effects of paternal presence.

These findings reflect again the necessity of paternal presence, as outlined above, in a context of fears of material loss. The fact that variables like emotion regulation and expression of emotions are concerned here, illustrates the essential role of the father as an attachment figure during material hardship, especially for daughters. Clearly, the father is for daughters a “marker of stability”, so that especially material provision is strongly linked with the father.

The fairy-tale “Cinderella” is particularly suited to illustrate the role of the father as the provider, especially for daughters. The suffering of the girl, who is growing up with her stepmother, can well be linked to material hardship, which is symbolized by the removal of her nice clothes and her room by the “evil stepmother and the evil stepsisters”. The father as potential savior seems to be absent, so he is unavailable to free the girl from this created material poverty. Thus, it seems that aspects of self-development can only be stimulated positively by means of “rescue by the male fairy-tale prince” (Drewermann, 2003). Independent from our willingness to follow this symbolism, the psychological challenge remains to explain why the missing provider role of the father has a greater effect on the self-development of daughters than their emotional or motivational development. Whereas in the given context of material hardship an experienced “too much” (overabundance) of mother presence seems to cause unfavorable effects for the emotional and motivational development of sons (findings not presented here), a “too little” (insufficient)

presence of the father for daughters seems to impair especially their self-expression and other aspects of self-development.

When fearing material loss, sons apparently react to low paternal presence with their own (self-controlled) efforts especially in the area of achievement (findings not presented here), while daughters in such a situation possibly lose the basis of self-development together with the loss of material security.

Discussion

The results of the described study show a clear picture. The development of the authentic self and personal growth are to be understood as a highly dynamic and interactive process involving many different factors of influence in an interactive interplay, for example, temperamental disposition, affect response in early childhood, emotional attention, and contingent support in times of stress (cf. Kuhl, 2001; Kuhl, Quirin, & Koole, 2015).

Studies regarding self-direction illustrate a strong link between the ability for self-regulation and a high relationship quality with the respective attachment figure (see studies about mutually responsive orientation, Kochanska, Aksan, Penny, & Doobay, 2000; Künne & Kuhl, 2014). Resilience studies show the abilities for coping during stress in children and adults, but do not provide much evidence about the link between different ways of coping with stress and aspects of personal growth. Thereby, they provide little information about the development of the authentic self. Self-direction or coping by itself does not necessarily mean personal growth. Only the ability to integrate painful experiences into the self-system in a self-directed manner (self-confrontational coping) indicates a growth of the self-system. This requires a deeper connection to and a sense for the value of these painful experiences as well as their transformation into the individual's cognitive landscapes of experience and

action (cf. Kuhl, 2010).

Researchers have conducted many studies on the topic of stress, on different forms of stress, and their consequences on performance and health. For example, studies by Alexander et al. (2007) demonstrate that stress can have significantly unfavorable effects not only on our mental and physical health but also on our cognitive abilities. This encompasses chronic stress as well as acute stress impairing cognitive functioning. Of special importance seems to be the subjective assessment of the stress level. Diverse studies demonstrate that the subjective perception of a high stress level is associated with adverse effects on higher cognitive competencies such as complex problem solving, decision-making, and working memory performance in young adults (Baradell & Klein 1993).

In contrast with most published studies on stress, this present chapter opens an additional perspective in examining two different sources of stress, that is, childhood stress related to fear of emotional versus material loss in a differentiated way. The findings illustrate their beneficial or adverse effects and their contribution to personal growth in connection with the individual quality of relationships, especially with the father, when until now the mother was considered the essential regulator of stress for her children.

Of course, there is doubtlessly a limited validity of the retrospective questioning chosen here, within the framework of a cross-sectional study without any measurements of actual behavior or performance. Yet it is still interesting that many of the reported findings are consistent with theoretical expectations and can be explained in a plausible way against the background of PSI theory and the published state of the research. The general criticism that questionnaires tend to be answered as socially desired can be opposed with the special setting of the entire investigation. It

was marked by a trusting relationship with the participants established over years, by their personal interest, an emotionally pleasant atmosphere in a comfortable practice, and the technique of questioning that was partially open, sometimes even casual. Such a general setting increases the probability to reach the implicit layers of memory, which form the basis for the self and thereby for integration and personal growth.

It may seem questionable, if memories of the quality of parent-child relationships and the linked contents can be recalled from early childhood – especially between the age of 0-6 years (cf. Ahnert, 2010). However, research has shown that memories is relatively precise and in the long run quite stable particularly with regard to events of extreme emotional stress and great personal relevance (Christianson, 1992).

Experiences of helpful support as a direct and contingent response to childhood stress show particularly positive effects on the subjective psychological state and essential components of personal growth. The ability to integrate negative experiences retrospectively as positive (variable: “boosts through negative experiences”) and to regard competencies as valuable that were learned through negative experiences (variable: “valuing acquired competencies”) is evidence of a high cognitive processing capacity associated with the integrated self (cf. Kuhl, 2001). Such a form of integration of painful experiences requires a trusting relationship during childhood or in therapeutic contexts (cf. Gilligan, 1997).

The effects of stressful and helpful childhood conditions on self-development were investigated by means of mediation and moderation analyses – with all limitations of cross-sectional regression models. The mediation analyses yielded direct effects of helpful support on self-growth as well as indirect effects via self-regulatory abilities to cope with demands. Moderation analyses examined whether the

adverse effects of diverse sources of stress on self-growth were compensated by the subjective quality of the relationship – particularly with the father – during childhood. In sons with fears of emotional loss during childhood, insufficient availability of the fathers was associated with lower self-congruence in adulthood. In daughters with fears of material loss during childhood, insufficient availability of the father was associated with a risk for self-development in adulthood. The strongly adverse effects of childhood stressors on the development of self-congruence and emotion regulation of adults illustrates the essential role of the father as an attachment figure. The father is especially important for daughters who experience material hardship and for sons who fear emotional loss.

Taken together, it is not stress per se which is decisive for the inhibition or encouragement of development, but it's accompaniment through a contingent response by exactly that offer of support that is needed during the experience of stress: either a mother's emotional care taking of the child's inner world or a father's encouragement and preparation for the external world (for a complete overview of the findings see Liesenfeld, 2014;). Experiences of support show very favorable effects for both daughters and sons regarding several components of self-development. Parental support and contingent response to child signals generated more multi-layered positive effects for daughters than for sons, which – in line with empirical research – seems to be linked to a generally higher sensitivity and inclination towards empathy in women/daughters (cf. Bauer, 2008).

Conclusion

Overall, the results of the study – presented only in extracts in this chapter – emphasize the decisive role of parents for children's self-regulatory competencies (see also Hirschauer et al., chap. 21, this volume). Self-regulation is learned when early stress experiences are accompanied by close attachment figures (e.g., mother or

father) in a responsive manner: with a prompt and appropriate regulation of the child's emotion. This allows the individual to develop his/her own regulatory competencies, which form the basis of personal growth (Kuhl, 2001). Relationships that foster personal growth do not only offer experiences of security in a potentially threatening situation but also experiences of warmth because genuine, sustainable coping with stress is characterized by a flexible handling of negative as well as positive feelings (cf. Kochanska et al., 2007).

The present findings show that the development of self-confrontational coping by means of parental influence is an important element for personal growth. Thus, they corroborate a central assumption of Kuhl's PSI theory about the development of an authentic self. The functional-design approach of PSI theory allows us to characterize such growth-oriented coping processes in more detail: they require a flexible inner dialogue between negative affect and its successful down-regulation through integration into the self. Furthering such an inner emotional dialectic seems to be a deep source for long-term personality growth and development.

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Table 1. Correlations for Women (Daughters) and Men (Sons) between Various Measures and Retrospective Memories of Availability of their Fathers (AF) and Well-being with their Fathers (WF) in three different age spans.

	Women (Daughters)						Men (Sons)							
	N	0-6 years		7-12 years		12+ years		N	0-6 years		7-12 years		12+ years	
		AF	WF	AF	WF	AF	WF		AF	WF	AF	WF	AF	WF
Self-growth														
Valuing acquired competencies	(42)	.24	.27	.19	.32	.15	.24	(38)	.18	.23	.06	.43**	.35*	.30
Boosts through neg. exp.	(41)	.22	.35*	.22	.15*	.11	.01	(37)	.04	.23	.36*	.16	.29	.03
Handicaps through neg. exp.	(41)	-.36*	-.55**	-.34*	-.46**	-.36*	-.47**	(36)	.22	.14	-.09	-.11	-.18	-.04
Transmission														
Pos. effects for own child	(30)	.24	.37*	.22	.28*	.04	.35	(31)	.32	.39*	.30	.25	.28	.11
Mature emotion regulation														
Interactive emotion management	(42)	.33*	.25	.23	.27	.16	.23	(38)	-.02	-.13	-.13	.22	-.08	-.01
Verbal expression of neg. emotions	(42)	.16	.31*	.02	.28*	.05	.11	(37)	.01	.04	.20	.02	.33*	.04
Emotion regulation	(42)	.28	.31*	.10	.28*	.09	.19	(33)	.43*	.59**	.28	.13	.19	.01

* $p < .05$; ** $p < .01$

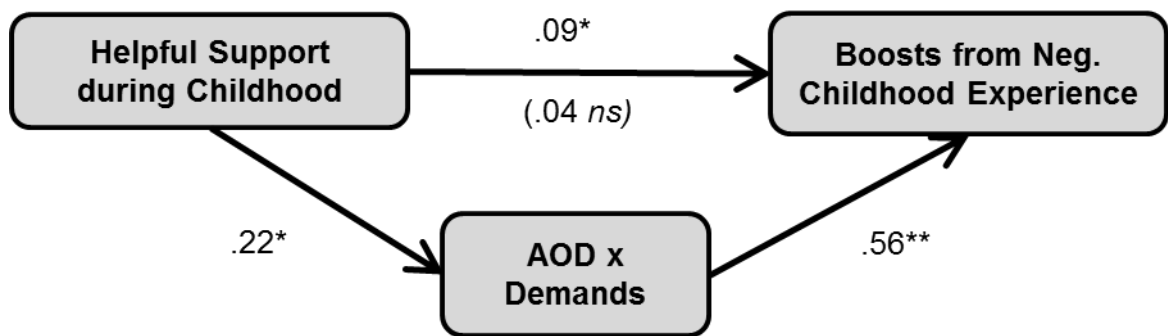


Figure 1. Path coefficients for the significant mediation of the relationship between helpful support experience and self-growth (i.e., integrated negative experience to pass on to their own children) through the combination of affect regulation (AOD) and demanding life circumstances ($N = 50$).

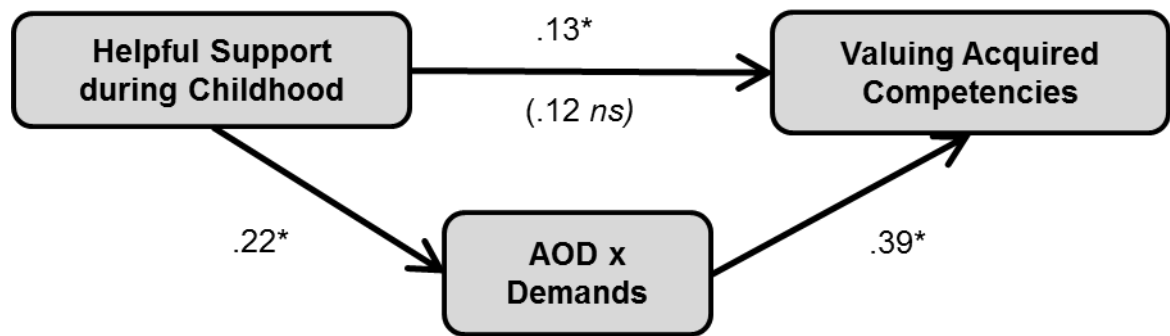


Figure 2. Path coefficients for the significant mediation of the relationship between helpful support experience and self-growth aspects (i.e., value of acquired skills) through the combination of affect regulation (AOD) and demanding life circumstances ($N = 64$).

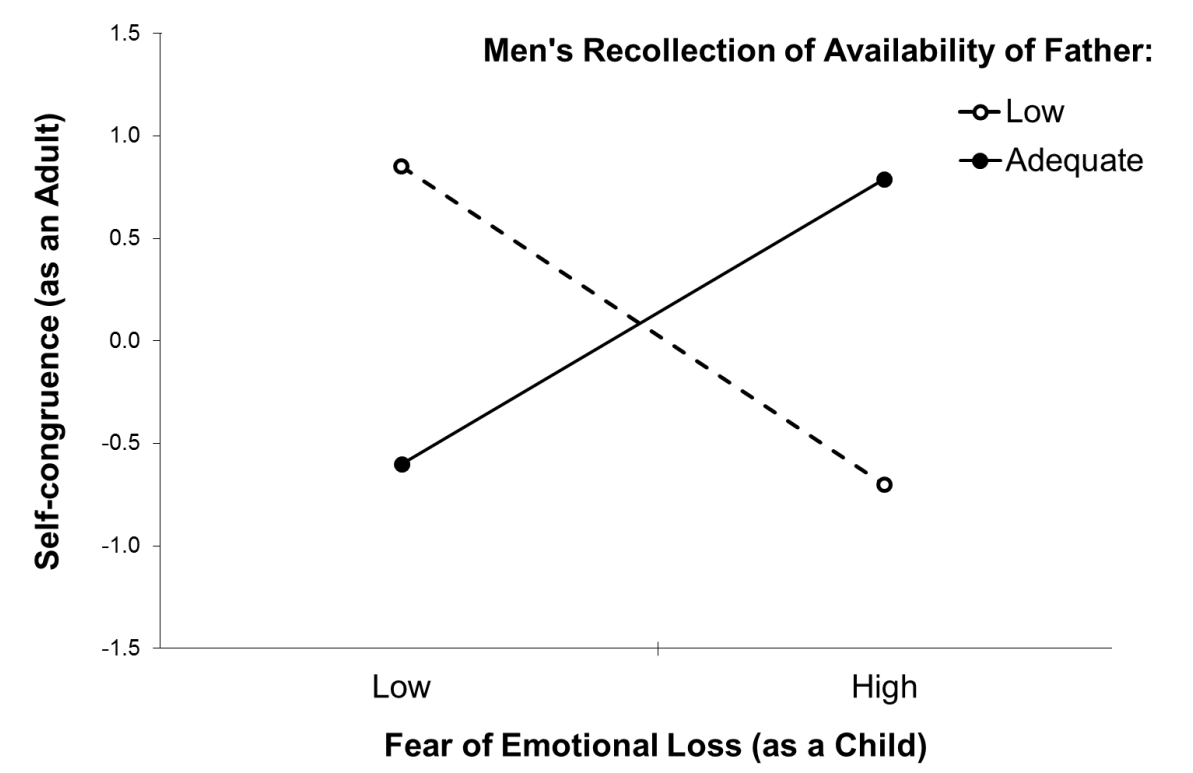


Figure 3: Regression lines for the relationship between fear of emotional loss during childhood (retrospectively rated) and self-congruence in adulthood among men as a function of their father's availability during childhood (retrospectively rated). The interaction is significant ($t = 2.91, p < .01$) and the slopes for low ($t = -2.56, p < .02$) and adequate ($t = 1.74, p < .09$) availability of father are (marginally) significant ($N = 38$).

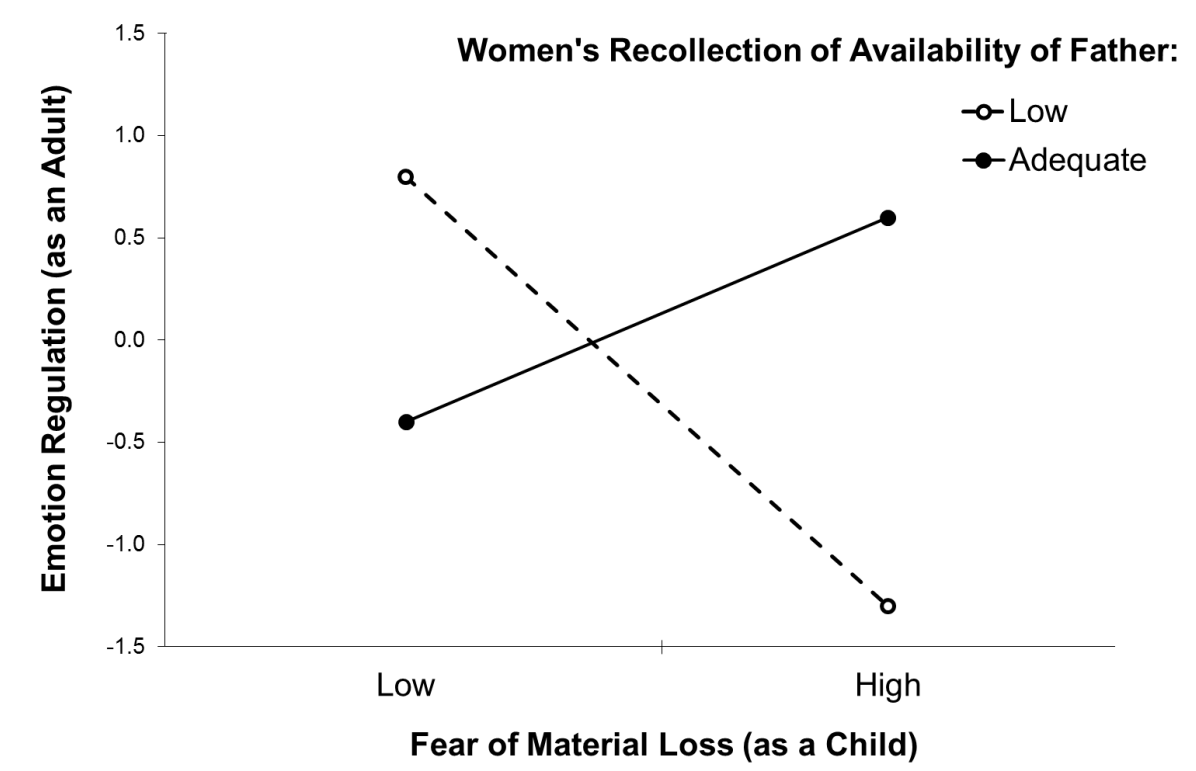


Figure 4. Regression lines for the relationship between fear of material loss during childhood (retrospectively rated) and emotion regulation during adulthood among women as function of their father's availability during childhood (retrospectively rated). The interaction is significant ($t = 2.25, p < .03$) and the slope for low availability of father is significant (low: $t = -2.23, p < .03$; adequate: $t = 1.08, ns$) ($N = 42$).

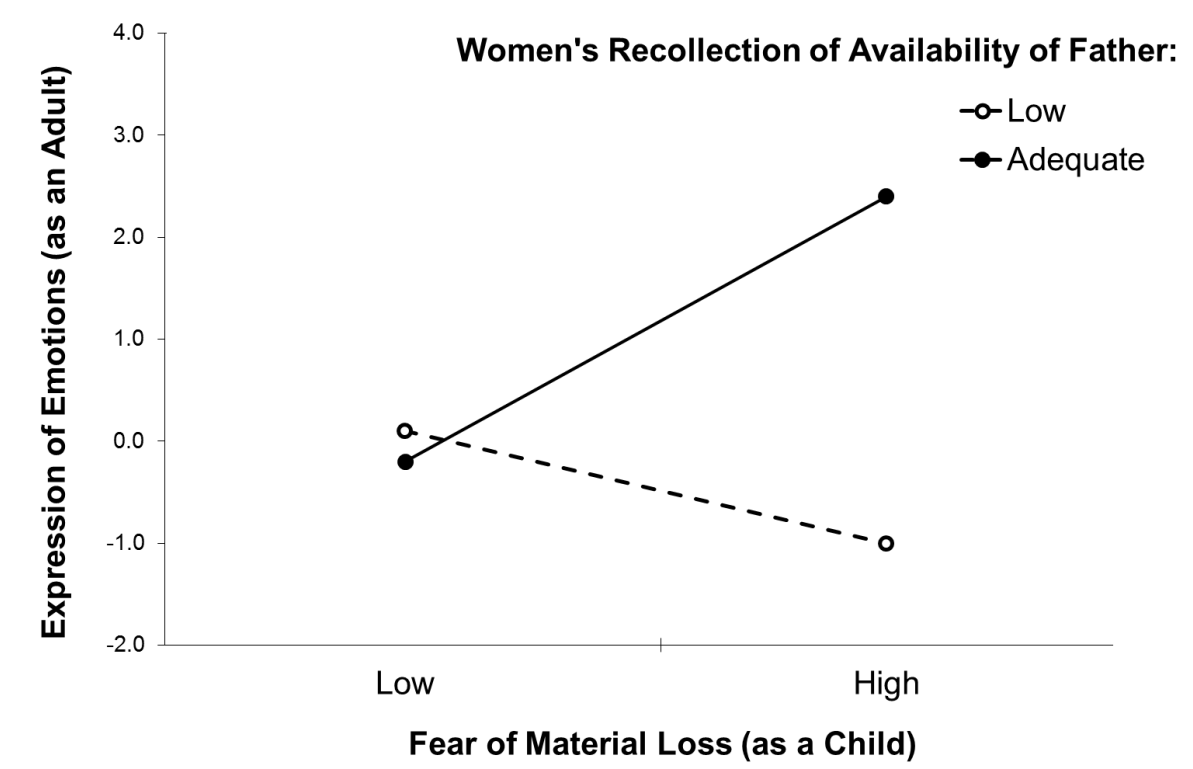


Figure 5. Regression lines for the relationship between fear of material loss during childhood (retrospectively rated) and expression of emotions during adulthood among women as function of their father's availability during childhood (retrospectively rated). The interaction is significant ($t = 2.73, p < .01$) and the slope for adequate availability of father is significant (low: $t = -1.21, ns$; adequate: $t = 2.80, p < .01$) ($N = 42$).