

## IV. Attachment and adaptation in adolescence

### Introduction and research questions

Various studies in the domain of developmental psychopathology have shown that good parent-child relationships, self-efficacy and effective coping-strategies function as protective factors. These factors however are often presented in a separate and isolated manner. Protective factors have quite often not been integrated into a developmental perspective. Attachment theory provides an integrative framework for an understanding how these protective factors are developmentally interrelated. It proposes the development of mentally healthy and resilient persons on the basis of attachment-related experiences and attachment organization (Bowlby, 1988; Sroufe, 1989).

In this study attachment and adaptation in adolescence is investigated. In three, connected, psychological domains the following research questions will be answered:

#### *Attachment and coping in adolescence:*

1. Is the quality of attachment representation related to coping styles? 2. Does quality of attachment in infancy to mother or father predict the adolescents' coping styles?

3. Does mothers' or fathers' attachment representation predict the adolescents' coping styles?

#### *Attachment and personality functioning in adolescence:*

4. Does adolescents' attachment representation correlate with self- and other rating of ego-resiliency, helplessness and self-concept?

5. Does mothers' or fathers' attachment representation predict the adolescents' ego-resiliency, helplessness and self-concept?

#### *Attachment and social competence:*

6. Does adolescents' attachment representation correlate with social competence?

### Method

#### *Subjects*

In 1992/93 44 adolescents (22 girls, 22 boys) of the original 49 infants (90%) of the Bielefeld Longitudinal Study were visited at home. The visits took place around the 16th birthday.

#### *Measures*

##### *Infancy.*

Infants were seen in the *Strange Situation* (Ainsworth, Blehar, Water & Wall, 1978) with mother at the age of 12 months and with father at the age of 18 months (Grossmann, Grossmann, Huber & Wartner, 1981; Grossmann, Grossmann, Spangler, Suess & Unzner, 1985).

##### *Parents, when children were 6 years old.*

*Adult Attachment Interviews* (George, Kaplan & Main, 1985) were administered to both parents and rated by means of the Regensburg method for analyzing the AAI (Fremmer-Bombik, 1987;

Grossman, Fremmer-Bombik, Rudolph & Grossman, 1988).

16 years.

*Adult Attachment Interview.* Adolescents were interviewed with the Adult Attachment Interview (AAI) (George, Kaplan & Main, 1985). The interviews were rated by means of the Attachment Q-Sort (Kobak, 1993). The method results in a continuous score for secure, dismissing, preoccupied and deactivation versus hyperactivation.

*California Adult Q-Sort (CAQ).* The adolescents rated themselves by means of the CAQ (Block, 1978; Block, 1989). Additional ratings by one best friend, their parents and two interviewers (after the home visit) were composited to 'others'-rating' score.

Scores for *Ego-Resiliency* were derived from the correlation of individual Q-Sorts with a prototypic Q-Sort (Block & Block, 1987). Mega-items were composed for *Helplessness* (see Elder & Clipp, 1989) by averaging the following items: feels victimized, lacks personal meaning, reluctant to act, withdraws when frustrated, and assertive (reflected) (Self-rating:  $\alpha = .63$ ; Other-rating:  $\alpha = .80$ ). Mega-items for *Self-concept* were composed by averaging: feels satisfied with self, concerned with own adequacy (reflected), intelligent, productive, regards self as physical attractive, others perceive me as physical attractive, feels liked and accepted by others, others see me as interesting person, able to be charming, have social poise and presence ( $\alpha = .82$ ).

*Coping-Questionnaire.* The Coping-Questionnaire by Seiffge-Krenke (1989) has been developed in Germany and used also in cross-cultural studies (Shulman,

Seiffge-Krenke & Samet, 1987; Seiffge-Krenke, 1990). Subjects are asked to mark the employment of any of 20 coping strategies in 8 different age-salient domains. The questionnaire provides three main scales:

(1) Active Coping using Social Resources like "I discuss the problem with friends or parents"; (2) Avoiding/Withdrawal like "I retreat because I think I cannot change the situation" or "I won't show my feelings and act as if everything would be o.k."; (3) Internal Coping which has been split for analysis into: a) Mental Coping like "I analyze the problem and think of various possible solutions" and b) Emotional Appeasement like "I think by myself, that there always will be problems".

*Friendship-Interview.* In a second separate interview, adolescents were asked about their friendships and peer-relations. Interviews were transcribed and rated on the following scales (Merkl, 1995):

(1) Peer-Integration, (2) Integration in School; (3) Friendship-Quality, (4) Friendship-Concept, (5) Cross-Sexual relationships, (6) Quality of Romantic Relationships, (7) Hostility, (8) Conflict-Resolution and (9) Social Anxiety. An overall mean score for all 9 scales provided a score for Social Competence.

## Results

### *Attachment and coping in adolescence*

All adolescents report more active coping using social resources than avoiding/withdrawal or the internal coping strategies, mental coping or emotional appeasement. Adolescents with a secure attachment representation however show more

active coping using their social resources ( $p < .05$ , one-tailed) and less Avoiding/Withdrawal strategies ( $p < .05$ ) compared to their insecure counterparts. There were no significant differences in the use of mental coping or emotional appeasement. Figure 1 summarizes the results. There were no significant differences in reported coping strategies between adolescents with a secure or an insecure

attachment quality to mother in infancy. However, adolescents with an insecure attachment quality to father at 18 months report more Avoidant/Withdrawal coping strategies ( $p < .05$ ) and less active coping via social resources ( $p < .05$ ) than adolescents with a secure attachment quality to father. There were no significant differences regarding the other scales (see Figure 2).

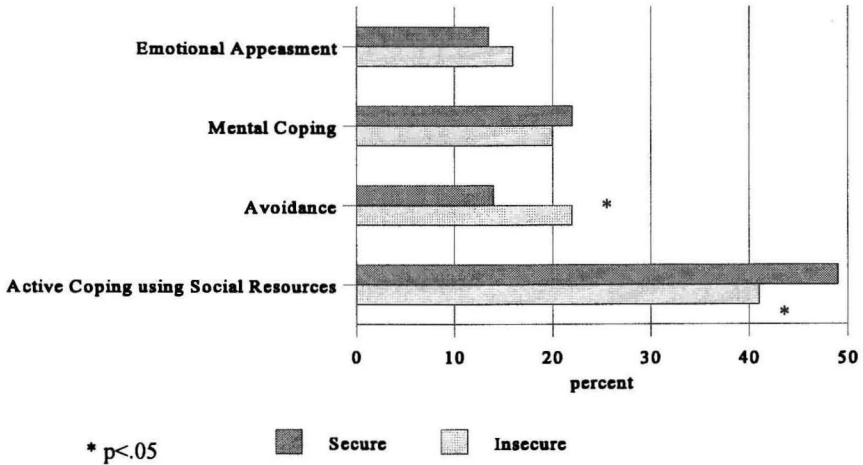


Fig.1. Adolescents' attachment representation and reported coping strategies.

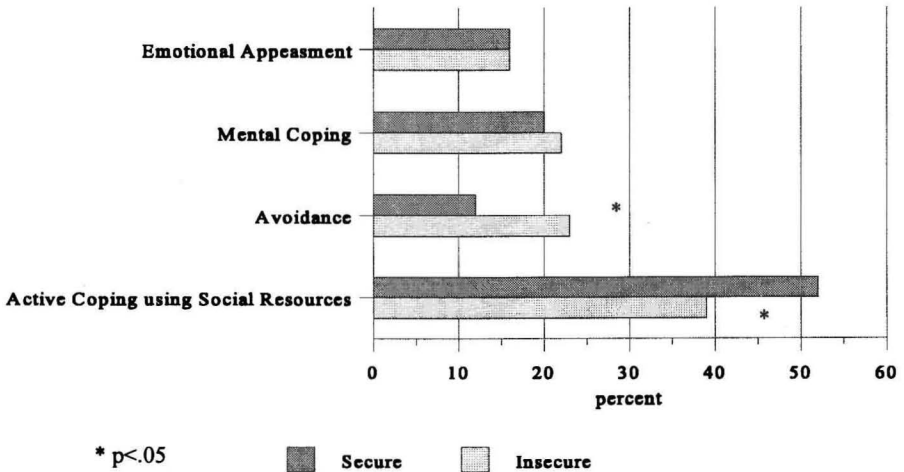


Fig.2. Attachment quality to father in infancy and adolescents' coping strategies.

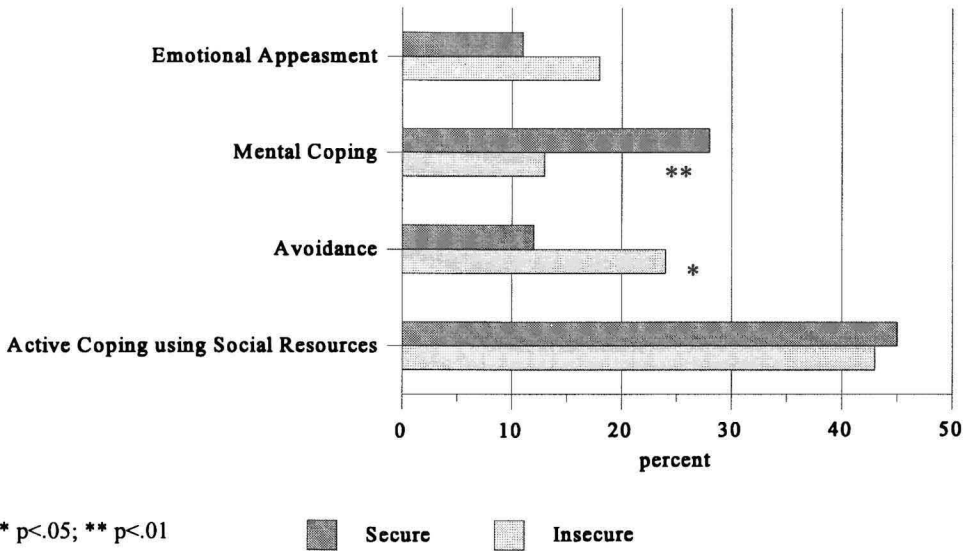


Fig.3. Fathers' attachment representation and adolescents' coping strategies.

There were no significant differences in reported coping strategies in relation to quality of mothers' attachment representation.

Adolescents whose fathers showed a secure attachment representation assessed 10 years before, when children were 6 years old report less Avoidant/Withdrawal Coping strategies ( $p<.05$ ) (i.e., "I retreat because I think I cannot change the situation"; "I won't show my feelings and act as if everything would be o.k.") and more Mental Coping ( $p<.01$ ) (i.e., thinking of possible solutions; finding compromises). There were no significant differences regarding the other scales.

#### *Attachment and personality functioning in adolescence*

Scores for the attachment representation dimensions correlate significantly with personality functioning measures derived

from Block's California Adult Q-Sort (Table 1).

Adolescents with a secure attachment representation show more ego-resiliency, a lower level of helplessness and a more positive self-concept. A dismissing attachment representation is associated with a lower level of ego-resiliency, a less positive self-concept and a higher level of helplessness. A preoccupied attachment representation correlates negatively with ego-resiliency and self-concept. For ego-resiliency associations to others' rating are even stronger than for self-rating, whereas for level of helplessness only self-rating yields statistical significance. When the children were six years old attachment representation of both parents was assessed by means of the AAI. There were no significant differences in any of the measures regarding fathers' attachment representation.

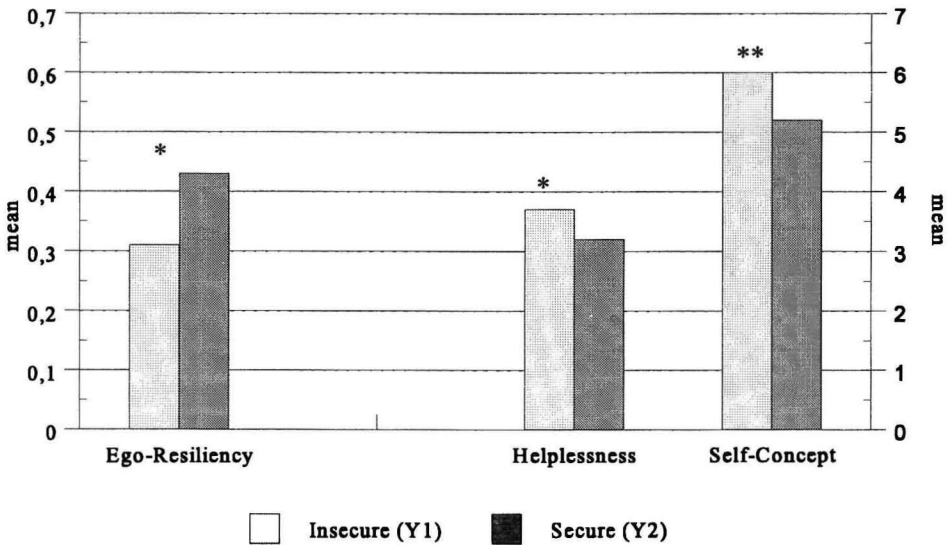
Table 1. Correlations between adolescents' attachment dimensions and scores for ego-resiliency, helplessness and self-concept.

Attachment-Q-Sort dimensions	Ego-resiliency (Block-Q-Sort)		Helplessness (Block-Q-Sort)		Self-Concept (Block-Q-Sort)
	Self-rating	Other-Rating	Self-Rating	Other-rating	Self-Rating
Secure	.27*	.36**	-.31*	-.18	.30*
Dismissing	-.22+	-.35**	.34*	.14	-.27*
Preoccupied	-.25*	-.35**	-.02	.06	-.20+
Deactivation vs. Hyperactivation	-.12	-.23+	.41**	.13	-.21+

p one-tailed; + p<.10; \* p<.05; \*\* p<.01

Differences in mean for the measures of level of personality functioning are shown in Figure 4 for secure and insecure attachment groups. Adolescents whose mothers

showed a secure attachment representation when they were six years old rated themselves as more ego-resilient (p<.05), less helpless (p<.05; one-tailed) and as more positive in self-concept (p<.01).



\* p<.05; \*\* p<.01; p one-tailed

Fig. 4. Mothers' attachment representations and means of adolescents' self-rating scores of ego-resiliency, helplessness and self-concept.

## Attachment and social competence in adolescence

A secure attachment representation in adolescence is positively associated with social competence as assessed in an interview (Table 2). Correlations for dismissing attachment representations were higher than for preoccupied attachment representations. Adolescents with a secure attachment representation were rated higher on integration in peer groups (i.e., more friends and more acceptance in peer-group), showed more self-disclosure and emotional support in close friendships, a higher level of friendship-concept, and a more partner-oriented conflict-resolution.

Table 2. Adolescents' attachment dimensions and social competence.

Attachment-Q-Sort Dimensions	Social Competence Interview-Rating (Composite score)
Secure	.60***
Dismissing	-.61***
Preoccupied	-.34*
Deactivation vs. Hyperactivation	-.53***

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

## Discussion

The results confirm the role of attachment experiences in the development of a resilient personality and show different influences of both parents on their adolescent children.

The current mental attachment organization assessed by means of the Adult Attachment Interview is associated with a variety of attributes, which reflect flex-

ibility and an optimistic attitude towards encountering challenging situations or problems. This can be seen in the association between an insecure attachment representation and lower scores for ego-resiliency. Ego-resiliency is the ability to modulate one's impulses and feelings in a way that is appropriate to problem-solving or social situations. Adolescents with an insecure attachment representation are less able to regulate their emotions in an appropriate way. This has been shown already in other studies (Kobak & Sceery, 1988; Zimmermann, Gliwitsky & Backer, 1992), showing that Q-sort-ratings done by others correlate even higher with adolescents' attachment representation than self-ratings.

This *emotional* organization is paralleled by a *cognitive* organization. Persons with a dismissing attachment representation perceive themselves as more helpless (i.e., easily victimized, lack of personal meaning) and with a less positive self-concept. Persons with a preoccupied attachment representation, rate themselves lower in positive self-concept.

There were also differences on the reported *behavior* strategies. Adolescents with an insecure attachment representation reported more avoidant coping strategies in problem solving, and less active coping strategies in terms of using the help of one's social network. This confirms results of a previous study (Zimmermann et al., 1992). Adolescents with a secure attachment representation were indeed able to find support in their social network, as they showed more supportive friendships and peer relationships.

A secure working model of attachment appears to allow a person to integrate positive as well as negative emotions, which serve as realistic appraisals of a

number of relevant situations. Ego-resiliency, a low level of helplessness, an effective pattern of coping strategies, and a positive self-concept are reflections of the basic emotional, cognitive and behavioral organization of persons with secure working models. Thus the organizational quality of attachment theory can explain why and how individual attachment organization can act as a protective factor in development.

The relationship to both parents showed differential influences on adolescents. Adolescents with a secure attachment quality to father at 18 months reported more active coping using social resources and less avoiding coping strategies. The influence of a secure attachment representation of father was shown also in the use of less avoiding and more mental coping strategies (i.e., thinking of several possible solutions or trying to find compromises). A secure attachment representation of mother in contrast was associated with higher ego-resiliency, less helplessness and a more positive self-concept. Fathers seem to influence the use of concrete coping strategies, both on the behavioral level as well as on the mental level, whereas mothers, seem to influence more general patterns of emotional regulation, optimism, and overall acceptance of one's self as a person. The results confirm Bowlby's concept of the important influence of the experiences with both parents on the development of personality. "A young child's experience of an encouraging, supportive and co-operative mother, and a little later father, gives him a sense of worth, a belief in the helpfulness of others, and a favorable model on which to build future relationships. Furthermore, by enabling him to explore his environment with confidence and to deal

with it effectively, such experiences also promote his sense of competence" (Bowlby, 1982, p.378).

Flexible and resilient responses to challenging situations and confidence in oneself and in others, which develops through supportive experiences with the attachment figures enable a person to effectively cope with demands. The data provide evidence for an integration of attachment-related experiences and representations into personality development. Describing developmental pathways of adaption or maladaptation can be done by comparing risk factors and protective factors at different ages separately (Werner, 1989), or by looking at mediating factors and chain reactions (Rutter, 1990). A developmental approach (see Sroufe, 1989) however has the opportunity of describing how current resilient personality features in adolescence can be influenced by current or former family experiences.

## References

- Ainsworth, M.D.S., Blehar, M.D., Waters, E. & Wall, S. (1978). *Patterns of attachment. A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.
- Block, J. (1978). *The Q-sort method in personality assessment and psychiatric research*. Palo Alto: Consulting Psychologist Press.
- Block, J. (1987). *Ego-control and ego-resiliency: Early recognizable, environmentally shaped*. Draft of Bielefeld Talk.
- Block, J. (1989). *California Self Q-sort*. Unpublished manuscript.
- Bowlby, J. (1982). *Attachment and loss (2nd ed.)*. Vol. 1: *Attachment*. London:

- Hogarth Press and Institute of Psycho-analysis.
- Bowlby, J. (1988). *A secure base. Clinical applications of attachment theory*. London: Tavistock/Routledge.
- Elder, G.H.Jr. & Clipp, E.C. (1989). Combat experience and emotional health: Impairment and resilience in later life. *Journal of Personality*, 57, 311-341.
- Fremmer-Bombik, E. (1987). *Beobachtungen zur Beziehungsqualität im zweiten Lebensjahr und ihre Bedeutung im Lichte mütterlicher Kindheitserinnerungen (Observations of attachment quality in the second year of life and its meaning with respect to maternal memories of her childhood)*. Dissertation, Universität Regensburg.
- George, C., Kaplan, N. & Main, M. (1985). *An adult attachment interview*. Unpublished manuscript, University of California at Berkeley.
- Grossmann, K.E., Grossmann, K., Huber, F. & Wartner, U. (1981). German children's behavior towards their mothers at 12 months and their fathers at 18 months in Ainsworth's Strange Situation. *International Journal of Behavioral Development*, 4, 157-181.
- Grossmann, K., Grossmann, K.E., Spangler, G., Suess, G. & Unzner, L. (1985). Maternal sensitivity and newborns' orientation responses as related to quality of attachment in northern Germany. In I. Bretherton & E. Waters (Eds.), *Growing points in attachment theory and research*. Monographs of the Society for Research in Child Development, 50, 233-278.
- Grossmann, K., Fremmer-Bombik, E., Rudolph, J. & Grossmann, K.E. (1988). Maternal attachment representations as related to patterns of infant-mother attachment and maternal care during the first year. In R.A. Hinde & J. Stevenson-Hinde (Eds.), *Relationships within families* (pp. 241-260). Oxford: Clarendon Press.
- Kobak, R.R. (1993). *The Attachment-Q-Sort*. Unpublished manuscript.
- Kobak, R.R. & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. *Child Development*, 59, 135-146.
- Merkl, P. (1995). *Bindung und Freundschaftsbeziehungen bei Jugendlichen. (Attachment and friendship relations in adolescence)*. Unpublished Diploma Thesis. Universität Regensburg.
- Rutter, M. (1990). Psychosocial resilience and protective mechanisms. In J. Rolf, A.S. Masten, D. Cicchetti, K.N. Nuechterlein & S. Weintraub (Eds), *Risk and protective factors in the development of psychopathology* (pp. 181-214). Cambridge: Cambridge University Press.
- Seiffge-Krenke, I. (1989). Bewältigung alltäglicher Problemsituationen: Ein Coping-Fragebogen für Jugendliche. *Zeitschrift für Differentielle und Diagnostische Psychologie*, 10, 201-220.
- Seiffge-Krenke, I. (1990). Developmental processes in self-concept behaviour. In H. Bosma & S. Jackson (Eds), *Coping and self-concept in adolescence* (pp. 51-69). Berlin: Springer.
- Shulman, S., Seiffge-Krenke, I. & Samet, N. (1987). Adolescent coping style as a function of perceived family climate. *Journal of Adolescent Research*, 2, 367-381.



Stroufe, L.A. (1989). relationships, self, and individual adaption. In A. Sameroff & R. Emde (Eds), *Relationship disturbances in early childhood* (pp. 70-94). New York: Basic Books.

Werner, E.E. (1989). High-risk children in young adulthood: A longitudinal study from birth to 32 years. *American Journal of Orthopsychiatry*, 59, 73-81.

Zimmermann, P. (1994). *Bindung im Jugendalter. Entwicklung und Umgang mit aktuellen Anforderungen. (Attachment in adolescence: Development and coping with current*

*demands)*. Unpublished Doctoral Dissertation. Universität Regensburg.

Zimmermann, P., Gliwitzky, J. & Becker, F. (1992). *Selbstkonzept, Ich-Flexibilität und Coping-Strategien bei Jugendlichen im Zusammenhang zur Repräsentation eigener Bindungserfahrungen (Adolescents' self-concept, ego-resiliency and coping strategies in relation to attachment representation)*. Poster präsentiert auf dem 38. Kongress der Deutschen Gesellschaft für Psychologie in Trier.

