

(Edelstein, Alexander et al. 2004; Black, Hardy et al. 2005; McBride, Atkinson et al. 2006; Davidovitz, Mikulincer et al. 2007; Fraley 2007; Fluckiger and Grosse Holtforth 2008; Gilbert, McEwan et al. 2008; Gillath, Selcuk et al. 2008; Hutcherson, Seppala et al. 2008; Bakermans-Kranenburg and van Ijzendoorn 2009; Cordon, Brown et al. 2009; Geerts, van Os et al. 2009; Obegi, Shaver et al. 2009; Schauenburg, Buchheim et al. 2009; Bosmans, Braet et al. 2010; Feeney and Thrush 2010; Lambert, Fincham et al. 2010; Shaver and Mikulincer 2010; Fraley, Heffernan et al. 2011; Fraley, Vicary et al. 2011; Kirchmann, Steyer et al. 2011; Mikulincer and Shaver 2011; Neustadt, Chamorro-Premuzic et al. 2011; Pilnick and Dingwall 2011; Rizq 2011; Wei, Liao et al. 2011; Westra, Aviram et al. 2011; Mikulincer and Shaver 2012; Mikulincer, Shaver et al. 2012; Petrowski, Pokorny et al. 2012; Sabol and Pianta 2012; Taylor, Marshall et al. 2012; Verschueren, Doumen et al. 2012; Verschueren and Koomen 2012; Wittenborn 2012; Jaremka, Glaser et al. 2013; Pepping, Davis et al. 2013)

Bakermans-Kranenburg, M. and M. van Ijzendoorn (2009). **"The first 10,000 adult attachment interviews: Distributions of adult attachment representations in clinical and non-clinical groups."** *Attachment & Human Development* 11: 223-263. <http://www.ingentaconnect.com/content/routledg/rahd/2009/00000011/00000003/art00001>  
<http://dx.doi.org/10.1080/14616730902814762>

More than 200 adult attachment representation studies, presenting more than 10,500 Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985) classifications, have been conducted in the past 25 years. In a series of analyses on the distributions of the AAI classifications in various cultural and age groups, fathers, and high-risk and clinical samples, we used the distribution of the combined samples of North American non-clinical mothers (23% dismissing, 58% secure, 19% preoccupied attachment representations, and 18% additionally coded for unresolved loss or other trauma) to examine deviations from this normative pattern, through multinomial tests and analyses of correspondence. The analyses were restricted to AAI classifications coded according to the Main, Goldwyn, and Hesse (2003) system. We did not find gender differences in the use of dismissing versus preoccupied attachment strategies, and the AAI distributions were largely independent of language and country of origin. Clinical subjects showed more insecure and unresolved attachment representations than the norm groups. Disorders with an internalizing dimension (e.g., borderline personality disorders) were associated with more preoccupied and unresolved attachments, whereas disorders with an externalizing dimension (e.g., antisocial personality disorders) displayed more dismissing as well as preoccupied attachments. Depressive symptomatology was associated with insecurity but not with unresolved loss or trauma, whereas adults with abuse experiences or PTSD were mostly unresolved. In order to find more reliable associations with clinical symptoms and disorders, future AAI studies may make more fruitful use of continuous AAI scales in addition to the conventionally used categorical classifications.

Black, S., G. Hardy, et al. (2005). **"Self-reported attachment styles and therapeutic orientation of therapists and their relationship with reported general alliance quality and problems in therapy."** *Psychol Psychother* 78(Pt 3): 363-377. [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=16259852](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16259852)

The aims of this study were to explore the relationship between therapists' self-reported attachment styles and therapeutic orientation with the self-reported general therapeutic alliance and therapist-reported problems in psychological therapy. A sample of 491 psychotherapists from differing therapeutic orientations responded to a postal questionnaire. The questionnaire contained standardized measures of therapeutic alliance quality, attachment behaviours, a checklist of problems in therapy, and a brief personality inventory. Therapist-reported attachment styles generally explained a significant additional proportion of the variance in alliance and problems in therapy, over and above variance explained by general personality variables. Self-reported secure attachment style was significantly positively correlated with therapist-reported general good alliance. Self-reported anxious attachment styles were significantly negatively correlated with good alliance, and significantly positively correlated with the number of therapist-reported problems in therapy. Therapeutic orientation independently predicted a small but significant amount of the variance in reported general alliance quality in addition to that explained by attachment behaviours.

Bosmans, G., C. Braet, et al. (2010). **"Attachment and symptoms of psychopathology: Early maladaptive schemas as a cognitive link?"** *Clinical Psychology & Psychotherapy*. <http://dx.doi.org/10.1002/cpp.667>

This study investigated whether early maladaptive schemas can explain the relation between attachment anxiety and avoidance dimensions and symptoms of psychopathology. For this purpose, 289 Flemish, Dutch-speaking, late adolescents participated on a questionnaire study. Using a non-parametric re-sampling approach, we investigated whether the association between attachment and psychopathology was mediated by early maladaptive schemas. Results indicate that the association between attachment anxiety and psychopathology is fully mediated by cognitions regarding rejection and disconnection and other-directedness. The association between attachment avoidance and psychopathology is partly mediated by cognitions regarding rejection and disconnection. Key Practitioner Message: Our findings suggest that cognitive therapy might be useful in the treatment of attachment-related psychopathology. Our findings suggest that therapists should be wary for attachment-related relapse. Especially the cognitive schemas regarding expectations to be rejected or disconnected mediated the association between attachment anxiety and attachment avoidance dimensions and psychopathology.

Cordon, S. L., K. W. Brown, et al. (2009). **"The role of mindfulness-based stress reduction on perceived stress: Preliminary evidence for the moderating role of attachment style."** *Journal of Cognitive Psychotherapy* 23(3): 258-269. <http://www.ingentaconnect.com/content/springer/jcoop/2009/00000023/00000003/art00006>  
<http://dx.doi.org/10.1891/0889-8391.23.3.258>

The current research investigated whether adult attachment style moderated the effect of mindfulness-based stress reduction (MBSR) participation on levels of perceived stress. Study completing participants (secure group n = 65; insecure group n = 66) completed pre- and postintervention self-report assessments of perceived stress. The insecure group reported significantly higher stress levels prior to MBSR participation, but both groups showed significant pre-post intervention declines in perceived stress. Compared to the secure group, the insecure group also reported marginally lower perceived stress following MBSR participation. Study findings support the efficacy of MBSR for stress reduction across attachment style. Findings also suggest that MBSR participation may provide slightly greater stress reduction benefits for insecurely attached individuals.

Davidovitz, R., M. Mikulincer, et al. (2007). **"Leaders as attachment figures: Leaders' attachment orientations predict leadership-related mental representations and followers' performance and mental health."** *J Pers Soc Psychol* 93(4): 632-650. [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17892336](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17892336)

In 3 studies, the authors examined the contribution of leaders' attachment styles to their leadership motives and beliefs and to followers' outcomes. In Study 1, participants completed measures of attachment orientation, leadership motives, self-representations, and leadership style. Studies 2 and 3 were conducted within Israeli military units either during a leadership workshop or during intensive combat training. Israeli military officers and their soldiers (followers) reported on their attachment

styles, and the soldiers reported on the officers' leadership qualities and on the soldiers' own performance and mental health. Leaders' attachment anxiety was associated with more self-serving leadership motives and with poorer leadership qualities in task-oriented situations. Leaders' attachment anxiety also predicted followers' poorer instrumental functioning. Leaders' attachment-related avoidance was negatively associated with prosocial motives to lead, with the failure to act as a security provider, and with followers' poorer socioemotional functioning and poorer long-range mental health. Results are discussed with respect to the value of attachment theory for the study of leadership.

Edelstein, R. S., K. W. Alexander, et al. (2004). **"Adult attachment style and parental responsiveness during a stressful event."** *Attach Hum Dev* 6(1): 31-52.

[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=14982678](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=14982678)

Despite widespread use of self-report measures of adult attachment, relatively little research has explored the predictive utility of these measures in the domain of parent-child relationships. The present study examined the association between self-reported attachment style and parental responsiveness during a stressful event. Children and their parents were observed while children received an inoculation at a county immunization clinic. Children's reactions to the inoculation were rated and parents' responsiveness was assessed with the Emotional Availability Scales (EAS). Results revealed that children of parents scoring high on self-reported attachment avoidance were more distressed during the inoculation than children of parents scoring low on avoidance. Moreover, parents high on avoidance were less responsive when children were highly distressed, whereas this pattern was reversed among parents scoring low on avoidance. Finally, the influence of adult attachment on parental behavior and children's distress was found to be independent of children's temperament and parental personality. These findings suggest that self-report adult attachment measures may be useful in the domain of parent-child relationships.

Feeney, B. C. and R. L. Thrush (2010). **"Relationship influences on exploration in adulthood: The characteristics and function of a secure base."** *J Pers Soc Psychol* 98(1): 57-76.

[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=20053031](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20053031)

This investigation advances theory and research regarding relationship influences on exploration in adulthood. This is accomplished by (a) identifying important characteristics of a secure base, (b) examining the influence of the presence or absence of these characteristics on exploration behavior in adulthood, and (c) identifying individual-difference factors that are predictive of the provision and receipt of secure base support. In 2 sessions, married couples (N = 167) provided reports of relationship dynamics involving exploration, and they participated in an exploration activity that was videotaped and coded by independent observers. Results indicated that the 3 identified characteristics of a secure base (availability, noninterference, and encouragement) are strongly predictive of exploration behavior, and that the provision and receipt of these behaviors can be predicted by individual differences in attachment. Implications of results and contributions to existing literature are discussed.

Fluckiger, C. and M. Grosse Holtforth (2008). **"Focusing the therapist's attention on the patient's strengths: A preliminary study to foster a mechanism of change in outpatient psychotherapy."** *J Clin Psychol* 64(7): 876-890.

<http://www.ncbi.nlm.nih.gov/pubmed/18484601>

Previous research has supported the immediate activation of patient's strengths (resource activation) as an important mechanism of change in psychotherapy. We designed a brief (10 min) priming procedure in which therapists' attention was focused on the patients' individual strengths before each therapy session (resource priming). In a preliminary study, the priming procedure was carried out before each of the first five sessions (N=20). Preliminary results indicated that this brief preparatory intervention boosted resource activation as perceived by independent observers, fostered attachment and mastery experiences by the patient, and improved therapy outcome at Session 20. Improvement was assessed in comparison to a pairwise matched, nonrandomized control group of patients treated previously with the same treatment protocol at the same clinic.

Fraley, R. C. (2007). **"A connectionist approach to the organization and continuity of working models of attachment."** *J Pers* 75(6): 1157-1180.

[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17995461](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17995461)

Most research on adult attachment dynamics has been conducted under the assumption that working models are generalized cognitive-motivational structures that are highly stable and activated in a wide array of circumstances. Recent research, however, suggests that people develop attachment representations that are relationship specific, leading them to hold distinct working models in different kinds of relationships. The objective of this article is to outline a connectionist approach to the working model construct that has the potential to explain how global and relationship-specific working models are organized within the same mental system and how different learning environments can support continuity in those representations over time.

Fraley, R. C., M. E. Heffernan, et al. (2011). **"The experiences in close relationships-relationship structures questionnaire: A method for assessing attachment orientations across relationships."** *Psychol Assess* 23(3): 615-625.

<http://www.ncbi.nlm.nih.gov/pubmed/21443364>

Most research on adult attachment is based on the assumption that working models are relatively general and trait-like. Recent research, however, suggests that people develop attachment representations that are relationship-specific, leading people to hold distinct working models in different relationships. The authors report a measure, the Relationship Structures questionnaire of the Experiences in Close Relationships-Revised (ECR-RS; R. C. Fraley, N. G. Waller, & K. A. Brennan, 2000), that is designed to assess attachment dimensions in multiple contexts. Based on a sample of over 21,000 individuals studied online, it is shown that ECR-RS scores are reliable and have a structure similar to those produced by other measures. In Study 2 (N = 388), it is shown that relationship-specific measures of attachment generally predict intra- and interpersonal outcomes better than broader attachment measures but that broader measures predict personality traits better than relationship-specific measures. Moreover, it is demonstrated that differentiation in working models is not related to psychological outcomes independently of mean levels of security.

Fraley, R. C., A. M. Vicary, et al. (2011). **"Patterns of stability in adult attachment: An empirical test of two models of continuity and change."** *J Pers Soc Psychol* 101(5): 974-992. <http://www.ncbi.nlm.nih.gov/pubmed/21707199>

One of the core assumptions of attachment theory is that attachment representations are stable over time. Unfortunately, the data on attachment stability have been ambiguous, and as a result, alternative theoretical perspectives have evolved to explain them. The objective of the present research was to evaluate alternative models of stability by studying adults in 2 intensive longitudinal investigations. Specifically, we assessed attachment representations in 1 sample (N = 203) daily over a 30-day period and in the other sample (N = 388) weekly over a year. Analyses show that the patterns of stability that exist in adult attachment are most consistent with a prototype model--a model assuming that there is a stable factor underlying temporary variations in attachment. Moreover, although the Big Five personality traits exhibited a pattern of stability that was similar to that of attachment, they did not account for the stability observed in attachment.

Geerts, E., T. van Os, et al. (2009). **"Nonverbal communication sets the conditions for the relationship between parental bonding and the short-term treatment response in depression."** *Psychiatry Res* 165(1-2): 120-127. [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=19042029](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19042029)

The role of parental bonding and nonverbal communication in the short-term treatment response was investigated in 104 depressed outpatients. At baseline patients completed the Parental Bonding Instrument. We registered the nonverbal involvement behaviour of patients and interviewers from video recordings of baseline clinical interviews and calculated the convergence between patient-interviewer behaviour over the interview. The course of depression was assessed with the Beck Depression Inventory. As hypothesized, low maternal care and high paternal overprotection predicted a poor response to an 8-week treatment. Maternal care was positively correlated with nonverbal convergence. Moreover, convergence moderated the relationship between maternal care and the response to treatment: Lack of convergence between patients and interviewers turned out to annul the positive effects of maternal care on the treatment response. The findings link theories on early parenting to interpersonal theories of depression.

Gilbert, P., K. McEwan, et al. (2008). **"Feeling safe and content: A specific affect regulation system? Relationship to depression, anxiety, stress, and self-criticism."** *The Journal of Positive Psychology* 3(3): 182 - 191. <http://www.informaworld.com/10.1080/17439760801999461>

Recent work in the neuroscience of positive affect has suggested that there may be two different types of positive affect. One is linked to a drive/seeking system (and may be dopaminergic mediated) and the other is a soothing-contentment system (and may be opiate/oxytocin mediated). This study sought to develop a self-report scale that could tap these positive affects in regard to characteristic feelings individuals may have. Results from 203 students suggested three (rather than two) underlying factors: activated positive affect, relaxed positive affect, and safe/content positive affect. It was the safe/content positive affect that had the highest negative correlations with depression, anxiety and stress, self-criticism, and insecure attachment. Hence, greater clarity on the different types and functions of positive affect may demystify the relationship between positive emotions and well-being.

Gillath, O., E. Selcuk, et al. (2008). **"Moving toward a secure attachment style: Can repeated security priming help?"** *Social and Personality Psychology Compass* 2(4): 1651-1666. <http://dx.doi.org/10.1111/j.1751-9004.2008.00120.x>

Despite the abundant literature on attachment processes and the development of a secure or insecure attachment orientation during childhood, it is still unclear whether adult attachment style can be changed through systematic interventions, and if so how the change process works. One way to learn more about such change is to create it, on a small scale, in the laboratory. It is already known that a person's sense of security can be momentarily changed in the laboratory (Mikulincer & Shaver, 2007a). But there is clearly a difference between very short-term and longer-term change. According to Bowlby (1982), the development of an attachment orientation in childhood is based on many encounters and interactions with caregivers, which gradually create a mental network of relatively stable expectations and concerns. Thus, it may take many episodes of security priming in a laboratory to begin to affect a young adult's attachment style in a lasting way. Here, we explore this possibility, review existing evidence from our own and other researchers' laboratories, and discuss directions for future research.

Hutcherson, C. A., E. M. Seppala, et al. (2008). **"Loving-kindness meditation increases social connectedness."** *Emotion* 8(5): 720-724. [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=18837623](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=18837623)

The need for social connection is a fundamental human motive, and it is increasingly clear that feeling socially connected confers mental and physical health benefits. However, in many cultures, societal changes are leading to growing social distrust and alienation. Can feelings of social connection and positivity toward others be increased? Is it possible to self-generate these feelings? In this study, the authors used a brief loving-kindness meditation exercise to examine whether social connection could be created toward strangers in a controlled laboratory context. Compared with a closely matched control task, even just a few minutes of loving-kindness meditation increased feelings of social connection and positivity toward novel individuals on both explicit and implicit levels. These results suggest that this easily implemented technique may help to increase positive social emotions and decrease social isolation.

Jaremka, L. M., R. Glaser, et al. (2013). **"Attachment anxiety is linked to alterations in cortisol production and cellular immunity."** *Psychological Science* 24(3): 272-279. <http://pss.sagepub.com/content/24/3/272.abstract>

Although evidence suggests that attachment anxiety may increase risk for health problems, the mechanisms underlying these effects are not well understood. In the current study, married couples (N = 85) provided saliva samples over 3 days and blood samples on two occasions. Participants with higher attachment anxiety produced more cortisol and had fewer numbers of CD3+ T cells, CD45+ T cells, CD3+CD4+ helper T cells, and CD3+CD8+ cytotoxic T cells than participants with lower attachment anxiety. Higher cortisol levels were also related to fewer numbers of CD3+, CD45+, CD3+CD4+, and CD3+CD8+ cells, which is consistent with research showing that cortisol alters the cellular immune response. These data suggest that attachment anxiety may have physiological costs, and they provide a glimpse into the pathways through which social relationships affect health. The current study also extends attachment theory in an important new direction by demonstrating the utility of a psychoneuroimmunological approach to the study of attachment anxiety, stress, and health.

Kirchmann, H., R. Steyer, et al. (2011). **"Effects of adult inpatient group psychotherapy on attachment characteristics: An observational study comparing routine care to an untreated comparison group."** *Psychotherapy Research* 22(1): 95-114. <http://dx.doi.org/10.1080/10503307.2011.626807>

This study investigated the changes in attachment characteristics of patients undergoing inpatient group psychotherapy in routine care. We collected data from 265 consecutively recruited patients and 260 non-clinical control persons using self-report measures of attachment, depression, and socio-demographic characteristics. The effects of treatment on patients were analyzed using propensity score techniques (propensity strata and logit-transformed propensity scores) in combination with a generalized analysis of covariance. A moderate increase of attachment security was found which could be attributed to a decrease both in attachment anxiety and avoidance. Pre-post improvements in attachment with regard to romantic partnerships were stable after a 1-year follow-up. Furthermore, we found significant treatment-covariate interactions indicating that subjects with particularly high treatment propensities (propensities were highly correlated with depression and attachment anxiety) improved the most in terms of attachment security. Our results are encouraging for psychotherapeutic practice in that they provide evidence that long-term attachment improvements can be reached via psychotherapy. Our results will also provide a sound basis for future studies in the field of clinical attachment research, e.g., studies examining whether improved attachment security is correlated to symptom improvements in different psychological disorders.

Lambert, N. M., F. D. Fincham, et al. (2010). **"Motivating change in relationships: Can prayer increase forgiveness?"** *Psychological Science* 21(1): 126-132. <http://www.ncbi.nlm.nih.gov/pubmed/20424033>

The objective of the current studies was to test whether praying for a relationship partner would increase willingness to forgive that partner. In Study 1 (N = 52), participants assigned to pray for their romantic partner reported greater willingness to forgive that partner than those who described their partner to an imagined parent. In Study 2 (N = 67), participants were assigned to pray for a friend, pray about any topic, or think positive thoughts about a friend every day for 4 weeks. Those who prayed for their friend reported greater forgiveness for their friend than did those in the other two conditions, even when we controlled for baseline forgiveness scores. Participants who prayed for their friend also increased in selfless concern during the 4 weeks, and this variable mediated the relationship between experimental condition and increased forgiveness. Together, these studies provide an enhanced understanding of the relationship benefits of praying for a partner and begin to identify potential mediators of the effect.

McBride, C., L. Atkinson, et al. (2006). **"Attachment as moderator of treatment outcome in major depression: A randomized control trial of interpersonal psychotherapy versus cognitive behavior therapy."** *J Consult Clin Psychol* 74(6): 1041-1054.

[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17154734](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17154734)

Anxiety and avoidance dimensions of adult attachment insecurity were tested as moderators of treatment outcome for interpersonal psychotherapy (IPT) and cognitive-behavioral therapy (CBT). Fifty-six participants with major depression were randomly assigned to these treatment conditions. Beck Depression Inventory--II, Six-Item Hamilton Rating Scale for Depression scores, and remission status served as outcome measures. Patients higher on attachment avoidance showed significantly greater reduction in depression severity and greater likelihood of symptom remission with CBT as compared with IPT, even after controlling for obsessive-compulsive and avoidant personality disorder symptoms. Results were replicated across treatment completers and intent-to-treat samples. These results suggest that it is important to consider the interaction between attachment insecurity and treatment type when comparing efficacy of treatments.

Mikulincer, M. and P. R. Shaver (2011). **Adult attachment and caregiving: Individual differences in providing a safe haven and secure base to others.** *Moving beyond self-interest: Perspectives from evolutionary biology, neuroscience, and the social sciences*. S. L. Brown, R. M. Brown and L. A. Penner. New York, Oxford University Press.

Over the past two decades, we have been working to develop Bowlby's (1982) and Ainsworth's (Ainsworth, Blehar, Waters, & Wall, 1978) attachment theory into a general theory of adult personality and social behavior in relationships (see Mikulincer & Shaver, 2007) for a review. The theory was first developed as a way of understanding human infants' emotional attachments to their parents and other primary caregivers, and the first measures of individual differences in attachment behavior were designed to study infant-mother interactions in the laboratory. Several investigators subsequently developed ways to assess attachment patterns in adults and adult relationships (e.g., Hazan & Shaver, 1987, with numerous replications and extensions reviewed by Mikulincer & Shaver, 2007; Main, Kaplan, & Cassidy, 1985, with numerous replications and extensions reviewed by Hesse, 2008). Meanwhile, attachment theory itself has been greatly expanded to address issues uncovered in studies of adults. One of these expansions concerns Bowlby's (1982) division of human motivation, especially social motivation, into several domains, such as attachment, exploration, caregiving, and sex (Mikulincer & Shaver, 2006). Bowlby (1982) proposed that each of these domains is governed by an innate "behavioral system," which has its own particular goals, strategies, and cognitive regulators. In this chapter we are interested specifically in two of the behavioral systems – attachment and caregiving. The first of these, attachment, was hypothesized by Bowlby (1982) to govern one person's (e.g., an infant's) reliance on another person (e.g., a parent) for protection and support, especially when fear was aroused or help was needed. The second of these behavioral systems, caregiving, was hypothesized by Bowlby to be the motivational heart of a parent's (or other adult's) response to a child's distress or need for support or assistance. In our opinion, this system is also the core of all empathic, compassionate reactions to another person's needs (Shaver, Mikulincer, & Shemesh-Iron, in press). It presumably evolved originally because it increased "inclusive fitness" (Hamilton, 1964) by enhancing the survival of multiple others with whom a person shared genes, but it is a capacity that can be extended by social learning. In this chapter we first explain the behavioral system construct in more detail and then show how individual differences in a person's attachment system affect the functioning of the caregiving system. We review examples from the fairly large literature on attachment and what attachment theorists call providing a "safe haven" for others in distress. We review the few studies that have addressed how individual differences in attachment affect what theorists call providing a "secure base" for others' exploration and self-development. We then describe new studies concerned with this issue.

Mikulincer, M. and P. R. Shaver (2012). **"An attachment perspective on psychopathology."** *World Psychiatry* 11(1): 11-15. <http://www.ncbi.nlm.nih.gov/pubmed/22294997>

In recent years, attachment theory, which was originally formulated to describe and explain infant-parent emotional bonding, has been applied to the study of adolescent and adult romantic relationships and then to the study of psychological processes, such as interpersonal functioning, emotion regulation, coping with stress, and mental health. In this paper, we offer a brief overview of the attachment perspective on psychopathology. Following a brief account of attachment theory, we go on to explain how the study of individual differences in adult attachment intersects with the study of psychopathology. Specifically, we review research findings showing that attachment insecurity is a major contributor to mental disorders, and that the enhancement of attachment security can facilitate amelioration of psychopathology.

Mikulincer, M., P. R. Shaver, et al. (2012). **"An attachment perspective on therapeutic processes and outcomes."** *Journal of Personality*. <http://www.ncbi.nlm.nih.gov/pubmed/22812642>

Over the past decade there has been an explosion of interest in clinical applications of attachment theory. In the present paper, we briefly describe John Bowlby's model of therapeutic change, the therapeutic relationship, and the therapist's role in emotional healing. We then review empirical evidence for three key propositions in Bowlby's model. First, a client's sense of security during therapy is crucial for facilitating therapeutic work. Second, a therapist's own sense of security contributes to positive therapeutic outcomes. Third, attachment insecurities can be effectively reduced in therapy, and movement toward greater attachment security is central to achieving favorable therapeutic outcomes. In sum, research evidence confirms the importance of establishing what Bowlby called a safe haven and a secure base within a therapeutic relationship.

Neustadt, E. A., T. Chamorro-Premuzic, et al. (2011). **"Attachment at work and performance."** *Attachment & Human Development* 13(5): 471-488. <http://dx.doi.org/10.1080/14616734.2011.602254>

This paper examines the relations between self-reported attachment orientation at work and personality, self-esteem, trait emotional intelligence (aka emotional self-efficacy), and independently assessed career potential and job performance. Self-report data were collected from 211 managers in an international business in the hospitality industry; independent assessments of these managers' job performance and career potential were separately obtained from the organization. A self-report measure of romantic attachment was adapted for application in the work context; a two-factor solution was found for this measure. Secure/autonomous attachment orientation at work was positively related to self-esteem, trait emotional intelligence,

extraversion, agreeableness, and conscientiousness, and also to job performance. Not only was secure/autonomous attachment orientation at work statistically predictive of job performance, but the new measure also made a distinct contribution, beyond conscientiousness, to this prediction.

Obegi, J. H., P. R. Shaver, et al. (2009). **"A framework for attachment-based psychotherapy with adults."** *The New Therapist*. <http://www.humanqivens.com/pages.php?pageid=16>

Over the past decade there has been an explosion of interest in the clinical applications of attachment theory. Indeed, a number of authors have described attachment-related therapies, a term we use to describe any clinical approach that invokes attachment concepts and relies on attachment research to facilitate clinical work. With varying degrees of completeness, authors have described therapies for couples, families, infant-parent dyads, children, and adults. Among these therapies, two broad types can be discerned: attachment-based psychotherapy and attachment-informed psychotherapy (Obegi & Berant, 2009). By attachment-based psychotherapy we mean therapy that relies extensively on attachment theory to conceptualize problems, assess personality, and define clinical interventions. In many cases, the efficacy of this kind of therapy has been, or is being, actively researched. In contrast, we use the term attachment-informed psychotherapy to refer to therapy in which attachment theory and research are used to inform and supplement clinical practice based on some other established clinical approach (e.g., cognitive-behavioral therapy). Although we imagine that Bowlby, a psychoanalyst and the founder of attachment theory, would find the proliferation of clinical applications of his theory encouraging, at this point the precise nature of an emerging attachment-related therapy is unclear. Bowlby (1988) himself offered only a brief sketch of how he thought attachment-related concepts and insights could be put to clinical use. Since Bowlby (1973, 1980, 1982) published his landmark trilogy on attachment theory, subsequent theorists have refined his ideas, and many researchers have provided supportive and theory-extending findings. Given this rich but very complicated research context, it is necessary to consider what the central components of an attachment-based psychotherapy should be. We hope that engaging with us in this exercise will orient clinicians to ideas and research that can enhance their clinical work as well as ground the growing number of attachment-related therapies in a common framework. Of course, our discussion of these issues reflects our personal clinical and research experience; it is only a beginning, a work in progress that remains open to dialogue, further theoretical refinements, new empirical research, and practice-based insights into using attachment theory and research in clinical settings. Our discussion is organized around themes thought to be useful in analyzing any form of psychotherapy (Gurman & Messner, 2003). For the sake of brevity, we present our framework primarily in theoretical terms and refer readers to representative studies and authoritative literature reviews.

Pepping, C. A., P. J. Davis, et al. (2013). **"Individual differences in attachment and dispositional mindfulness: The mediating role of emotion regulation."** *Personality and Individual Differences* 54(3): 453-456. <http://www.sciencedirect.com/science/article/pii/S0191886912004886>

Recent interest in the relationship between individual differences in attachment and dispositional mindfulness has led to empirical investigations into this association. Although several studies have demonstrated an association between attachment and mindfulness, little is known as to why these two seemingly distinct constructs are related. In a sample of 572 individuals we explored whether the relationship between attachment and mindfulness was mediated by emotion regulation difficulties. Difficulties in emotion regulation fully mediated the association between attachment anxiety and mindfulness, and between attachment avoidance and mindfulness. Thus, the mechanism by which attachment and mindfulness are related is through emotion regulation difficulties. Theoretical and clinical implications are discussed.

Petrowski, K., D. Pokorny, et al. (2012). **"The therapist's attachment representation and the patient's attachment to the therapist."** *Psychotherapy Research* 23(1): 25-34. <http://dx.doi.org/10.1080/10503307.2012.717307>

This study examines the relationship between the therapist's own attachment representation (Adult Attachment Interview, AAI) and the patient's attachment relationship to the therapist (client's attachment to the therapist, CATS). The attachment representations of n=22 psychotherapists who treated n=429 patients were assessed. A general effect of the secure/insecure therapist attachment status on the attachment of the patient to the therapist was not found whereas the more specific effects expected could be confirmed: The more preoccupied the therapist's attachment status was, the more the patient experienced a preoccupied-merger attachment to the therapist. The more dismissing the therapist's attachment status was, the more the patient experienced an avoidant-fearful attachment to the therapist. In summary, not the general security/insecurity of the therapist's attachment representation but rather the type of the insecurity is associated with the subjective patient's attachment-related experience of the therapeutic dyad.

Pilnick, A. and R. Dingwall (2011). **"On the remarkable persistence of asymmetry in doctor/patient interaction: A critical review."** *Social Science & Medicine* 72(8): 1374-1382. <http://www.sciencedirect.com/science/article/B6VBF-52BPK67-3/2/f9a95550783964b332f84b6f7ecbefe1>

Doctor/patient interaction has been the object of various reform efforts in Western countries since the 1960s. It has consistently been depicted as enacting relationships of dominance or oppression. Most younger medical practitioners have received interaction skills training during their professional education, intended to encourage more equal forms of consultation behaviour. However, the evidence that 'patient-centredness' has a positive impact on health outcomes is at best mixed. At the same time, empirical studies of consultations point to the remarkable persistence of asymmetry. These two factors together suggest that asymmetry may have roots that are inaccessible to training programmes in talking practices. Illustrating our argument with findings from conversation analytic studies of doctor/patient interaction, we suggest that asymmetry lies at the heart of the medical enterprise: it is founded in what doctors are there for. As such, we argue that both critical and consumerist analysts and reformers have crucially misunderstood the role and nature of medicine.

Rizq, R. (2011). **"Personal therapy in psychotherapeutic training: Current research and future directions."** *Journal of Contemporary Psychotherapy* 41(3): 175-185. <http://dx.doi.org/10.1007/s10879-010-9168-7>

Recent research literature in the field of personal therapy for psychotherapists shows that therapists claim overwhelmingly positive outcomes with few negative effects (Orlinsky et al., *The Psychotherapist's own psychotherapy: Patient and clinician perspectives*. Oxford University Press, Oxford, 2005). However, there has been little interest to date in the extent to which the personal characteristics of therapists might have a bearing on the way in which personal therapy is experienced in psychotherapeutic training. This paper reviews some of the current research in the field and then discusses a subset of results from a small-scale qualitatively-driven study (Rizq and Target, *Counselling Psychology Quarterly* 23(4):1-27, 2010b) suggesting that early attachment experience may be a relevant factor in understanding how a mandatory training therapy is perceived and experienced within psychotherapeutic training. Implications for psychotherapeutic education are briefly discussed and some directions for future research proposed.

Sabol, T. J. and R. C. Pianta (2012). **"Recent trends in research on teacher-child relationships."** *Attachment & Human Development* 14(3): 213-231. <http://dx.doi.org/10.1080/14616734.2012.672262>

Theoretical and empirical work on relationships between teachers and children relies on developmental systems theory as the foundational conceptual model, drawing heavily from basic work in attachment as well as research on social development. Recently, the focus on relational processes in effort to support children's development in the classroom has proliferated, with multiple disciplines and fields engaging in research on teacher-child relationship quality to understand and improve the experiences and learning of students. This paper updates the conceptual framework and continues the necessary integration between disciplines by exploring three areas of research: (1) concordance between children's relationships with teachers and parents; (2) the moderating role of teacher-child relationships for the development of at-risk children; and (3) training teachers from a relational perspective. Each of the three areas of research on teacher-child relationships is examined in light of recent findings and considers implications for understanding the nature and impact of relationships between teachers and children.

Schaubenburg, H., A. Buchheim, et al. (2009). **"The influence of psychodynamically oriented therapists' attachment representations on outcome and alliance in inpatient psychotherapy."** *Psychotherapy Research* 20(2): 193-202. <http://www.tandfonline.com/doi/abs/10.1080/10503300903204043>

The Adult Attachment Interview (AAI) was used to study 31 psychotherapists who treated 1,381 patients in intensive multimodal inpatient psychotherapy. AAI dimensional ratings of security versus insecurity and dismissiveness versus preoccupation were used to predict alliance and outcome via multilevel regression techniques (hierarchical linear modeling). There were no main effects of therapists' attachment dimensions. However, higher attachment security of the therapist was associated with both better alliance and outcome in more severely impaired patients. Implications of the findings as well as limitations of the study are discussed.

Shaver, P. R. and M. Mikulincer (2010). **A general attachment-theoretical framework for conceptualizing interpersonal behavior: Cognitive-motivational predispositions and patterns of social information processing.** *Handbook of interpersonal psychology: Theory, research, assessment, and therapeutic interventions*. L. M. Horowitz and S. Strack. New York, Wiley.

Attachment theory, created by Bowlby (1973, 1980, 1982) and initially rendered testable by Ainsworth (e.g., Ainsworth, Blehar, Waters, & Wall, 1978), has become one of the leading approaches to conceptualizing and studying close interpersonal relationships. (See Cassidy & Shaver, 2008, and Mikulincer & Shaver, 2007a, for overviews of attachment research in general and attachment theory applied to the study of adult relationships in particular.) The theory postulates core motivational, or behavioral, "systems" such as attachment, exploration, caregiving, and sexuality, which humans share to some extent with nonhuman primates (Bowlby, 1982). It characterizes these systems as having experientially modifiable parameters, which (in addition to modest genetic influences), account for relatively stable individual differences in what has come to be called "attachment style" (see Mikulincer & Shaver, 2007a, for a history of this construct). In this chapter we explore the relevance of attachment theory for understanding individual differences in interpersonal behavior, and we propose a general attachment-oriented framework for conceptualizing interpersonal behavior. We begin with a brief summary of attachment theory and an account of the two major dimensions of attachment style in adulthood, attachment anxiety and avoidance. We then review evidence concerning the associations between these dimensions and interpersonal behavior, proposing that the associations are mediated by both attachment-related cognitive-motivational predispositions and patterns of social information processing. Next we review studies of the ways in which attachment style contributes to a person's goal structures, mental representations of self and others, and mental scripts concerning interpersonal transactions as well as information-processing biases during social interactions. Finally, we consider factors responsible for individual differences in attachment style, including genetic and environmental influences.

Taylor, R. E., T. Marshall, et al. (2012). **"Insecure attachment and frequent attendance in primary care: A longitudinal cohort study of medically unexplained symptom presentations in ten uk general practices."** *Psychological Medicine* 42(04): 855-864. <http://dx.doi.org/10.1017/S0033291711001589>

Background In primary care frequent attenders with medically unexplained symptoms (MUS) pose a clinical and health resource challenge. We sought to understand these presentations in terms of the doctor-patient relationship, specifically to test the hypothesis that such patients have insecure emotional attachment. Method We undertook a cohort follow-up study of 410 patients with MUS. Baseline questionnaires assessed adult attachment style, psychological distress, beliefs about the symptom, non-specific somatic symptoms, and physical function. A telephone interview following consultation assessed health worry, general practitioner (GP) management and satisfaction with consultation. The main outcome was annual GP consultation rate. Results Of consecutive attenders, 18% had an MUS. This group had a high mean consultation frequency of 5.24 [95% confidence interval (CI) 4.79-5.69] over the follow-up year. The prevalence of insecure attachment was 28 (95% CI 23-33) %. A significant association was found between insecure attachment style and frequent attendance, even after adjustment for sociodemographic characteristics, presence of chronic physical illness and baseline physical function [odds ratio (OR) 1.96 (95% CI 1.05-3.67)]. The association was particularly strong in those patients who believed that there was a physical cause for their initial MUS [OR 9.52 (95% CI 2.67-33.93)]. A possible model for the relationship between attachment style and frequent attendance is presented. Conclusions Patients with MUS who attend frequently have insecure adult attachment styles, and their high consultation rate may therefore be conceptualized as pathological care-seeking behaviour linked to their insecure attachment. Understanding frequent attendance as pathological help seeking driven by difficulties in relating to caregiving figures may help doctors to manage their frequently attending patients in a different way.

Verschueren, K., S. Doumen, et al. (2012). **"Relationships with mother, teacher, and peers: Unique and joint effects on young children's self-concept."** *Attachment & Human Development* 14(3): 233-248. <http://dx.doi.org/10.1080/14616734.2012.672263>

This study tested the unique and joint effects of three significant relationships in young children's social lives, namely their relationships with mother, teacher, and peers, on three dimensions of self-concept (general, academic, and social). A sample of 113 children participated. Mother-child attachment quality was observed in preschool. In first grade, teacher ratings of teacher-child relationship quality, peer ratings of peer acceptance, and child reports of self-concept were administered. The results revealed domain-specific links between social relationships and self-concept dimensions. Specifically, academic self-concept related to teacher-child relationship quality, social self-concept to peer acceptance, and general self-concept to the quality of attachment to mother. Moreover, an indirect effect was revealed of earlier mother-child attachment quality on the academic dimension of self through its effect on current adult-child relationships in school. This way, the study uncovered the pathways through which significant social relationships shape the formation of young children's self-concept.

Verschueren, K. and H. M. Y. Koomen (2012). **"Teacher-child relationships from an attachment perspective."** *Attachment & Human Development* 14(3): 205-211. <http://dx.doi.org/10.1080/14616734.2012.672260>

This special issue aims to prompt reflection on the mutual contribution of attachment theory, on the one hand, and teacher-child relationship research, on the other, by bringing together conceptual and empirical contributions taking an attachment perspective on teacher-child relationships. In this introductory article, we contend that the teacher can be regarded as an ad hoc attachment figure with a safe haven and secure base function, although for most children the relationship with the teacher is probably not an attachment bond. Furthermore, we explain how attachment theory and research: (1) shape the way in which "high quality" teacher-child relationships are conceptualized and operationalized; (2) highlight the importance of teacher sensitivity to children's needs, as a central proximal determinant of relationship quality; (3) guide research hypotheses regarding the consequences of teacher-child relationship quality and the intervening mechanisms; and (4) inspire the development of interventions to improve teacher-child relationships.

Wei, M., K. Y.-H. Liao, et al. (2011). **"Attachment, self-compassion, empathy, and subjective well-being among college students and community adults."** *Journal of Personality* 79(1): 191-221. <http://dx.doi.org/10.1111/j.1467-6494.2010.00677.x>

(Free full text article): Research on subjective well-being suggests that it is only partly a function of environmental circumstances. There may be a personality characteristic or a resilient disposition toward experiencing high levels of well-being even in unfavorable circumstances. Adult attachment may contribute to this resilient disposition. This study examined whether the association between attachment anxiety and subjective well-being was mediated by Neff's (2003a, 2003b) concept of self-compassion. It also examined empathy toward others as a mediator in the association between attachment avoidance and subjective well-being. In Study 1, 195 college students completed self-report surveys. In Study 2, 136 community adults provided a cross-validation of the results. As expected, across these 2 samples, findings suggested that self-compassion mediated the association between attachment anxiety and subjective well-being, and emotional empathy toward others mediated the association between attachment avoidance and subjective well-being.

Westra, H. A., A. Aviram, et al. (2011). **"Therapist emotional reactions and client resistance in cognitive behavioral therapy."** *Psychotherapy (Chic)*. <http://www.ncbi.nlm.nih.gov/pubmed/21688931>

Although extensively discussed in theoretical papers, empirical studies of therapist emotional reactions to clients are lacking, particularly within the context of client resistance and cognitive-behavioral therapy (CBT). The present study examined the early positive and negative emotional reactions to clients of four therapists, together with observed client in-session resistance, and changes in resistance from early to midtreatment, in a sample of 30 outpatients receiving eight sessions (14 hr) of CBT for generalized anxiety disorder. Findings indicated that greater therapist early positive reactions to clients, especially liking, enjoyment, and attachment, were associated with significantly lower levels of client resistance midtreatment and greater reductions in client resistance from early to midtreatment. These effects were independent of therapist competence in delivering CBT, suggesting a potentially unique and important role for therapist feelings about clients beyond the skillful delivery of treatment techniques. Greater early negative therapist reactions to clients were less consistently related to client resistance but power struggles, and feeling drained, helpless, guilty, and frustrated were associated with higher levels of client subsequent resistance.

Wittenborn, A. K. (2012). **"Exploring the influence of the attachment organizations of novice therapists on their delivery of emotionally focused therapy for couples."** *J Marital Fam Ther* 38: 50-62. <http://dx.doi.org/10.1111/j.1752-0606.2012.00290.x>

Clinicians' own internal resources for understanding relationships—that is, their attachment organizations—have been found to influence the process and outcome of treatment. The current study addressed whether the attachment organizations of novice couple and family therapists were associated with couples' experiences of their therapists, therapeutic alliance, session impact, and emotionally focused couple therapy (EFT) fidelity (i.e., especially as related to targeting and working with attachment needs and overt and underlying emotions). Novice couple and family therapists delivered EFT, an attachment-based approach, to couples in a simulated session and an embedded multicase study design guided a cross-case analysis. Findings indicated that secure therapists, when compared to their insecure peers, were more competent at working with attachment needs, as well as the overt and underlying emotions of their clients. Secure therapists perceived themselves as being more skilled in emotion regulation, which may have contributed to their abilities to remain attuned to their clients' attachment needs and emotional expression, even in the face of emotional arousal in session. Couples of insecure therapists also reported greater alliance splits. Future research is needed to further explore the dyadic influences of both therapists' and clients' attachment organizations, as well as the training and supervision practices these findings implicate.