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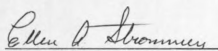
ADULT ATTACHMENT AND AFFECT REGULATION:
A TEST OF A STYLISTIC MODEL

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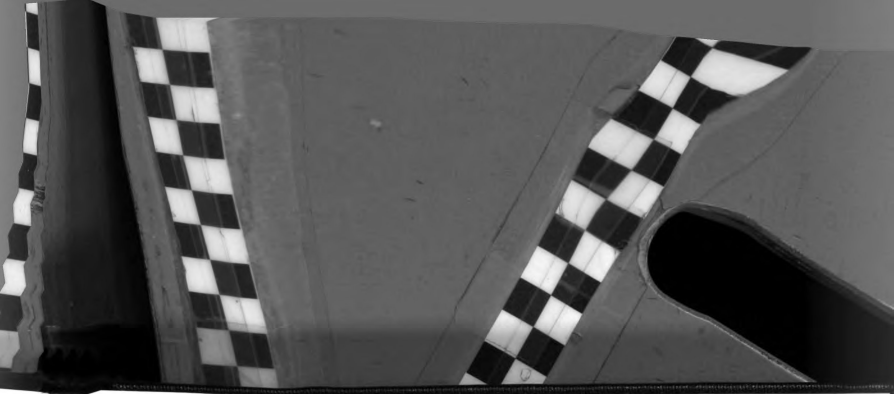
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of the requirements for

Ph.D. degree in Psychology


Major professor

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ADULT ATTACHMENT AND AFFECT REGULATION:
A TEST OF A STYLISTIC MODEL

By

James Mervyn Fuendeling

A DISSERTATION

Submitted to
Michigan State University,
in partial fulfillment of the requirements
for the degree

DOCTOR OF PHILOSOPHY

Department of Psychology

1998



ABSTRACT

ADULT ATTACHMENT AND AFFECT REGULATION: A TEST OF A STYLISTIC MODEL

By

James Mervyn Fuendeling

This project pursues the idea that consistent differences in the emotional experiences of individuals with different attachment styles are accompanied by systematic differences in the ways they regulate their affect. A broad range of findings, when reorganized according to a process level explanation of affect regulation, supports this idea. In order to further explore this model of affect regulation styles, a study was conducted in which 135 undergraduate participants responded to standard self report measures of attachment styles. Affect regulation was assessed using both a free response method developed for the study, and a revised version of the Ways of Coping Checklist (Folkman & Lazarus, 1980; Vitaliano, Russo, Carr, Maiuro & Becker, 1985). Results were mixed in terms of their support for specific hypotheses, but clearly support the larger idea that attachment styles include distinct styles of affect regulation. Differences were found in attributions and appraisal, where secures tended to see a situation as less threatening than did fearful avoidants, and blamed themselves for situations less than avoidants in general. Differences were also found in expression of both positive and negative emotions. Secures were more likely to be expressive of positive emotions, and avoidants were more likely to be expressive of negative emotions. These findings for expression were complex,

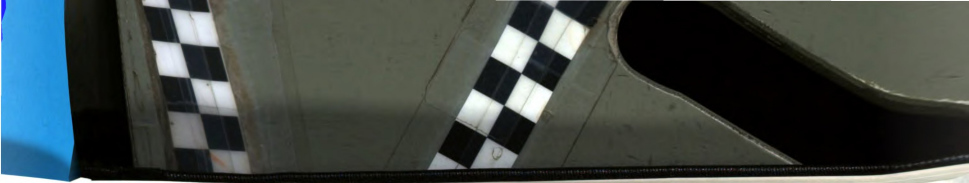




and included interactions of attachment style with situation. Effects were also observed for rumination, introduction of new goals, and scales of Ways of Coping. Implications of results on the validity of the self report measure are discussed, as well as theoretical implications of the findings.



This work is dedicated to Jerry Garcia,
who left us too soon, and whom we miss more than words can tell.
Thank you, and fare thee well.



ACKNOWLEDGMENTS

As I finish this dissertation, I offer my genuine thanks to all the members of my dissertation committee. Every one of them has been helpful and supportive in my production of this work, particularly in lending me their expertise while also encouraging me to conduct the research and write the paper according to my own design. I especially want to thank Ellen Strommen, my dissertation chair, for her unflagging support as I pursued my unique research interests. I doubt she realizes how crucial her help and encouragement have been in making the last years of my graduate training a positive experience. John Hurley, my guidance chair, has given me great practical support in pursuing various projects, and allowed me considerable flexibility in finding my own path through graduate training. I appreciate it. I thank Gershen Kaufman for his supervision of affect-theoretical aspects of my work, and, just as importantly, for his emotional support of me as a student and a person. Alex Von Eye has been very generous with his advice on quantitative issues and discussion of their relationship to other aspects of the research. Without his responsiveness to my questions and worries about statistical issues, it would have been extraordinarily difficult for me to finish this dissertation on schedule. Thanks also to Bert Karon for his willingness to join my committee on short notice, allowing me to finish the project.

I also want to thank Fred Lopez and the Attachment Research Group in the counseling psychology department for their collegial support, and for the opportunity they have afforded me to conduct research with a group of like minded people. Fred has served not only as a research supervisor, but as a role model for how I eventually hope to teach research skills to my own students.



Personal thanks go out to my parents, without whose emotional, practical, and financial support, my entire graduate training might not have been possible. They have been especially supportive as I worked through the last stages of this process, and I appreciate it tremendously. Thanks also to my friends, especially Frank DeMarco and Christine Edgar, who helped me maintain my sanity most of the time, and loved me anyway the other times. And very special thanks to Josette Cline, who has patiently shared me with this dissertation for two years now. Thanks, I love you.

I finished this dissertation while on internship in Chicago, and several people have been instrumental in making it possible for me to do so. Suzy Pavick, as always, has been helpful above and beyond any reasonable expectations in helping me navigate the logistics and bureaucracy involved in the process. Cheryl Carmin, of the University of Illinois at Chicago, in addition to being a fine clinical supervisor, was also supportive of my managing clinical responsibilities in a way which allowed me time to work on the dissertation. Thanks to Angie Cool at Indiana University for her careful and swift work coding data. And thanks also to my neighbors Cindy Gard and Craig Majewski for feeding me and reminding me to sleep while I wrote.

Because the dissertation is both a capstone and a watershed in an academic career, this seems an appropriate place to thank some other people. Part of the reason I have come this far in my education is because I had the good fortune to have a number of exceptional teachers along the way. I want to note several who not only taught me academic skills, but also instilled in me a special desire to learn, and helped me to view myself as a talented student and scholar. Early on, Ms Greiner, Susan Dutcher, Ed Cox, and George Truscott of the Palo Alto public schools helped me develop both interest and discipline as a





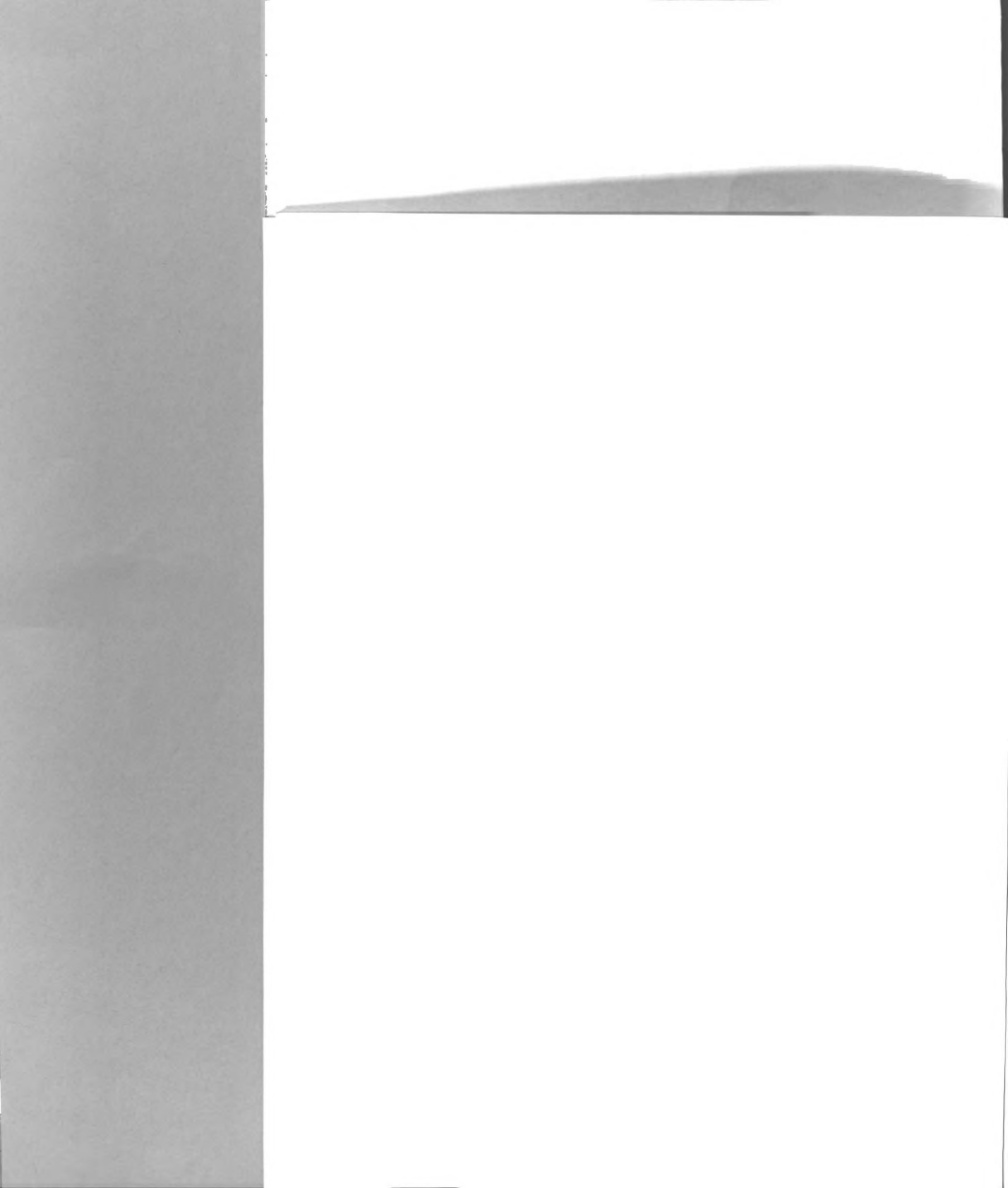
student. Barney Tanner, of Palo Alto High School, made a particular impression on me, encouraging discipline in my approach to learning (it was years before this came to fruition, of course), and also emphasizing the importance of rhetoric and logic. In the course of sharing their own knowledge, Gilbert Sorrentino and Mark Lepper both demonstrated the possible rewards of an intellectual life and infected me with their own enthusiasm for their respective fields of modern literature and research design. Leonard Horowitz, Kim Bartholomew, and Vince D'Andrea all helped me in their own ways to find out what I loved about psychology, and to have the confidence to pursue it. Finally, C. Lee Winder and Rafael Frank, both of whom supervised my clinical work here at Michigan State, helped me learn to use my own talents and resources to become a better therapist.



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INTRODUCTION

Throughout our lives, many of our most intense emotional experiences will occur in the context of our close relationships. For young children, arguably all meaningful affect is structured by the context of caretaking relationships. A wealth of theory and research, ranging from traditional psychoanalysis to the cognitive developmental literature, has pursued the basic premise that our ability to experience emotions and regulate our affective experience is developmentally related to early relationships. In adult life, close relationships again provide a context which elicits and structures many of our most intense emotional experiences. Continuing research in personal relationships shows that our inner emotional life and overall style of regulating affect will also influence our ability to form and maintain these close relationships.

Attachment theory (Bowlby, 1973, 1980, 1982) provides a useful conceptual framework for integration of research and theory on such topics relevant to close relationships (Hazan & Shaver, 1994). Attachment theory is, of course, primarily concerned with close relationships and inherently developmental. The theory is also intended to be integrative, drawing on aspects of dynamic theories as well as cognitive and control systems theories. This nature of attachment theory encourages investigations of complex intrapsychic phenomenon in a way which allows multiple levels of analysis while maintaining theoretical coherence. Just as importantly, attachment theory has the issue of affect regulation near its core. One of the two basic goals which Bowlby (1982) hypothesized for the attachment behavioral system is maintenance of felt security. This regulation of affect can be relatively straightforward early in life, being accomplished through maintenance of



proximity to an attachment figure. But, as individuals' representation of attachment relationships become increasingly complex and differentiated (Sroufe & Fleeson, 1986), the actual mental and behavioral patterns which they use to regulate their affect will likewise change (Bartholomew, 1990; Crittenden, 1990; Main, 1991)

We know that adults' usual affective experience varies systematically with their attachment styles (Shaver & Clark, 1994), and research in attachment theory has already gone some way towards describing the different kinds of affective experience people have in their close relationships. More recently, the literature has progressed further to show that there are broad differences in affect regulation across adult attachment styles. It makes sense, then, that these different chronic affective experiences would be underlain and maintained by differing styles of affect regulation. That is, it seems likely that people with different attachment styles not only vary in how well they regulate their own affect, but also in how they regulate it.

The goal of this dissertation is to examine and demonstrate these styles of affect regulation which co-occur with, or may be a functional aspect of, attachment styles. This work begins by considering how affect regulation begins in early attachment relationships. A brief review of relevant theories on affect is presented, as well. From this foundation, I continue by reviewing findings from the adult attachment literature, reorganizing them in terms of a model of affect regulatory mechanisms and processes. The original research presented here follows from and builds upon the findings of this literature review.

To meet the goals of this project, it was important to assess multiple mechanisms of affect regulation as they related to a single event or stimulus. This allows the data to show not only differences in any particular mechanism of



affect regulation, but also different patterns across mechanisms. In order to allow this stylistic variation to emerge in the data, a free response method was designed. This method provided for assessment of aspects of emotional expression, appraisal processes, and planful ways of coping with upset, all as they relate to a single situation. Undergraduate students at Michigan State University responded to both the free response instrument designed for the study and to a standard self-report measure of emotional coping. Results of the research are discussed in terms of specific hypotheses and also their implications for the general issue of styles of affect regulation.

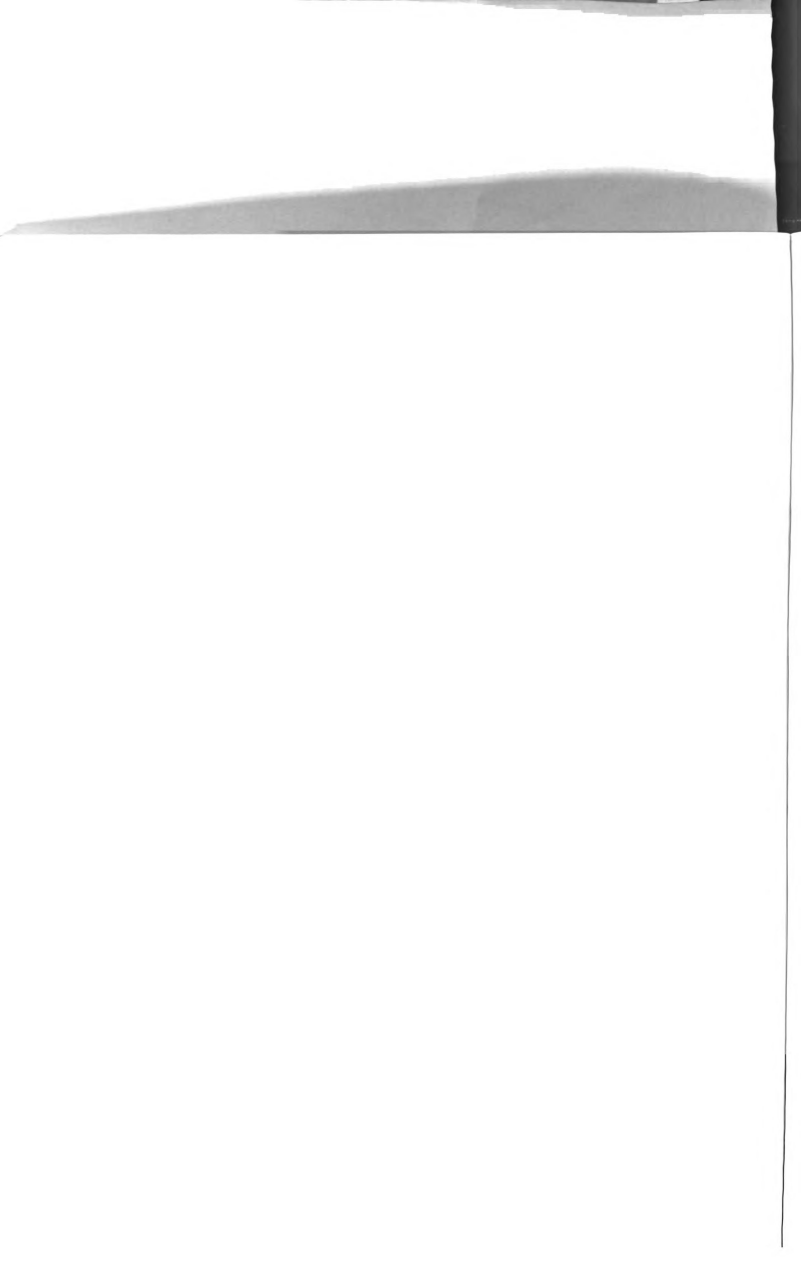


AFFECT REGULATION IN EARLY *ATTACHMENT* RELATIONSHIPS

Infants' Maintenance of Felt Security

Attachment theory sees much of infants' behavior as organized around the maintenance of proximity to the mother (or other primary caretaker). The psychological goal of this organization of behavior is the maintenance of felt security. Infants who are not able to establish or maintain proximity to their mothers experience anxiety as a result of their separation. From the start, this primitive form of affect regulation is seen as having two separate adaptive functions. The first perspective is essentially ethological, and has to do with anxiety's signal value with regard to danger in the infant's environment. Bowlby (1982) sees the infant's proximity maintaining behavior as an instinctive way of promoting safety by staying near a stronger caretaker. While human infants tend to live in less threatening environments than those available to lower animals, the adaptive value of this strategy persists phylogenetically because human infants are also relatively more helpless and dependent than the young of many other species.

The second, and complementary, perspective has to do with facilitation of exploratory behavior and other adaptive functioning on the part of the infant. Ainsworth (Ainsworth, Blehar, Waters & Wall, 1978) has developed the idea that a securely attached infant will use her mother as a base from which to explore the environment. An infant who is securely attached is confident that her mother will be available to return to. This psychological security facilitates exploration by allowing the infant to engage in exploration directed behavior without constantly attending to his mother's proximity. Insecurely attached infants, on the other hand, must devote more of their attention and effort to monitoring, and



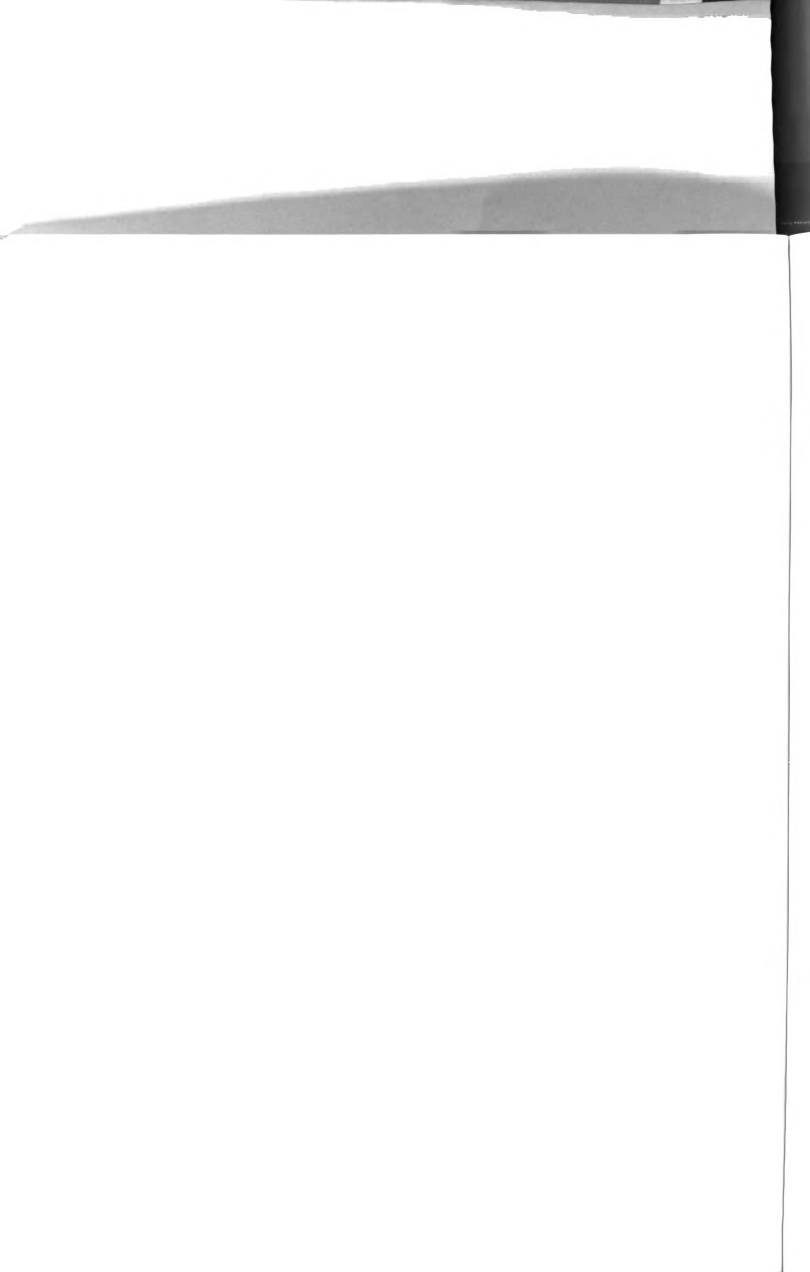


maintaining proximity to, the mother. This, *in turn*, detracts from their ability to engage in other activities. A growing body of work shows how styles of relationship maintenance developed in the early mother-child relationship persist, and influence functioning throughout childhood and probably beyond (see esp. Bretherton, 1990; Hazan & Shaver, 1990; Sroufe & Fleeson, 1986.)

A major determinant of the infant's security in this relationship is the mother's responsiveness to the child's needs and signals. An infant whose mother is appropriately responsive will learn early on to expect responsive caretaking and tend to feel secure in the infant-mother relationship. As the child develops locomotor abilities and begins to actively explore the environment, a mother who monitors her child and remains available teaches her child that he can use her as a secure base without the need for excessive effort at maintaining proximity. Conversely, a child who does not experience this kind of secure holding environment in his relationship with the mother will tend to be anxious about maintaining proximity. A child who learns from experience that the mother is not responsive and reliably available must monitor her availability constantly in order to maintain felt security. Since maintaining proximity to the mother--a form of affect regulation--is the first organizing principal of the child's behavior, this monitoring takes precedence over such other behaviors as exploration.

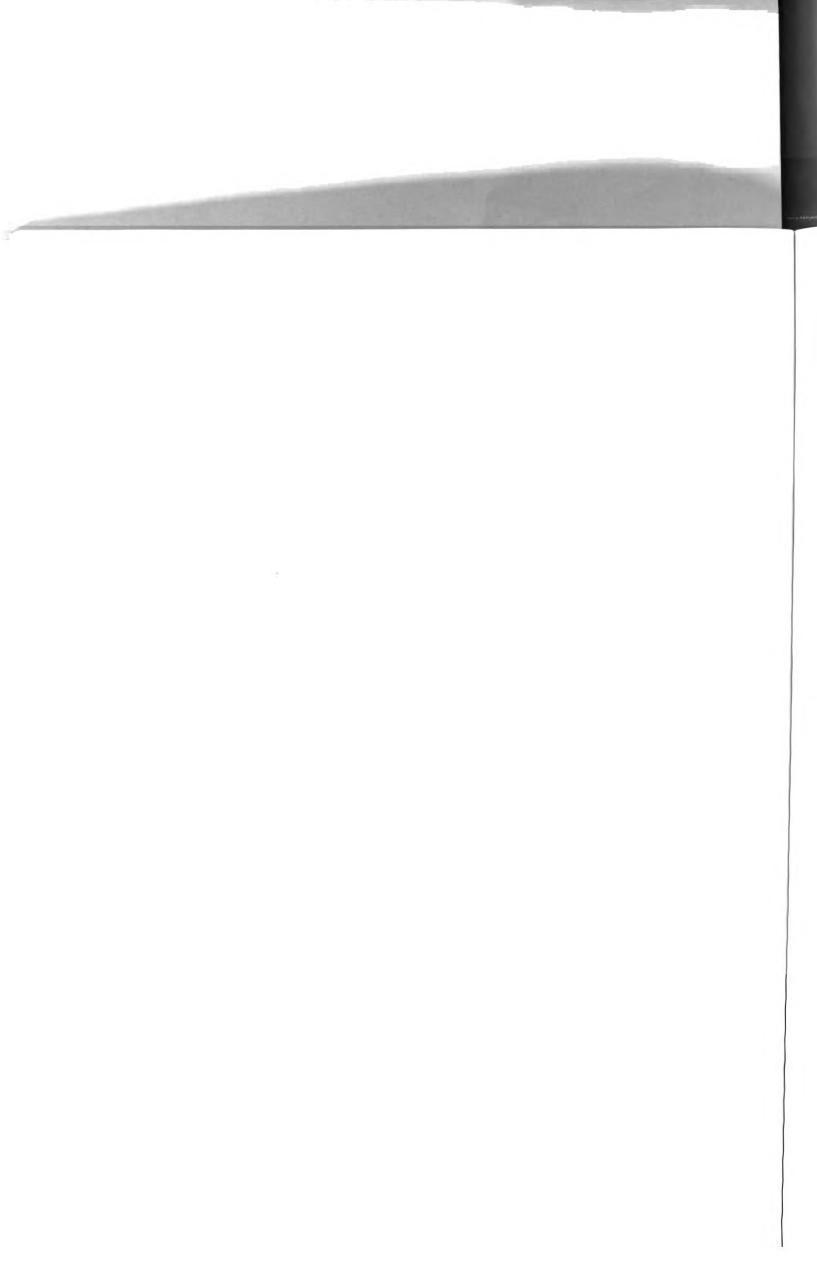
Regulation of Negative Affect Through Signal Value

Attachment theory places the genesis and regulation of emotion and accompanying behavior in the infant's interactions with the mother. Negative affect and accompanying behavior are activated by the experience of stimuli which are beyond the infant's voluntary control, not just distance from the mother





but also states such as being hungry or wet. *Once emotion is activated, the infant behaves in a way which has the function of communicating a need for care to the mother. Note that this communicative function does not rely on the infant's understanding the behavior as communication, although this understanding does develop in time (Bowlby, 1982).* In his later work, Bowlby extended the implications of mothers' responsiveness past early regulation of proximity to account for children's later emotional development. If a child's early experiences include having his or her needs met as a result of successfully interacting with the world (largely in the person of his mother), then the child will develop a sense of stability and self reliance. If, on the other hand, the child experiences uncertainty in having needs met, he or she is likely to grow up anxious and fearful (Bowlby, 1973). Kobak and his coworkers have expanded on these ideas to explain the development of affect regulation (Cassidy & Kobak, 1988; Kobak, Cole, Ferenz-Gillies, & Fleming, 1993; Kobak & Sceery, 1988). For the infant who experiences the mother as responsive and available, negative emotions like fear and anger serve an adaptive function. The expression of these emotions is a signal which reliably leads to improvement in the infant's situation through the mother's intervention. The repetition of such experiences engenders an ability to constructively modulate negative affect in accordance with realistic appraisal of the affect's immediate functional value. Conversely, infants whose signals of distress are not responded to appropriately are seen as adapting in one of two ways. The signaling behavior, which is the expression of negative affect, can either become chronically hyper-activated or be de-activated. The particular course of development followed by any child is apt to be determined by individual temperament and by differences in particular social environments. In either



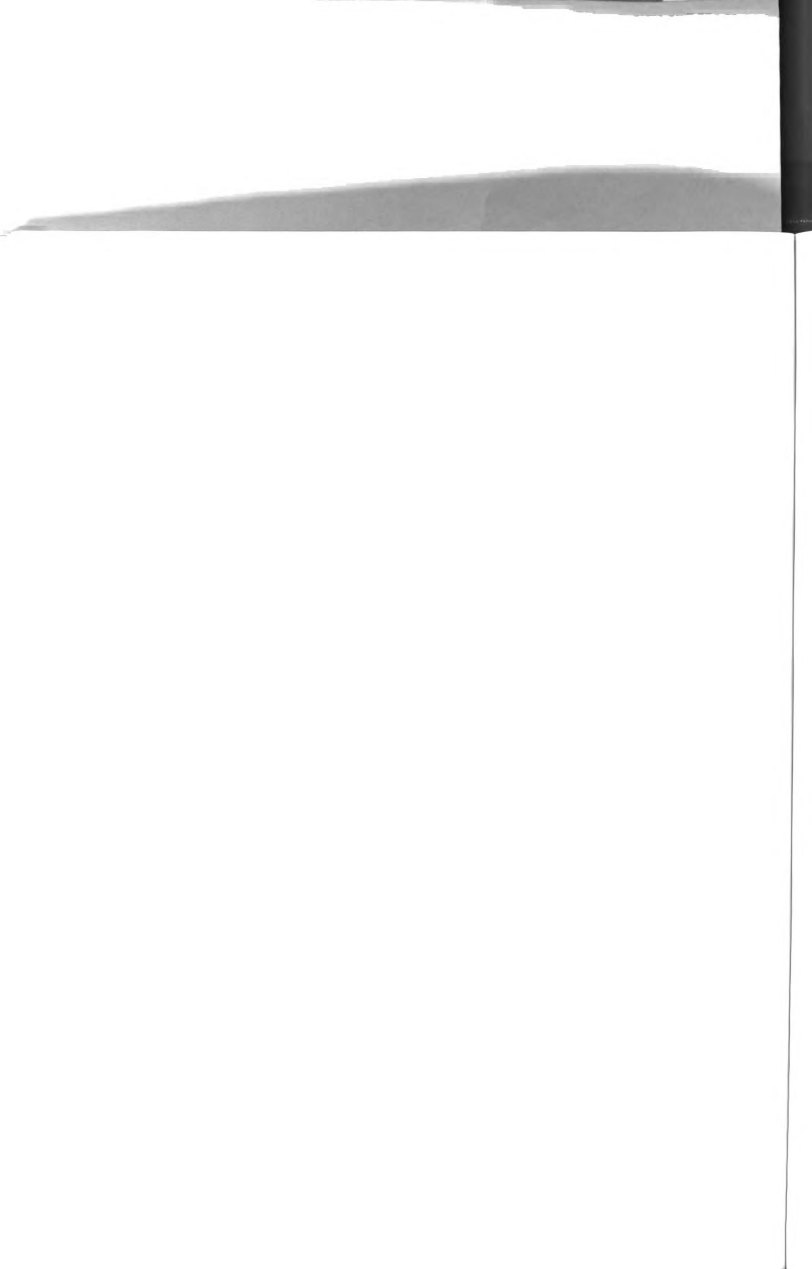


case, the change in affective expression is likely to be accompanied by an absence of positive emotional experience, because the infant never fully succeeds in capturing the mother's attention and thereby achieving a feeling of safety.

De-activation of emotional signaling behavior is accompanied by a general constriction of emotional experience as a defense against suffering. The defensive and self regulating nature of de-activation is demonstrated by the finding that these children will show mild sadness when they are alone, but will stop when an adult is present (cited in Cassidy & Kobak, 1988). In a related set of findings, Crittenden has shown that by middle childhood, some girls learn to manipulate their expressions of emotion to accommodate to their mothers' expectations (Crittenden, Partridge, & Claussen, 1992). This sort of behavior may provide clues to a child's social environment, indicating that distress is not only ignored by caretakers, but that expression of distress may be punished. It is important to note that the expressive function of early emotion actually resides in the accompanying communicative behavior. As Bowlby first pointed out (1973), this split between emotion and its expression may allow the two to have separate fates in later personality development.

Implications in Adult Personality.

The different strategies developed for managing negative affect in infancy and childhood will result in different approaches to these areas of functioning in adult relationships. Hazan and Shaver (1987) first applied typologies of infant attachment to approaches to romantic relationships. In their framework, the child who responds to unreliable caretaking with chronic hyper-activation of emotional expression is apt to be preoccupied with relationships in adulthood and seek





enmeshment with partners. This style is still, *at heart*, a way of managing felt anxiety through maintenance of proximity. As the infant responded to anxiety by maintaining near constant signaling of desire for the attachment figure's proximity, so does the adult seek to manage anxiety through enmeshment with a romantic partner. Preoccupied individuals will also tend to have erratic ability to regulate their own affect, which can be seen as resulting from their experience of inconsistent outcomes of early affective expression.

These people's preoccupation with attachment may also be related to their perceived need for attachment figures to mediate their interaction with the world. This need for instrumental, as well as social, support from others can be seen as growing from the early failure of the attachment relationship to maintain a balance between proximity maintenance and exploration. While these people spent disproportionate amounts of energy monitoring and maintaining proximity to attachment figures, they were not learning to explore and master their environment. Recalling that this behavior has its genesis in the experience of unreliable parenting, we can also expect preoccupied individuals to suffer chronic anxiety about the reliability, or security, of any relationships they are in. Thus, their neediness may reflect both unfulfilled emotional needs and a lack of practical mastery.

Bartholomew has developed a typology of adult attachment which differentiates avoidant styles based on the regulation of experiencing versus expressing negative affect around relationships (Bartholomew, 1990; Bartholomew & Horowitz, 1991; Brennan, Shaver & Tobey, 1991). This theory follows out the possible sequelae of de-activation of attachment related expression of negative affect in childhood. Avoidant individuals learned in childhood that others will not comfort them in response to their affective signals.

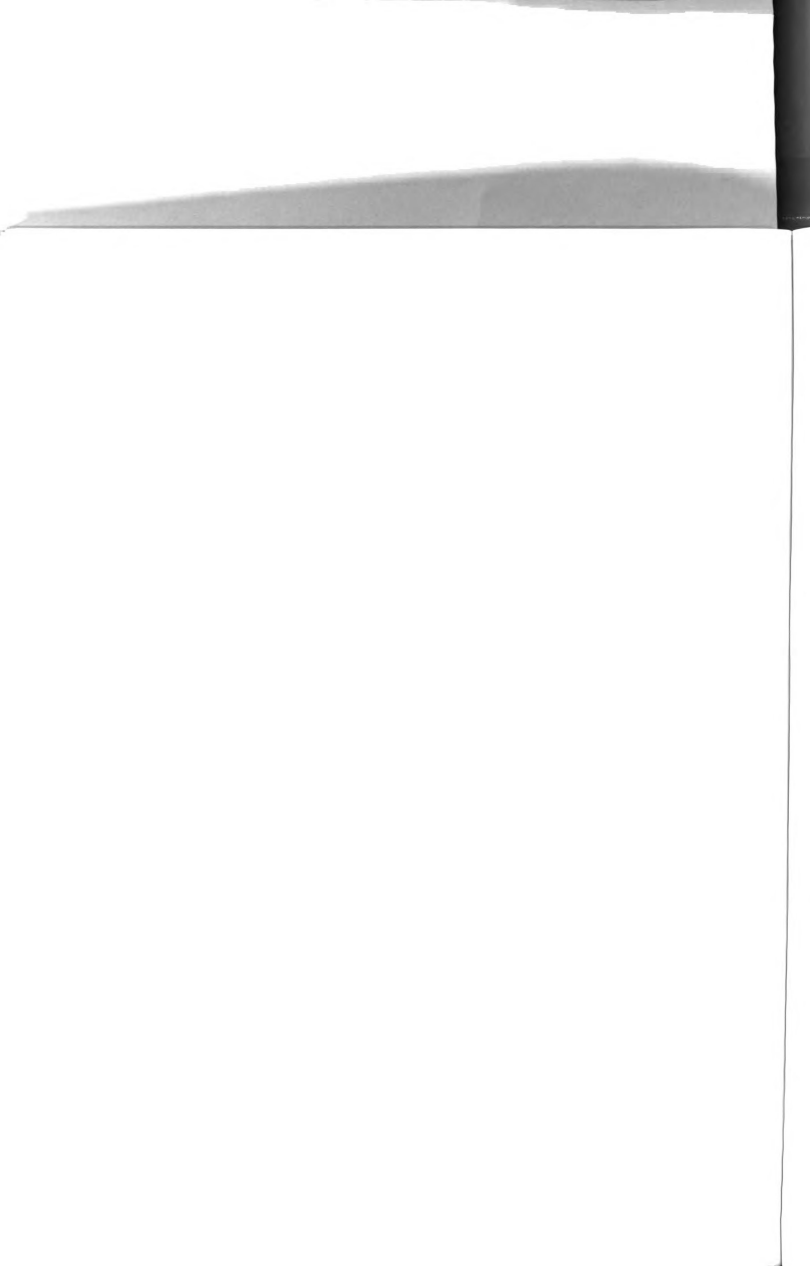


Thus, expression of negative affect is not instrumental for them, but is likely to lead to frustration instead. Expression of negative affect can thus begin a positive feedback loop which heightens, rather than abating, negative affect.

As children's development progresses, they are better able to differentiate their experience of affective states from their expression of those states. This leads to two different ways of managing negative affect. One is to deactivate expression of attachment needs and related negative affect. In this case the individual is aware of their desire for close relationships, but avoids emotional expression because of a learned fear of rejection. This style involves managing anxiety by avoiding close relationships which would lead to a heightened danger of rejection. The disadvantage of this style, which Bartholomew calls fearful-avoidance, is that the individual remains aware of the desire for close relationships and essentially makes a compromise in accepting the chronic, low level, suffering that comes with avoiding them. Further, in the event that these individuals do become involved in relationships, they are likely to suffer increased anxiety because of their (now more salient) fear of rejection.

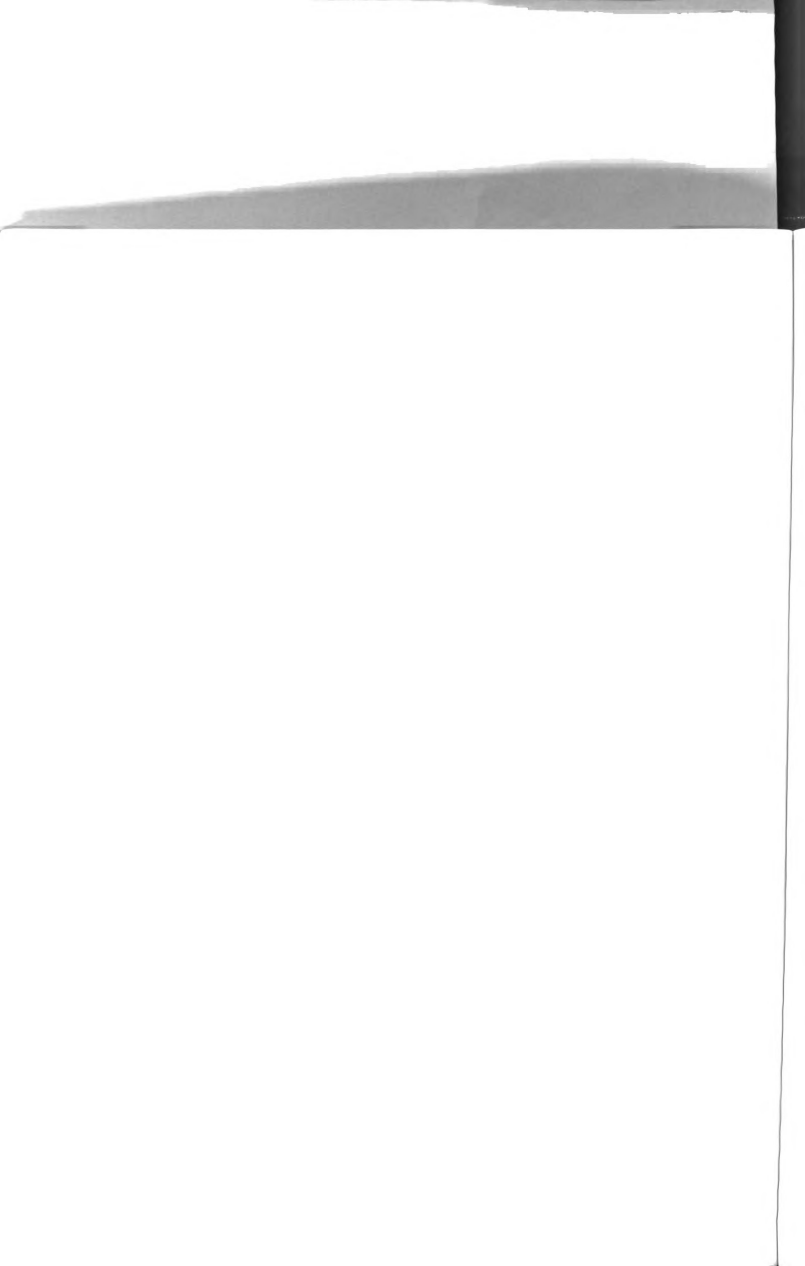
The other strategy is to deactivate the emotions themselves. Individuals who develop this style of affect regulation become emotionally detached and experience little, if any, desire for intimate relationships. Bartholomew labels these individuals dismissing. They appear emotionally self-sufficient, but also tend to have a sharply restricted emotional life. While this strategy is highly effective at controlling anxiety, it comes at the cost of forswearing the experience of meaningful relatedness.

This review of differences in the affective experiences of adults with different attachment styles is necessarily brief, and focuses on the underlying developmental dynamics. A more complete summary of differences in both





experience and behavioral outcomes can be found in Shaver and Clarks' 1994 review. The brief consideration made here is included to support the idea that attachment and affect regulation influence each other, both in development and in adult functioning. It is following this idea that I continue to explore their relationship, both in reviewing the findings of the adult attachment literature and through the original research reported here.



THEORETICAL APPROACHES TO AFFECT

Before undertaking a review of findings in terms of affect regulation, it will be worthwhile to consider the construct of affect itself. There are several major theories of affect which appear to be vigorous in the current literature, and these theories disagree significantly on at least a few fundamental issues. Indeed, one area of disagreement is whether to use the term "affect" or "emotion." Both are commonly used without recognition of any difference in meaning. I will generally prefer the term affect for the sake of consistency, though the two should be understood to mean the same thing throughout this dissertation. The competing theories of affect do converge on several important points. Indeed, they agree closely enough on the role of affect in normal adult functioning that the current reconsideration of findings and new research is broadly compatible with any of them. The more integrative theories of affect and affect regulation which are becoming available directly support this sort of formulation.

Definitions of Affect

Malatesta-Magai (Malatesta-Magai & Culver, 1995) describes a basic distinction between functionalist theories and cognitive mediational theories. The functionalist position is exemplified by the seminal work of Tomkins (1962, 1963) and the later work of Izard (1993). Lazarus (1991a), on the other hand, is probably the most influential proponent of the cognitive mediational perspective. Even across these two basic areas of affect theory, writers largely agree on several basic issues. All of these theorists adopt a Darwinian perspective on the fundamental nature of affect, defining affect as an innate, bio-socially determined process which guides adaptive behavior. These authors all agree that affect is a



separate system or assembly within *psycho-social functioning*, highly interdependent with cognition but nonetheless distinct from it. They also agree that affects involve both a physiological arousal or change component, and a component of mental experience. All of the authors discussed here also draw strong links between affect and motivation.

Malatesta-Magai specifically identifies the assumption of discrete emotion or affect categories as a distinctive feature of the functionalist perspective. Clearly, Tomkins (e.g. 1982) took a strong position on this, explicating a list of primary affects with their functions, and arguing that all other identifiable emotional experiences were the result of blends of these primary affects or of cognitive-affect complexes. Lazarus (1991b) discusses the relevance of both dimensional and discrete categorical conceptions of affect, arguing that the appropriateness of either model depends on the specific matter under investigation. In the end, however, Lazarus also prefers a categorical conception, specifically citing Tomkins as a guiding influence in this area. Fischer and Shaver and their coworkers (Fischer, Shaver, & Carnochan, 1990; Shaver, Morgan, & Wu, 1996) adopt a sort of conceptual middle-ground. While they discuss overarching dimensions, such as positivity or negativity, they use these dimensions largely to sort fuzzy prototype categories of affect which they carefully place within a Darwinian framework.

Activation of Affect

The clearest area of disagreement between functionalist and cognitive mediational theories has to do with the activation of affect. At one end of the debate, Lazarus (1991b) has staked out the extreme position that cognitive appraisal is both necessary and sufficient for the activation of an affective





experience. In Tomkins' (1982) theorizing, cognitive appraisal is neither necessary nor sufficient for innate activation of affect. Instead, the primary mechanism by which affects are activated is gradients of neural stimulation. In this theory, different gradients of stimulation are associated with the innate activation of specific primary affects. Despite theoretical differences, though, all of these authors agree that the activation of affect in normally functioning adults can be accounted for at a basic level by continuously operating neural processes which function outside of conscious experience. They agree, as well, that these processes involve some form of information processing about conditions in the environment, and that affective responses are deeply connected with personal meaning. They also agree that the functioning and reactivity of these processes can be altered, either temporarily or over the long term, by the influences of socialization and of conscious cognitive functioning. And they agree that once activated, affective reactions become interdependent with cognition in a form of reciprocal determinism, and that strong affects have a motivational force which can be effectively preemptive over planful cognition.

Lazarus (1991a) distinguishes multiple ways and levels of knowing and of making appraisals. He reviews a variety of research to show that humans, like other animals, are constantly engaged in gathering information about their environment and making appraisals as to whether conditions are positive or negative with regard to the individual's well being. These appraisals give rise to affective responses which in turn guide immediate behavior. This primitive information processing is carried on automatically, that is, outside of conscious awareness, through sub-cortical systems. Because these processes include information processing, and have a demonstrable neural substrate, Lazarus defines them as an example of cognitive appraisal. It is largely on the basis of





this definitional point that Lazarus makes the theoretical argument that appraisal is both necessary and sufficient for activation of affect. It should be noted that these ongoing automatic processes are the most basic--not the only--process Lazarus describes for activation of affect.

An interesting comparison can be made to Izard's (1993) argument concerning multiple systems for affect stimulation. In arguing that cognitive appraisal is not necessary for affect activation, Izard reviews similar research to that cited by Lazarus. Izard similarly makes the argument that humans form affective reactions based on processing of information about the environment which takes place outside of awareness through the thalamus-amygdala complex. Essentially, Izard is describing the same process as Lazarus. However, because the information processing is automatic and happens outside of awareness in a sub-cortical system, Izard defines it as a non-cognitive process. Thus, these two theorists are using descriptions of the same process to argue alternately for or against the necessity of cognitive mediation in affect activation. In this case, the difference seems to be more a matter of definitions and ideology than of theoretical models.

By placing the innate activation of affect in gradients of neural stimulation, Tomkins (1982, 1995) has obviously placed the innate activation of affect in an automatic process. However, he carefully pointed out that this is only the innate pathway to activation of affect. While maintaining that these gradients of stimulation must always be the functional activator, he also argued that they are recruited to the service of higher order, and increasingly cognitive, functions later in ontogeny. Much like Lazarus, Tomkins argued for a broad and far reaching conception of cognition and knowledge (1995) and held that information processing would be involved in most affective experiences of adults. For

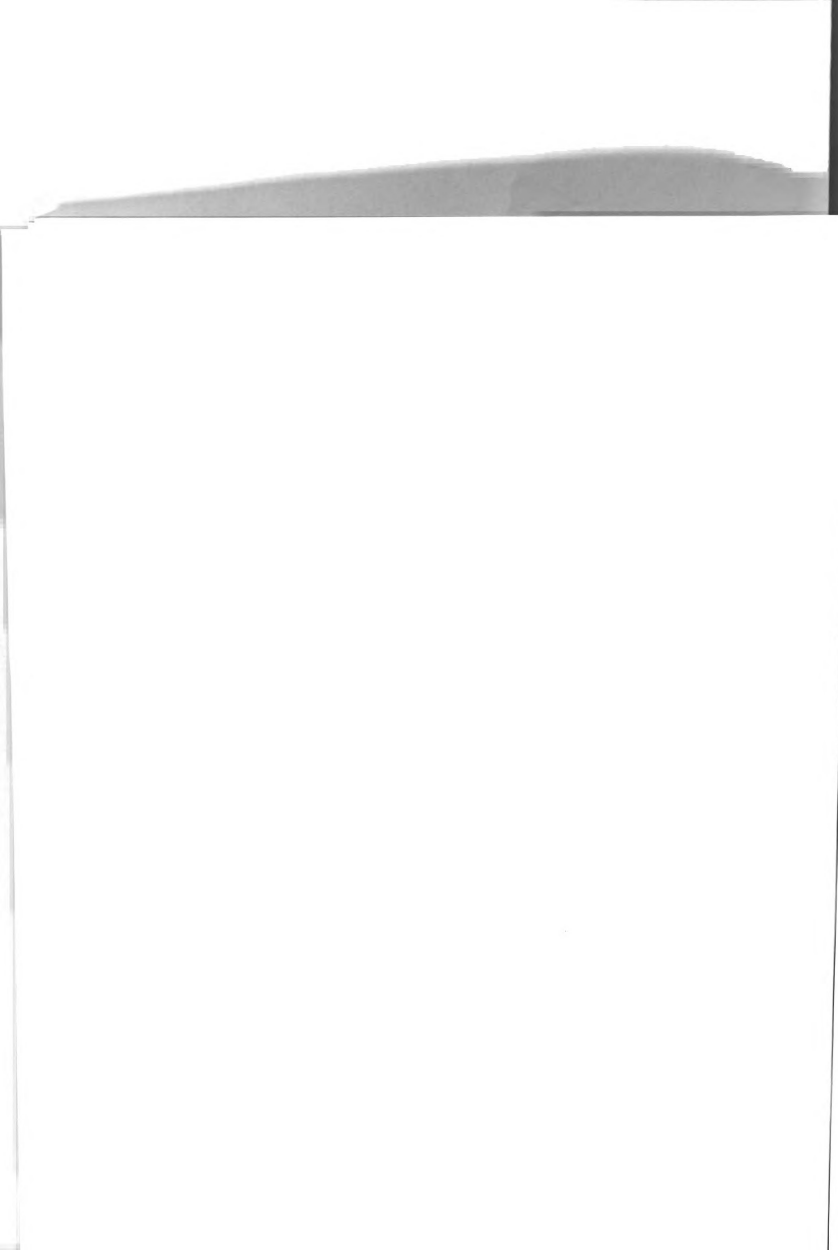




instance, he argued that the ability of a stimulus to evoke a surprise response would depend upon an organismic appraisal of the stimulus as unusual. The perception of novel information would lead to a sharply rising gradient of neural firing as the organism devoted processing resources to prehension of the stimulus. This change in neural firing would, in turn, be the proximal cause of the surprise affect. Again, we can see that while the two theorists describe different theoretical positions, they appear to converge on similar functional models. Indeed, both Tomkins and Lazarus make a partial exception in their models for the activation of disgust, which they see as an innate and relatively unmediated defensive response to noxious stimuli and poisons.

Both Izard (1993) and Fischer (Fischer et al. 1990) have presented theories which integrate the functionalist and cognitive mediational positions on emotion. Izard describes four separate levels of adaptive hierarchical systems which, though theoretically separable, are functionally highly integrated by the completion of individual ontogeny. The uppermost of these systems is cognitive processes, which as we have seen, refers to neo-cortical processes in Izard's writing. Successively more basic layers are motivational systems, including traditionally labeled drives; sensorimotor systems; and continuously active neural systems.

Lazarus, Tomkins, and Izard do make quite different arguments about how emotions are activated and experienced in infancy. But their models of emotional functioning in adulthood appear to converge very closely, especially concerning the basic role of the affect system. The differences which do exist are exaggerated by the theoretical nature of their respective arguments. Lazarus makes it clear that he prefers to describe as much functioning as possible in cognitive terms for the sake of theoretical clarity (1991b). Tomkins, on the other





hand, worked from a personological perspective and emphasized the organismic and experiential aspects of emotion. Izard, though drawing heavily on Tomkins, takes a more system oriented view, and prefers to specify subsystems and consider their functional interrelationships.

Fischer et al. (1990) have been at pains to avoid just this sort of theoretical conflict by avoiding much of the language of rational cognition. They too describe a model of motivation and cognition integrated with background neurological and representational processing in the service of affective functioning. Fischer, however, prefers the term "skills" to refer to the variety of modes in which information is processed. This distinction allows the authors to discuss information processing and appraisal without necessarily referring to cognition. It also sidesteps the issue of whether a neurally mediated response to an environmental condition is necessarily a cognitive operation. Again, one result of this is an argument which allows us to see the functional similarities of the proposed models without interference from theoretically charged differences in language.

Developmental Perspectives

All of these theories of affect have in common with attachment theory a developmental perspective in which emotional functioning becomes both differentiated and more stylistically stable through ontogeny. The origins of individual emotional experience are seen in the expressive responses of infants, observable originally in their face (a point particularly emphasized by Tomkins, e.g. 1982) and also in aspects of posture, vocalization, and some aspects of patterned motor behavior. As neurological capabilities develop, implying better differentiated and more stable internal representations, affective responses to



particular external stimuli similarly become more stable. It is in this period of development that all of these theorists, but particularly Fischer and Shaver (e.g. Fischer et al., 1990) emphasize the increasingly dyadic nature of the affects' communicative power. This communicative, or signal, function of emotion is quite important to the socially adaptive nature of emotion in humans, particularly the organization of attachment relationships.

The various theorists also describe emotional expression, and then experience, coming increasingly under voluntary control as a result of progressively more developed self monitoring and cognitive mediational abilities interacting with socialization. Essentially, they describe a child's emotional response being shaped by parental responses in much the same way Kobak and Sceery described (1988). They also agree that similar developmental and socialization processes can lead to increasing experiential divorce of the cognitive symbolic aspects of emotional experience from the basic subcortical aspects, such as physiological changes. As formal symbolic logic and the ability to hold long-term plans and goals develop, most people are seen as being able to control their own emotions to motivate pursuit of these internally represented goals. There is, of course, variation in the specific developmental pathways described. Nonetheless, the abilities developed and the theme of increasing interdependence of emotion and cognition are largely agreed upon. It is also worth noting that Lazarus (1991b), Tomkins (1979), and Fischer (Fischer et al. 1990) all provide specific examples of ways in which, in adulthood, emotions may be active and organizing cognition and action without having fully entered awareness. Strikingly, the functionalist and cognitive theorists agree that emotional reactions which come to operate outside of awareness as a result of



socialization pressures, nonetheless influence ongoing patterns of cognitive information processing.

Tomkins (1979) provides a description for the mental representational aspects of emotional development which is particularly applicable to attachment theory. For Tomkins, the basic unit of experienced life is a scene, a representation which includes, in the simplest case, an affect, an object of that affect, and usually some symbolic cognition. The majority of life consists in transient scenes. These may be either unremarkable or highly amplified by affect. In either case, they remain essentially isolated in experience rather than being meaningfully associated with other scenes. Other scenes become recurrent, or habitual, such as scenes for performing daily tasks. Some aspects of experience, however, become magnified when scenes are expanded mentally in the direction of other, closely related scenes. When, in the course of ontogeny, children develop the ability to form mental connections between similar scenes, the affect of connected scenes will amplify the impact of a current scene. Scenes which have been experienced or imagined are available to call to mind for assembly or comparison, to examine or to reexperience. Through such processes, procedural rules are derived for predicting, interpreting, responding to, and controlling related sets of scenes. These sets of rules, derived from scenes and applied to scenes, are called scripts. Tomkins thus describes a process by which affect-laden representations of experience are accumulated and used to derive rules and expectations for future events. He also develops the idea of nuclear scripts, scripts with an influence over functioning so powerful that they guide interpretation of, and responding to, apparently unrelated scenes. These nuclear scripts are generally derived from issues in early relationships.



Further, Tomkins (1975) developed the idea of ideo-affective postures, chronic, general ways of relating to the world determined by emotional styles.

Tomkins' overall formulation is extremely similar to the basic process Bowlby described for the construction of the internal working models of self, others, and relationships, and their functioning through attachment style. The similarity of the two theoretical models for guiding emotion and behavior is brought home by Tomkins' choice of a case to illustrate the functioning of his theorized mechanisms. He describes the reactions of Laura, a two year old girl, to a series of separations from her parents and coincidental meetings with strangers. When these strangers later reappear, their presence recalls the scenes of separation and thus upsets Laura despite her parents being present (Robertson, cited in Tomkins 1979). In developing his theories about how children internalize and represent experiences of separation, Bowlby uses the same events from the same case (Bowlby, 1973, pp. 246) to illustrate the construction and operation of internal working models.

The scripts that Tomkins theorizes are a functional mechanism through which repeated affective experience leads to a chronic emotional set. This set, in turn, organizes and guides ongoing experience through its influence on attention, interpretation of ongoing events, and future emotional responding. While perhaps less comprehensive in their construction of the underlying mechanisms, other theorists have also recognized that people develop usual styles or tones of emotion which have self-maintaining properties through their influence on ongoing emotional and cognitive functioning. These constructions also have in common that they place development of these chronic emotional styles, at least in part, in early relationships (But see Izard, 1993, for an argument which includes temperamental influence). For Lazarus, the relevant



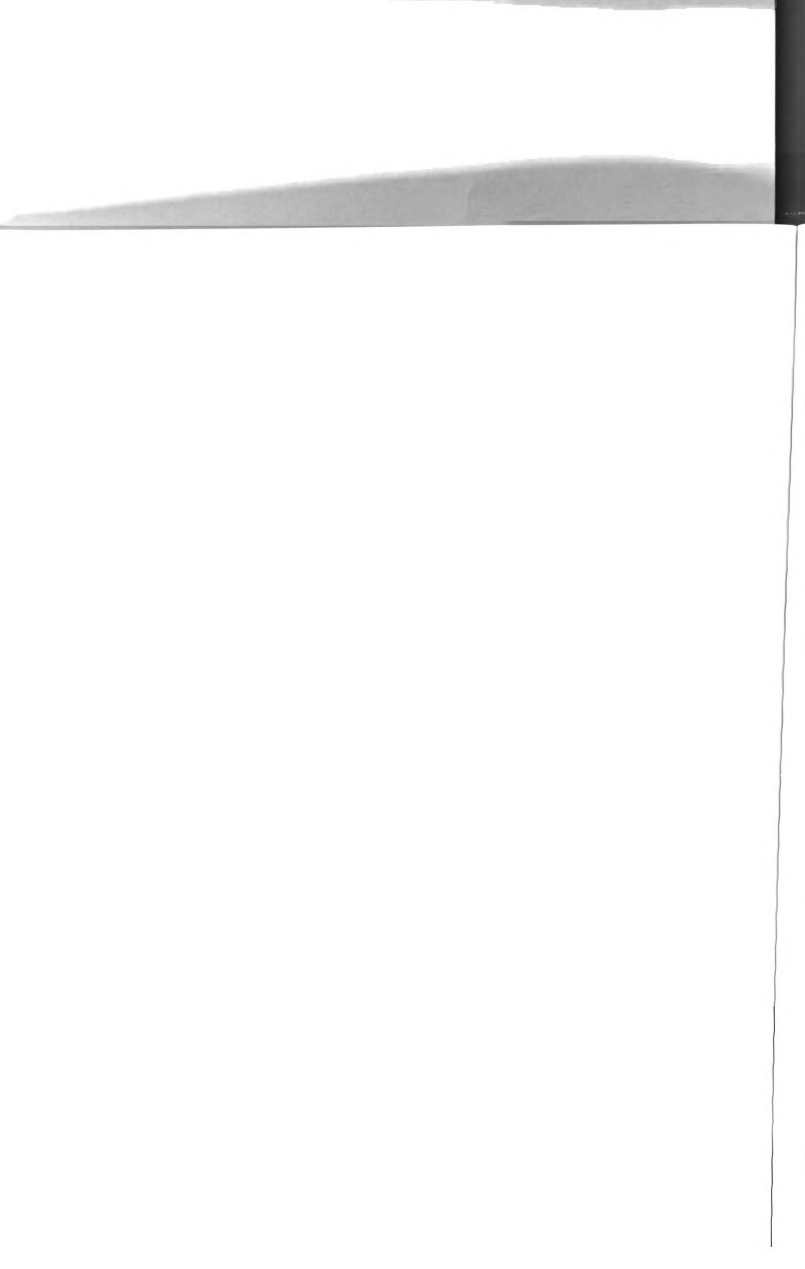


construct is a chronic mood state (1991a), which he suggests is probably an important component of personality. He further argues that while these chronic affective tones are probably related to values and expectations, these values have been learned so early in development that they are often difficult or impossible to recover consciously. Nonetheless, they will continue to bias appraisals and resulting specific emotional reactions. This formulation, like Tomkins', is quite compatible with Bowlby's conception of working models, both conscious and unconscious (1982). Bowlby suggests that these models guide functioning partly through the overlearned expectations they include, and that older and relatively unconscious models often have the strongest and most immediate effects on emotional responses.

Fischer and his coworkers (Fischer et al., 1990) have also argued that emotional experience organizes development, especially in the area of social functioning. Early emotional experiences thus tend to have a relatively self-maintaining effect by organizing scripts which will result in the creation of similar emotional scenes in the future. In this case, it is particularly simple to argue the comparison to attachment, because these authors have explicitly used the mother-child attachment relationship as the mechanism through which ongoing socio-emotional functioning is organized.

Affect and Motivation

Motivation is another important common theme across theories of affect. All of the theories discussed see the two as at least closely tied together. Indeed, all of these theories hold that each discrete affect includes a particular adaptive function and posture or action pattern. Association with an action and function at least strongly implies motivation. Following from Darwin's theory, it is





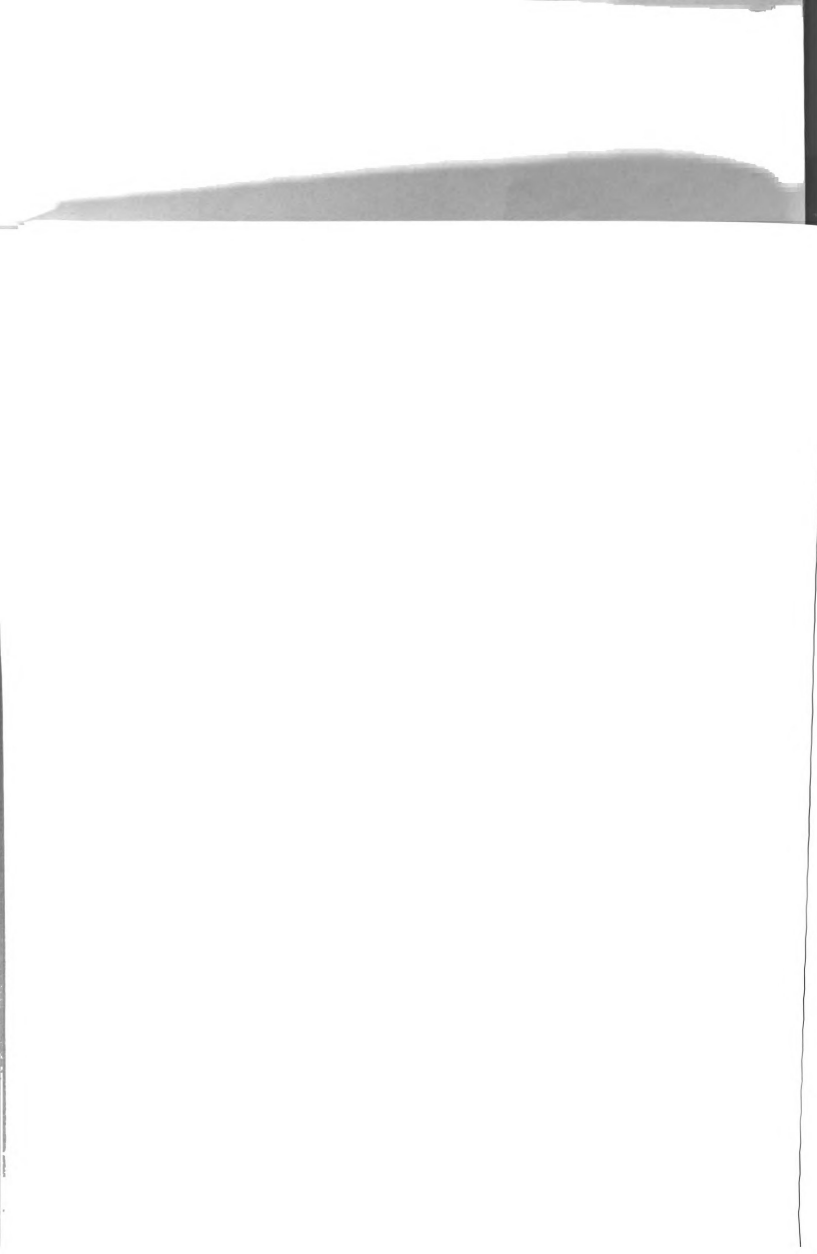
this motivational function which is held to be the primary adaptive value of emotion. Tomkins (1982) provides the strongest argument for association, claiming that the affects actually are the basic motivational component of human functioning. In his view, behaviors relevant to drives and plans are motivated only to the extent to which they are invested with affect. For Lazarus (1991a), who sees motives as cognitive constructions distinct from emotion, actual motivation is nonetheless derived from affect. In this theory, motives are a matter of learned values, goals, and plans, which are stored as cognitive representations. The actual behavior involved in pursuing these motives, however, is guided by the energizing effect of emotions, which result from appraisal of personal stake in pursuing motives. Further, Lazarus is clear that emotions which result from sudden automatic appraisals--such as immediate threat--can flood the phenomenal field, totally monopolizing motivation and guiding behavior which is not directly related to long-term goals and plans.

The various theorists discussed also make an important point about the particular mechanism by which affect performs its motivational function. People prefer more pleasant affective states. When seized by a negative affective state, they are motivated to perform actions which will move them to a more positive affective state. When in an already positive affective state, they are motivated to maintain that positive state and avoid competing negative affective states. As discussed before, this connection is quite clear for Tomkins, who posits that affect is motivation. He also makes clear the point that a person is fundamentally motivated "to explore and to attempt to control the circumstances that evoke his positive and negative affective responses (1982, pp. 359)." Lazarus (1991b; Lazarus & Folkman, 1984) has developed an elaborate and empirically influential theory of coping as part of emotional responding. Indeed,



the current study and many of the studies reviewed here include some version of Lazarus and Folkman's Ways Of Coping instrument. In Lazarus' formulation, coping describes a range of behaviors and mental processes which are performed as part of emotional responding, and which influence subsequent emotion. He outlines two broad areas of coping: problem focused coping, in which a person seeks to alter the person-environment relationship which leads to an emotional response; and emotion focused coping, in which a person alters their internal experience of the person-environment relationship through means such as disengagement or biased reappraisals. In either of these two broad cases, the direct function of coping is to facilitate a more pleasant emotional state. Thus, Lazarus' conception of coping can be seen as describing fairly plainly a set of affect regulation strategies.

Westen (1994) has gone farther in this direction than Lazarus, suggesting that affect regulation is a core feature of motivated behavior in general. He offers a review which reconceptualizes a broad range of findings in terms of functional affect regulation. He suggests, for instance, that hedonic tone is an important mediating variable in conditional reinforcement. He also points out findings that affective state has important effects on the efficiency with which organisms learn new responses. From a more cognitive perspective, he echoes Lazarus and Izard in arguing that it is the specific personal meaning that a person appraises for any particular outcome which determines whether they find the outcome pleasant or aversive. This, in turn, determines its emotional reward value and subsequent effect as a reinforcer. He makes similar arguments for the reinterpretation of phenomena usually conceptualized in analytic or cognitive-dynamic terms as being forms of affect regulation. In addition, he reports





several current findings from attachment theory as important examples of the integration of affect regulation into dynamic and cognitive theory.

A Taxonomy of Affect Regulation Mechanisms

Thompson (1994) has perhaps gone the furthest in constructing an integrative model of ways of regulating affect. Drawing largely on developmental research, he has offered a tentative taxonomy for mechanisms of affect regulation at a number of different levels. His model uses relatively broad categories, recognizing both the variety of ways in which affect drives human behavior and the variety of ways it may express throughout ontogeny. Several of the mechanisms or methods of regulation which he describes are especially relevant to functioning in attachment relationships. This taxonomy provided a useful and understandable way of organizing findings, and was also useful in designing measures of affect regulation for the current study.

Thompson's taxonomy was used in synthesizing findings of attachment research reviewed for the currently study. The first mechanism considered is the management, or redirection, of attention with regard to emotionally arousing stimuli, either external or internal. This includes a variety of attentional processes, including classical defenses like repression and overt behaviors like covering one's eyes to avoid unpleasant sights. Next is managing the construal of emotionally arousing information. This includes both attribution and appraisal, as well as goal substitution. Goal substitution may be the least obvious of these. By managing the goals one consciously pursues--such as desired qualities in relationships--one also changes the frame for evaluating outcomes. This in turn influences affective responses to those outcomes. These two mechanisms, managing attention and construal of information, serve as a sort of first line of



defense, controlling which stimuli are allowed to evoke emotional reactions. Accessing coping resources, especially social coping resources, is another important method of affect regulation. This is an area of affect regulation which is particularly relevant to attachment, since it is essentially a theory of relationships. In keeping with this, a variety of studies have been grouped under this heading with further divisions into component processes involved in the use of interactive or social emotional regulation.

Methodological Implications for the Current Research

We can see that a broad range of theorists who have been fundamentally concerned with affect have developed theories which argue the importance of active affect regulation. By and large, these theories are not only compatible with current attachment theory, the relevant theorists have often cited attachment functioning as including the affect regulatory phenomenon of interest. Among these theorists, Westen (1994), Lazarus (1991b; Lazarus & Folkman, 1984), and Thompson (1994), have particularly worked towards specifying the ways in which people regulate their own affect, both through internal processes and overt behavior. Westen (1994; Westen, Muderrisoglu, Fowler, Shedler & Koren, 1997) has taken the further step of demonstrating empirically that people show different styles in the affect regulation mechanisms they tend to use, even across different sorts of affective experiences. This happens to be precisely in line with the theoretical model proposed for the current research.

Westen, Lazarus, Thompson, and even Tomkins are also in agreement in noting the remarkable integration of the systems involved in the experience and regulation of affect, including social processes and cultural values as they bear on the process of socializing individuals. This integration has at least two



important implications. First, it is difficult to tease apart specific mechanisms and functions of affect regulation from one another. Second, a single action occurring in a naturalistic setting may serve multiple functions of affect regulation at multiple levels.

The complexity of the ways in which people regulate their emotional experience has led researchers and theorists to call for more nearly naturalistic methods of assessing affect regulation. Some effects of this can be seen in the techniques used by researchers such as Izard (Izard, Haynes, Chisholm & Baak, 1991) (video-taping mother-infant interactions), Kobak (Kobak & Hazan, 1991) (coding verbal interactions), and Feeney (Feeney & Ryan, 1994) (correlating overall emotional style with health outcomes and communication styles). Successfully assessing multiple methods of affect regulation in a single ongoing process or situation, however, has proven more difficult. Lazarus (1991b) and Malatesta-Magai (Malatesta-Magai & Culver, 1995) have both called for use of free responses as preferable to questionnaires because of the rich and relatively unscreened nature of the data people provide through such methods. Westen (1994, Westen et al., 1997) has taken the further step of developing a system to score affect regulation strategies from written free responses to hypothetical stressful events. The idea of coding affect regulation from free discourse is also supported by Tomkins' (1975) finding that affective tone and even evidence of affect regulation as observed in facial expressions is paralleled by the content of both free discourse and responses to the Thematic Apperception Test (TAT). Fischer and his coworkers (Fischer et al., 1990) have also had success in measuring their construct of emotional skills in children's telling of stories to structured prompts.





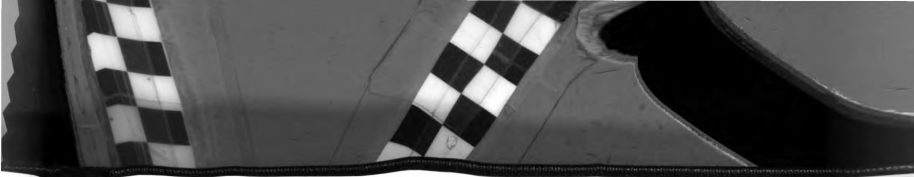
This idea of using discourse or written free response is certainly in line with a tradition of assessment in attachment theory. In his seminal volumes, Bowlby (1973, 1982) reported research carried out by himself and his coworkers using participants' responses to attachment cards, pictures similar in form to the TAT but designed to cue attachment themes. Mary Main and her coworkers have also made watershed theoretical contributions with the Adult Attachment Interview (Main, Kaplan, & Cassidy, 1985) by analyzing both the content and the style of responding participants use in answering open ended questions. Bartholomew and Horowitz (1991) extended many of these ideas to the realm of adult relationships with their Peer Attachment Interview. Thus, following arguments and findings in both the affect theoretical and attachment literatures, I decided to look for evidence of the expected affect regulation styles using a free response method. The actual instrument developed, which elicits responses to vignettes describing both ambiguous and negative events in hypothetical romantic relationships, is described in the method section.



EMPIRICAL FINDINGS ON AFFECT REGULATION IN ADULT ATTACHMENT

As described in the earlier section covering development of affect regulation in attachment relationships, the literature on adult attachment has developed over the past several years to show clear, and generally consistent, differences in the emotional experiences of individuals with different attachment styles. The further question of underlying mechanisms of emotional regulation which may co-occur with, or even maintain, these different styles of felt experience has been less thoroughly explored. Indeed, most of the findings identified for this review were not framed specifically in terms of strategies of affect regulation. This is not surprising, of course, given the recency with which theorists like Westen (1994) and Thompson (1994) have begun to elucidate systematic approaches to affect regulation at the level of specific mechanisms.

Broad patterns of affect regulation have been explored empirically, and the attachment literature has integrated theorizing from cognitive and motivation research as well. The particular subject of how late adolescents and adults regulate their emotions in conjunction with attachment behavior was opened by Kobak and Sceery (1988), who examined the relationship patterns of college students and interpreted their interpersonal styles in terms of social regulation of emotion. While this study did not examine specific mechanisms of affect regulation, it did find general evidence for broad differences in competence with affect regulation. Kobak and Sceery found that secure adolescents had better ego-resilience than insecure, and more specifically dismissives were rated by their peers as being relatively hostile, and preoccupieds were rated as being anxious. More recently, Feeney and her coworkers (Feeney & Ryan, 1994; Noller, Feeney, & Roberts, 1997) have examined general styles of emotional



control versus emotional openness in a number of studies. Brennan and Shaver (1995) have reported a study in which they examined reports of various social behaviors which they argue reflect underlying mechanisms of affect regulation. The literature has advanced to a point where it is safe to say we know there are broad differences in affect regulation across styles of adult attachment. To date, however, there is no thorough integration of those differences with models of the specific mechanisms and dynamics of affect regulation which underlie them. As a step towards this goal, I now examine in depth extant findings in the adult attachment literature which address aspects of those underlying mechanisms.

Adult Attachment Typologies and Dimensions

Because the studies included in this review use a variety of methods to measure and report adult attachment, it may be useful to include a brief taxonomy of adult attachment styles. Hopefully, this will help to clarify comparisons made across findings. The typology best represented here is based on work by Hazan and Shaver (1987). Their typology recognizes three adult attachment styles developed as extensions of Main's categories for the Strange Situation (Main, Kaplan, & Cassidy, 1985). A slight majority of people are categorized as Secure, a style marked by relative ease of approaching relationships and developing appropriate intimacy. The Anxious/Ambivalent style is marked by preoccupation with attachment issues, and manifest fear and anxiety surrounding close relationships. It is similar to the Anxious-Resistant style identified by Main. Avoidant individuals experience relatively little conscious desire for close relationships, and prefer to be independent and self-sufficient. It should also be noted that both Anxious and Ambivalent have been used as roughly equivalent terms for the Anxious/Ambivalent style.



An influential reformulation was put forward by Bartholomew (1990; Bartholomew & Horowitz, 1991). Bartholomew's typology is underlain by a theoretical distinction between positive versus negative general models of self and other. It accordingly divides the avoidant category into two separate forms of avoidance with different underlying dynamics, depending of whether the model of self is positive or negative. This typology yields a secure style which is comparable to Hazan and Shaver's secure, and a preoccupied style, which is nearly equivalent to the anxious/ambivalent style but with more emphasis on enmeshing behaviors. The first type of avoidance is Dismissing, which includes a devaluation of attachment and emotional experience in general; these people are not consciously motivated to seek close relationships. The second is Fearful, which includes a desire for close relationships coupled with an intense anxiety concerning attachment figures' reactions. I will generally use the terms dismissing and fearful to refer to distinctions based on Bartholomew's model, and the term avoidant to refer to a unitary construct for avoidance similar to Hazan and Shaver's conceptualization.

Various measures have also been developed which assign dimensions based on the prototypic styles describe above. In some cases, dimensions map directly onto the styles, in other cases one dimension distinguishes secures from insecure, while a second dimension distinguishes anxious/ambivalent from avoidant individuals. Simpson (1990) and Collins (Collins & Read, 1990) have both developed measures of dimensions underlying attachment styles. Collins' dimensions; [comfort with] Closeness, [ability to] Depend [on others], and Anxious [about relationships] map onto Hazan and Shaver's three styles in the expected pattern. Simpson's two dimensions, Security vs. Avoidance and Anxiety, closely parallel the dimensions of positive vs. negative self and other

models which underlie Bartholomew's four styles. For more complete reviews of the relationship between these measures, see Brennan, Shaver and Tobey (1990) and Griffin and Bartholomew (1994a). A few of the studies reviewed also use scores derived from the Adult Attachment Interview (Main, Kaplan, & Cassidy, 1985). This instrument yields an index of an adult's attachment to their own mother or primary attachment figure, rather than attachment relative to romantic partners. An alternate scoring for this instrument has been developed by Kobak and his coworkers (Kobak, Cole, Ferenz-Gillies, & Fleming, 1993) which uses a Q sort and prototypes to assign scores along two dimensions. The primary dimension is Secure vs. Insecure. The second dimension refers to different strategies for managing insecurity and affective expression, and is referred to as Preoccupied vs. Repressing with regard to attachment.

Management of Attention

I will start with a consideration of findings relevant to cognitive processes of attention and repression, on the assumption that these are the most basic areas which can clearly be considered affect regulation. There are several different levels of process within this area. Attention can be regulated with regard to either external (especially interpersonal) or internal stimuli, such as memories. The findings regarding attention to emotion and emotionally relevant stimuli grow from a variety of different methodologies. They are, nonetheless, remarkably compatible and consistent in their implications. As theory leads us to expect, avoidant individuals give affect the least attention, even isolating affect from biographical material in memory. Anxious/ambivalent or preoccupied individuals attend to affect the most, especially negative affect. This can be seen as a style of chronic affect dysregulation, since findings suggest this over-



attending to negative affect leads to more *negative affective outcomes*. *Secures* are typically unremarkable on measures of *attention to affect*, *falling between* the insecure groups. This may reflect the successful balance of attention to affect versus other issues which is presumably the optimal developmental outcome.

A moderately surprising theme across findings is that avoidant attachment is clearly associated with high levels of anxiety. This has not always been apparent because avoidant and anxious/ambivalent individuals utilize different affect regulation strategies to deal with their anxiety. Whereas anxiously attached individuals are both attentive towards and expressive of their anxiety, avoidant individuals use a strategy of isolating and repressing anxiety in both internal and interpersonal processes. Some studies have even suggested that avoidant individuals are unable to recognize emotional distress in either themselves or others. The difference between the strategies used by avoidants and anxious/ambivalents can be seen in terms of a gradient of repressive defensiveness. While avoidants succeed in repressing much of their negative affect from awareness, anxious/ambivalents succeed only in repressing some of their coping and communication efforts.

Basic attentional processes. A study by Mikulincer and Orbach (1995) produced interesting findings relevant to basic processes of attention to internal events by examining participants' ability to recall memories cued by affect. Participants were divided into secure, avoidant, and anxious/ambivalent categories using a variant of Hazan and Shaver's (1987) measure. The authors then used reaction times to show that ambivalent participants had the most efficient access to both sad and anxious memories, followed by secures. Avoidant participants had the least efficient access to both categories of memories. Effects also emerged within attachment styles. Both the secure and



ambivalent groups showed differences in *accessibility of memories across* categories of affect. Secures had the quickest recall for memories associated with anxiety or happiness. For ambivalents, anxiety, sadness, and anger were the easiest to recall, and happiness showed the slowest recall. For avoidants, however, there were no differences across types of affect. This would seem to indicate that, at least at the level of internal attentional processes, different types of affective content are similarly unavailable to avoidant individuals. Mikulincer and Orbach asked participants to rate the felt intensity of both the affects used to cue their memories and of secondary affects recalled incidentally. This provided a measure of the extent to which participants' memories were either emotionally elaborated or isolated from affective spreading. Both secure and ambivalent participants felt the cued affects more strongly than did avoidant participants. For ambivalents, secondary emotions were also quite intense, while they were hardly noticed by avoidant participants. These findings suggest that individuals with avoidant attachment styles regulate their affect at such basic levels as cognitively isolating them in memory. Anxious/ambivalent individuals, on the other hand, appear to have highly affectively elaborated memories, and have ready access to memories through affective cues. Ambivalent participants also reported affect laden memories from earlier in their lives. If stylistic differences in cognitive availability and elaboration of affect seen here began very early in life, that could explain this difference in age of memories.

A number of other findings demonstrate similar differences across attachment styles in attention to affect and affect-relevant stimuli. Mayseless, Danieli, and Sharabany (1996) asked college students to respond to the Separation Anxiety Test (Hansburg, 1972), a semi-projective measure which uses drawings depicting separations in attachment relationships in order to elicit

affective responses to separation. Ambivalent participants gave significantly more responses to the cards, indicating greater involvement in responding, while avoidant participants gave the fewest responses. Cole-Detke and Kobak (1996) found that depressive symptoms in female college students were related both to expressions of anger towards their parents and to excessive processing of emotion in their responding to the Adult Attachment Interview (Main et al., 1985), both features typical of preoccupation with attachment. The more avoidant strategy of deactivating attachment needs was associated with minimization of anger and restricted processing of attachment information.

Pistole (1995) found that undergraduates with a secure attachment style were less likely to report persistent attention to memories of former romantic partners than were participants with any of the insecure styles. While differences between insecure styles did not reach significance in this study, trends indicated that participants with Bartholomew's preoccupied style attended to memories of former partners and relationships the most. Differences in amount of thinking about former partners were also associated with differences in mood states, supporting the conception of attention as a mechanism of affect regulation. The preoccupied and fearful groups were distinct from both the secure and dismissing groups in reporting higher levels of tension, anxiety, depression and confusion, and lower vigor, a finding which parallels the difference between negative and positive mental models of self (Bartholomew & Horowitz, 1991). In a study of divorced women, Berman (1988) also found that persistent recollection of former partners was related to feelings of loss and activation of emotional coping.

Several findings demonstrate similar patterns of attention or inattention to emotions under conditions of stress which should activate the attachment





behavior system. In a 1993 study, Mikulincer, Florian and Weller found that participants with an avoidant style were the most likely to use emotionally distancing ways of coping while in danger from missile attacks. Ambivalent participants, on the other hand, were more likely to use emotion focused coping strategies regardless of level of danger they were experiencing. In a 1995 study, Mikulincer and Florian found this pattern again with Israeli cadets undergoing military training. In another study examining ways of coping, Radecki-Bush, Farrel, and Bush (1993) examined how participants with different attachment styles would cope with hypothetical threats to their romantic relationships. They too found that avoidant attachment was strongly positively correlated with endorsement of Avoidant Coping and, to a lesser extent, with Wishful Thinking. Ambivalent attachment was similarly correlated with wishful thinking. Secure attachment, on the other hand, was negatively correlated with both of these scales.

Taken altogether these findings suggest a gradient in attention to affect as part of internal cognitive processes. Avoidants give affect the least attention, even isolating affect in memory, and anxious/ambivalent or preoccupied individuals attend to affect the most, especially negative affect. Further, it appears that this gradient in attentional processes is similar with regard to both internal processes and external stimuli related to those processes.

Repressive defenses. Beyond these findings suggestive of differences in basic attentional processes, there are also findings more clearly framed in terms of differences in repression. In this context, repression may be understood as cognitive processes preventing awareness or expression of thoughts or feelings which are nonetheless demonstrably present. Perhaps the most general of these findings shows a path relationship between avoidant attachment,

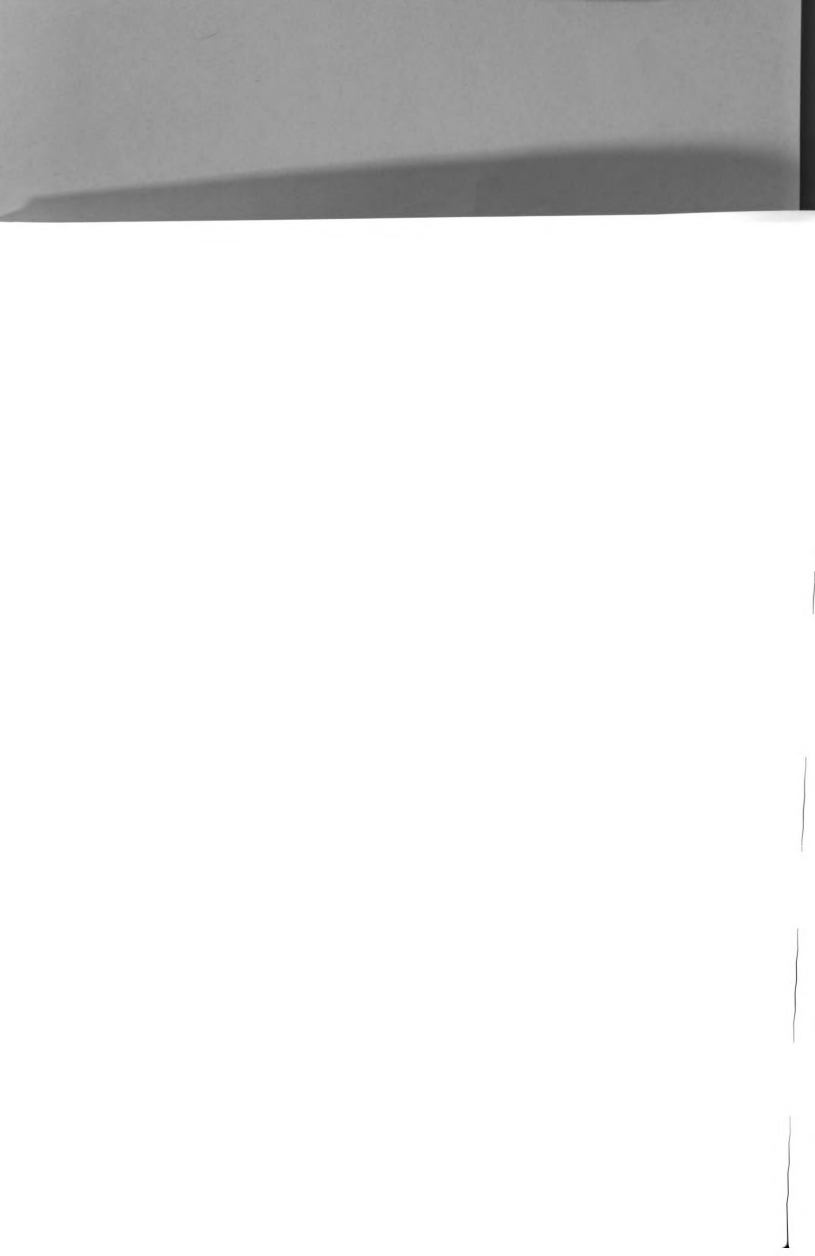
emotional control, and indicators of coping and stress. Kotler, Buzwell, Romeo, and Bowland (1994) found that avoidant attachment was significantly positively related to restrictive control of emotions, which was in turn positively related to dimensions of emotion focused coping--avoidant coping, wishful thinking, and self-blame--and negatively related to support seeking, a potentially more open and interactive method of coping. In a conceptually related study, Haft and Slade (1989) found that mothers whose Adult Attachment Interview responses indicated a preoccupation with attachment to their own mothers did not attend to their infants' displays of negative affect. Dismissing mothers attended to their infants' displays of exuberance and mastery, but rejected their infants' bids for comforting. Like the preoccupied mothers, the dismissing mothers did not attend to infants' distress. Qualitative analysis suggested different reasons underlying the behavior of the preoccupied and dismissing mothers. While the preoccupied mothers could recognize infants' distress, they could not tolerate attending to that distress for fear of losing their own emotional control. Dismissing mothers, on the other hand, appeared genuinely unable to recognize their infants displays as distress. Izard and his coworkers (1991) showed a complementary pattern in mothers' expressive behavior. Mothers whose infants were securely attached to them were distinguished by having more positive and less negative affect, but being less repressing in their expression of their negative affect around their infants.

Several findings suggest a similar repressive process at work internally in avoidant individuals. In the 1995 study discussed above, Mikulincer and Orbach administered the Taylor Manifest Anxiety Scale and also administered the Marlowe-Crown as a measure of defensiveness. Anxious/ambivalent participants scored low on defensiveness and high on anxiety, which



corresponds with other descriptions of *preoccupation with attachment*. Avoidant participants scored high on both defensiveness and anxiety. This is in line with an earlier finding by Mikulincer, Florian, and Tolmacz (1990), in which the authors report findings for measures of both manifest and unaware fear of death. Not surprisingly, secure participants scored low on both measures and ambivalents scored high on both. Avoidant participants, however, showed a difference between the two measures, reporting low overt fear of death, but revealing high fear on the projective measure. This pattern of high defensiveness and low conscious anxiety corresponds to Weinberg's (1990) description of a repressive coping style. Dozier and Kobak (1992) conducted a study based on the premise that individuals who use an emotionally deactivating strategy to distance themselves from affect-laden material while responding to the Adult Attachment Interview are nonetheless experiencing affective distress which they are either unaware of or deny. The experimenters conducted interviews while simultaneously monitoring participants' skin conductance levels, an indicator of affective arousal. They found that raters' judgments of the extent to which participants used an emotionally deactivating strategy during the interview were significantly correlated with rises in skin conductance level as those participants addressed questions about threatened separations or loss. Together, these findings suggest that secures are relatively untroubled by their internal affective processes, and ambivalents are both undefended and anxious with regard to their internal affective processes. Avoidantly attached individuals, though, seem to use an only partially effective strategy of managing anxiety by isolating or repressing their affective experience.

Brennan and Shaver's (1995) findings also relate to processes of attention and repression in affect regulation. They found that lack of interoceptive





awareness, a subscale of the Eating Disorders *Inventory* (Garner & Garfinkel, 1984) showed strong associations with attachment style. This measure was strongly negatively associated with endorsement of secure attachment, positively associated with anxious/ambivalent attachment, and most strongly associated with avoidant attachment. The study also collected more specific measures of component dimensions of attachment, revealing strong associations between low internal awareness and components of fearful attachment. Drinking as a way of coping with negative affect was also negatively correlated with secure attachment, and correlated positively with both avoidant and anxious/ambivalent attachment. Again, dimensional measures showed that drinking to forget or obliterate negative moods was specifically associated with jealousy, frustration with romantic partners, and a tendency towards anxious clinging, all aspects of fearful attachment. In their study using the Separation Anxiety Test, Mayseless et al. (1996) found that participants with the controlling attachment pattern, that is, participants who use compulsive caregiving to defend against expressing their own attachment needs, responded to separations with such repressive defenses as evasive denial or endorsement of increased personal well-being as the result of losing an attachment figure.

Findings by Dozier and her coworkers (Dozier & Lee, 1995; Dozier, Stevenson, Lee & Velligan, 1991) further support analogs between internal repressive processes and external social processes. These studies examined the functioning of seriously psychopathologically disturbed adults using Kobak's dimension of Preoccupied with Attachment versus Repressing of Attachment as scored from the Adult Attachment Interview (Kobak, Cole, Ferenz-Gillies, & Fleming, 1993). Dozier and Lee (1995) found that participants at the preoccupied end of the dimension reported far more symptoms than those at the



repressed end. However, expert raters working *from multiple measures* rated participants at the repressed end of the dimension as showing more symptoms, counter to their self reports. Dozier et al. (1991) examined the same attachment dimension with regard to the emotionally expressive behavior of the disturbed participants' close family members. Having emotionally overinvolved, or intrusive, relatives was related to a more repressing style in the participant, but the relationship to absolute value on the preoccupied-repressing dimension reached a still higher level of significance. Thus, while there is an effect for repression, there is a stronger effect for rigidity with regard to being either repressing or preoccupied. Unfortunately, this study was strictly cross sectional, so it cannot be determined whether this rigidity is a defense against or a cause of family members' emotional over-involvement.

The pattern which emerges in these findings shows that, counter to usual self-reports, avoidant attachment clearly is associated with high levels of anxiety. However, anxious/ambivalent and avoidant individuals use different regulatory strategies to manage their anxiety. Anxious/ambivalent individuals are both attentive towards and expressive of their anxiety, which may lead to a counterproductive spiraling of negative affect. Avoidant individuals appear to use a strategy of isolating and repressing anxiety in both internal and interpersonal processes. That avoidant individuals would be restricted in expressing anxiety is no surprise. Their inability to even recognize affective distress in others or themselves, however, indicates that isolation of affect from other psychic processes is carried to a remarkably basic level.





Managing Construal of Information

Appraisals and attributional styles. Much of the research in adult attachment which has specifically addressed affect regulation has examined appraisal and attributional styles. This work has largely been in line with cognitive mediational theories which hold that experienced affect is secondary in part to appraisals. Attachment style turns out to be a good predictor of appraisals of threat, which in turn predict several negative affective states. When studies tap appraisals in actual relationships, relationship quality moderates attachment style effects but does not fundamentally alter them. Like attentional processes, appraisal and attribution is an area where findings not only converge, but point to stylistic differences in mechanisms of affect regulation which are compatible with findings of usual affective experience. Securely attached individuals tend to appraise events as not being threatening, while anxious/ambivalent and avoidant individuals make appraisals of exaggerated threat and self-blame. Avoidant individuals, however, also make self-enhancing secondary appraisals of their ability to cope with threats; anxious individuals do not. The appraisal style of anxious/ambivalent individuals can be expected to function in a complementary fashion with their attention to threat and negative affect in maintaining their usual negative affective states.

In their 1995 study with Israeli military trainees, Mikulincer and Florian found that secure participants made more positive and constructive appraisals as compared to ambivalent and avoidant participants, interpreting their situation as challenging rather than threatening. Radecki-Bush et al. (1993) derived a dimension of attachment security versus insecurity and compared it to participants' reactions on several scales for appraising threat to relationships. They found that insecurity was related to a higher overall level of appraised



threat. Appraisal of threat was, in turn, the best *predictor of sadness, anger, fear, guilt, and shame*. Avoidant participants made appraisals of threat similar to the appraisals of anxious/ambivalent participants, but also rated themselves as having higher control in the hypothetical situations. Avoidant and ambivalent attachment were also positively correlated with a self-blaming coping style, which carries a clear attributional bias, while secure attachment was negatively correlated with self-blame.

Collins (1996) examined participants' written explanations for events in hypothetical relationships, and found that attachment dimensions were efficient predictors of explanation styles for attachment relevant events, but had little bearing on attachment irrelevant, but still negative, events. Participants high in fear of rejection (anxious dimension) gave generally more negative and threatening explanations of attachment relevant events. More secure individuals, on the other hand, explained these events in ways which generally reflected low appraisal of threat. Participants also made ratings on specific dimensions of attribution, yielding results in line with the open ended responses. The dimensions for comfort with closeness and ability to depend on others predicted lower ratings of self-blame and lower ratings of intention and negative motivation on the part of hypothetical partners. The dimension of attachment anxiety predicted attributions of negative intent on the part of hypothetical partners and stable global attributions about causes of negative relationship events. Structural equation modeling showed unique contributions of both attachment and explanatory style to participants' self-rated emotional responses. Attachment dimensions had direct effects on explanation, and anxious attachment in particular had a direct effect on emotional outcome. Explanations, however, had the largest effect on emotional response, thereby mediating the

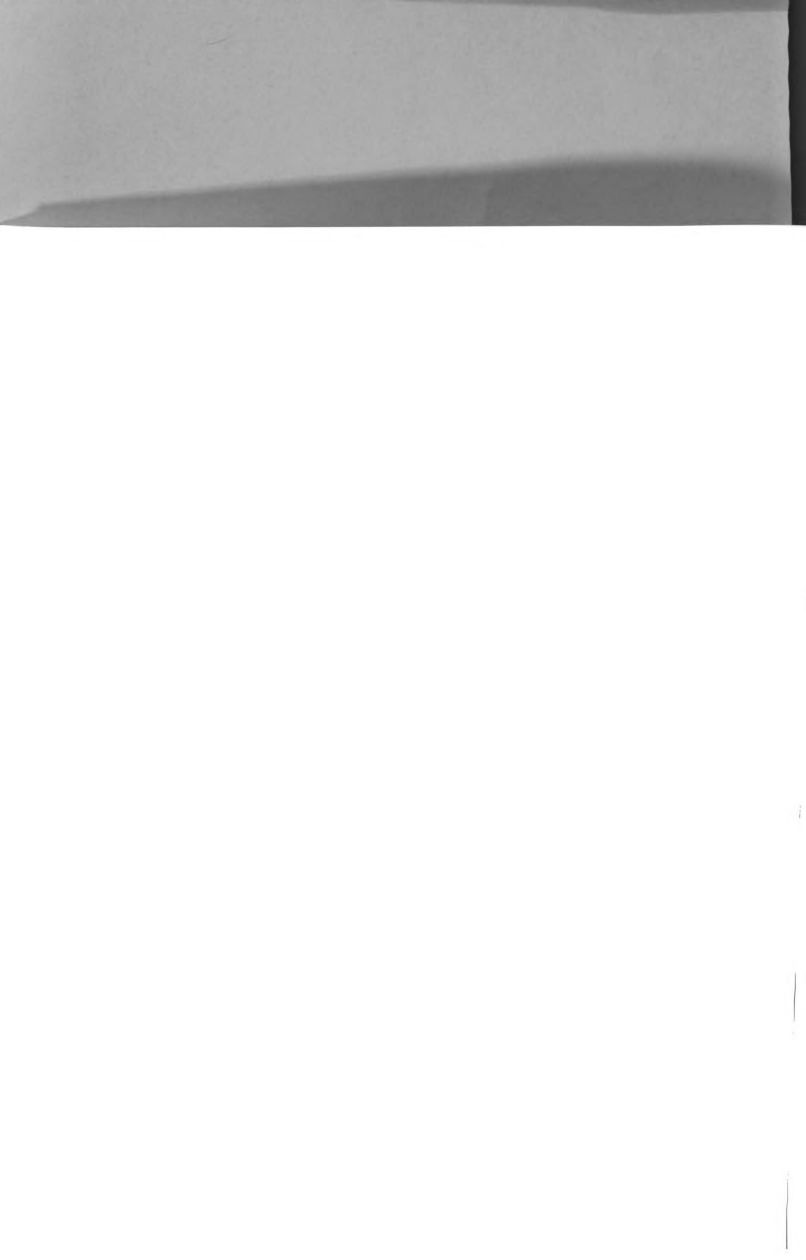




effect of attachment on emotional response. A *second study asking participants to respond to the same materials in terms of their actual partners showed largely compatible results. One difference was that actual relationship satisfaction moderated the effect that the dimensions measuring both comfort with closeness and ability to depend on others showed on participants' reported emotions.*

Armstrong and Roth (1989) also showed a relationship between anxious attachment and exaggerated appraisals of threat to relationships. They compared severely eating disordered inpatients to a normative sample using indices of anxious attachment patterns derived from the semi-projective Separation Anxiety Test (Hansburg, 1972). The inpatients almost uniformly had anxious attachment patterns, and 85% of them could be classified with the more serious "separation depression." These inpatient participants responded to day to day separations (such as being dropped off at school) similarly to the way they responded to major, permanent, or catastrophic separations. Their responses to such appraised threats included fear of loss of being loved, tensions and hostility, denial of separation, and lowered self-esteem. Similarly, Mayseless et al. (1996) found that ambivalently attached college students were more likely than other participants to respond to the Separation Anxiety Test with anxiety and interpretations of separations as rejection, and were less flexible in responding differently to mild versus severe separations.

In an experimental investigation of conflict in relationships, Simpson, Rholes, and Phillips (1996) found that when ambivalent college students discussed major relationship problems with romantic partners, their global perceptions of those partners became worse. However, non-ambivalent participants had improved perceptions of their partners after discussing major relationship problems. Hammond and Fletcher (1991) found that individuals who

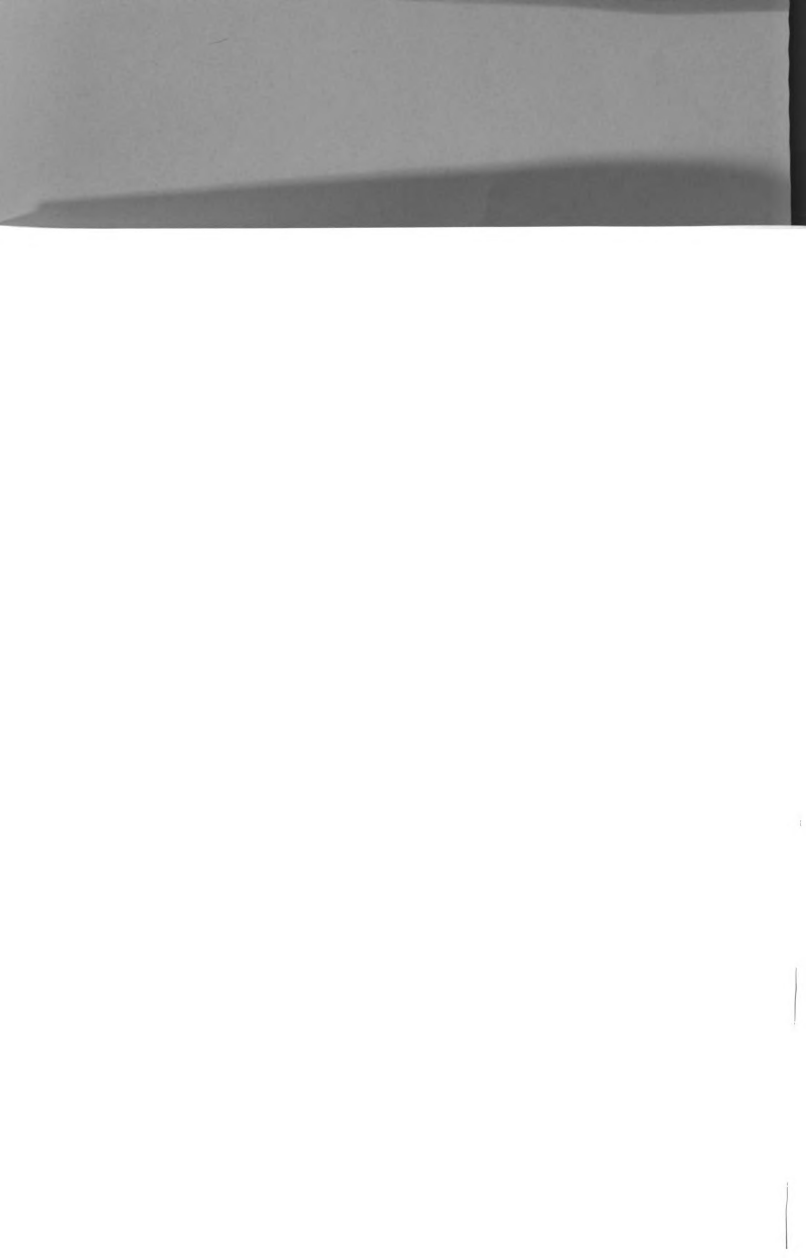




were highly satisfied with their romantic relationships rated their partners as being more similar to themselves with regard to secure and avoidant attachment. In fact, there was no correlation between self-ratings within sets of partners, indicating that the perceived similarity was the result of biased appraisal.

A different sort of construal of information is represented in a study by Zuroff and Fitzpatrick (1995). They found that avoidant attachment, and Bartholomew's fearful style in particular, was related to a self-critical depressive style, implying downward regulation of affect through negative self-appraisals. The preoccupied attachment style, on the other hand, was associated with a dependent depressive style, which includes repressed expression of hostility. Roberts, Gotlib, and Kassel (1996) specifically investigated the mediational role of attribution in attachment and depression. Their six and eight week prospective studies showed that, when neuroticism and base line depression were controlled, insecure attachment contributed to outcome depression through the mediational effect of dysfunctional attitudes about self worth, which in turn led to lowered self esteem and then to depression. Of their attachment variables, the anxious, or fear of rejection, dimension had the most predictive power in this model.

Management or substitution of goals. Beyond appraisal, Thompson (1994) discusses managing goals as a way of manipulating information in the service of affect regulation. Selection of goals determines the framework in which appraisals are made, thereby influencing affective reactions to events. In the case of attachment this would include managing conceptions and goals of love relationships to fit one's own threshold for anxiety. Brennan and Shaver's (1995) study supports this idea by demonstrating a correlation between unrestricted sociosexual orientation and attachment style. While secure





participants had a relatively restricted orientation, *avoidants were the most* unrestricted, meaning they had more partners and were more accepting of and likely to engage in casual sexual encounters with different partners. Brennan and Shaver interpret this unrestricted orientation as a way of maintaining emotional distance from intimate partners. Their finding is particularly striking because 77% of their sample were involved in romantic relationships at the time of the study, and participated in the study with their partners. Feeney, Noller, and Patty (1993), also examining the sexual behavior of college students, found that avoidant individuals were significantly more accepting of uncommitted sex than were secures. Diary data further suggested that avoidant individuals were the most likely to have sexual contact with acquaintances, although cell sizes were too small for formal analysis of this data. Further, among those participants who were involved in romantic relationships, secures were more likely than either avoidant or ambivalent participants to be having sex with their romantic partners. These findings suggest that sex is more likely to be an intimate expressive behavior for secure individuals, particularly as compared to avoidant individuals.

Mikulincer and Erev (1991) studied relational goals more directly. They found that participants with a secure attachment style rated intimacy as more important in relationships than did either avoidant or ambivalent participants. Ambivalent participants rated passion as more important than did secure participants, who in turn rated it higher than avoidants did. Finally, secures reported the highest levels of actual intimacy in their relationships, followed by ambivalents, and then avoidants. A finding by Mikulincer and Nachson (1991) reinforces the point, showing that only secure individuals preferred lovers over friends as confidantes. Mayseless et al. (1996) found that secure individuals were more likely than any other group to nominate their romantic partner as the





"closest person in my life besides my parents," *even though the proportion of participants in their study with romantic partners was similar across attachment styles* The issue is further elaborated in findings from a diary study carried out by Tidwell, Reis, and Shaver (1996). Analyzing data from the subset of their participants with romantic partners, Tidwell et al. found that participants in each attachment category reported greater intimacy in their interactions with romantic partners than in interactions with other people of the opposite sex. The difference, however, was only a trend among avoidant participants, was larger for ambivalent participants, and was by far the largest among secure participants.

The studies included in this section have implications for another broad method of affect regulation discussed by Thompson (1994), selecting situations based on tolerance for affective arousal. Individuals who enjoy high levels of affective arousal and can experience positive affect in relationships will likely seek affectively deep relationships, as secure individuals do. Avoidants find affective arousal in general, and intimacy in particular, to be anxiety provoking, so they favor interactions and relationships that do not lead to strong affective experiences. The best evidence for this comes from the diary study conducted by Tidwell et al. (1996), who found that avoidant individuals differed from secures in being less comfortable in their interactions with members of the opposite sex. They differed from both secure and ambivalent participants in having more sadness, frustration, tension, worry and embarrassment in their interactions with the opposite sex. In line with this different and aversive experience of interactions with the opposite sex, avoidant participants interacted with the opposite sex less often and for shorter periods of time than did secure or ambivalent participants. Further, time spent interacting with the opposite sex

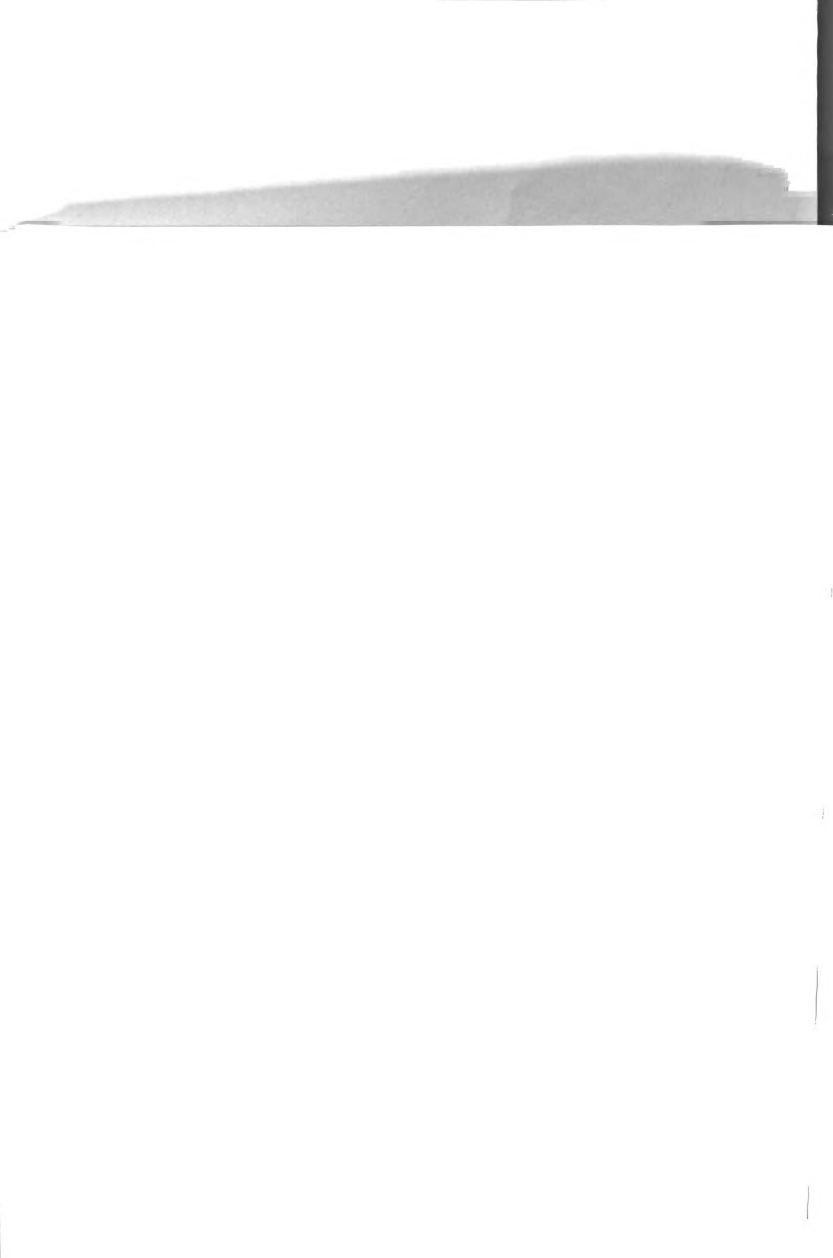


formed a lower percentage of their total time in *interactions*, showing that the difference in absolute frequency was not due to a base rate effect.

Accessing Social Coping Resources

Using others as agents of affect regulation may be the area most clearly relevant to attachment theory. Examining these processes in adulthood extends the early-attachment research on interactive affect regulation of mothers and infants and is also closely related to the Sarason's reconceptualization of social support as an individual differences variable (Sarason, Sarason, and Sharin, 1986). Interactive affect regulation includes and builds upon processes already discussed as well as other processes which are themselves identifiable as constructs. In the following section I reverse my organization somewhat, beginning with findings concerning the most general levels of interactive affect regulation so as to provide a framework for the later discussion of specific component processes.

As in the other areas considered, findings reviewed in this section tend to converge in a coherent way, showing stylistic consistency in affect regulation parallel to differences in attachment style. As we would expect, secure and anxious or preoccupied individuals are more likely than avoidants to enlist others as agents of affect regulation. More importantly, similar differences appear at every level of analysis, often reflecting differences found in other broad areas of affect regulation. Having sought others out, secures are more likely than anxious or preoccupied individuals to have the abilities in self-disclosure and communication style that lead to effective and mutually positive affect regulation. Avoidant individuals are not only unlikely to benefit from such exchanges, they are actually further distressed by them. There is also evidence that avoidants

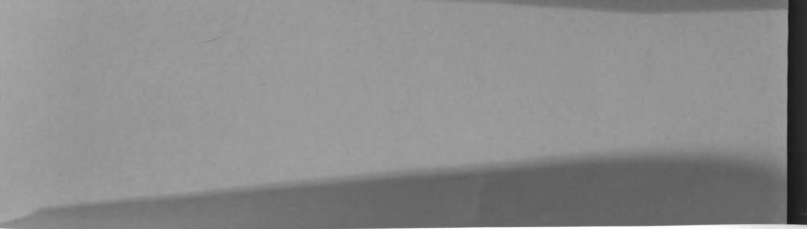


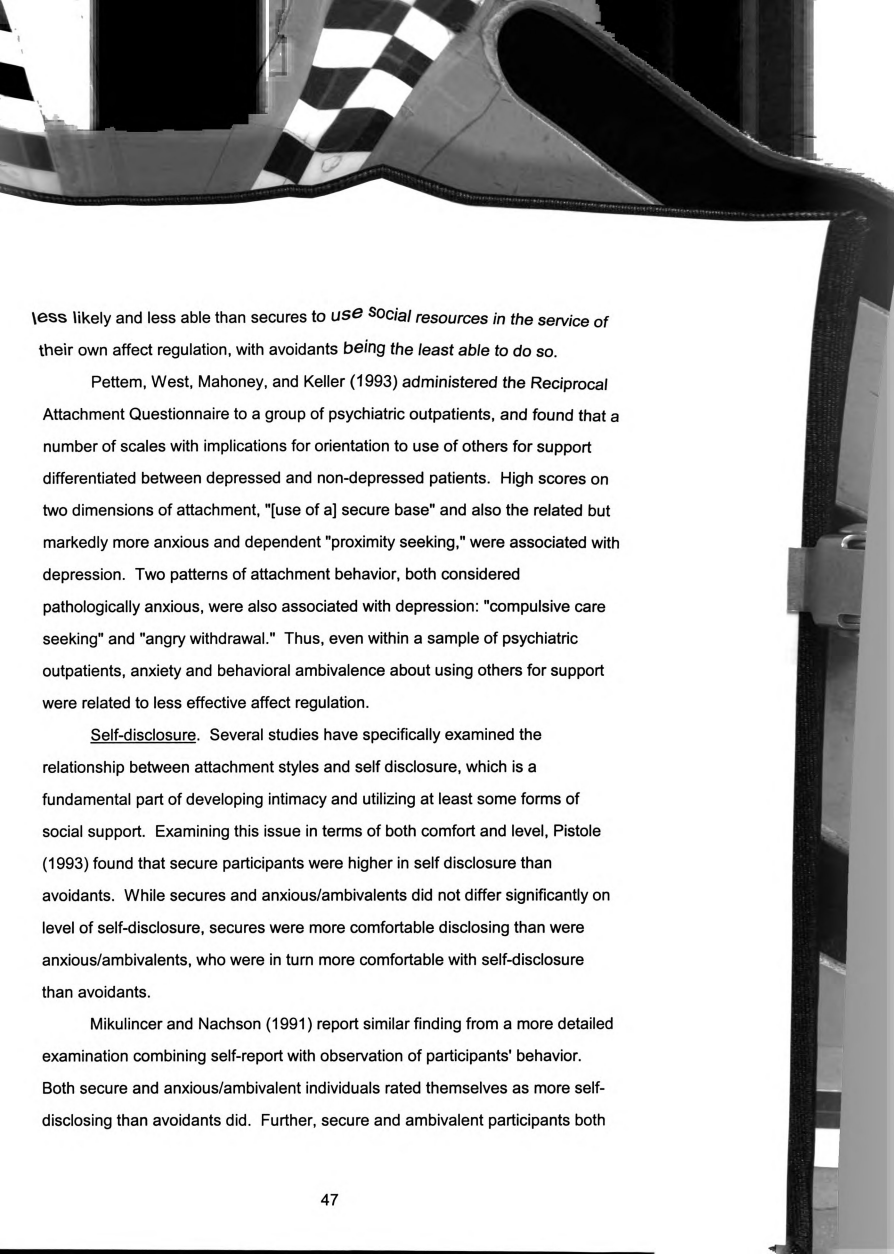


are less likely to bring their needs for *physical and emotional intimacy* into the same relationships, thereby avoiding having *attachment relationships* in the same sense that is possible for secure individuals.

Utilizing social support. Starting with the most general level of interactive affect regulation, Mikulincer and his coworkers (Mikulincer & Florian, 1995; Mikulincer et al., 1993) have found that secure individuals are significantly more likely to respond to stress and real external threat with support seeking than are insecure individuals. Feeney and Kirkpatrick (1996) reported an experimental study in which physiological data seem to show that insecure women, especially anxious women, found a stressful lab situation more distressing if they were briefly separated from their romantic partners rather than allowed to maintain minimal contact with them. Their findings further suggest that anxious women were not effectively comforted by their partners' return for a second trial of the lab procedure.

Priel and Shamai (1995) found that secure individuals scored significantly higher on both number of people in support network and satisfaction with support than did either avoidant or anxious/ambivalent individuals. The secure participants also scored lower on measures of anxiety and depression, results compatible with the authors' theoretical model of secure attachment leading to better social relationships and thence to more adaptive social affect regulation. Wallace and Vaux (1993) found that, relative to secure participants, both avoidant and anxious/ambivalent participants had psychological orientations towards their support networks which were more negative, marked by mistrust and negative expectations of others. Both insecure groups were high on the mistrust subscale, but only avoidant participants were higher than secures on the independence subscale. These findings suggest that insecure individuals will be



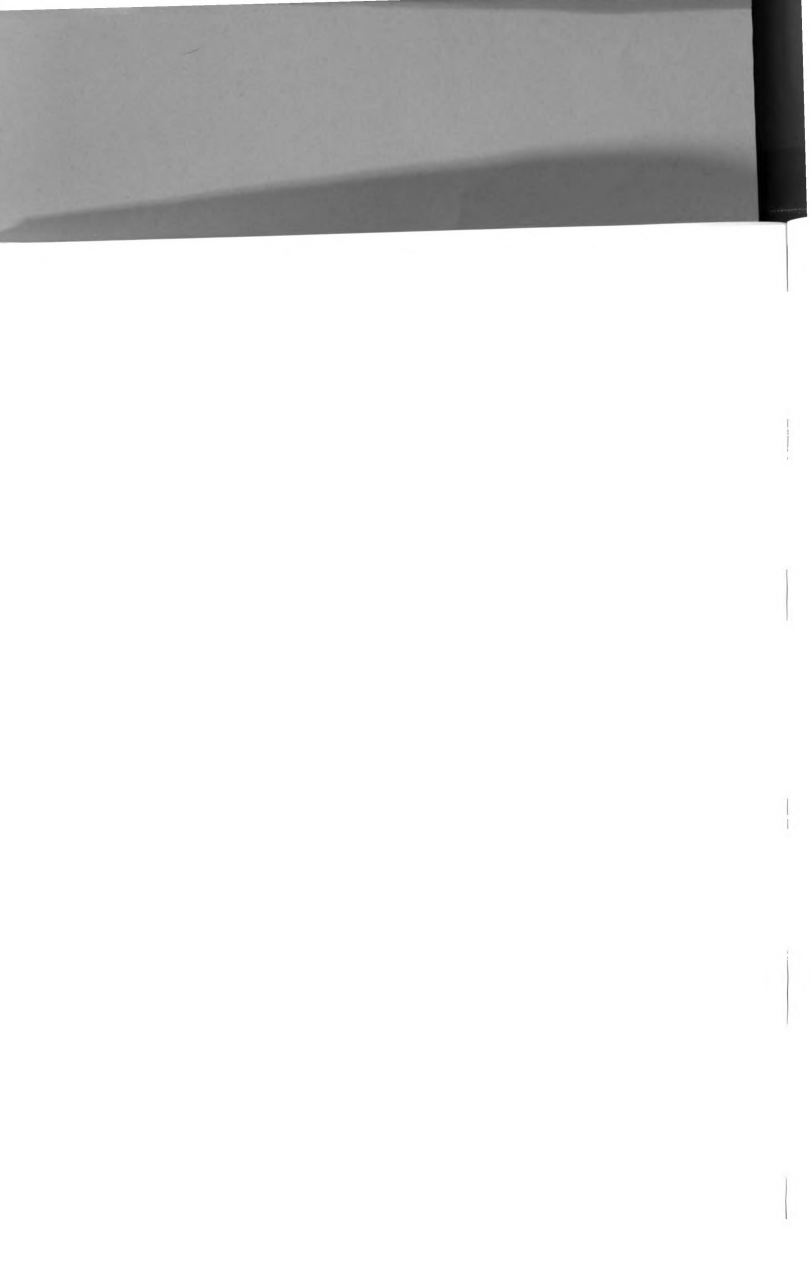


less likely and less able than secures to *use social resources in the service of* their own affect regulation, with avoidants *being the least able to do so*.

Pettem, West, Mahoney, and Keller (1993) administered the Reciprocal Attachment Questionnaire to a group of psychiatric outpatients, and found that a number of scales with implications for orientation to use of others for support differentiated between depressed and non-depressed patients. High scores on two dimensions of attachment, "[use of a] secure base" and also the related but markedly more anxious and dependent "proximity seeking," were associated with depression. Two patterns of attachment behavior, both considered pathologically anxious, were also associated with depression: "compulsive care seeking" and "angry withdrawal." Thus, even within a sample of psychiatric outpatients, anxiety and behavioral ambivalence about using others for support were related to less effective affect regulation.

Self-disclosure. Several studies have specifically examined the relationship between attachment styles and self disclosure, which is a fundamental part of developing intimacy and utilizing at least some forms of social support. Examining this issue in terms of both comfort and level, Pistole (1993) found that secure participants were higher in self disclosure than avoidants. While secures and anxious/ambivalents did not differ significantly on level of self-disclosure, secures were more comfortable disclosing than were anxious/ambivalents, who were in turn more comfortable with self-disclosure than avoidants.

Mikulincer and Nachson (1991) report similar finding from a more detailed examination combining self-report with observation of participants' behavior. Both secure and anxious/ambivalent individuals rated themselves as more self-disclosing than avoidants did. Further, secure and ambivalent participants both





expected to be more disclosing with partners *who were likewise more disclosing*, to feel better around these partners, and to *like them more*. Avoidant individuals had the opposite expectations, expecting more disclosing interaction partners to arouse negative feelings in them, and expecting to react to these partners by disclosing less about themselves. The portion of the study conducted with live interaction partners confirmed all of these self-reported predictions with behavioral measures. Thus, differences in isolation and repression of affect which appear at internal cognitive levels are also played out in interactional styles. It is not surprising that individuals who repress their affective experience would also be less self-disclosing. It is interesting, however, that this attachment by self-disclosure interaction runs counter to the usual finding in social psychology that people prefer self-disclosing interaction partners and in turn disclose more to them. Perhaps avoidants' discomfort in this situation holds some clues to the maintenance of their repression of affect.

Communication styles. Some of the findings already reviewed clearly have implications for communication styles. For instance, the 1991 study by Mikulincer and Nachson discussed immediately above is the same study in which the authors found that secure participants preferred lovers as confidants, whereas avoidants preferred cross-sex friends and anxious/ambivalents preferred same-sex friends. Considered alongside Feeney et al.'s (1993) finding that secure undergraduates are more likely to be sexually active with their romantic partners while avoidant undergraduates are more likely to be sexually active with acquaintances, we can see implications for use of sexual relationships as a context for expression of intimacy. Fitzpatrick, Fey, Segrin, and Schiff (1993) examined individuals' communication styles within their long-term couple relationships and found that secure attachment was positively



correlated with a positive mutual communication style and negatively correlated with styles of both demanding and withdrawal, and with avoidant communication. Avoidant and anxious/ambivalent attachment showed patterns of communication styles which were nearly opposite that found for secures. Both insecure styles were negatively correlated with mutual communication and positively correlated with styles of demanding and withdrawal and with avoidance. Brennan and Morris (1997) found that insecure college students were less likely than secures to seek positive, as opposed to negative, feedback from their romantic partners.

In their experiments with conflict in romantic couples, Simpson et al. (1996) found that ambivalent participants had worse perceptions of their partners after discussing relationship problems with them, and that ambivalence predicted high levels of both self-reported and observer rated distress during these discussions. Simpson et al. also found effects on quality of discussion, with higher avoidance and ambivalence scores in men predicting less constructive and intimate discussion. For women ambivalence predicted lower discussion quality and also showed an interaction with seriousness of problem. For nonambivalent women, discussing a major problem was related to better discussion quality, but for ambivalent women it led to worse discussion quality. Guerrero and Burgoon (1996) also manipulated interactions within college couples. Target subjects' partners were recruited as confederates to either increase or decrease their involvement from one conversation to the next through changes in warmth, physical touch, and eye contact. Subjects of all attachment styles tended to reciprocate partners' increases in involvement and to compensate for their partners' decreases in involvement. Preoccupied subjects showed the strongest reactions, effectively heightening their



involvement in the exchange more than *other groups of subjects regardless of* which way their partners manipulated the conversation.

All of the studies discussed in this section bring out some common threads. Secure individuals are more likely to turn to others for support, partly because they have more relationships partners they can turn to, and partly because they have more positive expectations when they do turn to them. Secures also appear to be the most appropriately sensitive to their partners in interactions. While insecure are less likely to turn to others for help, avoidants are least likely to do so. Having sought interpersonal exchanges, secure and anxiously attached individuals are likely to engage in the sort of mutual self-disclosure most conducive to effective social affect regulation--though secures more so than anxious/ambivalents. This difference may be due to ambivalents' experience of distress during conflictual discussion. Avoidants would be further distressed by the self-disclosure required in such discussions and would try to avoid them. In line with this, avoidants are unlikely to bring their interpersonal needs together in the sorts of attachment relationships most likely to provide for effective social affect regulation. While these findings are complementary across studies, room remains to understand the specific component processes which contribute to these stylistic differences in social affect regulation.

Expressive and receptive behavior in affect regulation. It seems likely that differences in affective signaling and responding to partners' affective signals would underlie differences apparent at the interpersonal level. Indeed, this seems almost necessary given the theoretical etiology of differences in attachment styles. Some clues to these specific mechanisms can be found in studies of mother-infant attachment, and still more can be found in studies carried out by Mikulincer and Simpson with their respective coworkers.

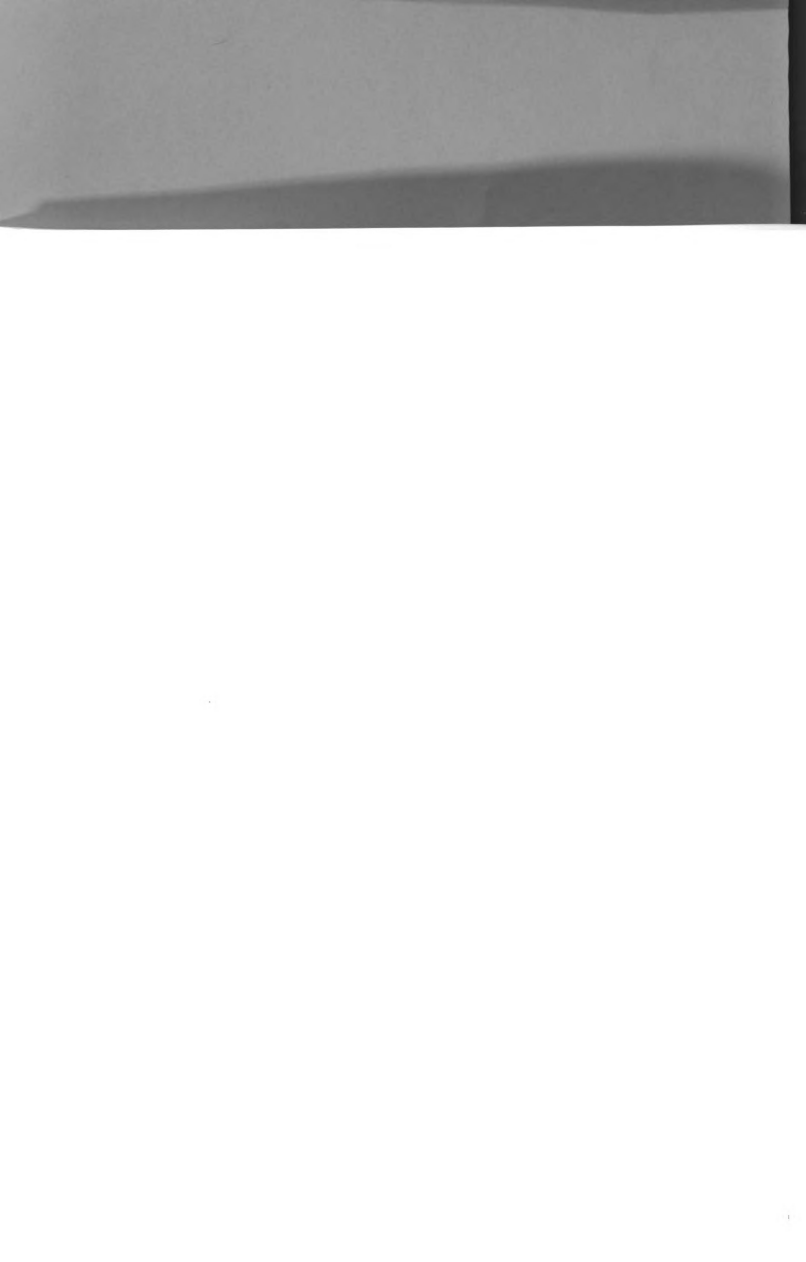




Aggregating findings across these studies, *we see systematic differences varying by attachment style and continuing to mesh with differences already outlined.*

Avoidant individuals tend not to perceive or respond to affective signals, whether of distress or of love and commitment. Similarly, they tend not to signal their own distress to partners. This essentially mirrors findings about self-disclosure at a more basic level of analysis. Ambivalent individuals, on the other hand, over-signal their passion and commitment but appear not to accurately perceive their partners' positive affective signals. This is a logical extension of Kobak and Sceery's (1988) description of the development of preoccupied attachment behavior. Secures alone seem fairly accurate in signaling their affect, either positive or negative, and in responding to their partners' signals. They are also the most likely to share experiences at an affective level. Finally, there are indications that in extreme situations, the affective rigidity of insecure individuals leads to poorly modulated and even pathological affective expressions.

In their study of the relationship between mothers' own attachment styles and their responses to their infants' affective signaling, Haft and Slade (1989) found that secure mothers were more likely than preoccupied mothers to engage in intersubjective, or purely affective, attunements with their infants. (See Stern, 1985, for a full discussion of attunement.) Implications from their qualitative analysis are also relevant here, suggesting that preoccupied mothers defensively excluded recognition of their infants' negative affect in order to avoid being overwhelmed by their own distress, and that dismissing mothers were unable to recognize their infants' distress even when it was pointed out and labeled by the experimenters. The logical complement of this inability to recognize and process signals of negative affect is found in the study by Izard, Haynes, Chisholm, and Baak (1991), who found that the mothers of more secure infants were





distinguished partly by their greater freedom *in expressing their negative affect* with their infants.

In their study of the structure of romantic love, Mikulincer and Erev (1991) found differences between subjects' descriptions of their romantic relationships and their partners' descriptions of the same relationships. Secures gave higher estimates of their partners' feelings of intimacy than did avoidants or ambivalents. Secures and avoidants were both higher than ambivalents in their estimation of how much commitment their partners felt. The partners of secure and avoidant subjects did, in fact, report feeling more intimacy and commitment than the partners of ambivalent subjects. Pairwise examination of discrepancies in subject and partner reports revealed interesting patterns. Avoidant subjects perceived less feeling of intimacy and commitment in their partners than those partners actually reported. Partners of ambivalent subjects believed that their ambivalent partners felt more passion and commitment than the subjects actually reported. Thus, it appears that avoidants have inaccurately low perceptions of their partners' love for them. Ambivalents express love to their partners out of proportion to what they actually feel. That is, avoidants under-perceive love, and ambivalents over-signal it. Secures, on the other hand, appear to be the most accurate in both their expressions and perceptions of various facets of love in their relationships.

Simpson, Rholes, and Nelligan (1992) investigated the seeking and providing of social support for specific anxiety within dating couples. For this study, women were isolated from their partners and subjected to anticipatory stress, then allowed to interact freely with their male partners during a "waiting" period. Methodology included multimodal measurement and behavioral coding from video taped interactions, allowing for unusually fine grained analysis of





processes within the couples. Findings are *discussed in terms of the dimension* of security versus avoidance. The authors *also derived a dimension for anxiety*, but it failed to yield significant correlations with the dependent variables; where anxiety is used in this discussion, it refers to anxiety resulting from the experimental manipulation. First, women's attachment style and level of situational anxiety yielded an interaction for the extent to which they discussed their anxiety or sought social support from their male partners. Among secure women, higher situational anxiety led to increased support seeking. Conversely, avoidant women's support seeking decreased as a result of higher anxiety. A few very avoidant women (significantly more avoidant than sample mean by *t* test) did not even mention the anxiety inducing manipulation to their male partners. Avoidant women were also more resistant to physical contact initiated by their male partners than were secure women.

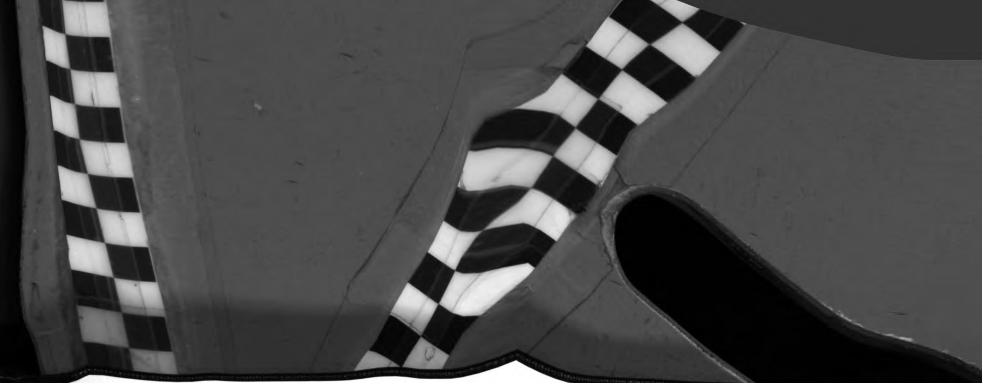
Men's supportive behavior was also predicted by an interaction involving women's anxiety, this time with men's attachment styles. (The existence of this interaction is interesting in itself because it highlights the interactive nature of the process; the men's attachment systems were activated through their partners' distress.) Secure men offered more support to more anxious women, and avoidant men offered less support to more anxious women. The fact that men's supportive behavior was not predicted by women's support seeking, but rather by women's observed anxiety as rated from video tapes, suggests that the male partners were responding to basic affective signals (e.g. facial or postural) rather than verbal messages. Men's supportive remarks did show an interaction of men's attachment and women's discussing their anxiety. As women discussed their anxiety more, secure men made more supportive remarks and avoidant men made fewer. Simpson et al. (1996) reported a parallel finding, with men's



avoidance predicting lower warmth and *supportiveness towards their partner* while discussing a relationship problem. *The effect was stronger if the couple discussed a major problem.* This replication is important, because in the 1996 study men and women experienced the same procedure, and the finding still occurred only in men, thereby indicating a real sex difference. Kobak and Hazan (1991) reported overlapping results from a study of problem solving and self-disclosure in married couples. They found that more secure husbands were both less rejecting and more emotionally supportive and responsive towards their wives during the problem solving task. Secure wives were less rejecting of their husbands. Notice that these effects mirror findings regarding self-disclosure as well as the findings of Haft and Slade (1989). This suggests that, beyond failure to appropriately recognize displays of distress, the avoidant men actually withdraw from them, the same way they withdraw from self-disclosure and isolate emotional memories.

Modulation of expression of affect, and in particular affective distress, is still another important aspect of expressive behavior. Some relevant findings have already been described, but a few specific areas of expression deserve consideration here with findings concerning social processes. West and Sheldon (1988) have developed scales to measure patterns of pathological attachment first described by Bowlby (1973, 1982): compulsive self-reliance, angry withdrawal, compulsive care-seeking, and compulsive care-giving. Based on the authors' own statistical analysis, we can interpret these different patterns as representing a continuum of expression of need, from low to high, as modulated by fear of rejection. The first two patterns are substantially correlated, and likely represent a general style of repressing attachment needs, whereas the second two scales, which are also substantially correlated, likely





represent a general style of preoccupation with *attachment needs* and the lowest interpersonal obsequiousness. *Feeney and Ryan (1994)* report a corresponding finding.

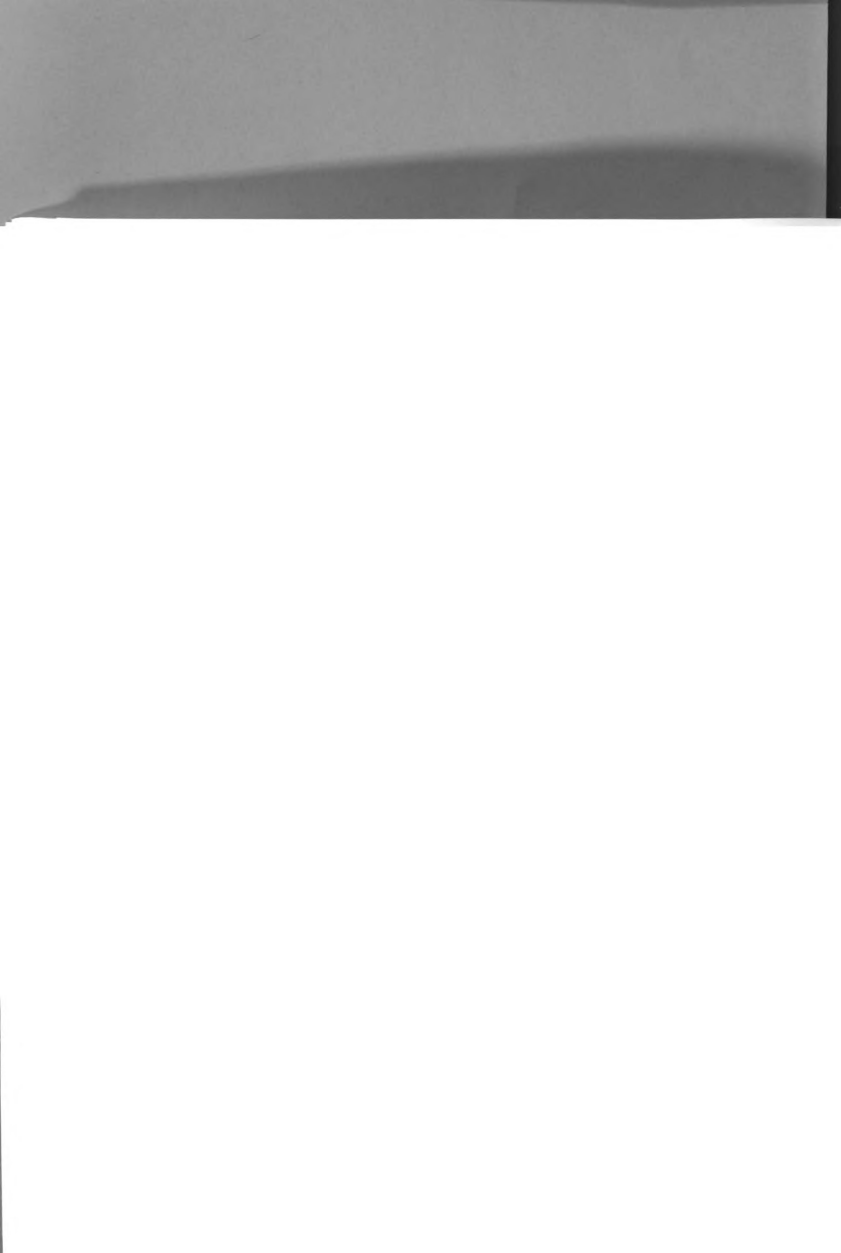
In Dozier and Lee's (1995) study, we saw that participants rated as preoccupied with attachment self-reported a higher level of psychopathology than expert raters attributed to them. This could represent a form of care seeking. Similarly, participants rated low on preoccupation with attachment reported significantly fewer psychopathological symptoms than expert raters attributed to them. Pianta, Egeland, and Adam (1996) reported a similar finding in the MMPI-2 responses of first-time mothers at risk for parenting difficulties. Women in this sample who were rated as preoccupied in the Adult Attachment Interview also showed greater elevations on the scales Psychopathic Deviance, Paranoia, Schizophrenia, and a scale measuring frequency of responding to infrequently endorsed items. These preoccupied women not only showed higher scores on these scales than secure or avoidant women, they showed mean scores well into the clinically significant range. As a group, their profiles suggest impulsivity, insensitivity to others, suspicions, hostility, isolation, self-dominance, preoccupation, feelings of inferiority, and a willingness to endorse items reflecting pathology. Feeney and Ryan (1994) found that avoidant individuals reported the fewest health problems, and anxious/ambivalent individuals reported the greatest numbers of both physical symptoms and visits to health professionals. However, reporting more symptoms did not predict visits to health professionals, leading the authors to conclude that both are probably a care seeking behavior which grows out of the hyper-activating attachment strategy included in the anxious/ambivalent style. Cole-Detke and Kobak (1996) report a finding from their study of eating disorders and depression in female college students which also supports associations between attachment and symptom





profiles, with preoccupieds reporting the most *symptoms and secures the fewest*. Lopez, Melendez, Sauer, Berger, and Wyssman (1998) report a corresponding finding which takes into account current stress levels as an activator of attachment behavior. In this study fearful-avoidant college students reporting high levels of stress were less willing to seek counseling than fearful-avoidant students reporting low stress. The opposite pattern was observed in secure college students, who were more willing to seek counseling if they were in the high stress group.

Perhaps the most striking finding concerning attachment and modulation of affective interpersonal expressions comes from a study by Dutton, Saunders, Starzomski, and Bartholomew (1994) which examined adult attachment style, emotional traits, and personality organization in men referred for physically abusing their romantic partners. Bartholomew's fearful-avoidant and preoccupied attachment styles showed strong positive correlations with Borderline Personality Organization, a variable which includes identity diffusion, primitive defenses, and poor reality testing; and with anger; jealousy; domination and isolation of partner; and emotional abusiveness. Secure attachment was significantly negatively correlated with nearly all of these same variables, suggesting that a negative working model of self is an important contributor to the abusive dynamic. Indeed, fearful-avoidant attachment was the single best predictor of number of acts of physical violence. The findings suggest that these men's abusiveness towards relationship partners is an expression of their attachment-relevant fear and anger, and may be similar to the attachment rage sometimes observed in anxious/resistant children. Resort to abuse may be taken at face value as an indicator of the participants' poor ability to modulate their expressions of fear and anger in their relationships. This may be the





logical, though unfortunate, extreme of the *emotional withdrawal, isolation, and overcontrol* that other studies have shown to be typical of avoidants' affect regulation strategies.

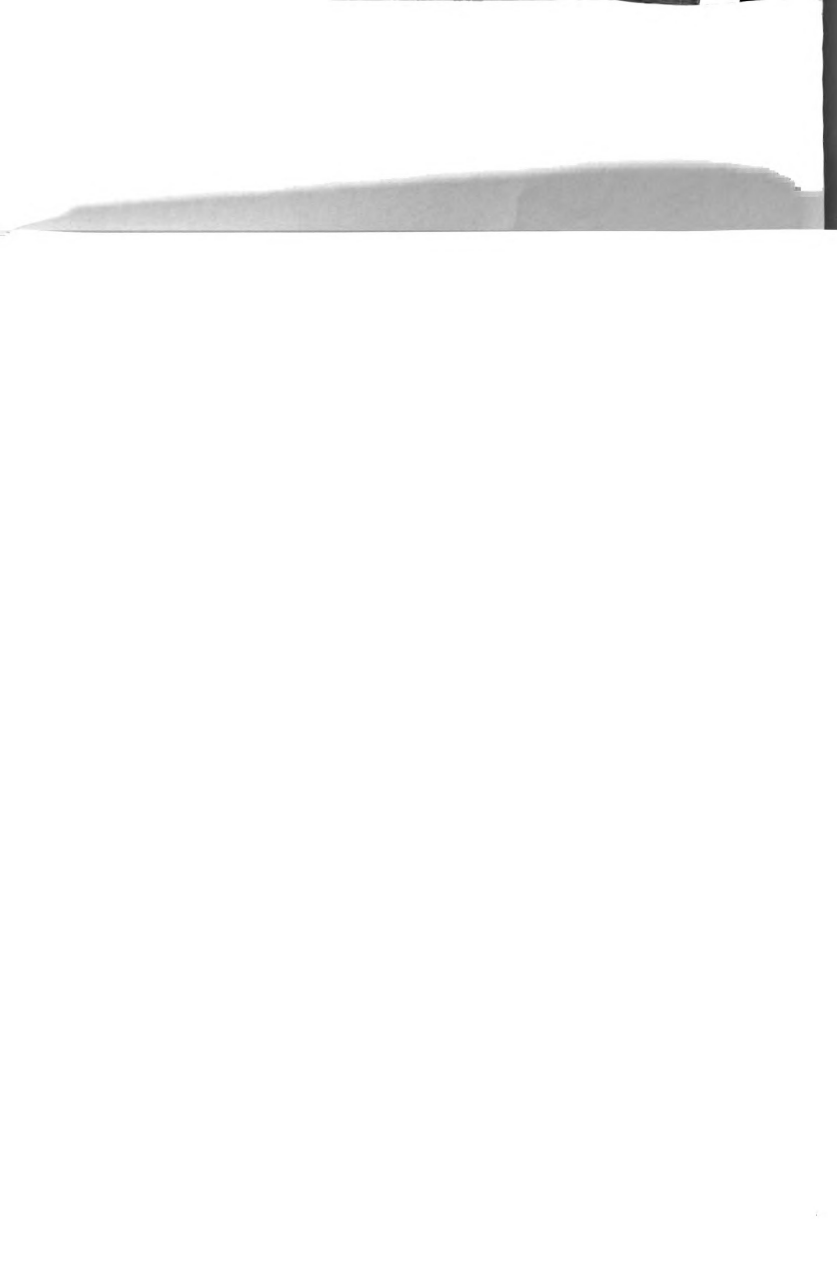


Table 1. Summary of Findings in Literature on Adult Attachment and Affect Regulation

Mechanisms of Affect Regulation	Attachment Style		
	Secure	Anxious-Ambivalent	Avoidant
Attention to Emotions and Emotionally Arousing Stimuli (esp. Negative Emotions)		High	Low
Use of Repressive Defenses	Low	High	Highest
Defensiveness vs. Anxiety	Low Def., Low Anx.	Low Def., High Anx.	High Def., High Anx.
Appraisals of Threat	Low	Highest	High
Appraisals of Control (Secondary Appraisal)			High
Attributions of Self-Criticism or Blame	Low	High	Fearful Highest
Relational Goals	Intimacy	Passion	Sex
Relational Behaviors	Sex with Dating Partners		Sex with Friends and Acquaintances
Self-Disclosure	High	High	Low
Comfort with Self-Disclosure	High		Low
Perception of Partners Experience in Relationship	High Intimacy, High Commitment	Low Intimacy, Low Commitment	Low Intimacy, High Commitment

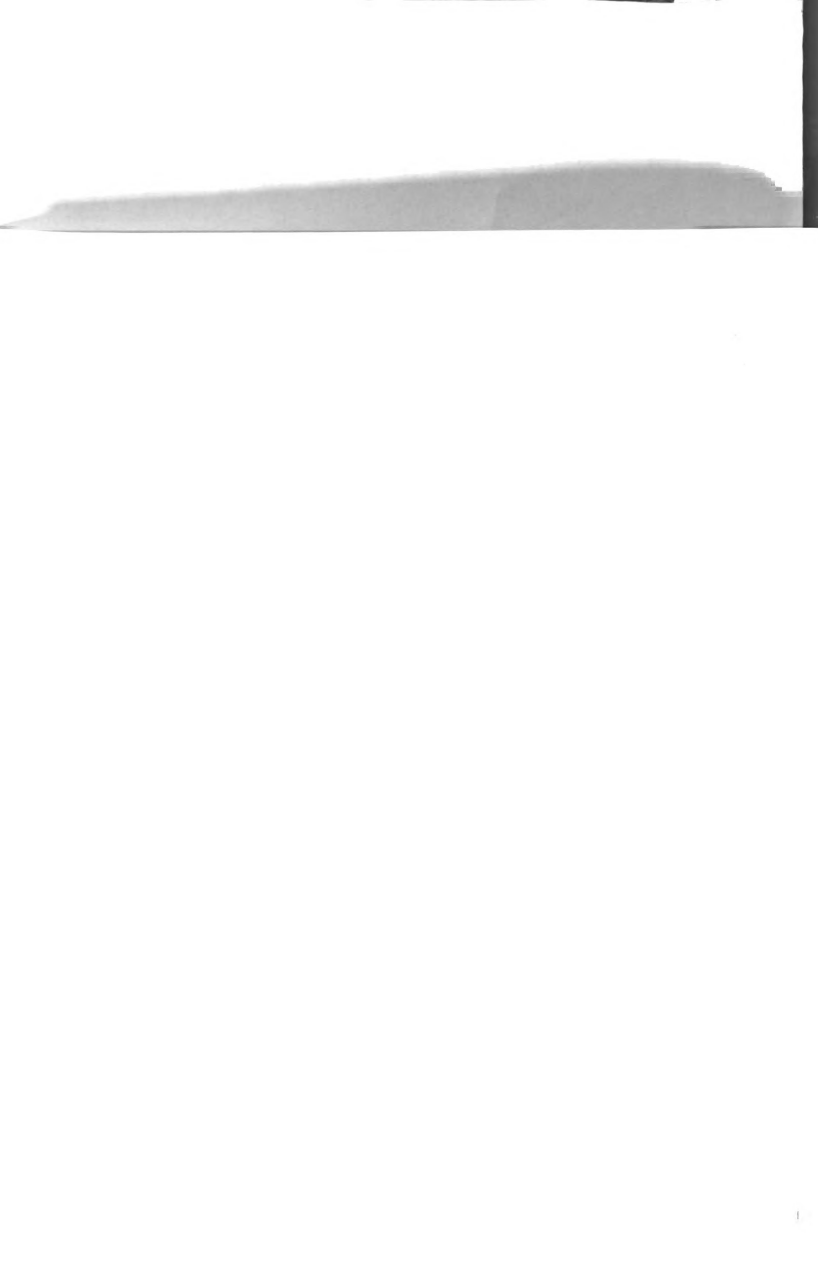
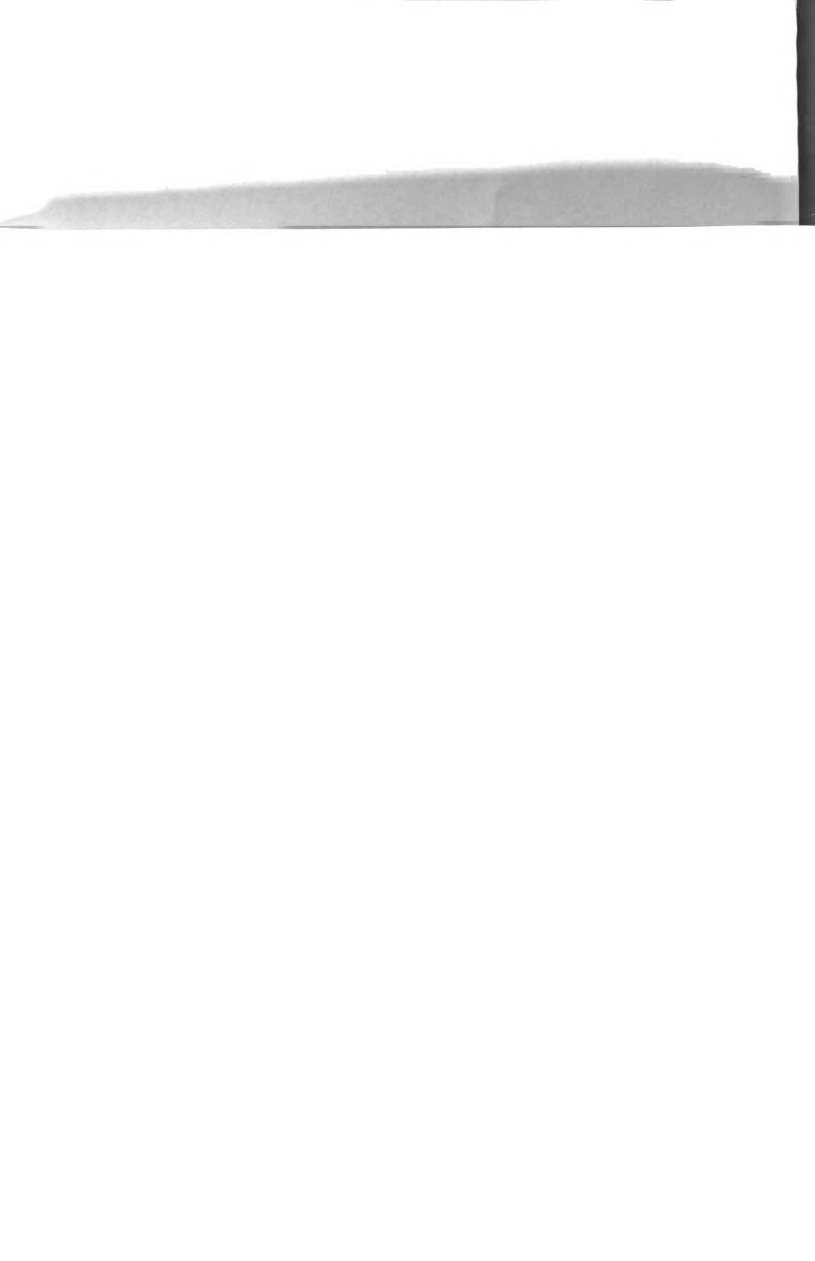


Table 1. (continued)

Mechanisms of Affect Regulation	Attachment Style		
	Secure	Anxious-Ambivalent	Avoidant
Communication styles with Partners			
Mutual	High	Low	Low
Demanding & Withdrawal	Low	High	High
Avoidant	Low	High	High
Support Seeking in Response to Anxiety	High		Low
Offering Support to an Anxious Partner	High		Low
		All Insecures	
Support seeking as coping (in general)	High	Low	
Support Network	Large	Small	
Satisfaction with Support	High	Low, Distrustful Towards Others	





SUMMARY OF THE RESEARCH

Throughout this review, findings have been remarkably consistent. Indeed, there were no findings which ran counter to the general pattern of findings shown in Table 1. Studies of similar processes show similar results, even across methodologies and across sharply differing samples. This consistency across studies and the logical complementarity of findings across mechanisms does argue for the existence of relatively consistent styles of affect regulation within different attachment styles. Further, differences identified at a process level tend to mirror differences already recognized in the usual affective experiences of individuals with different attachment styles. Thus, there do seem to be systematic differences in styles of affect regulation which underlie the different experiences typical to each attachment style.

The affect regulation of secure individuals seems to be based on an effective use of appraisals as a primary method for controlling negative affect. As expected, secures are also particularly adept at using various interactive or social methods to regulate their own affect and, by implication, that of their partners. Their relatively low anxiety and low appraisals of threat also facilitate pursuit of intimacy and positive affect in intimate relationships. In addition to low appraisals of threat, or positive primary appraisals in cognitive mediational terms, secures tend towards complementary assessments of low self-blame and criticism. Secures also seem to have the most flexible balance of attention to emotions versus other material, probably reflecting successful integration of the needs to maintain security and to explore their environment. This balance of attention applies to internal stimuli, as well. Secures have efficient access to





associationally elaborated emotional memories, *but are unlikely to ruminate on* memories of loss or other painful emotional material.

Other aspects of secure individuals' affect regulation styles are presumably built upon these fundamental aspects. Securely attached individuals manage their relational goals in a way which maximizes their opportunities for emotional rewards. The risk-taking inherent in this is facilitated by their low appraisals of threat with regard to relationships, their relatively low anxiety, and their high abilities with such relational skills as mutual communication and self-disclosure. Use of social support as a coping mechanism is further facilitated by the fact that secure individuals tend to have large support networks and positive expectations for how people will respond to them. Secures also contrast with insecure individuals in being more likely to seek social support specifically when threatened by stressors, showing that their social coping is neither chronically activated nor suppressed as part of their stress response.

It seems that the ways in which anxious/ambivalent individuals manage their affect might best be termed dysregulation, rather than regulation. Their style shows exaggerated use of attentional processes, appraisals, and ambivalent and indirect ways of accessing social resources. Anxiously attached individuals are highly attentive to their own emotions and to emotionally relevant stimuli, especially those having to do with negative emotions. This applies to both internal stimuli, such as memories of loss, and external stimuli, such as perceived threats in the environment. Memories are highly emotionally elaborated, and memories associated with negative affect are the most accessible. Appraisal styles also contribute to a chronically negative affective experience, as anxious and ambivalently attached individuals make high appraisals of threat concerning a range of stimuli and attribute considerable





blame and criticism to themselves. They also *appear to make use of some* repressive defenses, such as low interoceptive awareness, repressing expression of hostility, and an unwillingness to recognize other's distress.

These internal processes are accompanied by patterns in social processes that combine to create an overall effect of anxious/ambivalent individuals using social sources of affect regulation in indirect and ineffective ways. Expressions of hostility are repressed, probably to avoid damaging relationships which they already tend to see as threatened. Nonetheless, anxious/ambivalents tend toward self-disclosure, despite their discomfort with it, and tend to be expressive of their own distress. But, counter to these apparently help-seeking behaviors, they are unlikely to seek social support to help cope with real stressors. They tend to use negative communication styles which prevent genuine emotional exchange in their relationships. At the same time, they express intimacy and commitment to their partners out of proportion to their real feelings. It seems likely that this contrary mix of behavior results from both the disorganizing effect of chronic anxiety and their general mistrust of social relationships.

Avoidant attachment is accompanied by a style of affect regulation most marked by inattention towards and even repression of affect, either positive or negative. Relational goals are managed in a way which avoids anxiety by obviating most emotional intimacy, and there is a marked disuse of relational forms of affect regulation. There are likely broad differences between avoidant individuals on some of these mechanisms that could be better explored using a distinction between dismissing and fearful avoidance, however most of the research reviewed did not use this distinction, so the current findings do not address the issue.



Avoidant individuals' failure to consciously *attend to affect* appears in poor recollection for memories cued by affect, failure to elaborate memories with affect, and even inability to recognize or respond to the affective displays of others. This range of findings can be seen as at least partly due to active repression, since avoidant individuals do tend to score as anxious on projective and physiological measures even while denying anxiety on self-report instruments. People with avoidant attachment styles are also prone to make high appraisals of threat and of their own blame-worthiness. The impact of these appraisals is somewhat blunted, though, by their high secondary appraisals of their own control.

Avoidants' disuse of social forms of affect regulation is probably driven by several component factors. Avoidants have low expectations of others, both in general and in specific relationships. Indeed, they appear to have a systematic bias in perceiving partners as less emotionally invested than they really are. Avoidants are also uncomfortable with self-disclosure, their own or other people's. And they tend to use communication styles which are counterproductive to open emotional exchange.





HYPOTHESES

Hypotheses for this study grew out of both the review of findings extant in the literature, and the possibilities and limitations of the instruments used for the current project. The main instrument used for gathering data about affect regulation was participants' written responses to vignettes describing relationship events, both ambiguous and clearly negative. The literature indicates a number of ways in which expression and communication can serve affect regulatory functions. The use of a free response method is particularly interesting in this regard, as the data itself constitutes a form of directly observed expressive behavior. The exact same data also serves as the best indicator available of what participants attended to while responding.

Patterns of Emotional Expression

Following from the measure's nature as a sample of expressive behavior, I expected that secure and preoccupied attachment would be associated with relatively higher levels of emotional expression in the written protocols. Such an effect would reflect both greater tendencies towards attending to emotions, and towards emotional expression. Conversely, avoidant, and particularly dismissing, attachment should predict lower ratings of emotional expression.

Appraisal of Threat

Several studies have identified appraisal of threat, a form of managing information, as an important method of affect regulation. Given ambiguous or negative situations, I expected secure attachment to predict the least threatening appraisals. Preoccupied and fearful attachment, both associated with anxiety,





should predict relatively high appraisals of *threat*. Logically, this hypothesis should be available for test through an examination of participants' expectations about outcomes combined with their attributions about their own control in the situation.

Self-Blame

Self-blame and negative attributions about the self are another way of managing information, and one which also tends to regulate affect in a negative direction. I expected attachment to show similar effects on this attributional style as on appraisal of threat, although for slightly different reasons. Specifically, I hypothesized that self-blame and negative attributions about the self occurring in the written responses would parallel negative working models of self. Thus, preoccupied and fearful attachment should both predict higher levels of self-blame.

Active Mechanisms of Affect Regulation

The hypotheses above concern mostly expressive and attributional processes. Thompson (1994) has also identified a number of relatively more active, behavioral, forms of affect regulation. Just as importantly, the review of findings showed differences across attachment styles in some of these more active forms of affect regulation.

Introduction of new goals. Substitution of goals, a particular method of managing construal of information, explains several extant findings. To some extent, this was discussed in the review as being a matter of chronic style among avoidants. However, the same low emotional investment in intimacy that is reflected in the findings reviewed should also influence the specific behavior





planned by these individuals when a *hypothetical relationship is threatened*. Specifically, I expected that participants with more avoidant styles, and particularly dismissing styles, would be the most likely to describe coping with ambiguous or threatening relationship events by introducing other goals to replace the relationship. New goals might consist of potential new relationship partners, new values for relating, or competing activities.

Self-distraction. Similarly, dismissing and fearful attachment should be associated with descriptions of participants distancing themselves from emotionally threatening situations by engaging in activities which serve to distract their attention from emotions. This hypothesis is in line both with findings that avoidants tend to devalue intimate relationships, and that they tend to isolate or avoid their own emotional lives.

Social support. I also expected to see differences in the extent to which participants describe utilizing social support to deal with emotionally challenging situations. Secure and preoccupied attachment should be the most likely to show positive associations with descriptions of participants seeking social support, though secures and preoccupieds may seek different types of support for different reasons.

Open communication. On a closely related issue, I expected secure attachment to be most highly associated with descriptions of solving problems through open communication with partners. This would conceptually replicate findings in the literature that secures prefer romantic partners as confidantes and also findings about communication styles.

Management of expression. Conversely to the hypothesis for open communication, preoccupied and, to a lesser extent, fearful attachment should be associated with descriptions of controlled styles of expression such as





withdrawal and management of emotional *expression*. The literature suggests that anxious individuals do both in attempts (conscious or not) to manipulate their partners' responses and also to protect themselves from the risk of emotional exposure or communication.

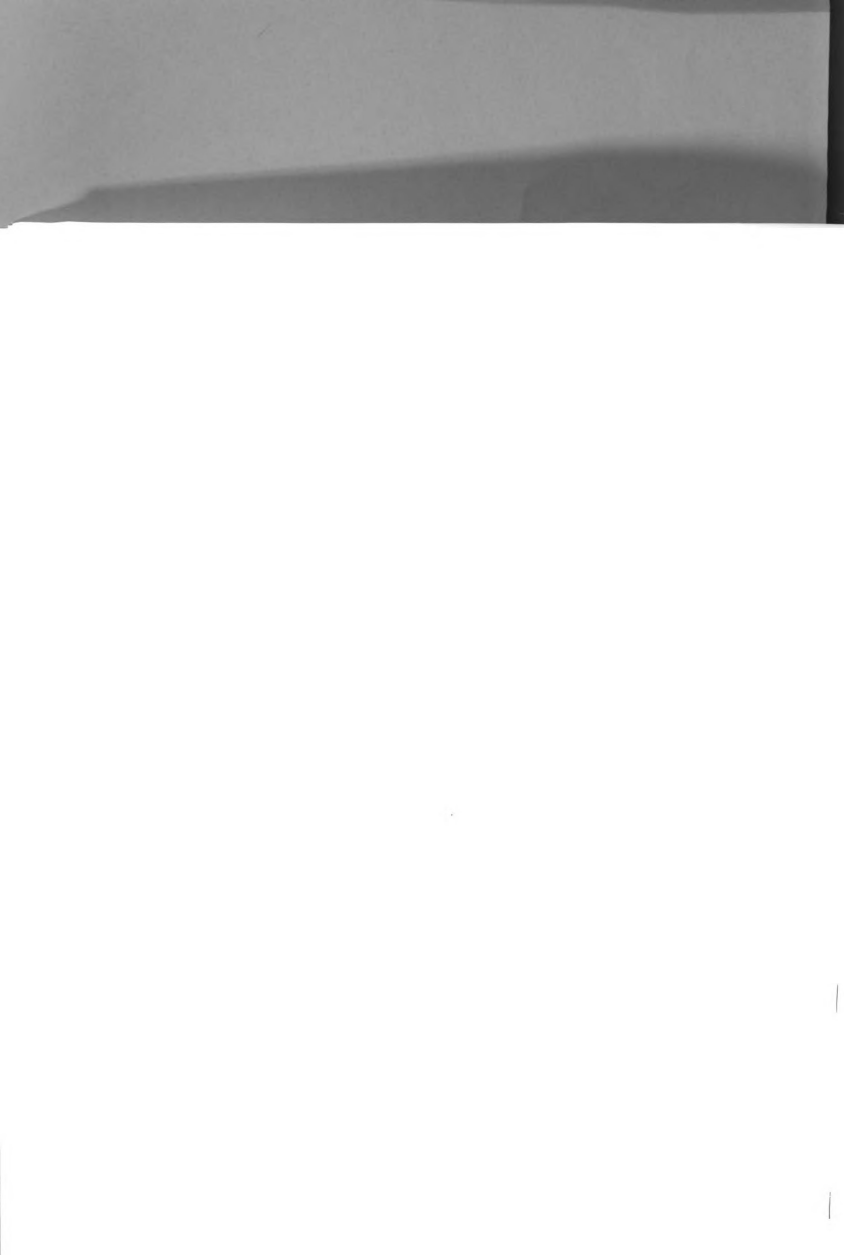
Rumination. Lastly, I expected to see patterns in whether or not participants described dwelling on negative emotions, that is, using rumination as a form of affect regulation (or dysregulation). I expected that preoccupied participants would be more likely to describe rumination as a way of dealing with the breakup, reflecting their tendency to over-attend to negative emotion. I expected that secure and dismissing participants would be unlikely to describe ruminating on the loss.

Ways of Coping

Effects of attachment style. It was also expected that responses to a standard measure of coping styles would replicate findings of previous research. Previous research examining ways of coping has used three style models of adult attachment. Avoidant attachment, which overlaps both fearful and dismissing attachment in the four style model, has been associated with self blame and emotionally avoidant coping. Wishful thinking has been associated with both avoidant attachment and anxious-ambivalent attachment, which overlaps the fearful and the preoccupied styles. I expected that wishful thinking scores would be related to both fearful and preoccupied attachment in a four category model, reflecting the anxious and needy tendencies common to both styles. I also expected that either of the avoidant styles should be associated with high scores for avoidant coping in stressful relationship situations.



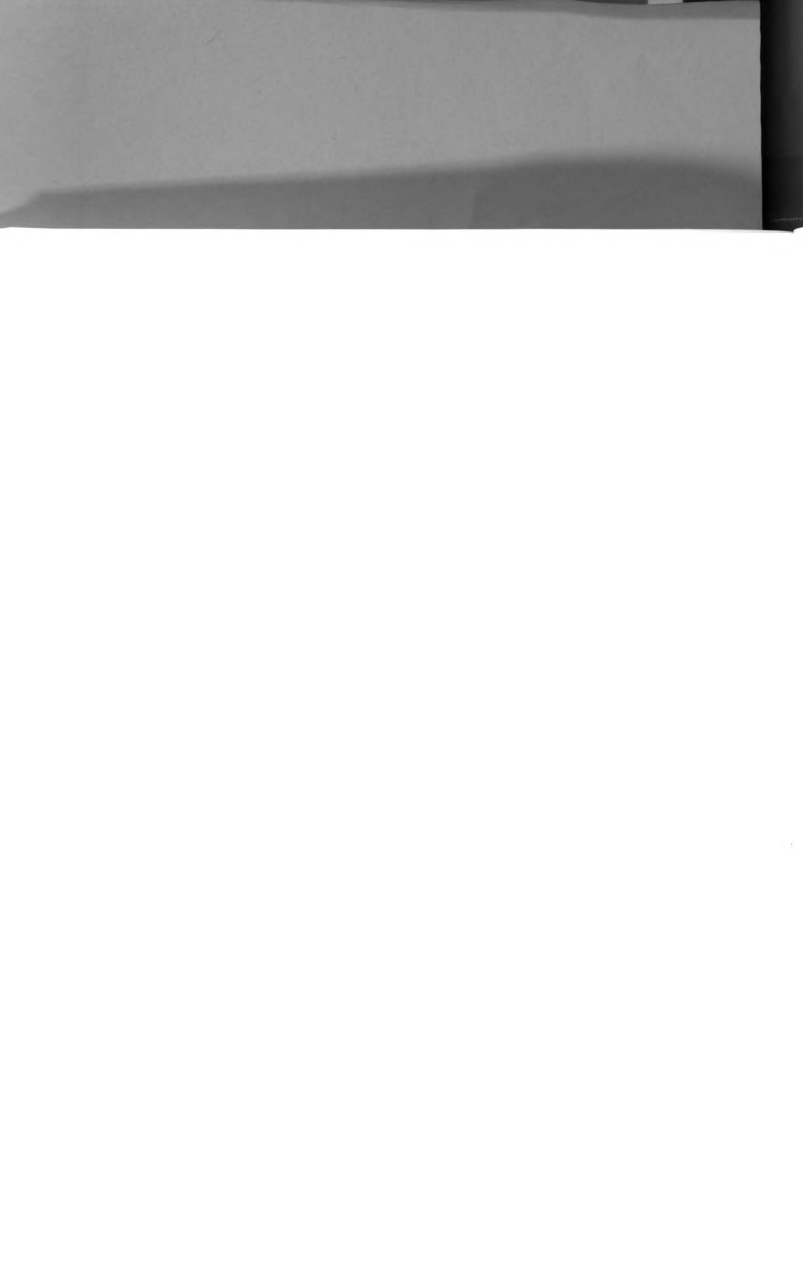
Comparison with free responses. Lastly, *intercorrelations between scores* for the coping measure and relevant ratings of affect regulation will be examined. This will be largely exploratory, though several definable questions are involved. These analyses will provide some indication of the extent to which a common self-report measure converges with or differs from the free response method developed for the current study. These analyses will also provide one clear area of comparison between findings with the current sample and samples reported by other researchers.





METHOD

This study was designed as a within subjects correlational design with attachment style, a personality variable with a long developmental history, as the predictor variable. The within subjects design was chosen in order to avoid several methodological difficulties. Attachment styles are not evenly distributed in the population. Most studies find fifty to sixty percent of adult and adolescent samples to be secure, and as few as ten to fifteen percent fearful-avoidant. If attachment is treated as a categorical variable, this creates obvious problems with cell sizes. Besides statistical considerations, attachment is better understood theoretically as consisting in complex patterns of thoughts, behaviors and emotions. These patterns are better represented by dimensions or similarity to prototypes than by clear cut categories (e.g. Bartholomew, 1990; Bowlby, 1982; Griffin & Bartholomew, 1994a). The conceptual dependent variables having to do with affect regulation were represented by ratings made from participants' free responses written after they read vignettes describing hypothetical relationship events. Because attachment is presumed to guide functioning primarily when activated (this is similar to activation of schematic processing), attachment measures were administered to all participants before they read the vignettes. This, along with a visualization cue administered in data collection sessions, was intended to focus participants' attention on attachment relationships, thereby acting as a priming stimulus to enhance attachment effects in the dependent variable. This ordering of instruments also insured that responding on the predictor variable was not influenced by the assessment of the dependent variable.





Participants

Data was collected from 135 participants who completed the procedure for this study in exchange for partial course credit. Participants were recruited from the Michigan State University Psychology Department subject pool, a population which in most ways closely matches the standardization samples for most of the instruments used. Participants ranged in age from 17 to 47 years, with a mean of 20.3 and standard deviation of 2.9. Ninety-one percent of the sample fell in a range from 18 to 22 years of age. All but one participant fell in the age range from 17 to 26 years, with the one 47 year old participant being an outlier. One participant did not indicate his age. Twenty-seven percent of participants were in their freshman year at the time of the study. Twenty percent were in their sophomore year. The largest portion, 37 %, were juniors, and another 16 % were seniors. One participant indicated that he was pursuing a second bachelors degree. Eighty participants, 59.3 % of the sample, were female, and 54 were men, making up 40 % of the sample. One participant did not indicate a sex. The large majority of participants in this study, 121 (89.6 %), indicated their ethnicity as Caucasian/White. African/American, Asian/American and Hispanic/Latino were each endorsed by 3 participants, or 2.2 % each. One participant identified herself as Native American, and 4 others identified as Multiracial. One-third of the sample indicated that they were not currently dating, and approximately another third (36.3 %) indicated that they were currently in a committed relationship or engaged. Smaller portions of the sample indicated that they dating different people (19.3 %), dating one person but without any commitment (8.9 %), or married (1.5%).



Instruments

Demographic questionnaire. Participants first completed a brief questionnaire regarding sex, age, year in college, ethnicity, and whether they were currently involved in a romantic relationship or had been in the past.

Relationship Questionnaire. (RQ; Bartholomew & Horowitz, 1991). This measure comprises four single paragraph descriptions of attachment styles: secure, preoccupied, fearful, and dismissing. Participants rate each of the descriptions according to how well it describes their usual way of behaving in close relationships using a Likert-type scale ranging from 1 = *not at all like me* to 7 = *very much like me*. Each of the 135 participants returned valid protocols for this measure. The mean self rating for the Secure attachment style was 4.76 ($SD = 1.64$) on a one to seven scale. For Preoccupied attachment the mean was 2.97 ($SD = 1.71$). The mean rating for Fearful-avoidance was 3.49 ($SD = 1.90$), and for Dismissing-avoidance 3.38 ($SD = 1.64$). This four style measure has theoretical advantages relative to three style measures, and has shown better predictive sensitivity than three style measures (Brennan, Shaver & Tobey, 1990; Shaver, & Clark, 1994). Test-retest reliability of specific styles in samples of college students has ranged from .49 to .71

Relationship Scales Questionnaire. (RSQ; Griffin & Bartholomew, 1994b). This measure consists of 30 items describing thoughts and perception in relationships. The majority of these items are drawn from the paragraph descriptions in the RQ. Additional items were added to allow scoring of the measure for either Hazan and Shaver's (1987) three style model, or Collins' (Collins & Read, 1990) or Simpson's (Simpson et al., 1992) dimensions. The measure was completed by all 135 participants, who rated each item on a Likert type scale ranging from 1 = *not at all like me* to 5 = *very much like me*. For this



study, the measure was scored to yield *dimensional ratings of Bartholomew's* four attachment styles by averaging responses to each of the component items for the scales reflecting Secure attachment, Preoccupied attachment, Fearful-avoidance, and Dismissing-avoidance. The means could thus range from one to five. Means for the four scales respectively were 3.49 ($SD = .59$), 2.94 ($SD = .66$), 2.63 ($SD = .71$), and 3.10 ($SD = .60$). Values for Cronbach's alpha, in the same order, were .43, .42, .64, and .60, indicating moderate to low Internal agreement for these scales.

Combined attachment style scores. In order to increase the overall reliability of the measure used for attachment, scores for the RQ and RSQ were combined using a technique recommended by the original developer of the scales (K. Bartholomew, 1996, personal communication) and also described elsewhere by her coworkers (Scharfe, 1996). Combining these measures is supported by examination of the intercorrelations between the 8 scales. All subscales are related in theoretically sensible ways, with each scale showing strong positive correlations with the corresponding scale on the other measure (.52 to .64, all $p < .001$). Further, examination of the correlations between theoretically opposite scales are also related in expected ways. For instance, the RQ score for Secure, reflecting positive models of self and other, is correlated -.62 ($p < .001$) with the RSQ score for Fearful, which reflects negative models of both self and other. The summary attachment scores were derived by converting scores for each attachment style on each instrument to standardized scores. This yielded two standardized scores for each attachment style for each subject. These scores were then averaged for each attachment style. The resulting averaged scores all have means of 0.0 and standard deviations ranging from .87 to .91. When treated as two item scales, these variables also show





improved internal reliability compared to *corresponding scales of the RSQ*. The values for secure, preoccupied, fearful, and dismissing are, in the same order, $\alpha = .68$, $\alpha = .74$, $\alpha = .78$ and $\alpha = .68$. The resulting scores also show a distribution and intercorrelation of attachment styles (see Table 2) which is similar to what would be expected based on distributions observed in other studies (Shaver and Clark, 1994).

Attachment Style Questionnaire. (ASQ; Feeney, Noller, & Hanrahan, 1994). The ASQ comprises forty items rated on a six point scale from 1 = *totally disagree* to 6 = *totally agree*. Each item describes a thought, emotion, or behavior relevant to relationships. This measure was designed in part to illuminate the structure of functional dimensions underlying both the three and four style typologies of adult attachment. It was also developed with the specific goal of being applicable to adolescents and young adults who have little or no experience in romantic relationships. Factor analysis yields the dimensions: confidence [in others], discomfort with closeness, need for approval, preoccupation with relationships, and relationships as secondary. The dimensions are related in theoretically sensible ways to both three and four style typologies of attachment. (See Table 2 for relationships in this sample). The authors report internal reliabilities of .76 to .84 for the individual scales, and ten week test-retest reliabilities ranging from .67 to .78. Among the 135 participants completing the ASQ for this study, the mean score for Confidence was 4.50 ($SD = .65$), with internal agreement $\alpha = .75$. The scale Discomfort with Closeness had a mean of 3.35 ($SD = .86$), and $\alpha = .87$. The mean for Need for Approval was 3.16 ($SD = .81$), with $\alpha = .73$. Relationships as Secondary showed a mean of 2.26 ($SD = .71$) and $\alpha = .75$. Preoccupation with Relationships yielded a mean of 3.35 ($SD = .76$), $\alpha = .73$.



Relationships interaction vignettes. Participants read and responded to two vignettes developed for this study. These vignettes were based partly on pilot work with a similar sample of Michigan State undergraduates. The text of the vignettes and the accompanying instructions to participants are included in the appendix to this dissertation. The first vignette asks readers to imagine a hypothetical romantic relationship, and includes a number of features intended to cue attachment functions, such as proximity seeking, exploration, and close emotional bonds. The hypothetical partner is described as having been separated from the participant for some time, and now having "something important they want to talk to you about." Participants were asked to imagine themselves in the situation described, and then write a response including their thoughts, feelings, and expectations. Pilot work had suggested that this ambiguous vignette and prompt is useful for drawing widely varying expectations and attributions that presumably reflect participants' different internal representations of self and other.

Experience with coding pilot data suggested that more specific prompting is required to obtain data adequate for tests of relatively more active, or behavioral, methods of affect regulation. In order to elicit this information a second, less ambiguous, vignette was used. The second vignette asks participants to imagine that their partner has decided to end their relationship. This description was expected to elicit the sort of negative affect most likely to give rise to active affect regulation. Participants were again instructed to write a response, but this time they were specifically instructed to describe things they would do or ways they might try to think about the situation. It was planned to code responses to this vignette more directly for content, as opposed to the first vignette which was to be coded in part for characteristics of the text.



Ways of Coping Checklist. (WCCL; Folkman & Lazarus, 1980; Vitaliano, Russo, Carr, Maiuro & Becker, 1985). The WCCL was developed by Folkman and Lazarus as a situation specific, process oriented measure of how people cope with stressful situations. The measure is based on the stress and appraisal model of coping originally formulated by Lazarus and discussed in the affect theory section of this dissertation. The revised version developed by Vitaliano and his coworkers was preferred for this study largely for psychometric reasons. This revision comprises a smaller number of items than the original, but yields scales with better stability, less overlap, and generally higher internal consistency. Additionally, the scales developed by Vitaliano et al., problem focused, seeks social support, blamed self, wishful thinking, and avoidance, provide a better fit with the theoretical construction of affect regulation pursued in the current proposal. This version of the WCCL comprises forty items, each describing a possible coping behavior, that participants rated from 1 = *would not use* to 4 = *would use a great deal*. For this study, items were reworded in the present tense, and participants were asked to rate the items with regard to the relationship dissolution described in the second vignette. The instrument was completed by 130 participants. The scale for Problem Focused coping had a mean of 2.64 ($SD = .36$). Internal consistency for the fifteen items comprising the scale was $\alpha = .61$. The scale for Seeks Social Support, which includes 6 items, had a mean of 2.63 ($SD = .53$) and $\alpha = .75$. The ten item scale for Avoidant Coping had a mean of 2.07 ($SD = .46$) and $\alpha = .67$. Wishful Thinking, an eight item scale, had a mean of 2.49 ($SD = .64$) and $\alpha = .82$. Blame Self, with only three items, had a mean of 2.01 ($SD = .74$) and $\alpha = .73$. The internal consistencies achieved in this study are lower than the values of .73 to .88 reported by Vitaliano et al. (1985), but do indicate adequate internal consistency.



Procedure

Participants completed all instruments in a single session, in groups ranging from 2 to 18. All sessions were conducted by the author. Sessions began with a briefing on experimental procedures as required by university and APA guidelines for research with human subjects. Informed consent was obtained from all participants through a printed form before data gathering materials were distributed. Instruments were distributed in three separate packets, with each being distributed after time had been allowed for all participants to complete preceding measures. This step was taken to avoid contamination of responses to any measure by exposure to following measures. Participants were asked to hold completed measures until the end of the session and then return all their materials at once. This allowed the experimenter to insure that each participant's materials stayed together as a set. These sets were then stapled and assigned subject numbers at the end of each session.

Participants completed the attachment measures first. These measures, the RQ, RSQ, and ASQ, were presented in randomized order. Following completion of attachment measures, the experimenter asked participants to remember and visualize a significant close or romantic relationship. Specifically, participants were told:

I'd like you to take a few minutes now to remember someone very close to you--someone you're in love with or have been in love with. Think of the person you've had your most important relationship with. Go ahead and close your eyes if that's easier. Think about that person's face, about what it felt like to be with them, things you would do or wanted to do. (pause) Remember as much about the relationship as you can.

From the time the experimenter began reading the prompt, three minutes were allotted for participants to recollect their relationship partner.



Participants responded to the *remaining measures in order from the most open ended to the most structured*, an order chosen to prevent descriptions in the structured measures from biasing participants' responses to the more ambiguous stimuli. The first of these measures was the relationship vignette describing a separation and suggesting an ambiguous reunion. After distributing the vignette, the experimenter read the instructions aloud, but did not read the vignette itself. A period of fifteen minutes was allowed for participants to write responses to the vignette. In many sessions, all participants had clearly finished before the fifteen minutes ended, in which cases the next instruments were distributed when all participants had finished responding to the first vignette.

A packet including the second vignette—in which the hypothetical partner breaks up with the participant—and the WCCL was distributed in a similar manner. The experimenter again read the directions for the vignette, though not the actual vignette, calling particular attention to the instructions to "describe...what you would do about your feelings...ways you try to think about this to try to deal with it, to deal with your feelings about it."

Coding of Written Protocols for Relationship Interaction Vignettes

The final coding system for the protocols written by participants included a mixture of coding formats¹. *Direct expressions of emotion, Indirect expressions*

¹ A variety of other possibilities exist for coding textual data, including qualitative or content analysis and strict featural analysis using automated text-searching programs. These options were considered for the current research, but eliminated because of difficulty in making them responsive to the goals of the current project.



Of emotion, and Conditional expressions of emotion, were counted, and assigned valences as either positive, negative, or neutral. This yielded three variables for each category, e.g., *Direct expressions, negative*; *Direct expressions, neutral*; and *Direct expressions, positive*. These variables were coded separately for both the first, ambiguous, vignette and the second, or "break-up," vignette. *Explanations for the call* in the first vignette were also counted and assigned valences. Instances of *Self-blame* or negative attributions about the self were counted separately for both vignettes. *Expectations for outcome* for the participant (as opposed to the relationship, per sé) were coded as low, medium, or high on two separate scales, *positive outcome* and *negative outcome*. In order to improve reliability, the scales for positive and negative outcome were treated as reverse codings of each other in the first vignette, although more flexibility was allowed in coding for the second vignette. *Attributions of own control*, and *Attributions of partner's control* were coded similarly to expectations for outcome, effectively yielding a variable which indicates the participant's perceived balance of control in the relationship. Expectations for outcome and attributions of control were both coded separately for the first and the second vignette. Active mechanisms of affect regulation were coded only from the second protocol and were coded as either present or absent. The mechanisms included in the coding were *Introduction of new goals*, *Self distraction*, *Seeking social support*, *Open communication (with partner)*, *Consciously controlling or managing own expression of emotion*, and *Rumination*. Finally, a 1 to 3 rating was assigned to the overall protocol for the participant's level of emotional engagement in responding. This final variable was included largely for exploratory purposes and was not included in analyses.



Before data were collected for this *dissertation study*, a pilot coding system had been developed. This system, developed from earlier pilot data, formed the basis for several hypotheses put forward in the research proposal. Several of these hypotheses had to be modified or discarded due to changes made in the coding system after data was collected for the current study. In particular, hypotheses included in the proposal relied on variables representing participants' attention to stimuli relevant to negative emotions and to emotions overall; cognitive elaboration of emotions; and differences in attention to practical vs. emotional aspects of situations. During attempts to refine the coding system and establish coding rules that raters could apply consistently, it became clear that such global qualities as attention to emotionally relevant stimuli or elaboration of emotions were exceptionally difficult to operationalize. The use of Likert-type scales may have also introduced problems with applying the ratings consistently, especially in the absence of concrete anchor points. Examination of preliminary reliability figures indicated that both interrater agreement and intrarater consistency varied across trials with the pilot coding system, rather than improving progressively.

I decided to discard the most problematic features of the pilot system and focus on what I could code from participants' written protocols, emphasizing counts of features rather than global ratings in order to improve reliability. I was particularly interested in retaining some index of attention to emotionally relevant stimuli. Consider that, given textual data generated by participants, the surest indicator of the writer's attention is what he or she wrote about. When I focused on counts of relevant features or propositions, however, it quickly became clear that "emotionally relevant stimuli" could potentially include nearly any text, and depended greatly on judgment by the rater. I therefore delineated several areas





Of content which I believed were included in the overall category of emotionally relevant material, and which would occur in a large enough proportion of protocols to allow some variance in the finished coding. These included direct expressions of emotion; discussion about emotions as objects or in the abstract, including others' emotions; explanations for ambiguous relationship events; expectations for relational outcomes; and attributions about control in relational situations. Several of these features were included in the overall coding *Indirect Expressions of Emotion*. Others were included in the coding system as separate variables. Hypotheses relying on qualitative data on attention to emotion, as such, therefore had to be dropped. Data were, however, still available to test several related but more specific hypotheses

The variables entered into analyses were derived by summing the scores from both raters, a method which retains all information from both raters and also produces variables with greater variance than is achieved by averaging ratings. After summing, variables for types of expression (e.g. indirect, negative expressions of emotion in Vignette 1) all showed ranges with a minimum of 0. Maximum values for these variables ranged from 2, for conditional positive expressions in Vignette 2 ($M = .05$), to 19 for direct, negative expressions of emotion in Vignette 2 ($M = 4.13$). Descriptive statistics for coded variables are included in the appendix.

Protocols were coded by two graduate students in psychology, both women, and both enrolled at a large, Midwestern university. Both coders were blind to predictor variables, and to all other data beyond the actual written protocols. Initial training for coding took place over two consecutive days, during which both coders and the author met together to discuss the coding system, the variables to be coded, and their relationship with relevant constructs. The



Process of reaching agreement on specific operationalization of coding rules began during these meetings, and resulted in extensions of the preliminary coding rules developed by the author. Coders met regularly while coding the first 32 protocols to discuss coding issues and resolve disagreements in coding. They were also in periodic contact with the author for clarification about operationalization of variables and to obtain guidance on specific questions about coding. After coding 32 protocols, approximately 25% of the total set, both coders had coded several protocols without needing clarification or modifications to the coding rules. For all coding beyond that point, the coders continued to meet regularly and discuss coding. When they disagreed significantly (usually, for instance, by more than two in counts of a feature), they resolved the disagreement by discussion and changed their coding to reflect the achieved agreement. This was allowed in order to maximize validity of the data, as it was believed that allowing each coder to serve as a check on the other would help inhibit drift in application of coding rules. The coders did not discuss coding with the author beyond the initial 32 protocols. After the coders had coded all of the protocols once, they re-coded the first 32 protocols without reference to their initial coding. Analyses of the data set include only the second coding for the first 32 protocols. The first coding of these protocols was used only for purposes of training and calculating intrarater consistency. Summary information on coding and reliability is presented here, but more complete information is included in the appendix.

Interrater agreement was calculated using the 135 protocols actually entered into analysis and excluding the initial 32 training protocols. Reliability statistics were calculated for agreement of the two coders on each variable intended to be entered into analyses. Cronbach's alpha was calculated for



variables that were based on counts of features, and are therefore continuous. Observed values ranged from $\alpha = .82$ to $\alpha = .98$. Cohen's kappa was calculated as an index of interrater agreement for variables coded categorically, either as low, high, medium, or as present vs. absent. Expectations for outcome in the first vignette, either positive or negative, achieved agreement of $\kappa = .75$ (84 % agreement). Agreement for the corresponding variables in the second vignette was $\kappa = .47$ (72 % agreement). Coding of attributions of own and partner control showed a value of $\kappa = .21$ (71 % agreement) for vignette 1. For vignette 2, attributions of own control showed agreement of $\kappa = .56$ (79 % agreement), while kappa could not be calculated for attribution of partner control due to differences in the range of scores assigned by the two raters. Of the categorical variables discussed above, it was decided that only expectations for outcome as coded from the first vignette had adequate interrater agreement for use in hypothesis testing. Interrater agreement was better for variables representing presence vs. absence in the text of active mechanisms of affect regulation. Values for agreement on these variables ranged from $\kappa = .84$ (97 % agreement) to $\kappa = .97$ (99 % agreement). The complete set of figures for interrater agreement is presented in the appendix.

Consistency of the raters across time was assessed by calculating agreement statistics for their coding of variables the first and second time they coded cases 1 through 32. Statistics calculated were the same as those reported above. For coder J, consistency in rating continuous variables achieved values ranging from $\alpha = .43$ to a maximum of $\alpha = 1.0$, with the large majority of values falling above .70. There were three variables for which alpha could not be calculated due to restricted variance in the variables. Indices of consistency ranged from $\kappa = .59$ (81 % agreement) to $\kappa = .94$ (97 % agreement) for active



mechanisms of affect regulation, with four of the six achieving values of .74 or above. Coding of expectations for outcome showed $\kappa = .52$ (69 % agreement) for the first vignette, and $\kappa = .29$ (59 % agreement) for the second vignette. Attributions of own control showed $\kappa = .62$ (81 % agreement) for the first vignette, while kappa could not be calculated for other variables for attribution of control due to missing data or limited variance in the training protocols. The pattern of these figures for intrarater consistency corresponds to the interrater agreement observed for the same variables.

For coder A, consistency in rating continuous variables achieved values ranging from $\alpha = .25$ to $\alpha = 1.0$, with the large majority again falling above .70. For five variables, alpha could not be calculated due to limited variance in the coding of the variables. Coder A's consistency in rating expectations achieved $\kappa = .65$ (76 % agreement) for outcome in vignette 1, but could not be calculated for other variables for expectation of outcome or attributions of control. This is, again, in line with the poor interrater agreement statistics observed for these same variables. Coder A's intrarater consistency on the presence vs. absence of active mechanisms of affect regulation achieved values ranging from $\kappa = .70$ (83 % agreement) to $\kappa = 1.00$ (100 % agreement). Overall, figures for reliability of coding, both intrarater and interrater, were judged to be at least adequate, with the exception already noted of coding for some attributions of control and expectations for outcome.



RESULTS

As a first step in the analysis, I examined the intercorrelations of age, sex, and predictor variables (see Table 2). Women were significantly more likely to rate themselves as securely attached, and also rated themselves higher on the confidence scale of the ASQ than did men. Men rated themselves higher on the discomfort with closeness and relationships as secondary scales of the ASQ. Because of the correlation of sex with at least some of the attachment variables, it was decided to examine each hypothesis testing analysis for interactions between sex and predictor variable before examining effects for predictor variables alone. In order to reduce the effect of outliers on the correlation matrix, age was rank-coded for this analysis. Older participants rated themselves significantly higher on confidence on the ASQ, and significantly lower on fearful attachment and on the ASQ scale for need for approval. Despite these correlations, it was decided not to control for age in hypothesis testing analyses because of a likely confound in the data. The sample for this study was drawn from both introductory psychology classes and upper division management classes. It is thus likely that choice of major, and various other characteristics which may vary with it, are confounded with age in this sample. No information was collected from participants which would allow for control of this variable in analyses. Age was therefore excluded from analyses to avoid the risk of accepting spurious results actually reflecting hidden variables.

Measures of attachment also showed significant intercorrelations, all in expected and theoretically sensible directions (see Table 2). Most notably, secure attachment was negatively correlated with all insecure styles, and most strongly with fearful attachment. The next strongest correlation was the negative

Table 2. Intercorrelations of Age, Sex, and Predictor Variables.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Sex ¹										
2. Age (by rank)	.21*									
<u>Attachment Styles</u>										
3. Secure	-.25**	.11								
4. Preoccupied	.05	-.16	-.20*							
5. Fearful	.12	-.19*	-.63***	.11						
6. Dismissing	.13	.15	-.22*	-.32***	.18*					
<u>ASQ Scales</u>										
7. Confidence	-.28**	.18*	.68***	-.27**	-.48***	-.06				
8. Discomfort	.25**	-.05	-.68***	.06	.71***	.42***	-.61***			
9. Need for Approval	.16	-.21*	-.50***	.46***	.28**	-.20*	-.53***	.29**		
10. Preoccupation with Relationships	.09	-.17	-.29**	.65***	.23**	-.27**	-.41***	.23**	.60***	
11. Relationships as Secondary	.39***	.11	-.33***	.01	.23**	.41***	-.27**	.46***	.09	-.05

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

1. Sex is coded 1 = Female, 2 = Male. Positive correlations thus indicate males scored higher. Negative correlations indicate females scored higher



Correlation between preoccupied and dismissing attachment. Attachment styles also showed strong correlations with most scales of the ASQ, providing elaboration of dimensional components of the four attachment styles.

Patterns of Emotional Expression

Patterns in the variables representing emotional expression were examined using the General Linear Model Module in SPSS, which performs analysis of variance with between subjects factors simultaneously with regression analysis for continuous predictor variables. Attachment style was therefore treated as a covariate, or within group term, and sex was treated as a between groups term. These analyses yielded F tests for significance of effects due to both the between and within group terms. It was decided to perform tests using a separate model for each attachment style in order to maximize the power of the analyses. This precludes testing interactions between attachment style, which was not seen as an important drawback. Relationships between attachment styles are fairly well understood. Further, the different styles can actually be seen as different aspects of a single, overall, variable making any interaction findings questionable in value. The more important drawback of this approach to analysis is that it treats the attachment style scores as if they were independent, which they are not. This flaw was accepted largely because increasing the number of predictor variables in the models sharply reduced power, resulting in unacceptable risks of Type II error. Each analysis was first performed with a term for sex by attachment style included in the model to check for significant interactions before interpreting effects due to attachment style alone.



Examination of specific hypotheses began with patterns in level of emotional expression across attachment styles. In line with findings extant in the literature, It was hypothesized that secure, and especially, preoccupied attachment would be associated with higher levels of emotional expression in the text, while the avoidant styles would be associated with lower levels of expression. Summary variables for emotional expression were constructed across both vignettes. Examination of the full matrix of intercorrelations for variables reflecting categories of emotional expression showed relatively few significant correlations, either within or between vignettes. A summary variable for all emotional expression would thus have consisted of many essentially uncorrelated component variables, making it difficult to interpret. Instead, a number of more specific variables were constructed using sets of variables that were related in the sense of reflecting similar types of expression (e.g., conditional) or valence of emotion, and that either showed some significant correlation or at least had clear thematic relationships. These summary, or aggregate, variables were calculated by summing the scores for relevant component variables. Summary variables were first constructed for pairs of corresponding variables which did show significant positive correlations across the two vignettes. The following variables can thus be seen as two item scales: Direct Negative Expressions of Emotion (sum of vignette 1 direct negative expressions and vignette 2 direct negative expressions), $M = 6.1 (SD = 5.1)$, $\alpha = .37$; Direct Positive Expressions of Emotion, $M = 1.7 (SD = 2.1)$, $\alpha = .28$; Indirect Positive Expressions of Emotion, $M = 5.0 (SD = 4.3)$, $\alpha = .45$.

The effect of secure attachment on these variables was tested first. Secure attachment was related to lower levels of direct negative expression, $F(1, 135) = 6.76$, $p < .05$, and to higher levels of indirect positive expression, $F(1,$



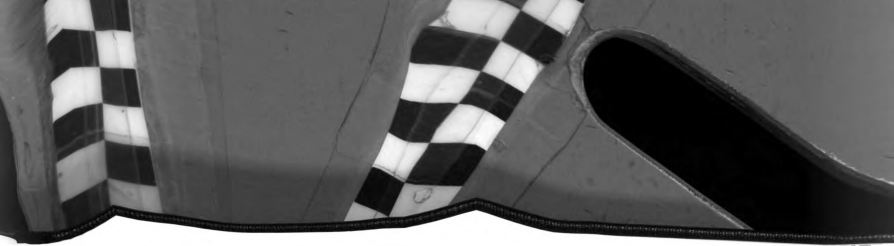
135) = 4.13, $p < .05$. Secure attachment showed no effect on direct positive expression. Counter to hypotheses, preoccupied attachment showed no effect on the predicted variables. Tests with the other attachment styles showed that fearful attachment was associated with greater direct negative expression, $F(1, 135) = 5.83, p < .05$. There was also a trend for dismissing attachment to be associated with lower levels of direct negative expression, but it did not reach significance, $F(1, 135) = 3.46, p < .07$. It should be noted that the decision not to calculate a summary variable for emotional expression precluded direct test of the hypothesis as it was stated. To the extent that these data address the stated hypothesis, they do not support it. Preoccupied attachment, which was expected to show the greatest effect towards emotional expression, showed no effect at all. Where attachment styles did show effects on emotional expression, they did not make up an overall effect on expression, but worked separately on positive and negative expression. The pattern of these effects can be seen more clearly in Table 5, at the end of the results section, which summarizes most effects by attachment style.

The relationship of attachment to direct negative expression was further examined by a series of tests using ASQ dimensions of attachment as predictor variables. This analysis was carried out for each scale of the ASQ because they are all significantly correlated with fearful attachment, which showed a significant effect on this variable. This series of analyses revealed no significant interactions with sex, although in some cases including the interaction term in the model did increase the power of the test for the attachment variable. Higher levels of direct negative expression were associated with both preoccupation with relationships, $F(1, 135) = 8.16, p < .05$, and need for approval, $F(1, 135) = 5.07, p < .05$. With the interaction term for sex taken into account, confidence



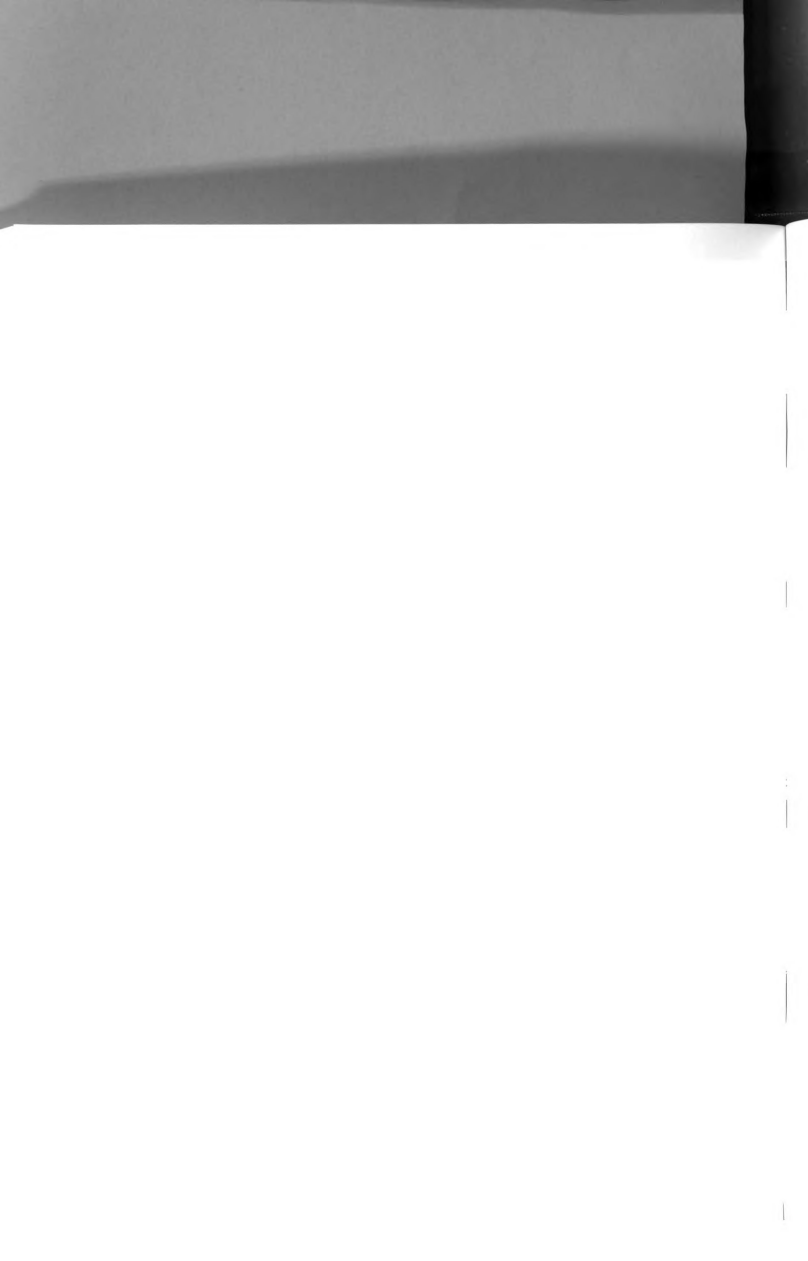
showed an association with lower levels of direct negative expression, $F(1, 135) = 5.46, p < .05$.

Patterns of expression within vignettes. Because analyses of direct positive and direct negative expression seemed to suggest that effects in the data had more to do with valence of expression than with number of expressive statements overall, another set of analyses was carried out to explore the effect of attachment style separately on summary variables representing all positive or all negative expressions in each vignette. For example, the variable for all positive expressions in vignette 1 was calculated by summing direct positive expressions, indirect positive expressions, and conditional positive expressions in vignette 1. These summary variables had poor psychometric properties (alphas for internal consistencies as scales ranged from .03 to .20) but were used in analysis because of their prima-facie thematic coherence. Analyses were again conducted using the general linear model, with sex interactions considered for each analysis. Secure attachment was significantly associated with lower levels of negative expression in the first vignette, $F(1, 135) = 5.11, p < .05$, and showed a non-significant trend towards higher levels of positive expression in the first vignette, $F(1, 135) = 3.62, p < .07$. No effect was found for secure attachment on either variable in the second vignette. Fearful attachment showed an effect towards greater negative expression in the first vignette, $F(1, 135) = 5.11, p < .05$. When interaction with sex was entered in the model, fearful attachment also showed a trend towards greater negative expression in the second vignette, $F(1, 135) = 3.36, p < .07$. Dismissing attachment showed a significant effect for lower levels of negative expression in the second vignette, $F(1, 135) = 5.11, p < .05$. Preoccupied attachment, again, showed no significant effect on the predicted variables in either vignette.



In order to further explore the nature of the relationships of attachment styles with these variables, similar analyses were run with selected scales of the ASQ. In particular, scales closely associated with secure and dismissing attachment were examined in hopes of better understanding the dynamics of the effects shown by those two attachment styles. Confidence, which is positively associated with secure attachment alone among attachment styles, showed a pattern of results similar to secure attachment. Confidence was associated with lower levels of negative expression in responses to the first vignette, $F(1, 135) = 4.44, p < .05$. Of the two ASQ scales strongly positively associated with dismissing attachment, discomfort showed no effect on these variables, and relationships as secondary was associated with lower levels of positive expression in the second vignette, $F(1, 135) = 8.25, p < .01$. This suggests that devaluation of relationships may be related to the decreased expression of negative emotions observed here for dismissives.

Effects on positive and negative emotional expressions were further explored by examining the effects of attachment styles on the component variables comprising those summary variables on which the styles showed effects or trends. Within negative expressions in the first vignette, secure attachment showed an effect towards lower expression only on direct expression, $F(1, 135) = 9.70, p < .01$. Within positive expressions in the first vignette, secure attachment showed effects towards greater expression on indirect expressions, $F(1, 135) = 4.13, p < .05$, and towards greater conditional expressions, $F(1, 135) = 10.44, p < .01$. Within negative emotions in response to the first vignette, fearful attachment showed an effect only towards greater direct expression, $F(1, 135) = 6.81, p < .05$. In responses to the second vignette, fearful attachment showed an independent effect towards fewer

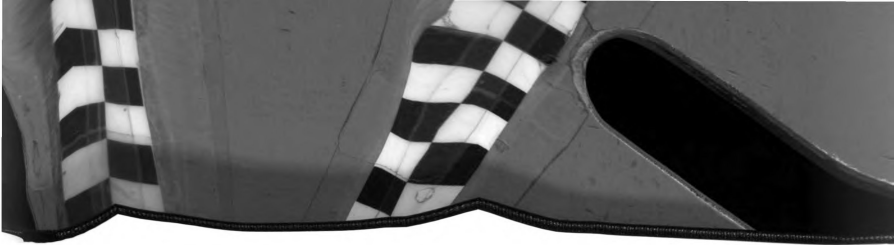




conditional negative expressions, $F(1, 135) = 4.02, p < .05$. Again, in responses to the second vignette, and only in a model including an interaction term for sex, fearful attachment showed an almost significant trend towards more indirect negative expressions, $F(1, 135) = 3.78, p < .07$. For the latter test, the interaction effect was significant, although there was no main effect for sex. Without sex in the model, the effect of fearful attachment was in the same direction, but did not approach significance. The effect of dismissing attachment towards fewer negative expressions in the second vignette appeared only in the specific variable for direct negative expressions, $F(1, 135) = 4.78, p < .05$.

Overall, we do see different patterns of expressing positive and negative emotions for three of the four attachment styles. Secure attachment was associated with lower negative and higher positive expressions of at least some types in the first vignette. There were not, however, clear effects for secure attachment in the second vignette. Both types of avoidant attachment showed effects for negative expressions, and showed effects in the second vignette. Neither showed effects on expression of positive emotions, though. Also, the effect of dismissing attachment towards greater negative expressions was clear only for the second vignette, whereas fearful attachment showed a puzzling mixed effect on negative expressions in response to the second vignette.

Patterns of expression between vignettes. Prior to conducting analyses, I thought it was likely that there would be differences across attachment styles in profiles of responding to the first, ambiguous, vignette vs. responding to the second, clearly negative, vignette. Results of the analyses reported above support further exploration of this supposition inasmuch as several predictor variables showed significant effects for one vignette, but not the other. Analyses were again carried out using the general linear model, with interactions by sex



examined before examining main effects *for attachment styles*. Where effects were observed for specific variables in the *previous analyses*, they were further explored by examining effects on the same variables in a repeated measures model. And, as above, analyses were first carried out on summary variables for all positive and for all negative emotional expressions. For each test, the term of interest is that for the interaction of the attachment style by the within subjects term for vignette (i.e., vignette 1 vs. 2). An independent main effect for vignette was fairly consistent, achieving significance at least at the $\alpha = .05$ level in nearly all tests. Unless specifically noted, it can be assumed that the main effect for vignette was significant in each test reported. Note that results of these repeated measure analyses are not included in Table 5.

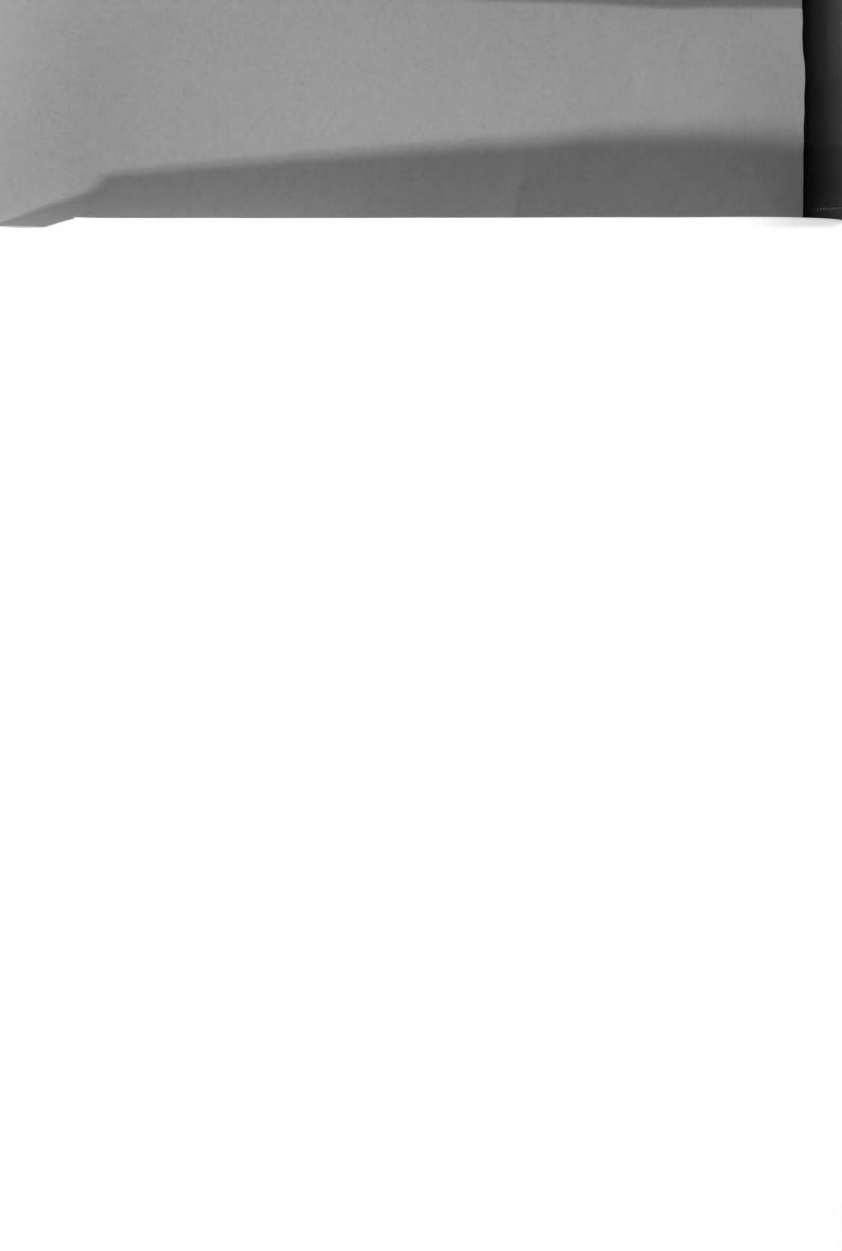
Overall, the series of repeated measures analyses showed only modest support for this supposition, although the findings may have interesting implications within attachment styles. The interaction of secure attachment by vignette showed no effect on the summary variables for positive or negative expressions. There was an effect for the secure by vignette interaction on conditional positive expressions, $F(1, 135) = 10.43, p < .01$, with more secure subjects making more such statements in response to the first vignette, and fewer in response to the second. There was also a significant interaction with sex in this model, $F(1, 134) = 8.06, p < .01$, with males being slightly more likely to make conditional positive statements in the second vignette. The interaction of preoccupied attachment with vignette showed no effect on either positive or negative emotional expressions. The interaction of fearful attachment with vignette did show a significant effect on positive emotional statements, $F(1, 135) = 7.12, p < .01$. Examination of regression lines on the scatter plots showed that fearful attachment was negatively associated with number of positive emotional



statements in response to vignette 1, while it was slightly positively associated with number of positive statements for vignette 2. (Scatterplots referred to in text are included in the appendix.) A similar effect was seen for the interaction of fearful attachment with vignette on the component variable for indirect positive expression, $F(1, 135) = 9.27, p < .01$. The interaction of fearful attachment with vignette showed no effect on the summary variable for negative expressions. Following from analyses of variables summed across vignettes, the interaction of fearful attachment by vignette on conditional negative statements was also examined, and it was found to be significant, $F(1, 135) = 4.77, p < .05$. Again, by examining scatterplots with regression lines, it was clear that fearful attachment was associated with more conditional negative statements in response to the first vignette, and fewer in response to the second vignette. The interaction of dismissing attachment with vignette showed no significant effects, although there was a mild trend observed towards fewer direct negative statements in response to the second vignette, compared with the first vignette, $F(1, 135) = 2.79, p = .097$. The effects observed seem to suggest that for secures and fearfuls there is a process in the regulation of affect, or at least expression of affect, which is changing between the two vignettes. Just as importantly, that process appears to be different for the two attachment styles.

Appraisal of Threat

Attachment styles were expected to predict appraisals of threat. Specifically, it was hypothesized that fearful and preoccupied attachment should predict higher appraisals of threat. Based on examination of reliabilities for coding, the dependent variables available to test this hypothesis were counts of negative explanations for the phone call and ratings of negative versus positive



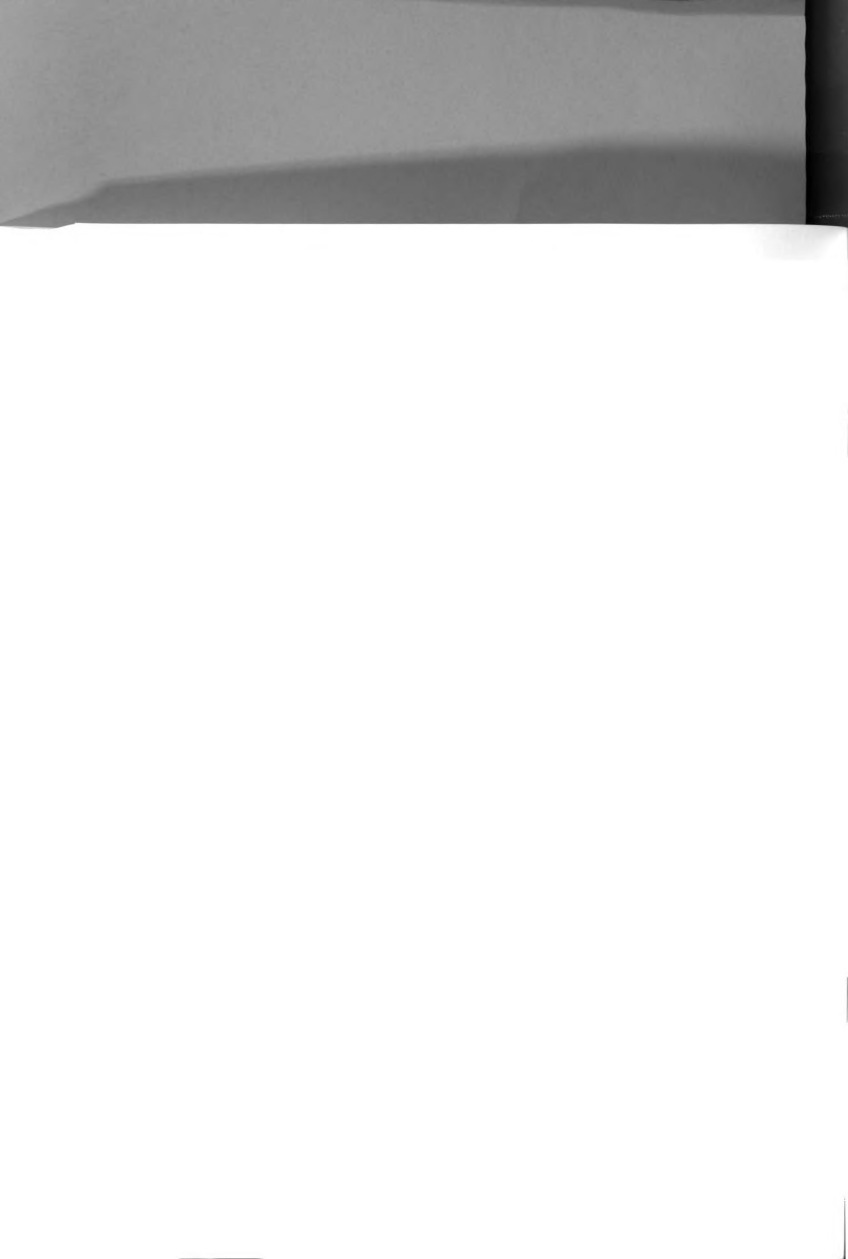


expectations for outcome, both coded from responses to vignette 1. The logical converse was also hypothesized, that secure attachment would be associated with more positive explanations for the phone call, and predict more positive expectations for outcome. Analyses were again carried out in the general linear model, using essentially the same procedure described for patterns of emotional expression. Attachment styles were entered as predictor covariates, and interactions of sex and attachment style were examined before main effects for attachment styles. Effects due to fearful attachment were examined first. Fearful attachment showed significant effects for both higher numbers of negative explanations for the call, $F(1, 135) = 46.63, p < .05$, and ratings of more negative expectations for outcome, $F(1, 135) = 12.30, p < .01$. Preoccupied attachment, however, showed no effect on either variable. The remaining insecure style, dismissing, showed a trend towards more negative expectations for outcome, $F(1, 135) = 3.18, p = .08$, but no significant effects. As expected, secure attachment showed significant effects for higher numbers of positive explanations for the phone call, $F(1, 135) = 4.06, p < .05$, and more positive ratings of expectation for outcome, $F(1, 135) = 22.14, p < .001$. Secure attachment also predicted a lower number of negative explanations for the phone call, $F(1, 135) = 4.35, p < .05$. Thus, the stated hypothesis was largely supported in that predicted effects for fearful and secure attachment were observed, although prediction for preoccupied attachment again were not supported.

In order to further explore the nature of attachment style's effect on these appraisal and expectation variables, analyses were also run with the scales of the ASQ. Confidence, a scale which is positively associated only with secure attachment, and which distinguishes secure most sharply from fearful



attachment, showed effects towards fewer *negative explanations for the call*, $F(1, 135) = 4.88, p < .05$, more positive explanations, $F(1, 135) = 4.70, p < .05$, and particularly for positive expectations for outcome, $F(1, 135) = 33.98, p < .001$. Discomfort is uniquely highly associated with fearful attachment in this sample, and also distinguishes it from preoccupied attachment, which shows no correlation with discomfort. Discomfort showed an effect toward negative expectations for outcome, $F(1, 135) = 14.70, p < .001$, but no effect on negative explanations. Relationships as secondary, which is also positively associated with fearful attachment but uncorrelated with preoccupied attachment, showed a significant effect towards more negative explanations, $F(1, 135) = 4.01, p < .05$. There was also an effect for negative expectation for outcome, $F(1, 135) = 5.34, p < .05$, but this is more difficult to interpret confidently because of an accompanying trend in the interaction of sex and relationships as secondary on the same dependent variable. Finally, need for approval and preoccupation with relationships are both more strongly positively correlated with preoccupied than with fearful attachment, and negatively correlated with the other attachment styles. Need for approval associated with negative expectations for outcome, $F(1, 135) = 8.31, p < .01$, but showed only a trend towards higher numbers of negative explanations for the call. Preoccupation with relationships showed both interaction effects with sex, and main effects. The interaction effect was significant for fewer positive explanations of the ambiguous call, $F(1, 134) = 4.11, p < .05$, and for negative expectations for outcome, $F(1, 134) = 4.28, p < .05$. Preoccupation with relationships also showed a significant main effect towards negative expectations for outcome, $F(1, 135) = 7.60, p < .01$. Overall, the hypothesis that attachment styles would predict appraisal of threat was supported. The pattern of effects observed with the ASQ further suggests that





insecure attachment in general predicts *negative* appraisals, with avoidance of relationships associated mostly with expectations for negative outcomes as opposed to negative explanations. Given the pattern of results for ASQ scales, it is puzzling that the measure for preoccupied attachment yielded no effects.

Self-Blame

A related hypothesis was made that negative attributions about the self and self-blaming statements would vary in parallel with the model of self held to underlie attachment styles. Thus, we should expect to see fearful and preoccupied attachment associated with higher levels of self-blame and secure and dismissing attachment associated with lower levels of self-blame. This hypothesis was tested using the general linear model, again, with consideration of interactions between attachment style and sex. Tests were run for main effects of each attachment style on number of self-blaming statements and negative attributions about the self in responses to both vignette 1 and vignette 2, and separately for self-blame and negative self-attributions summed across both vignettes, $M = 1.10$ ($SD = 1.94$).

Fearful attachment showed main effects towards more expressions of self blame in the first vignette, $F(1, 135) = 8.86$, $p < .01$, and also towards more expressions of self blame in the overall protocol, $F(1, 135) = 5.77$, $p < .05$. There was also a significant interaction of fearful attachment with sex on self-blaming statements in the first vignette. Examination of scatterplots with regression slopes revealed that men showed slightly more self-blame than women in the ambiguous vignette. It appears that in this interaction in the first vignette, women low on fearful attachment actually made more self-blaming expressions than women high in fearful attachment, whereas the opposite



pattern was true for men. The main effect *for sex* was not significant.

Preoccupied attachment did not show a significant effect on expressions of self-blame in either vignette or overall. Secure attachment showed a significant effect towards fewer self-blaming statements in response to the ambiguous vignette, $F(1, 135) = 12.02, p < .01$, and in the overall protocol, $F(1, 135) = 6.748, p < .05$. There was not a significant effect of secure attachment on self-blaming statements in response to the second vignette. Dismissing attachment, alone among variables for attachment styles, showed an effect on self-blaming statements in the second, or break-up, vignette, $F(1, 135) = 4.12, p < .05$. More dismissing participants made fewer self-blaming statements in response to the break-up vignette. As planned, repeated measures analyses were also conducted. They revealed no significant effects for interactions of attachment styles with vignettes, although a main effect for vignette was consistent across analyses. The stated hypothesis was largely supported, with secure and fearful attachment showing the predicted effects overall, and dismissing attachment showing the predicted effect in responses to the second vignette. Preoccupied attachment, however, again failed to show hypothesized effects.

Further analyses were conducted on self-blaming expressions using ASQ scales as predictor covariates. Discomfort and relationships as secondary, both scales positively associate with avoidant styles, showed no effects. Confidence, a scale which distinguishes secure attachment from insecure attachment in general, was negatively associated with self-blaming statements in response to vignette 1, $F(1, 135) = 13.14, p < .001$, and also with self-blaming statements overall, $F(1, 135) = 6.58, p < .05$. Two scales involving anxiety did show effects towards greater numbers of self-blaming expressions. Preoccupation with relationships showed an effect for more statements of self-blame in responses to



the first vignette, $F(1, 135) = 4.10, p < .05$. Need for approval, which has strong positive associations with both fearful attachment and even more so with preoccupied attachment, showed effects for more expressions of self-blame in responses to vignette 1, vignette 2, and overall. Respectively, the F values were $F(1, 135) = 11.59, p < .01$; $F(1, 135) = 4.21, p < .05$; and $F(1, 135) = 10.19, p < .01$. These results with the ASQ are in line with what we would expect from results with attachment styles, and again point to a question about consistent non-results with the measure of preoccupied attachment as a style.

Active Mechanisms of Affect Regulation

Hypotheses about attachment style and preferences for specific active mechanisms of affect regulation were tested using logistic regression. For the purposes of these analyses, the dependent variables had to be categorical with two values. Each active mechanism of affect regulation was therefore coded as present for a case if either coder coded it as present. Because the interrater agreement on these variables was high (kappas of .84 to .97), it was decided that the risk of introducing error by accepting cases with disagreements was less problematic than discarding data by eliminating cases or using data from only one coder. A separate logistic regression was carried out to test hypotheses about each mechanism of affect regulation. In order to allow examination of effects for each attachment style, simultaneous entry of predictor variables was chosen. Sex was also included as a categorical variable in the models in order to account for its association with secure attachment.

Introduction of new goals. It was hypothesized that avoidant attachment, both fearful and dismissing, would be associated with descriptions of introducing new goals as a way of dealing with the described break-up. Chi squared for the



overall model was significant, $\chi^2 (5, N = 135) = 15.08, p < .01$. Examination of results for the individual predictor variables showed partial support for the hypothesis. Fearful attachment did predict descriptions of introducing new goals, $\beta = .90$, at a significant level (Wald's statistic = 6.31, 1 df, $p < .05$; $R = .19$). Dismissing attachment, however, did not show a significant effect (Wald's statistic = 2.56, 1 df, $p = ns$; $R = .07$). Somewhat surprisingly, beta weights observed for each attachment style were in the positive direction, with no attachment style showing even a trend against use of introducing new goals as a way of regulating affect. This is counter to what was expected for secures and preoccupieds based on extant findings, but may reflect the situation to which participants were asked to respond, one in which a relationship is clearly ending.

Self-distraction. It was hypothesized that avoidant attachment would predict descriptions of self-distraction as a way of regulating affect in response to the break-up vignette. The Chi squared statistic, however, indicated that a model with attachment and sex as predictors did not provide efficient prediction of the dependent variable, $\chi^2 (5, N = 135) = 3.63, p = ns$. Examination of beta weights and R statistics for individual attachment styles showed no trends. Thus, this hypothesis was not supported

Social support. Secure and preoccupied attachment were expected to predict descriptions of seeking social support as a way of regulating emotion in response to the break-up described in vignette 2. Again, the Chi squared statistic showed that a model with attachment styles and sex as predictor variables did not significantly contribute to predicting this affect regulation mechanism, $\chi^2 (5, N = 135) = 8.82, p = ns$. Despite the weakness of the overall model, effects were observed for individual attachment styles. Contrary to expectations, dismissing attachment showed a positive relationship with



descriptions of seeking social support, $\beta = .48$, at a significant level (Wald's statistic = 3.89, 1 df, $p < .05$; $R = .10$). Trends towards seeking social support were observed for preoccupied attachment, $\beta = .40$ (Wald's statistic = 2.90, 1 df, $p = .09$; $R = .07$); and for sex, with females more likely to seek social support, $\beta = .36$, though again, not at a significant level (Wald's statistic = 3.26, 1 df, $p = .07$). The findings on this point thus ran counter to hypotheses.

Open Communication. It was hypothesized that secure attachment would predict descriptions of open communication with partners as a way of regulating affect. The Chi squared test showed that the overall model was not a significant predictor of the dependent variable, $\chi^2 (5, N = 135) = 5.21, p = ns$. Examination of effects for specific attachment styles revealed that, while no effects approached significance, the differences that did exist were in the predicted direction. Secure attachment was the only style to show a positive beta weight in the equation, with all insecure styles having negative values for beta.

Management of expression. Preoccupied and fearful attachment were expected to predict managing expression of emotion. Again, a Chi squared statistic showed that the overall predictor model was not significant, $\chi^2 (5, N = 135) = 4.52, p = ns$. Examination of effects for specific attachment styles also revealed no significant effects. There was a trend for fearful attachment to predict descriptions of managing expression, $\beta = .48$, but this did not reach significance (Wald's statistic = 3.26, 1 df, $p = .07$; $R = .09$).

Rumination. Rumination was also coded as a method of affect regulation. This variable is the only measure of dysfunctional attention to negative emotion which was entered into analyses. It was hypothesized that secure and dismissing attachment would show negative relationships with rumination, and that preoccupied attachment would show a positive relationship. Chi squared



showed that the model was a good predictor of the dependent variable, $\chi^2 (5, N = 135) = 21.89, p < .001$. Examination of effects for specific attachment styles showed a pattern of results in line with predictions. Both secure and dismissing attachment predicted no descriptions of rumination. Secure attachment had an observed regression coefficient of $\beta = -1.16$, (Wald's statistic = 4.91, 1 df, $p < .05$; $R = -.17$). Dismissing attachment showed a slightly stronger effect, with $\beta = -1.24$, (Wald's statistic = 7.93, 1 df, $p < .01$; $R = -.25$). Preoccupied was the only attachment style to show a positive beta value in this equation, although the effect did not approach significance, $\beta = .44$, (Wald's statistic = 1.44, 1 df, $p = .23$; $R = .00$).

Ways of Coping

Hypotheses concerning the self report measure of ways of coping essentially predicted that results from this sample would replicate results extant in the literature. Because these hypotheses concerned association of pairs continuous measures, they were tested by correlational analyses. Before examining the correlational matrix for scales of the ways of coping and attachment styles, the intercorrelations of these variables with sex were examined. Where either the attachment style or coping scale involved in a correlation showed a significant correlation with sex, hypothesis testing was based on a partial correlation controlling for sex. In no case did substituting the partial correlation change the direction of the relationship or its significance vs. non-significance. The resulting set of correlations and partial correlations is presented in Table 3.

Table 3. Intercorrelations of Attachment Styles with Coping Scales.

Attachment style	Scales of the Ways of Coping Checklist				
	Problem Focused	Seek Social Support	Blame Self	Wishful Thinking	Avoidance
Secure	.08 ¹	.23** ¹	-.41*** ¹	-.29*** ¹	-.47*** ¹
Preoccupied	-.11	.05 ¹	.32***	.33***	.27*** ¹
Fearful	-.06	-.27*** ¹	.20*	.12	.32*** ¹
Dismissing	.09	-.08 ¹	-.09	-.22*	.06 ¹

note: * $p < .05$, ** $p < .01$, *** $p < .001$; ¹ partial correlation controlling for sex. $n = 130$ for all cells, 128 *df* for bivariate correlations, 126 *df* for partial correlations

Effects of attachment style. Following from extant literature based on three style models of attachment, specific hypotheses were made concerning wishful thinking and avoidant coping. The hypothesis that wishful thinking would be associated with preoccupied and fearful attachment, the two styles that overlap ambivalent attachment from three style typologies, was partially supported. Preoccupied attachment was significantly correlated with wishful thinking, $r = .33$ (128), $p < .001$, while fearful attachment was not, $r = .12$ (128), $p = ns$. The hypothesis that avoidant coping would be positively related to both fearful and dismissing attachment was also partly supported. In this sample, avoidant coping was significantly correlated with fearful attachment, $r = .32$ (126), $p < .001$, but not with dismissing attachment, $r = .06$ (126), $p = ns$. These findings may indicate that the effects observed for avoidant and ambivalent attachment can be accounted for by specific dimensions within those styles.

To further explore this possibility, additional correlations were examined with scales of the ASQ. Bivariate correlations were examined for wishful thinking



and two ASQ scales that are positively *correlated* with fearful attachment, but uncorrelated with preoccupied attachment (see Table 2). Discomfort with closeness was essentially uncorrelated with wishful thinking, $r = .05$ (128), $p = .61$. Relationships as secondary was also uncorrelated with wishful thinking, $r = -.06$ (128) $p = .53$. Partial correlations controlling for sex were examined for avoidant coping and three scales of the ASQ which distinguish fearful and dismissing attachment. Confidence in relationship partners, which is negatively correlated with fearful attachment but uncorrelated with dismissing attachment, was also negatively associated with avoidant coping, $pr = -.30$ (126) $p < .01$. Need for approval, which is both positively associated with fearful attachment and negatively associated with dismissing attachment, showed a positive correlation with avoidant coping, $pr = .49$ (126), $p < .001$. Preoccupation with relationships, which is also positively associated with fearful attachment and negatively associated with dismissing, was similarly positively correlated with avoidant coping, $pr = .36$ (126) $p < .001$. These correlations with the ASQ do not help to explain why preoccupied and fearful attachment would show different effects on wishful thinking. The results may suggest, however, that the facet of fearful attachment which includes desiring relationships is important in explaining use of avoidant emotional coping.

Table 3 shows a number of other significant correlations that, although not related to specific hypotheses for the ways of coping checklist, would be theoretically expected. In fact, most of these correlations are in line with hypotheses laid out for test from other dependent variables in this study. Secure attachment is associated with lower tendencies towards avoidance, self-blame, and wishful thinking, and associated with higher levels of seeking social support. The correlation of secure attachment with the support seeking scale is in line



with the expectation for more descriptions of support seeking in written responses. The negative correlation of secure with self-blame is in line with predictions that self blaming as measured in written protocols would vary with valence of model of self. And the positive association with wishful thinking mirrors the predicted (and observed) relationship of secure attachment to rumination. Dismissing attachment is also associated with lower levels of wishful thinking, which again mirrors the hypotheses made for rumination in the written protocols.

Fearful attachment is associated with higher levels of self blame, and with lower levels of seeking social support. The negative correlation with seeking social support is in line with the relationship hypothesized for attachment and descriptions of support seeking in the written protocols. The correlation with blaming self matches the relationship predicted, and observed, for fearful attachment and greater amounts of self-blame in written protocols. Finally, preoccupied attachment, which showed few significant effects on data coded from written protocols, shows significant positive correlations here with avoidant coping and self-blame. A similar relationship with preoccupied and self-blame was predicted for the written protocols. This leaves only the negative correlation of avoidance with secure attachment and the positive correlation of avoidance with preoccupied attachment unrelated to specific hypotheses for the current study. This is in part because this measure of avoidance does not closely parallel any other dependent variable in the study. These correlations for avoidance are still in line with the body of findings in the literature, though.

Table 4. Intercorrelations of Coping Scales with Variables Coded from Text.

Variables coded from text	Scales of the Ways of Coping Checklist				
	Problem Focused	Seeks Social Support	Blamed Self	Wishful Thinking	Avoidant
self-blame	-.24**	-.21*	.26**	.11	.21*
new goals	-.15	-.11	.00	-.05	.20*
self-distraction	-.09	.12	-.07	.04	-.03
seeking social support	.20*	.36***	-.14	.02	-.12
open communication	.08	.12	-.12	-.04	-.27**
managing expression	.07	-.09	.04	.07	.16
rumination	-.09	.11	.33***	.22*	.15

note: * $p < .05$, ** $p < .01$, *** $p < .001$; $n = 130$ for all cells

Comparison with free responses. Finally, intercorrelations of scale scores for coping with measures coded from written protocols were examined (see Table 4). The coded variables included in the matrix were those representing active mechanisms of affect regulation, and the overall count for self-blaming statements and negative attributions about the self. As suggested in the hypotheses section, this was done partly to explore whether an established measure would provide some index of external validity for the new measure. With regard to this, I would hope to see a number of significant correlations, but also a number of variables which are uncorrelated, suggesting distinct constructs underlying the total set of variables. This was largely the case. For example, the coding from text for seeking social support showed a positive correlation with the ways of coping scale for seeking social support, $r = .36$ (128), $p < .001$, and one other significant correlation, a positive association with problem focused coping, r



= .20 (128), $p < .05$. The scale for seeking social support showed only one other significant correlation, which was a negative association with the count of self-blaming statements. The coded variable for open communication with partner showed one significant correlation, a negative association with avoidant coping, $r = -.27$ (128), $p < .01$. It might be expected that communication would also correlate with problem focused coping. Inspection of that 15 item scale, however, shows only one item related to communication as a way of solving problems. Coding for introduction of new goals also showed one positive correlation, $r = .20$ (128), $p < .05$, with avoidant coping, and a non-significant negative trend with problem focused coping. As would be expected, coding for rumination showed only two significant correlations, a positive association with self-blaming coping, $r = .33$ (128), $p < .001$, and a positive association with wishful thinking, $r = .22$ (128), $p < .05$. The scale for self-blaming coping showed significant correlations only with coding for rumination and self-blame, $r = .33$ (128) $p < .001$, and $r = .26$ (128), $p < .01$, respectively.

Table 5. Summary of Effects by Attachment Style

Counts of Emotional Expressions					
SECURE	Direct Negative ↓ F = 6.76*	Vin 1 All Negative ↓ F = 5.11*	Indirect Positive ↑ F = 4.13*	Vin 1 All Positive ↓ F = 3.62° Indirect positive ↑ F = 4.13* Conditional positive ↑ F = 10.44**	Self-Blaming Overall ↓ F = 6.75* Vin 1 Self-blame ↓ F = 12.02**
		Direct negative ↓ F = 9.70** Vin 2 All Negative No effects			
FEARFUL	Direct Negative ↑ F = 5.83*	Vin 1 All Negative ↑ F = 5.11* Direct negative ↑ F = 6.81* Vin 2 All Negative ↓ F = 3.36*† Conditional negative ↓ F = 4.02* Indirect negative ↓ F = 3.76†	Indirect Positive No effects	Vin 1 All Positive No effects	Self-Blaming Overall ↑ F = 5.77* Vin 1 Self-blame ↑ F = 8.86**
DISMISSING	Direct Negative ↓ F = 3.46°	Vin 1 All Negative No effects Vin 2 All Negative ↓ F = 5.11* Direct expressions ↓ F = 4.78*	Indirect Positive No effects	Vin 1 All Positive No effects	Self-Blaming Overall No effect Vin 2 Self-blame ↓ F = 4.12*

Note: ↑ Significant effect, † Trend, ° $p < .07$, * $p < .05$, ** $p < .01$, *** $p < .001$, † Effect only occurs with sex in model. Preoccupied attachment showed no effects on this subset of variables. This table does not show interaction effects by vignette.

Table 5. (continued)

	Appraisal of Threat		Expectations for outcome	Active Mechanisms of Affect Regulation	Ways of Coping
	Explanations for call	No effect			
SECURE	↓ Negative F = 4.35*	↓ Negative F = 4.06*	↓ Negative → Positive F = 22.14***	↓ Rumination $\beta = -.16^*$	↑ Seek social support $pr = .23^*$ ↓ Wishful thinking $pr = -.29^{**}$ ↓ Blame self $pr = -.41^{***}$ ↓ Avoidance $pr = -.47^{***}$
PREOCCUPIED	No effect	No effect		↑ Seeking social support $\beta = .40, p = .09$	↑ Avoidance $r = .33^{***}$ ↑ Blame self $r = .32^{***}$ ↑ Wishful thinking $pr = .27^{**}$
FEARFUL	↑ Negative F = 4.63*	Negative F = 12.30**	Negative → Positive F = 12.30**	↑ Introducing new goals $\beta = .90^*$ ↑ Managing expression $\beta = .46^*$	↑ Avoidance $pr = .32^{***}$ ↑ Blame self $r = .20^*$ ↓ Seeks social support $pr = -.27^{**}$
DISMISSING	No effect	Negative → Positive F = 3.18, $p = .08$	Negative → Positive F = 3.18, $p = .08$	↑ Seeking social support $\beta = .48^*$ ↓ Rumination $\beta = -.124^{**}$	↓ Wishful thinking $r = -.22^*$

Note: ↑ Significant effect, ↓ Trend, * $p < .07$, * $p < .05$, ** $p < .01$, *** $p < .001$



DISCUSSION

This project set out with several goals. The first, and most general, was to demonstrate styles of affect regulation varying according to attachment style. It is already fairly well established that individuals with different attachment styles vary in how effectively they regulate their affect. The point of this dissertation was to show that they vary systematically in the mechanisms of affect regulation which they prefer. A first step in this direction was an extensive review and reorganization of findings extant in the literature. This clearly supported the proposition that styles of affect regulation accompany attachment styles. In order to strengthen the claim for the stylistic character of affect regulation, it was a particular goal of the study to assess multiple methods of affect regulation in a single study, something which has rarely been reported in the literature (cf. Brennan & Shaver, 1995; Feeney, Noller & Patty, 1993; Simpson, Rholes & Nelligan, 1992). Accomplishing this sort of multi-layered assessment is both complicated by, and particularly important because of, the degree to which different mechanisms of affect regulation overlap and are integrated with one another. It was a further goal of this study to assess affect regulation through a richer, and more nearly naturalistic, procedure than the usual reliance on self-report measures. Partly in answer to calls by Lazarus (1991b) and by Malatesta-Magai and Culver (1995), participants' free responses were used as a primary source of data on affect regulation. This technique, developed as part of the current project, allowed for some new ways of examining the phenomena of interest, but also introduced some complications and limitations. Both the advantages and disadvantages of this technique may point to future directions for this line of research.



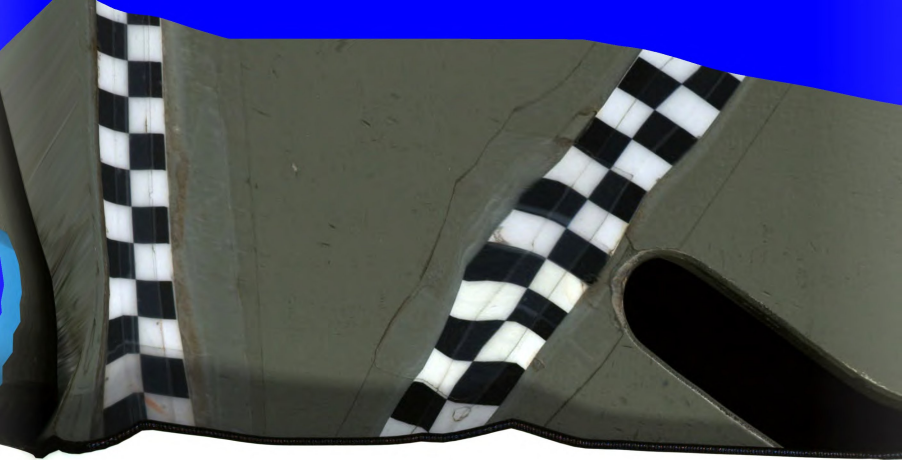
Before considering these *methodological implications*, let us review the hypotheses and examine implications of the actual findings. The specific hypothesis made regarding patterns of emotional expression was fairly simple, that preoccupied and secure attachment would predict higher levels of emotional expression in written responses, and that avoidant styles would predict lower levels of expression. The results did not support this hypothesis, but were actually more interesting. Attachment affected positive and negative emotional expressions differently, and also showed different patterns of effects for the two vignettes to which participants responded. Preoccupied attachment, however, showed no effects for emotional expressions as coded from written responses. Preoccupied attachment, in fact, failed to show significant effects on any variable coded from participants' written responses. The reason for this consistent failure is one of the unanswered questions in this dissertation.

Hypotheses were also made for particular attributional styles, or ways of regulating affect through construal of information, which could be coded from participants' written responses. Specifically, fearful and preoccupied attachment were expected to predict higher levels of appraised threat, and secure attachment was expected to predict lower appraisals of threat. Data supported hypotheses for fearful and secure attachment, although preoccupied attachment again failed to show effects. Effects were also predicted for negative attributions about the self and self-blame. A tendency towards self-blame was expected to parallel the model-of-self dimensions of attachment. Preoccupied and fearful attachment were thus expected to predict higher levels of self-blame, while secure and dismissing attachment would predict lower levels of self-blame. Predicted effects were found for all attachment styles except preoccupied, which again yielded no findings. The attachment styles which did show effects,



showed different patterns of effects across vignettes. Possible implications of this are interesting, and are discussed later as part of findings organized by attachment style.

A series of hypotheses was made concerning ways of regulating affect that participants might describe using to cope with the break-up in the second vignette. Results for these more active forms of affect regulation were mixed, and in some cases surprising. I expected that both fearful and dismissing attachment, the two aspects of avoidance, would predict introduction of new goals. The predicted effect was found for fearful attachment, but not for dismissing. Similarly, I expected that avoidant attachment would predict self-distraction, but no effects at all were observed with this dependent variable. Descriptions of using social support yielded one of the more surprising findings. It was predicted that secure and preoccupied attachment would be associated with this method of regulating affect. Preoccupied attachment did show a trend towards more descriptions of using social support. The only attachment style to show a clear effect for descriptions of seeking social support, though, was dismissing attachment. Secure attachment was also expected to predict descriptions of managing affect through open communication with partners. Although relations in the data were in expected directions, the effect did not approach significance. Preoccupied and fearful attachment were expected to predict the near opposite of open communication, management of expression. There was a trend in the expected direction for fearful attachment, but no effects reached significance. Finally, secure and dismissing attachment were both expected to have a negative relationship with rumination, while preoccupied attachment would show a positive relationship. The predicted effects were



observed for both secure and dismissing *attachment*, although there was no finding for preoccupied attachment.

Finally, a small number of specific hypotheses were made regarding responses to the Ways of Coping Checklist. The two attachment styles associated with high anxiety were both expected to correlate with wishful thinking. The predicted effect was significant for preoccupied attachment, but not for fearful. Avoidant attachment was expected to correlate with emotionally avoidant coping. Here, the predicted effect was found for fearful attachment, but not for dismissing attachment. A number of other correlations with attachment styles emerged, nearly all in theoretically sensible directions. These findings are discussed below as part of the affect regulation styles found for each attachment style. Intercorrelations between scales for Ways of Coping and coding of affect regulation mechanisms in free responses were also examined. As presented in the results section, these correlations were generally encouraging. The correlational matrix showed some specificity (see Table 4), with theoretically related scales and mechanisms correlating, but many other scales and mechanisms showing little to no relationship.

Overall, support for specific hypotheses was mixed. More importantly, though, the overall pattern of findings is consistent with the argument for styles of affect regulation accompanying attachment styles. Not only did attachment styles vary in effects on particular variables, they also varied in the variables upon which they showed effects of any kind. This is in line with the theoretical argument that individuals with different attachment styles will vary not only in how effectively they use different mechanisms of affect regulation, but more importantly in which mechanisms they use. This issue is at the core of an argument for styles of affect regulation.



Findings have already been *presented organized around the dependent variables* in the results section. Given the overall goals of the project, it is more sensible to discuss findings here organized by attachment style. From my review of the literature, I argued that the affect regulation style of secure individuals was based on a foundation of effective use of appraisals as a primary method for controlling negative affect. The empirical findings from this study support this idea by conceptually replicating earlier findings using a new method. Participants were asked to imagine a situation in which a dating partner calls after some time apart and wants to talk about something important, but only in person.

More secure participants generated significantly fewer negative or threatening explanations for what their partners wanted to talk to them about. Perhaps more tellingly, given the admittedly bad popular perception of "important talks," the secure participants offered a higher number of positive explanations for what the call might be about. Having a more secure attachment style also predicted a much more positive overall expectation for the outcome of this ambiguous situation. Qualitative examination of protocols from a few of the most secure participants showed that they did not fail to take account of negative possibilities. Rather, they were able to consider a range of possibilities and settle on a positive outcome as the most likely. Similarly, secure participants made fewer attributions of self-blame. This was particularly true in responses to the first vignette. While the effect on self-blame was expected in and of itself, it also provides a good example of the interwoven and complementary nature of affect regulation mechanisms. Secures were strongly less likely to make self-blaming statements or negative attributions about themselves in responding to the ambiguous vignette, and their appraisals of the situation generally suggested



little for which they might be blamed. *They did not need to find explanations for partners' infidelities in their own inadequacies, because they generally made no such assumptions about their partners.*

Consider the following excerpt from the protocol of the participant with the highest score for secure attachment:

I would start having wild thoughts flow through my head. I am sure they would range anywhere from he wants to break things off to he wants to marry me. But, because of the way our relationship has been going (so well) and the short period of time we have been dating I would cross off those two extreme cases....It would be very awkward for the both of us. Neither knowing what the other is thinking (especially me!) yet filled with so much excitement to see each other....He would tell me that he did a lot of thinking & having to spend so much time apart made him realize how much he likes me and needs me and all that. And that it was time to bump our relationships up a notch from dating....Before I came over to his house he was feeling very nervous not knowing what I would think of him after sharing his feelings (since it is such a rare thing for guys to do).

So, now its all out, a moment of silence cause neither of us know what to say!! But I'm ecstatic & he's relieved!!

And we hug, smile, feel good!! Then start talking about what we did for that week we were apart. So we could catch up on each others lives.

A similar, though less elaborated, process is demonstrated in this protocol generated by a participant falling at the 95th percentile for secure attachment:

I feel that I would be excited to see this person after the time spent apart. It would probably cross my mind that the information might be upsetting, but I would not dwell on it. I had just spent a few great months with this person and opened up to him. Therefore, I would feel confident in the relationship and suspect that whatever he is about to tell me is positive. Most probable would be that he just wanted to explain how much he missed me and began to realize since being apart the meaning of our relationship.



Secure attachment also showed a *distinct pattern of effects on emotional expression*. Across both vignettes, more secure participants made fewer direct expressions of negative emotions. And while no attachment style showed an effect on direct positive emotional statements across vignettes, higher levels of security did predict more indirect statements of positive emotion. This means that participants who were more secure were more likely to write about positive emotion, their own and their partners, in relatively more abstract terms. Perhaps this greater tendency to recognize and discuss positive emotions indicates a more balanced ability to consider the range of possible affective outcomes—a sort of better developed or more flexible emotional vocabulary.

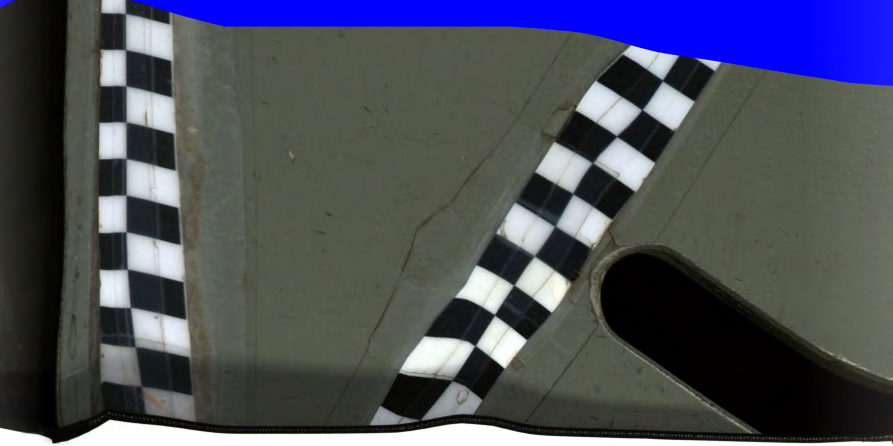
When these effects are examined separately in responses to each vignette, it becomes clear that the significant effects of secure attachment are largely accounted for by reactions to the ambiguous vignette. That is, in responding to a hypothetical situation marked by salient ambiguity about the future of a romantic relationship, the more securely attached participants made fewer statements of or about negative emotion, and specifically made very significantly fewer direct expressions of negative affect. The more secure participants tended modestly towards more statements of or about positive emotion overall in responding to the same ambiguous situation. This trend seems to have been largely accounted for by more positive but indirect emotional statements, and more conditional statements reflecting on the possibility of feeling good given the unfolding of events. Thus, it appears that these differences in level and valence of emotional expression do not reflect simple differences in felt emotion. Rather, they appear to parallel the appraisal processes that we would expect to underlie that emotion.



We have already seen that the *secure participants tend to make hopeful*, rather than threatening, appraisals in this ambiguous situation. In line with that, they also express less negative affect. Their expressions of positive affect, though, are indirect or conditional, perhaps reflecting active consideration of different possibilities for outcomes. In line with this formulation, the effect of secure attachment on participants' conditional positive statements showed an interaction with the vignette they were responding to. These contingent responses were raised for the ambiguous vignette, but dropped for the second vignette in which the outcome is given.

Given a relationship break-up to cope with, people with secure attachment styles were less likely to describe ruminating about it. And they also endorsed less probability of either blaming themselves for the outcome or engaging in wishful thinking. Overall, they told us through their own descriptions and in responses to a self report measure that they would not spend much energy dwelling on negative aspects of the situation. They also indicated that they would not use avoidance strategies such as ignoring their feelings, over-sleeping, or distracting or medicating themselves. What they did agree they were likely to do was seek out social support, using their relational resources to help manage their negative affect. What we see then, is a disinclination to over-attend to negative emotions or to ruminate on losses. This, again, appears to reflect the constructive use of appraisal and modulation of attention that we would expect these people to show, given findings in the literature.

As we would expect, fearful attachment showed a pattern of effects on appraisal and attribution in the ambiguous situation that was almost exactly opposite of that observed for secure attachment. More fearful participants generally judged the situation to be more threatening. Fearful participants



thought of larger numbers of negative possibilities for why their partners were calling to talk to them. More fearful participants also expressed very negative expectations for how this ambiguous situation would turn out. A fearful attachment style also predicted higher levels of self-blame and negative self-attributions, especially in responding to the first vignette. So we see fearfuls, when presented with a loaded situation in a relationship, tend to explain it in negative ways, expect bad outcomes, and see themselves badly and as probably being to blame for the bad things surely about to befall them. As expected, then, individuals with fearful attachment styles are managing their construal of information in a way which will likely lead to feeling worse. These processes are clearly demonstrated in the following excerpts from protocols, all written by participants falling above the 92nd percentile on fearful attachment.

She is inviting me over to break up with me because she has found someone new. I am feeling bad when I hang up the phone believing this is what is about to happen. I feel as if maybe she didn't care about me as much as I cared about her and I shouldn't have ever gotten myself into this type of situation. I am feeling bad about myself and my confidence is shattered. My stomach is turning before I even go over to her house. It's surely bad news.

I would probably panic as to what the problem was. She probably wants to see someone else. She probably feels I don't open up enough or are there for her enough. She'd tell me that over the break she met someone and he was there for her more. I'd tell her I could change but that wouldn't make a difference. He probably is better looking or has money or something. So we'd probably break up because I'm insensitive.

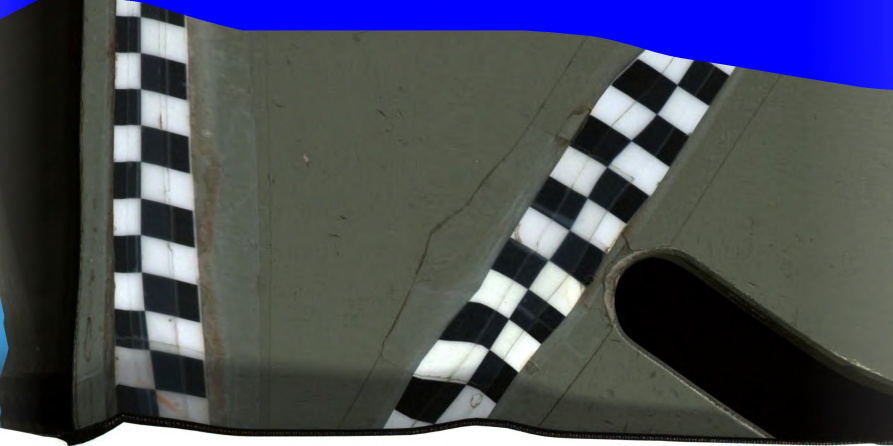
My partner has decided that he doesn't want to see me anymore. During our time apart, he has met someone new, or he has reignited an old flame. He sounds very sorry, like he pities me. I am very crushed. I feel depressed, like the world has exploded in my face. He will want to be friends, but my feelings are too strong. I have gotten too close. I have given a part of me to him too soon.



Considering the evidence for how fearfuls construe information in this situation, the overall pattern in their emotional responses seems equally predictable. Fearful attachment is associated with higher levels of direct negative expressions of emotion across vignettes. That is, overall, being fearfully attached predicts individuals directly expressing their own negative affect at a higher rate. This readiness to own and express bad feelings was more pronounced when fearfuls were responding to the first, ambiguous, situation—a pattern which is hardly surprising after reading the preceding excerpts. Given the ambiguous situation fearfuls directly expressed more negative affect, and made more statements about negative affect overall, including various indirect and conditional statements about negative affect.

Fearfuls' responses to a situation in which their fears are confirmed and the hypothetical partner breaks up with them were a little more complicated. While fearfuls were openly expressive of their bad feelings in responding to the ambiguous situation, the effects moderate and appear mostly as nonsignificant trends in an unambiguously bad situation. In fact, in the specific case of conditional expressions of negative affect, the direction of the relationship is reversed for the break-up vignette, and fearful attachment predicts fewer such statements. Interaction of the situation with levels of emotional response was also significant for statements of positive emotion, even though there were not main effects on this set of dependent variables. For both positive emotional statements overall, and more specifically for conditional positive statements, fearful attachment led to fewer positive expressions for the ambiguous situation and more expressions for the break-up situation.

These findings appear to show some disconnection of emotional expression from events. Previous theory and findings have suggested such a



regulatory process in individuals with very anxious and avoidant attachment. Kobak and Sceery (1988) and Crittenden (1990) have both described developmental processes through which people would learn to deactivate emotional signaling specifically when under emotional stress. In proposing fearful attachment as a distinct category, Bartholomew (1990) specifically suggested that this sort of reactive, rather than chronic, emotional detachment would be a hallmark of the style. Even so, the increase in expressions of positive emotion suggests more than simple disengagement. It may be that these interaction effects are signs of some disorganization when under emotional stress. And, most importantly for this study, it is likely that the flattening of negative emotional expression and increase in positive expressions that we see here represents an active strategy to regulate affect by controlling expression. As Thompson noted (1994), the experience of affect often follows its expression, a notion which is as old as whistling in the dark.

The strategies that fearfuls described or endorsed for dealing with the break-up situation support the idea that their style of affect regulation is built on disengagement from expressing emotional suffering, but does not necessarily succeed in eliminating the experience of it. Fearfuls wrote in their responses about substituting different goals to help forget about the pain of being rejected. There was also a trend in their responses to describe consciously trying not to express their feelings, the only attachment style for which there was any such effect. For illustration, consider the following excerpts from the two participants who scored the highest on fearful attachment.

This makes me distrust and feel very letdown and disappointed. I wonder why me, and what did I do wrong. I would try not to let him see me cry, but it probably wouldn't work. Then I would cry...watch sad movies and wallow in self pity. If I was in love with this person it would take me a while (month or two) to feel the same again. But if I didn't love him, I



would be back playing the field in a day or two. What doesn't kill you can only make you stronger.

I would try my hardest not to cry, but I really don't think it would work. I would definitely ask why, whether I did something or not....I would have to deal with my feelings, suppress them or get over them. I would probably try to get out of his house as quickly as possible and avoid him until I felt that I could be around him without my feelings getting in the way....I would start dating again as soon as I felt ready and I would hope that he and I could remain friends.

In responding to the ways of coping, fearfuls endorsed avoidance, a scale mostly reflecting denial of problems and efforts to repress or get rid of feelings. They also agreed that they would blame themselves for the situation. The one thing they said they would not do was seek support from other people. This is a selection of strategies and ways of coping which emphasizes solitary action, and actively trying to close down emotionally. Thus, social resources and to some extent even communicative abilities are cut off at a stressful time. At the same time, chronic internal processes through which these individuals exacerbate their own emotional suffering continue.

In the case of dismissing attachment, it may be that we see some of the same strategies for managing expression as applied by fearful individuals, but they are applied more completely and more successfully. Based on extant findings, we would expect dismissives to show a style of managing information that minimizes perception of threat. Findings were actually weak on this particular point. Whereas secures showed a clear effect towards positive appraisals in an ambiguous situation, and fearfuls towards negative appraisals, dismissing attachment showed only a mild trend towards more negative expectations for outcome. There was no trend at all on explanations for why their partners were calling. Dismissing attachment also showed no effect on participants self-blame or negative statements about themselves in responses to



the ambiguous vignette. And, there were no effects of dismissing attachment on any of the emotional expression variables in responses to the ambiguous vignette. Indeed, it would be difficult to argue from these results that any affect regulation processes were measured in dismissives' responses to the ambiguous situation.

Non-findings for the first vignette, however, become more interesting in light of dismissives responses to the second vignette, in which participants were told their partner was breaking up with them. In responding to this vignette, the more dismissing participants expressed significantly less negative affect. In particular, they made fewer direct expressions of their own bad feelings. That is, when dismissing individuals knew that the worst had happened for their relationship, their expression of negative affect actually went down. Dismissing individuals also made fewer self-blaming statements in response to the break-up vignette. In line with these findings on emotional expression, dismissing individuals were the least likely to describe ruminating on their hurt feelings as a way of coping with the break-up situation. They also indicated that they would be unlikely to engage in wishful thinking, though the effect was not quite as strong as was seen for secure attachment. These findings have the appearance of affective constriction and control that operates particularly in situations we would normally expect to cue strong negative feelings. And it operates in the absence of the negative attributional biases that mark the other avoidant style, fearful attachment. Surface features of such a process are clearly illustrated in the responses to the break-up vignette written by the three participants who scored (in descending order) the highest on dismissing attachment.

I would say ok and then get on with my life. What just happened is really NOT a big deal, there are other things in life than having a boyfriend. I



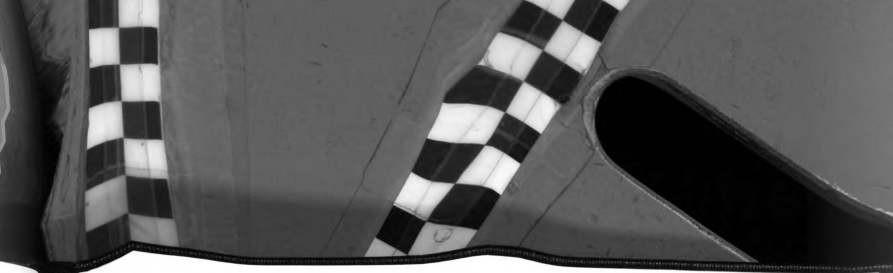
would feel fine because everything happens for a reason and what's meant to be will be. There really is no point in getting upset with this issue. I can't stand people who get revengeful or depressed over stuff like this. Life moves on...deal (ellipsis in original)

I don't think that I would have any present desires of changing his mind because if he didn't feel he could be with me, then I wouldn't want him to. I would appreciate the straightforwardness but still feel hurt and rejected....I would just make conscious efforts everyday to take control of my mind in order to find acceptance and know that it is the way things go sometimes....

I would take it as a shock, wondering what brought it on. I would be hurt, since we were so involved. I would be angry to some degree also. I would just move on if nothing could be done to work something out. I would think that things like this are typical and happen all the time, and deal with it as best as I can. It'd be a waste of time to let it eat away at me and bring me down.

One finding for dismissing attachment that was somewhat puzzling was the greater likelihood to describe seeking social support as a way of dealing with the loss of the relationship. On the face of it, this should not be a particularly avoidant thing to do. Dismissing, however, was the only attachment style to show a clear effect on the variable for support seeking as coded from written responses. It is possible the way the variable was coded, capturing any move to contact or be with others, may have somewhat inflated the relationship by including activity meant by participants only to distract themselves from the target relationship. Close examination of actual protocols, though, shows that--with some notable exceptions--in the majority of cases where seeking social support was coded, the participants did refer to some sort of emotional support.

Findings of this study shed little new light on the affect regulation style typical of preoccupied attachment. Preoccupied attachment showed no effects for any of the emotional expression variables or appraisal and attribution variables coded from participants written responses. There was a weak trend observed for preoccupied attachment to predict descriptions of seeking social



support. Preoccupied attachment did show findings on the self-report measure for ways of coping. These effects were very similar to those observed for fearful attachment, with preoccupied individuals endorsing high levels of avoidance and self blame, and also high levels of wishful thinking. The combination of avoidance and wishful thinking is interesting, as it implies these individuals will both try to ignore the situation and their feelings about it, and at the same time think regretfully about it and other ways it might have, or might still, turn out. This suggests a rather inward turning and confused way of dealing with negative affect.

Because preoccupied and fearful attachment both overlap the anxious-ambivalent style that is included in the three style typology used for most extant research, it would be useful to have findings which would help differentiate functional differences between these two aspects of anxious attachment. Unfortunately, the current findings do not provide this. It is not immediately clear why the preoccupied style yielded so few findings. Statistical tests with preoccupied attachment as the independent variable did tend to have very poor power. The measure of preoccupied attachment, however, had a range and variance to similar to measures for secure and fearful attachment, both of which yielded findings.

Some further illumination of the affect regulation style typical to preoccupied attachment may be gained by examining patterns of findings for analyses carried out using the ASQ. The measure of preoccupied attachment showed strong positive correlations with two ASQ scales in particular, preoccupation with relationships and need for approval (see Table 2). In the limited number of analyses performed for these scales, they showed effects in line with what would have been expected for preoccupied attachment. Both



scales predicted negative expectations for *outcome* in responding to the ambiguous vignette. Preoccupation with relationships also predicted participants offering fewer positive explanations for why their partners were calling. Both scales also showed clear effects for higher levels of self blame. Thus, these scales, which are highly and distinctly correlated with preoccupied attachment in this sample, showed the overall style for managing construal of information which was expected for preoccupied attachment. They also predicted higher levels of endorsement of avoidant coping, again, an effect which was expected for preoccupied attachment. This would seem to indicate that preoccupied attachment should have shown more effects than it did in this study. It is worth noting, however, that these two ASQ scales did show positive correlations with fearful attachment as well, and actually distinguished fearful from dismissing avoidance. Further, in Feeney, Noller and Hanrahan's cluster analysis (1994), these two scales did not distinguish the fearful and preoccupied groups from each other.

Two other scales showed positive correlations with fearful attachment in this sample, but no association with preoccupied attachment--relationships as secondary and, especially, discomfort with closeness (see Table 2). Both of these scales also correlate with dismissing attachment in this sample, suggesting that they may serve as markers to distinguish avoidant attachment in general from more ambivalent or approach-avoidant patterns. Both of these scales were associated with some elevation in appraisal of threat, such as negative expectations for outcome. Where they differed from the scales typical of ambivalent or preoccupied attachment was in their failure to show effects on self-blame or expressions of negative emotion.



Methodological Issues and Limitations

The current study does suffer from a number of limitations. I believe the issues involved are mostly methodological. Nonetheless, some of them may be at least partly redressed through further work with the data already gathered for this study. One factor which obviously cannot be changed is the sample, which, as in most studies of romantic attachment, is a relatively homogeneous group of college students. This introduces limitations in the generalizability of findings to the general population. A sample of college students who are mostly between 18 and 22 years of age, and less than 2% of whom are married, will obviously have an experience of close relationships that is not representative of the entire adult population's. This seems particularly likely to have effected the kinds of appraisals and attributions study participants made about the hypothetical situations they responded to for the current study. The limitations inherent in using this sample were accepted in designing the study partly to limit the difficulty of completing a study which already presented considerable challenges in instrument development.

There are also ways in which this sample of convenience is a sample of particular relevance and interest. This is a group who are probably moving in and out of close, and perhaps genuinely serious, relationships in a more concentrated way than the general population, and perhaps more than they themselves will at any other time in their lives. This could increase the likelihood that they found the hypothetical situations to be relevant and salient, and thus brought genuine reactions to their responses. Certainly, the comparisons some participants drew between the vignettes and their own recent experiences suggests that they were reacting genuinely. Further, this sample of college students is likely to be similar along many social and psychological dimensions to



the samples with which the published instruments used in the study were developed. This similarity will facilitate comparison of findings from new instruments developed for the current study with relevant findings based on those extant instruments. Inasmuch as instrument development was an important part of the current project, this is a considerable advantage.

The somewhat problematic reliability of self-report measures of attachment has been considered at length in the attachment literature. To some extent, the problems are typical of brief self-report measures. There is an additional issue with attachment measures, though, which concerns the questionable ability of some insecurely attached individuals to accurately report information regarding their own emotional and relational lives. Indeed, it is possible that some aspects of attachment style might actually be better assessed from the data used to generate the dependent variables for this study. Unfortunately, the only current alternative to self-report measures is to assess attachment through the use of interviews, a technique which is prohibitively costly in time and effort.

Despite the known shortcomings of self-report measures of attachment in general, the modest psychometric properties observed for the attachment measures were not fully anticipated. As described in the methods section, internal agreement for the scales of the RSQ was disappointing, ranging from $\alpha = .42$ to $\alpha = .64$. (Internal agreement cannot be calculated for scales of the RQ, which are single items.) The process of combining scores from the RQ and RSQ in an attempt to improve upon the initial reliability of the instruments did result in variables which, when treated as two item scales, showed better internal agreement. These figures ranged from $\alpha = .68$ to $\alpha = .78$. It may be that the considerable error inherent in the measure used as an independent variable



worked against detecting effects which may *actually* exist in the data.

Reanalysis of the data using alternate coding schemes for the measures of attachment may address this issue by reducing error in the measurement model.

Rescoring the RSQ for orthogonal dimensions of security and anxiety (Fuendeling, 1995; Simpson, Rholes & Nelligan, 1992), or grouping participants based on cluster analysis with scales of the ASQ (Feeney, Noller and Hanrahan, 1994), are both practical possibilities for further work beyond the current dissertation.

The final coding system applied to written protocols in this study also implied limitations through the kinds of affect regulatory processes to which it was sensitive. As discussed in the methods section, the final system consisted largely of counts and ratings of specific features. Some of these features functioned like a form of self-report, as in descriptions of active mechanisms of affect regulation. Others were taken as the surface signs of more or less internal regulatory processes. The latter included attributions and emotional expressions. Unfortunately, these variables are rather oblique indicators of the processes which were of genuine interest, and generated relationships with considerable scatter. Presumably, this scatter is related to random error in measuring the relationships of theoretical interest to the study, such as associations between attachment styles and regulation of emotion through management of expression. These codings did have the considerable advantages of achieving good interrater reliability, and yielding quantification of variables which could be handled using standard statistical procedures. Of course, the coding system had to be accepted or rejected on the basis of these psychometric qualities before data was coded and some of the disadvantages became more apparent.



Unfortunately, this system left some *interesting* but subtle aspects of the text unavailable for analysis. For instance, some of the responses included earlier in this discussion section demonstrate the participants' management of attention in the seemingly disjointed shifting of topics in the text. Some responses also showed change in affective expression within the vignette. It seemed that some of the participants, as they wrote about the situation, worked themselves into feeling markedly better or worse about it over the course of responding. Unfortunately, these sorts of processes are much more easily noticed than carefully or reliably described. When attempts were made to develop coding for such qualities, clear operationalization proved too difficult a problem to solve. Another problem was that any particular such feature or quality, however striking in some cases, was likely to occur quite rarely. These features were thus impractical to code and unlikely to yield effects. This limitation in examining the data can be seen as resulting partly from the initial decision to use quantitative methods of analysis. Quantifying variables which are, by nature, qualitative, inevitably dilutes the richness of the data.

It is possible that a richer coding scheme might still be developed to deal with this data set, even though doing so proved beyond the reasonable bounds of the current dissertation. Indeed, I hope to continue working with this data set, because I believe there is more to be learned from it about processes of affect regulation. Coding systems have been developed before for similarly complex problems. Relevant examples include Main's coding for the adult attachment interview (Main, Kaplan, & Cassidy, 1985) and Westen's recent Q-sort for affect regulation (Westen et al., 1997). Even the Westen system, though, while capturing process, shares the shortcoming of losing considerable textual richness in the reduction to quantitative variables. There are also numerous



examples of researchers being unable to develop adequate coding systems. In over forty years that the Thematic Apperception Test has been a popular clinical tool, no acceptable, complete, scoring system been advanced.

I should point out that these limitations in the coding system do not necessarily call into question the findings presented. Indeed, the problem most likely to result from measured variables being remote indicators of true variables is the introduction of random error. This in turn reduces the likelihood of achieving significant findings, but does not systematically increase the likelihood of spurious findings. The impact of these methodological flaws is most likely seen in the number of analyses which found no effects. While a number of interesting and important relationships were found, it is quite possible that further patterns still lie in the data, but could not be uncovered with the current techniques applied for measurement and analysis.

Implications

This study does have several potentially important implications for attachment theory and for further, related, research. The method and the findings both demonstrate that it is possible to assess multiple mechanisms of affect regulation simultaneously as they apply to a single stimulus or situation. Doing so has the potential not only to increase our understanding of attachment's effects on ongoing functioning, but also our understanding of basic aspects of affect regulation. My hope is that these findings will demonstrate the possibility for examining not only differences across attachment styles in affective outcome, or in particular dynamics, but in overall process.

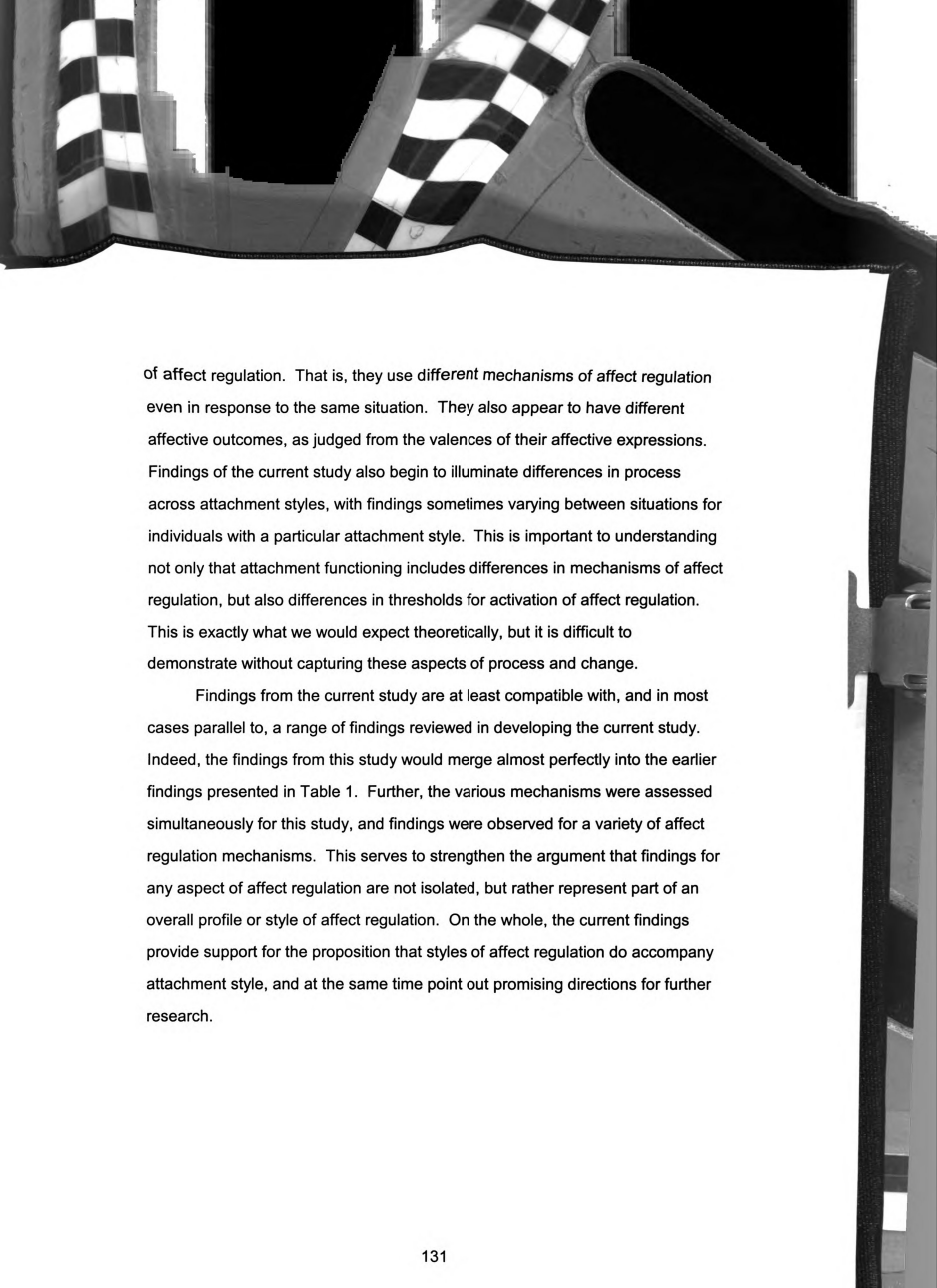
This study also shows that at least some aspects of affect regulation can be coded from relatively unstructured free responses. As a result of using self-



report measures alongside the free response method, we have some indication of agreement between the new method and well validated extant measures. This evidence is generally encouraging with regard to validity of the free response data, as the two dependent measures relate in sensible and expected ways. The successful use of a free response method is an important step towards allowing the study of participants' natural reactions to events, even if those events were hypothetical in the current study. Free response methods have some fundamental advantages over forced choice or Likert-type self-report measures. The free response methods can potentially capture the natural unfolding of processes, and be sensitive to novel or spontaneous responses. Standardized self-report measures, on the other hand, only allow participants to endorse the specific behaviors that experimenters ask about. These differences make free response methods potentially more useful for exploratory research and theory building.

While the forced choice self-report measure and free response measure showed expected relationships with each other, they did not necessarily show the same pattern of relationships with the independent variables. This may reflect some of the basic differences between free and forced response measures. Free response measures are less prone to suggest answers, which may result in greater specificity in the data. On the other hand, standard forced response measures allow for negative endorsement, or participants indicating what they would not do. While such responses occasionally occur in free responses, they are rare. It may be that continuing to use both formats in some combination is a promising method.

From a theoretical perspective, the most encouraging implication of this study is that individuals with differing attachment styles do show different styles



of affect regulation. That is, they use *different mechanisms of affect regulation* even in response to the same situation. They also appear to have *different affective outcomes*, as judged from the valences of their affective expressions. Findings of the current study also begin to illuminate differences in process across attachment styles, with findings sometimes varying between situations for individuals with a particular attachment style. This is important to understanding not only that attachment functioning includes differences in mechanisms of affect regulation, but also differences in thresholds for activation of affect regulation. This is exactly what we would expect theoretically, but it is difficult to demonstrate without capturing these aspects of process and change.

Findings from the current study are at least compatible with, and in most cases parallel to, a range of findings reviewed in developing the current study. Indeed, the findings from this study would merge almost perfectly into the earlier findings presented in Table 1. Further, the various mechanisms were assessed simultaneously for this study, and findings were observed for a variety of affect regulation mechanisms. This serves to strengthen the argument that findings for any aspect of affect regulation are not isolated, but rather represent part of an overall profile or style of affect regulation. On the whole, the current findings provide support for the proposition that styles of affect regulation do accompany attachment style, and at the same time point out promising directions for further research.



APPENDIX

Demographic Information

Thank you for deciding to participate in our research. The following questions ask about your background. Please circle or fill in the appropriate information for each item.

1. Your sex: (circle one) (1) Female
(2) Male
2. Your age: _____
3. Your year in college: (1) Freshman
(2) Sophomore
(3) Junior
(4) Senior
(5) Other (describe) _____
3. Your ethnic/racial background: (1) African-American
(2) Asian-American
(3) Caucasian/White
(4) Hispanic/Latino
(5) Native-American
(6) Multiracial

What is your current relationship/dating status?

- (1) not involved in a dating relationship
- (2) dating different people
- (3) seeing one person without any commitment
Please indicate the approximate length of this relationship in months: _____
- (4) in a committed relationship (or engaged)
Please indicate the approximate length of this relationship in months: _____
- (5) married

How satisfied are you in general with the quality of your social relationships (i.e., friendships, dating relationships) here at MSU?

- (1) Very disssatisfied
(2) Moderately disssatisfied
(3) Moderately satissatisfied
(4) Very satissatisfied

How satisfied are you in general with the quality of your relationships with family members (i.e., parents, siblings)?

- (1) Very dissatisfied
(2) Moderately dissatisfied
(3) Moderately satisfied
(4) Very satisfied



Relationship Questionnaire

Please read directions; Complete both parts.

1) Following are descriptions of four general relationship styles that people often report. Please read each description and CIRCLE the letter corresponding to the style that best describes you or is closest to the way you generally are in your close relationships.

- A. It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.
- B. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.
- C. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.
- D. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

2) Referring back to the descriptions above, please rate each of the same relationship styles for how well that description corresponds to your general relationship style.

	not at all like me		somewhat like me		very much like me		
Style A.	1	2	3	4	5	6	7
Style B.	1	2	3	4	5	6	7
Style C.	1	2	3	4	5	6	7
Style D.	1	2	3	4	5	6	7



Relationship Scales Questionnaire

Please read each of the following statements and rate how much it describes your feelings about close relationships. Think about all of your close relationships, past and present, and respond in terms of how you generally feel in these relationships.

		not at all like me		somewhat like me		very much like me
1.	I find it difficult to depend on other people.	1	2	3	4	5
2.	It is very important to me to feel independent.	1	2	3	4	5
3.	I find it easy to get emotionally close to others.	1	2	3	4	5
4.	I want to merge completely with another person.	1	2	3	4	5
5.	I worry that I will be hurt if I allow myself to become too close to others.	1	2	3	4	5
6.	I am comfortable without close emotional relationships.	1	2	3	4	5
7.	I am not sure that I can always depend on others to be there when I need them.	1	2	3	4	5
8.	I want to be completely emotionally intimate with others.	1	2	3	4	5
9.	I worry about being alone.	1	2	3	4	5
10.	I am comfortable depending on other people.	1	2	3	4	5
11.	I often worry that romantic partners don't really love me.	1	2	3	4	5
12.	I find it difficult to trust others completely.	1	2	3	4	5
13.	I worry about others getting too close to me.	1	2	3	4	5
14.	I want emotionally close relationships.	1	2	3	4	5
15.	I am comfortable having other people depend on me.	1	2	3	4	5
16.	I worry that others don't value me as much as I value them.	1	2	3	4	5
17.	People are never there when you need them.	1	2	3	4	5

		not at all like me	somewhat like me			very much like me
18.	My desire to merge completely sometimes scares people away.	1	2	3	4	5
19.	It is very important to me to feel self-sufficient.	1	2	3	4	5
20.	I am nervous when anyone gets too close to me.	1	2	3	4	5
21.	I often worry that romantic partners won't want to stay with me.	1	2	3	4	5
22.	I prefer not to have other people depend on me.	1	2	3	4	5
23.	I worry about being abandoned.	1	2	3	4	5
24.	I am somewhat uncomfortable being close to others.	1	2	3	4	5
25.	I find that others are reluctant to get as close as I would like.	1	2	3	4	5
26.	I prefer not to depend on others.	1	2	3	4	5
27.	I know that others will be there when I need them.	1	2	3	4	5
28.	I worry about having others not accept me.	1	2	3	4	5
29.	Romantic partners often want me to be closer than I feel comfortable being.	1	2	3	4	5
30.	I find it relatively easy to get close to others.	1	2	3	4	5



Attachment Style Questionnaire

Please show how much you agree with each of the following items by rating them on this scale:

- 1 = totally disagree
- 2 = strongly disagree
- 3 = slightly disagree
- 4 = slightly agree
- 5 = strongly agree
- 6 = totally agree.

		Totally Disagree				Totally Agree			
1.	Overall, I am a worthwhile person.	1	2	3	4	5	6		
2.	I am easier to get to know than most people.	1	2	3	4	5	6		
3.	I feel confident that other people will be there for me when I need them.	1	2	3	4	5	6		
4.	I prefer to depend on myself rather than other people.	1	2	3	4	5	6		
5.	I prefer to keep to myself.	1	2	3	4	5	6		
6.	To ask for help is to admit that you're a failure.	1	2	3	4	5	6		
7.	People's worth should be judged by what they achieve.	1	2	3	4	5	6		
8.	Achieving things is more important than building relationships.	1	2	3	4	5	6		
9.	Doing your best is more important than getting along with others.	1	2	3	4	5	6		
10.	If you've got a job to do, you should do it no matter who gets hurt.	1	2	3	4	5	6		
11.	It's important to me that others like me.	1	2	3	4	5	6		
12.	It's important to me to avoid doing things that others won't like.	1	2	3	4	5	6		
13.	I find it hard to make a decision unless I know what other people think.	1	2	3	4	5	6		
14.	My relationships with others are generally superficial.	1	2	3	4	5	6		
15.	Sometimes I think I am no good at all.	1	2	3	4	5	6		
16.	I find it hard to trust other people.	1	2	3	4	5	6		
17.	I find it difficult to depend on others.	1	2	3	4	5	6		
18.	I find that others are reluctant to get as close as I would like.	1	2	3	4	5	6		
19.	I find it relatively easy to get close to other people.	1	2	3	4	5	6		

20.	I find it easy to trust others.	1	2	3	4	5	6
21.	I feel comfortable depending on other people.	1	2	3	4	5	6
22.	I worry that others won't care about me as much as I care about them.	1	2	3	4	5	6
23.	I worry about people getting too close.	1	2	3	4	5	6
24.	I worry that I won't measure up to other people.	1	2	3	4	5	6
25.	I have mixed feelings about being close to others.	1	2	3	4	5	6
26.	While I want to get close to others, I feel uneasy about it.	1	2	3	4	5	6
27.	I wonder why people would want to be involved with me.	1	2	3	4	5	6
28.	It's very important to me to have a close relationship.	1	2	3	4	5	6
29.	I worry a lot about my relationships.	1	2	3	4	5	6
30.	I wonder how I would cope without someone to love me.	1	2	3	4	5	6
31.	I feel confident about relating to others.	1	2	3	4	5	6
32.	I often feel left out or alone.	1	2	3	4	5	6
33.	I often worry that I do not really fit in with other people.	1	2	3	4	5	6
34.	Other people have their own problems, so I don't bother them with mine.	1	2	3	4	5	6
35.	When I talk over my problems with others, I generally feel ashamed or foolish.	1	2	3	4	5	6
36.	I am too busy with other activities to put much time into relationships.	1	2	3	4	5	6
37.	If something is bothering me, others are generally aware and concerned.	1	2	3	4	5	6
38.	I am confident that other people will like and respect me.	1	2	3	4	5	6
39.	I get frustrated when others are not available when I need them.	1	2	3	4	5	6
40.	Other people often disappoint me.	1	2	3	4	5	6



Relationship Interaction Vignettes (1)

Following is a description of a relationship and an interaction that might take place in that relationship. Please read this description and take time to really try to imagine yourself in this relationship. Imagine what is happening, and how you would feel if this happened to you.

You have been dating someone special for a few months. Things have gone really well between the two of you. As time has gone by, you have found that you wanted to spend more time with your partner--sharing your day, exploring new things, or just being with each other. You also have turned to this person more and more when things are going badly for you, or you are upset. You've become very comfortable together. As the two of you have become more involved, it's been hard when you have to be apart. The two of you have recently gone a few weeks without seeing each other, perhaps because of a trip or a school break. Now your partner has just called you and asked you to come by--to talk to about something important. They didn't want to tell you what it was about on the phone.

Take a moment to imagine what is happening in this situation, then use the rest of this page to write a description of the interaction. You might include what you and your partner are feeling and thinking, what brought about this exchange, and what is likely to happen next. You can use the back of the page for more space.

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Relationship Interaction Vignettes (2)

Following is another description of an interaction in this relationship. Imagine this happening after the conversation in the previous description. Again, take time to really try to imagine yourself in this situation before you write about it.

You have gone to see your partner and find out what they want to talk to you about. When they come to the door, it is the first time you have seen each other for weeks. As the two of you start talking, your partner tells you that the two of you shouldn't see each other anymore. They are breaking up with you.

Use the rest of this page to write a description of this interaction, and of what happens afterward. Try to describe how you would feel in this situation, and especially what you would do about your feelings. Are there ways you try to think about this in order to deal with it—to deal with your feelings about it?

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1

Revised-Ways of Coping Checklist

The following items describe ways people sometimes cope in difficult situations. Please rate each of these items for how likely you would be to use it in the situation you just wrote about.

		Would not use		Would use a great deal	
		1	2	3	4
1.	Change something so things would turn out all right.	1	2	3	4
2.	Accept sympathy and understanding from someone.	1	2	3	4
3.	Keep my feelings to myself.	1	2	3	4
4.	Accept the next best thing to what I wanted.	1	2	3	4
5.	Ask someone I respect for advice and follow it.	1	2	3	4
6.	Try not to burn my bridges behind me, but leave things open somewhat.	1	2	3	4
7.	I know what has to be done, so I will double my efforts and try harder to make things work.	1	2	3	4
8.	Think about fantastic or unreal things (like perfect revenge or finding a million dollars) that make me feel better.	1	2	3	4
9.	Just take things one step at a time.	1	2	3	4
10.	Wish that I could change what had happened.	1	2	3	4
11.	Wish I was a stronger person—more optimistic and forceful.	1	2	3	4
12.	Have fantasies or wishes about how things might turn out.	1	2	3	4
13.	Change something about myself so I could deal with the situation better.	1	2	3	4
14.	Try not to act too hastily or follow my own hunch.	1	2	3	4
15.	Get professional help and do what they recommend.	1	2	3	4
16.	Keep others from knowing how bad things are.	1	2	3	4
17.	Come up with a couple of different solutions to the problem.	1	2	3	4
18.	Try to forget the whole thing.	1	2	3	4
19.	Realize I brought the problem on myself.	1	2	3	4
20.	Hope a miracle would happen.	1	2	3	4
21.	Daydream or imagine a better time or place than the one I was in.	1	2	3	4
22.	Go on as if nothing had happened.	1	2	3	4



	Would not use		Would use a great deal	
	1	2	3	4
23. Bargain or compromise to get something positive from the situation.				
24. Refuse to believe it had happened.	1	2	3	4
25. Accept my strong feelings, but not let them interfere with other things too much.	1	2	3	4
26. Talk to someone to find out about the situation.	1	2	3	4
27. Feel bad that I couldn't avoid the problem.	1	2	3	4
28. Concentrate on something good that could come out of the whole thing.	1	2	3	4
29. Make a plan of action and follow it.	1	2	3	4
30. Blame myself.	1	2	3	4
31. Stand my ground and fight for what I wanted.	1	2	3	4
32. Talk to someone about how I was feeling.	1	2	3	4
33. Wish I could change the way that I felt.	1	2	3	4
34. People's worth should be judged by what they achieve.	1	2	3	4
35. Talk to someone who could do something about the problem.	1	2	3	4
36. Wish the situation would go away or somehow be finished.	1	2	3	4
37. Avoid being with people in general.	1	2	3	4
38. Sleep more than usual.	1	2	3	4
39. Try to make myself feel better by eating, drinking, smoking, or taking medications.	1	2	3	4
40. Get mad at the people or things that caused the problem.	1	2	3	4
41. Change or grow as a person in a good way.	1	2	3	4
42. Criticize or lecture myself.	1	2	3	4



Form for Coding Relationship Vignette Protocols

Coder _____, Date _____,
Subject # _____.

Vignette 1

- 1) Direct Expressions of Emotion (count and assign valence)

Mark in text by circling

Neutral or
_____ can't rate _____ Positive _____ Negative

- 2) Indirect Expressions of Emotion, includes discussion of emotions as objects, partner's emotions, attention to own emotional process as such. (count and assign valence)

Mark in text by underlining

Neutral or
_____ can't rate _____ Positive _____ Negative

- 3) Conditional Expressions of Emotion (count and assign valence)

Mark in text with broken underlining

Neutral or
_____ can't rate _____ Positive _____ Negative

- 4) Explanations for the call (count and assign valence)

Mark in text by bracketing with underlining

Neutral or
_____ can't rate _____ Positive _____ Negative

- 5) Self blame or Negative attributions about the self.

Note by number (5) in text
_____ (count number)

- 6a) Expectation of positive outcome

☐ _____ ☐ _____ ☐
Low to None Medium High

- 6b) Expectation of negative outcome

☐ _____ ☐ _____ ☐
Low to None Medium High

- 7a) Attributions of own control

☐ _____ ☐ _____ ☐
Low to None Medium High

- 7b) Attributions of partner's control

☐ _____ ☐ _____ ☐
Low to None Medium High

Vignette 2

1) Direct Expressions of Emotion (count and assign valence)

Mark in text by circling

____ Neutral or _____ Positive _____ Negative
____ can't rate

2) Indirect Expressions of Emotion, includes discussion of emotions as objects, partner's emotions, attention to own emotional process as such. (count and assign valence)

Mark in text by underlining

____ Neutral or _____ Positive _____ Negative
____ can't rate

3) Conditional Expressions of Emotion (count and assign valence)

Mark in text with broken underlining

____ Neutral or _____ Positive _____ Negative
____ can't rate

-----there is no number 4-----

5) Self blame or Negative attributions about the self.

Note by number (5) in text
____ (count number)

6a) Expectation of positive outcome

☐	☐	☐
Low to None	Medium	High

6b) Expectation of negative outcome

☐	☐	☐
Low to None	Medium	High

7a) Attributions of own control

☐	☐	☐
Low to None	Medium	High

7b) Attributions of partner's control

☐	☐	☐
Low to None	Medium	High

8) Active Mechanisms of Affect Regulation

- ☐ Introduction of new goals
- ☐ Self distraction
- ☐ Seeking social support
- ☐ Open communication (with partner)
- ☐ Consciously controlling or managing own expression of emotion
- ☐ Rumination

Tentative additional codes for overall protocol

Personal Engagement with the Task

For the time being, circle the number (1,2, or 3) that seems to most closely match the Ss level of personal engagement with responding

- 1) Low or distant--uses second or 3rd person; discusses situation entirely in abstract or as hypothetical
- 2) Moderate--writes response in first person
- 3) High, very involved--uses vignette as a point of departure to discuss actual personal experiences; or incorporates names/characters/events apparently drawn from their own lives into their response.

☐ **Weird protocol** obviously evasive of task, incoherent, or just weird.



Instructions to Coders for Scoring Written Protocols

(Annotations to these instructions by the coders are indicated in *italics*)

1) DIRECT EXPRESSIONS OF EMOTION

The idea here is to catch direct expressions of emotion, especially where there is a sense that the writer is taking ownership of the feelings as their own experience. These may be explicit "I feel...", "I will feel...", "I'm anxious as I head over." Many emotion statements do not include the word "feel." For instance "Right away, I get anxious," "*curious*," "I'm excited to go and find out," or "I really missed him." Doubts about what is an emotional or affective statement may be clarified by referring to the table of basic affects at the end of these instructions. **REMEMBER** that "want" and "need" are NOT coded as emotions in the current coding system.

Also count statements under this code which do not name or describe an emotion, but which express an emotion more directly by their emotionally loaded construction. Statements which would count include "Later, Bitch!" "This is terrible," "I can't stand this," "I ask questions between sobs" and "my heart hurts." These last are particularly good examples, in that they reflect the relatively unmediated expression of the affect itself--that is, the writer is describing the actual affect rather than putting a label on it. As an example of a "liner" -- "that was wrong to do," is not an emotional statement. "You just don't do that to people," however, is because of the slightly stronger wording. In making these distinctions you might take into count when subjects do things like underline, write in all caps, or do something similar to emphasize text.



For the purposes of counting the statements, count every individual emotion named as a separate instance. Thus, one statement like "I feel sad and anxious and a little frightened about what he's going to say," counts as three expressions.

Judgments about whether something is a direct emotional expression or indirect or conditional emotion can be difficult, particularly if presented in the past-tense or in second or third person. If a statement is past-tense with the sense of being given as background to what is happening in the main action of the response, count it as #2, indirect emotion. Statements made in the second person can be treated as direct expressions of the writer's emotion if the second person is the predominant voice used for the response. Several respondents appear to be using "you" to refer to themselves (or at least the protagonist, which we assume is themselves). Similarly, if the response is written primarily in a progressive tense with "would" as part of many verbs (that is "would" indicating only future tense, not a conditional), then statements like "I would feel very angry" should be coded as direct expression. If, however, "would" is used in the more correct conditional sense, the statement would be coded as #3, conditional expression of emotion.

2) INDIRECT EXPRESSIONS OF EMOTION

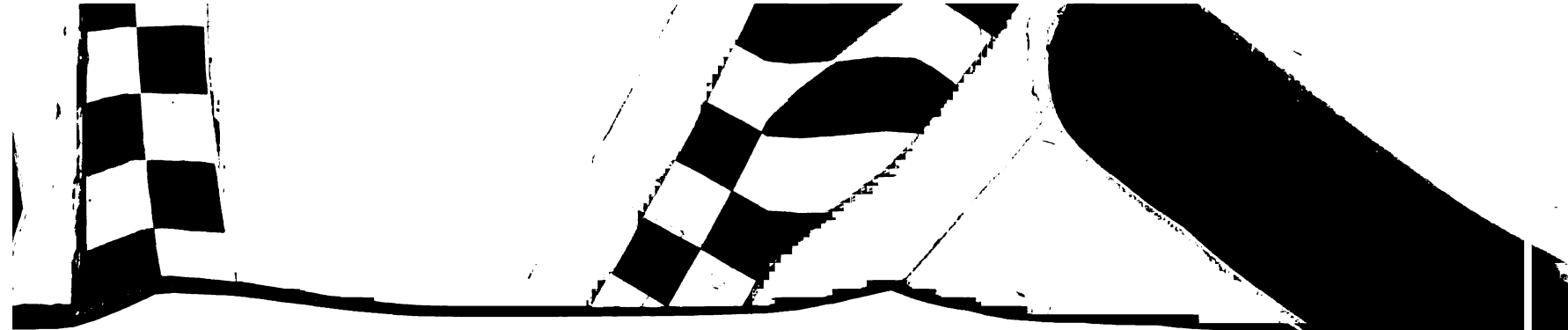
This variable includes discussion of emotion as objects ("the sadness," "the pain"); discussion of emotions in the abstract; or self conscious attention to emotional processes, and discussion of partners' emotions. This includes many expressions or discussions of emotion in which the writer does not take some ownership of the emotion as their own, or does not describe the emotion as



current to the main action or situation they are describing. This includes statements that imply emotional content, without really expressing it, such as "I wanted to be closer." It does not include statements about emotions which would happen given particular events or conditions (e.g., if it is bad news); these are coded under #3, conditional expression emotion. The words "emotion(s)", "feeling(s)", or "felt", should serve as flags for likely places to code this variable, as use of these words usually indicates discussion of emotions as objects or in the abstract. The words "cope" and "deal (with it)" should also serve as flags to consider this code, as these phrases are likely to indicate attention to emotional processes.

Decisions about how to parse, or count, the statements are made by the same rules as for direct expression. This may be a little harder to apply, because there are not always distinct emotions named. In this case, count the smallest units which form whole statements. "I wanted to be closer, but I was apparently depending on her too much" counts as two separate indirect expressions of emotion.

Decisions about valence are generally made according to the emotion involved (again, the table of basic affects may be helpful). Statements which imply emotions of intimacy or attachment—such as depending on, wanting to be closer to, getting closer—are generally positive. An important exception is if the writer describes their partner wanting to become closer to another, competing, partner. In that case, the valence is negative because of the presumably negative impact on the emotional life of the writer. When in doubt on this issue, code the valence from the perspective of the writer.



As with #1, direct expression, if one *statement mentions several different feelings or emotions*, each separate emotion named or described is counted as one instance. For instance, note the following scoring "It seems that my partner may not have felt (2-) as strongly about me as I had [felt] for them. (2+)" This is scored as two separate statements about feelings because it is two separate emotional states of two different people being commented on. "Any feelings I have should be forgotten, (2°)" counts once, for a mention of feelings as an object. Valence is neutral because the subject does not tell us enough to know whether those feelings are positive or negative.

Another example: "Maybe their feelings changed (2°, 4°), or you've done something wrong unknowingly (4-). My brain will usually come up with every possible scenario (2°), because I would be afraid.(1-)..". Note that the context of being afraid makes it clear that the writer understands coming up with possible scenarios as part of his own emotional process, although it is not actually an expression of emotion.

imagine, thinking (the worst), emotional processes, "deal" = neutral

A couple of final notes: As we began coding, it seemed easier for the two of you to agree if you divided text very finely for this coding—that is, tend to "count everything" as a separate instance. (Exactly how far you go in that direction is something that may continue to evolve as you develop agreement over the first chunk of protocols.) Also, it is important to stay fairly scrupulous as to what are statements about emotion—since coding every aspect of the text which is somehow related to emotion could result in nearly every phrase of some protocols being counted. That is not what I want. Also, coding for #1, #2, and



#3 are mutually exclusive. if something has *already been counted as #1--* emotional expression, then it does not get counted as #2.

3) CONDITIONAL EXPRESSIONS OF EMOTION

This is the category for descriptions or expressions of emotion which are conditional on other things. For instance "if the news is good, we'll laugh the night away. If it's bad news, there will be tears and support." This receives three separate scores for conditional emotion. The laughing is conditional and positive, the tears are conditional and negative, and the support is conditional and positive. Actually, support would usually be scored as indirect, but here is scored instead as conditional. (trying to score conditional emotion further as direct vs. indirect would be too complicated, and we won't do that.)

A FEW EXAMPLES OF CODING EMOTIONAL EXPRESSION

Note that the three categories, Direct, Indirect, and Conditional, are mutually exclusive. No one statement receives more than one of these scores.

- "I would be curious what it was about" Direct expression, positive--curiosity is a variant of interest, which is a positive affect.
- "We were getting very close" Indirect expression, positive--implies intimacy or a sense of commitment, which are assumed to be positive emotional experiences.
- "I want her tell me over the phone." Not coded as an expression of emotion
- "I know in my heart" Indirect expression, neutral (unless the thing known provides a clearly positive or negative valence.)
- "It seems I was depending a great deal on this person" Indirect expression, neutral (unless clearly valenced by context)

- "Then we talk and laugh the night away" Direct expression, positive
- "If it was good news, then we would talk and laugh the night away"
Conditional expression, positive
- "Support" Indirect positive (if clearly referring to emotional support)--support is not an emotion in itself, but implies an emotional exchange.
- "I am wondering" Direct expression, positive--this is another variant of Interest
- "I am worried" Direct expression, negative
- "Depend on... Comfortable with... Want to depend" These are all Indirect expression, positive
- "I picture breaking up" Indirect expression, negative
- "It was the worst experience." Direct expression, negative
- "Obviously, they rekindled their relationship" Indirect expression, valence dependent on context
- "I would not be worried" Indirect expression, neutral
- "I would go over, he would break up with me, and I would be furious." Direct expression, negative
- "I go over, and if he says he wants to break up, I would be furious."
Conditional expression, negative.
- "Deal with it" Indirect, neutral

4) EXPLANATIONS FOR THE CALL

Why it is being made or what it is about. The essence of this score is to get an index of the explanations the subject makes for an ambiguous event, because this is an important part of the subjects internal working model for relationships (this is different from, though often overlapping, expected outcomes).



The decision that we came to over Monday and Tuesday was to count every identifiable instance or event in the text which gives an explanation for why the call is being made. In this way, the rule is similar to the "count everything" rule used for #1 and #2. Your scored protocols for subjects 5 and 6 may provide the best current guide for this scoring rule. For instance, "there may be some sort of tragedy for them or their family" counts once (4-), because there is ONE tragedy (an event). "They found someone new and want to break up" counts twice (4-, 4-); once for finding someone new, once for wanting to break up. If there are two or more statements, and one of them seems to be a general category into which the others fall, all of them are counted: e.g. "good news" is counted and then individual examples of possible good news "job promotion," "tests came back negative," "got into grad school," also all count.

What happens once the couple are together does not count as part of the explanation. This is only things that happen before getting together.

5) SELF BLAME OR NEGATIVE ATTRIBUTIONS ABOUT THE SELF

This count should be finely parsed, similarly to expressions of emotion. Because a readiness to blame the self, or availability of negative attribution about the self, is the theoretically most relevant construct, "the same attribution can be counted each time it is repeated". For this code, count every instance of comparing the self to another negatively (he found someone prettier); accepting blame for the situation; explicitly negative statements about the self (e.g. "I'm insensitive," "I'm fat and ugly" [counts twice]), or criticisms of one's own judgment



("I should have know better than to trust him," or "I got overinvolved too quickly.")

—Don't count any "WE" statements

—Stick with the text, what they're saying that the partner might be saying.

6a&b) **EXPECTED OUTCOME**

Treat 6a&b as if it was one, bipolar variable scored as <Negative—Mixed—Positive>. You should either assign a score of Hi/Lo, Med/Med, Lo/Hi. If the subject describes a negative outcome, then the coding would be Low for 6a (positive outcome) and High for 6b (negative outcome). If the subject describes a positive outcome, the scoring would be High for 6a (positive outcome) and Low for 6b (negative outcome). If the subject gives a mixed or balanced description of possible outcomes, then the proper coding would be Medium-Medium.

Vignette 1: score outcome according to the subject's expectations for positive versus negative events when they go to their partner's house to find out what the call is about.

Vignette 2: score outcome according to positive versus negative aspects of the subject's life in the post-breakup period. In making this judgment, keep in mind that the break-up is a given in the vignette.

Nothing that occurs during breakup is relevant

7a&b). (BALANCE OF) CONTROL

This variable is coded differently from Vignette 1 to Vignette 2.

Vignette 1:

Treat a&b as a single, bipolar scale indicating balance of control in the relationship. The scoring should be one of three combinations: (Self)Hi/(Partner)Lo, indicating that the subject has relatively more control over "what happens next." (as per the wording in the vignette's directions to the subject). If the partner is in control, the scoring should be (Self)Lo/(Partner)Hi. If the subject describes a balance of control in the relationship, the scoring should be Medium/Medium.

Vignette 2:

Use 7a to code the subject's own control in the situation. Anchor descriptions for this coding would be:

Low--completely lets things happen to self, or tries to exercise some control and is shot down

Medium--Makes some attempt to bargain, negotiate, or share control-or-presents control as balanced or shared in the relationship

High--Presents self as having greater control, or takes control of situation (This will be a fairly rare score)

Use 7b to code the partner's control in the situation. Because the text of the vignette sets up the partner as having more control, use Medium as the baseline score, assigning this to most protocols. Score the variable as Low or Hi only if there is something striking in the protocol to indicate that the partner is seen as having unusually high or low control.

8) ACTIVE MECHANISMS OF AFFECT REGULATION

The two of you seem to be doing well scoring this so far without specific operationalization beyond what is in the background sources. Therefor if you need specific guidance you can 1)contact me [through first 32 protocols] 2) look for the brief explanations in Thompson's article on affect regulation 3) read the glosses of each mechanism which I included in the introductions and conclusions to each subheading of my own manuscript, and also in the section A Taxonomy of Affect Regulation Mechanisms.

Self-Distraction -- anything people do to take their mind off situation or feelings or their feelings about the situation

Social Support -- being with others

BASIC AFFECTS (After Tomkins)

Each affect is shown as a continuum, between a mild and strong expression. Note that this is not a comprehensive list of affects or emotions. It is only a theoretical listing of the PRIMARY affects. This is included as a reference for your own thinking about whether or not a particular expression is affect or emotion. For instance, Curiosity, is counted as a positive emotion because of its near similarity to Interest. Contempt is also clearly an emotion, although it is not listed here (it combines the primary affects of Anger and Disgust).

POSITIVE

Interest-Excitement
Enjoyment-Joy

RESETTING (neutral)

Surprise

NEGATIVE

Distress-Anguish
Fear--Terror
Anger-Rage
Shame-Humiliation
Disgust-Disgust

Things that DO NOT equal emotions:

anticipation (expectation)

confusion

disbelief

expression, reaction

faithful

fine

fun

OK

sensitive

understanding

want/need

wish

doubt

#1 DIRECT Emotions

amazed (0)

appreciate (=)

apprehensive (-)

awkward (-)

calm (+)

care, caring (+)

content (+)

concerned (-)

contempt (-)

cry (-)

curious (like interest) (+)

enjoy (+)

frustrated (-)

hard, "take this hard" (-)

hope (+)

horrified (-)

miss (-)

proud (+)

respect (+)

satisfied (+)

smile (+)

shocked (0)

stunned (0)

surprise (0)

trust (+)

wondering (+)

worried (-)

#2 INDIRECT Emotions

Past tense, background, or very

future tense

Emotional processes

Don't/Won't rule (am not/would not)

Ness/ment rule – feelings as objects

"feel" or "feels" without a descriptor

"it doesn't feel right" (0)

"think the worst" (-)

accept (0)

amazement (0)

attached (+)

beg (-)

blame (-)

bury feelings (0)

committed, commitment (+)

comfortable, at ease (+)

deal, cope (0) (but not "move on")

dependent (+)

encouragement (support) (+)

enjoyment (+)

grief (-)

hug (+)

imagine, imagining (0) or "ct"

kiss (+)

open (+)

pride (+)

support (+)

withdraw (0)

Interrater Agreement and Intrarater Consistency for Coded Variables

Coded Variables	Interrater agreement	Intrarater consistency ¹	
		Coder A	Coder J
<u>Vignette 1</u>			
Direct Expressions of Emotion			
Neutral or can't rate	$\alpha = .89$	$\alpha = 1.00$	$\alpha = .43$
Negative	$\alpha = .97$	$\alpha = .94$	$\alpha = .81$
Positive	$\alpha = .96$	$\alpha = .92$	$\alpha = .93$
Indirect Expressions of Emotion			
Neutral or can't rate	$\alpha = .97$	$\alpha = .86$	$\alpha = .89$
Negative	$\alpha = .97$	$\alpha = .94$	$\alpha = .91$
Positive	$\alpha = .96$	$\alpha = .90$	$\alpha = .86$
Conditional Expressions of Emotion			
Neutral or can't rate	$\alpha = .97$	$\alpha = 1.00$	$\alpha = 1.00$
Negative	$\alpha = .95$	$\alpha = .95$	$\alpha = .95$
Positive	$\alpha = .82$	$\alpha = .67$	$\alpha = .77$
Explanations for the Call			
Neutral or can't rate	$\alpha = .92$	$\alpha = .81$	$\alpha = .71$
Negative	$\alpha = .97$	$\alpha = .86$	$\alpha = .92$
Positive	$\alpha = .95$	$\alpha = .94$	$\alpha = .80$
Self-blame			
Expectation of positive outcome	$\kappa = .75$	$\kappa = .65$	$\kappa = .52$
Expectation of negative outcome	$\kappa = .75$	$\kappa = .65$	$\kappa = .52$
Attributions of own control	$\kappa = .21$	not valid ²	not valid ²
Attributions of partner control	$\kappa = .21$	not valid ²	$\kappa = .62$
<u>Vignette 2</u>			
Direct Expressions of Emotion			
Neutral or can't rate	$\alpha = .97$	$\alpha = .21$	$\alpha = .59$
Negative	$\alpha = .98$	$\alpha = .95$	$\alpha = .92$
Positive	$\alpha = .94$	$\alpha = .50$	$\alpha = .66$
Indirect Expressions of Emotion			
Neutral or can't rate	$\alpha = .98$	$\alpha = .70$	$\alpha = .77$
Negative	$\alpha = .96$	$\alpha = .82$	$\alpha = .82$
Positive	$\alpha = .96$	$\alpha = .78$	$\alpha = .56$

Interrater Agreement and Intrarater Consistency for Coded Variables
(Continued)

Coded Variables	Interrater agreement	Intrarater consistency ¹	
		Coder A	Coder J
Conditional Expressions of Emotion			
Neutral or can't rate	$\alpha = .98$	not valid ²	$\alpha = .00^2$
Negative	$\alpha = .98$	$\alpha = .65$	$\alpha = .60$
Positive	$\alpha = .92$	not valid ²	$\alpha = .00^2$
Self-blame	$\alpha = .96$	$\alpha = .79$	$\alpha = .90$
Expectation for positive outcome	$\kappa = .47$	not valid ²	$\kappa = .29$
Expectation for negative outcome	$\kappa = .47$	not valid ²	$\kappa = .29$
Attributions of own control	$\kappa = .56$	not valid ²	not valid ²
Attributions of partner control	not valid ²	not valid ²	not valid ²
Active Mechanisms of Affect Regulation			
Introduce new goals	$\kappa = .91$	$\kappa = .84$	$\kappa = .61$
Self distraction	$\kappa = .90$	$\kappa = .70$	$\kappa = .90$
Seeking social support	$\kappa = .97$	$\kappa = 1.00$	$\kappa = .94$
Open communication (with partner)	$\kappa = .92$	$\kappa = .92$	$\kappa = .78$
Consciously managing expression of emotion	$\kappa = .90$	$\kappa = .70$	$\kappa = .59$
Rumination	$\kappa = .84$	$\kappa = .71$	$\kappa = .72$

Note:

1. Intrarater consistency is calculated from coding of protocols for cases 1 - 32 during training and again at the end of the coding run. Only the second coding of these protocols was used in analyses.

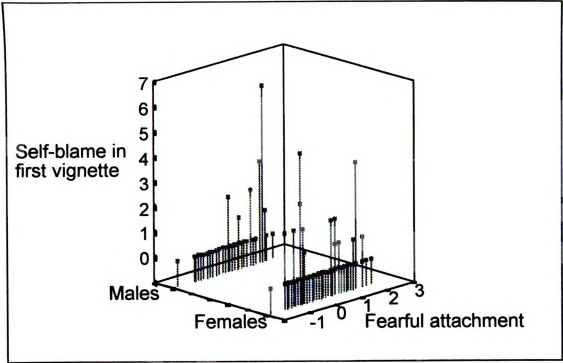
2. Reliability statistic could not be calculated because of restricted range or zero variance in some variables.

Descriptive Statistics for Coded Variables

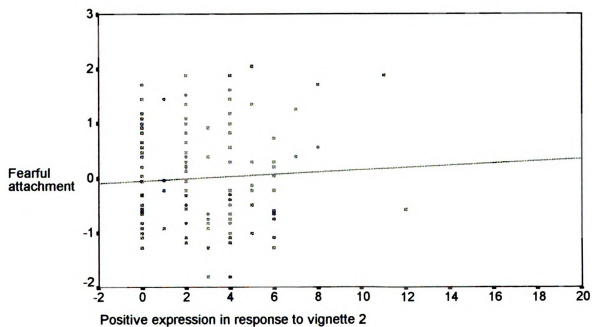
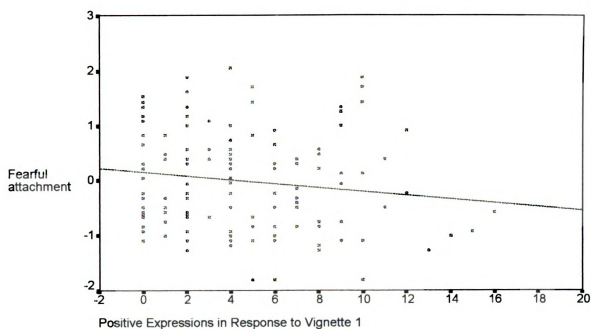
Variable	Mean	Standard Deviation	Minimum	Maximum	Valid n
Vignette 1					
All Negative Expressions	4.53	3.81	0	17	135
All Positive Expressions	4.53	3.73	0	16	135
Direct Expressions of Emotion					
Negative	1.99	2.66	0	10	135
Neutral	.14	.56	0	4	135
Positive	1.00	1.56	0	6	135
Indirect Expressions of Emotion					
Negative	2.30	2.69	0	11	135
Neutral	1.99	2.26	0	10	135
Positive	3.34	3.25	0	13	135
Conditional Expressions of Emotion					
Negative	.25	.75	0	4	135
Neutral	.13	.54	0	4	135
Positive	.19	.60	0	4	135
Explanations for the Call					
Negative	2.79	2.77	0	16	135
Neutral	.80	1.48	0	8	135
Positive	1.32	1.99	0	10	135
Self-blame	.34	.96	0	6	135
Vignette 2					
All Negative Expressions	6.42	4.54	0	22	135
All Positive Expressions	2.47	2.47	0	12	135
Direct Expressions of Emotion					
Negative	4.13	3.75	0	19	135
Neutral	.43	.96	0	5	134
Positive	.74	1.23	0	6	135
Indirect Expressions of Emotion					
Negative	1.87	2.26	0	8	135
Neutral	3.04	2.75	0	14	135
Positive	1.67	1.92	0	8	135
Conditional Expressions of Emotion					
Negative	.42	1.03	0	6	135
Neutral	.16	.58	0	4	135
Positive	.05	.31	0	2	135
Self-blame	.76	1.41	0	7	135
Values					
Variable	0	1	2	Valid n	
Introduce New Goals	114 (84%)	3 (2%)	18 (13%)	135	
Self Distraction	107 (79%)	4 (3%)	24 (18%)	135	
Seek Social Support	87 (64%)	2 (2%)	46 (34%)	135	
Open Communication with Partner	50 (37%)	5 (4%)	80 (59%)	135	
Manage Expression of Emotion	89 (66%)	6 (4%)	40 (30%)	135	
Ruminate	119 (88%)	4 (3%)	12 (9%)	135	



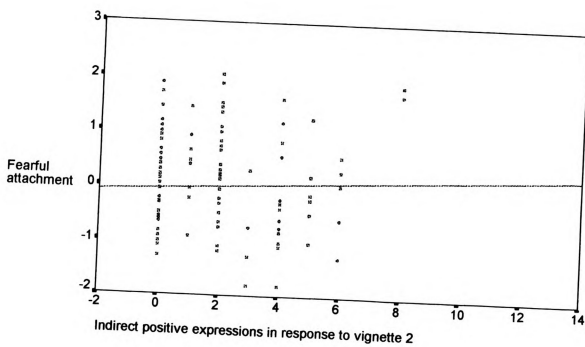
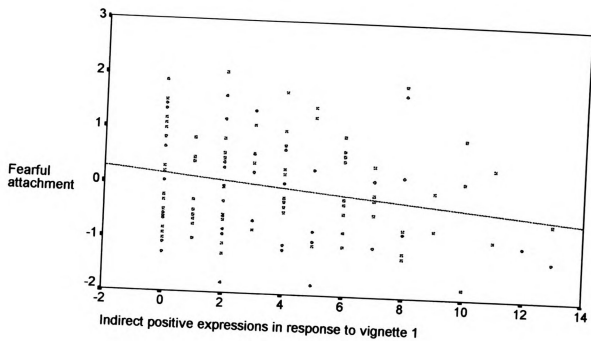
Scatterplot Showing Fearful Attachment, Sex, and Self-Blame in Vignette 1



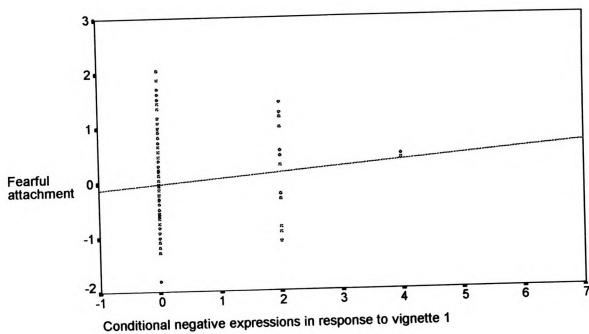
Scatterplots Showing Fearful Attachment by *All* Positive Expressions in Vignettes 1 and 2

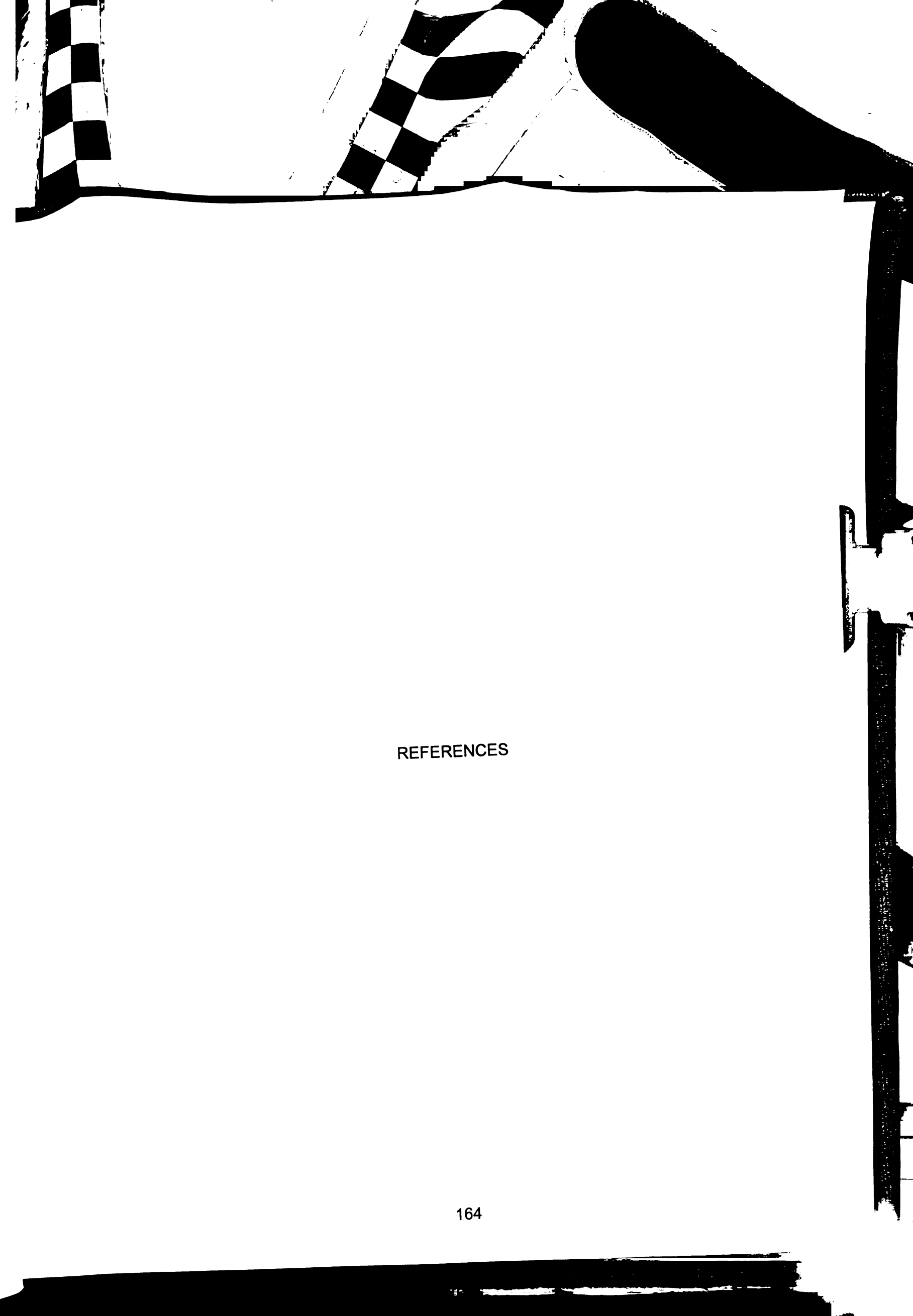


Scatterplots Showing Fearful Attachment by Indirect Positive Statements in Vignettes 1 and 2.

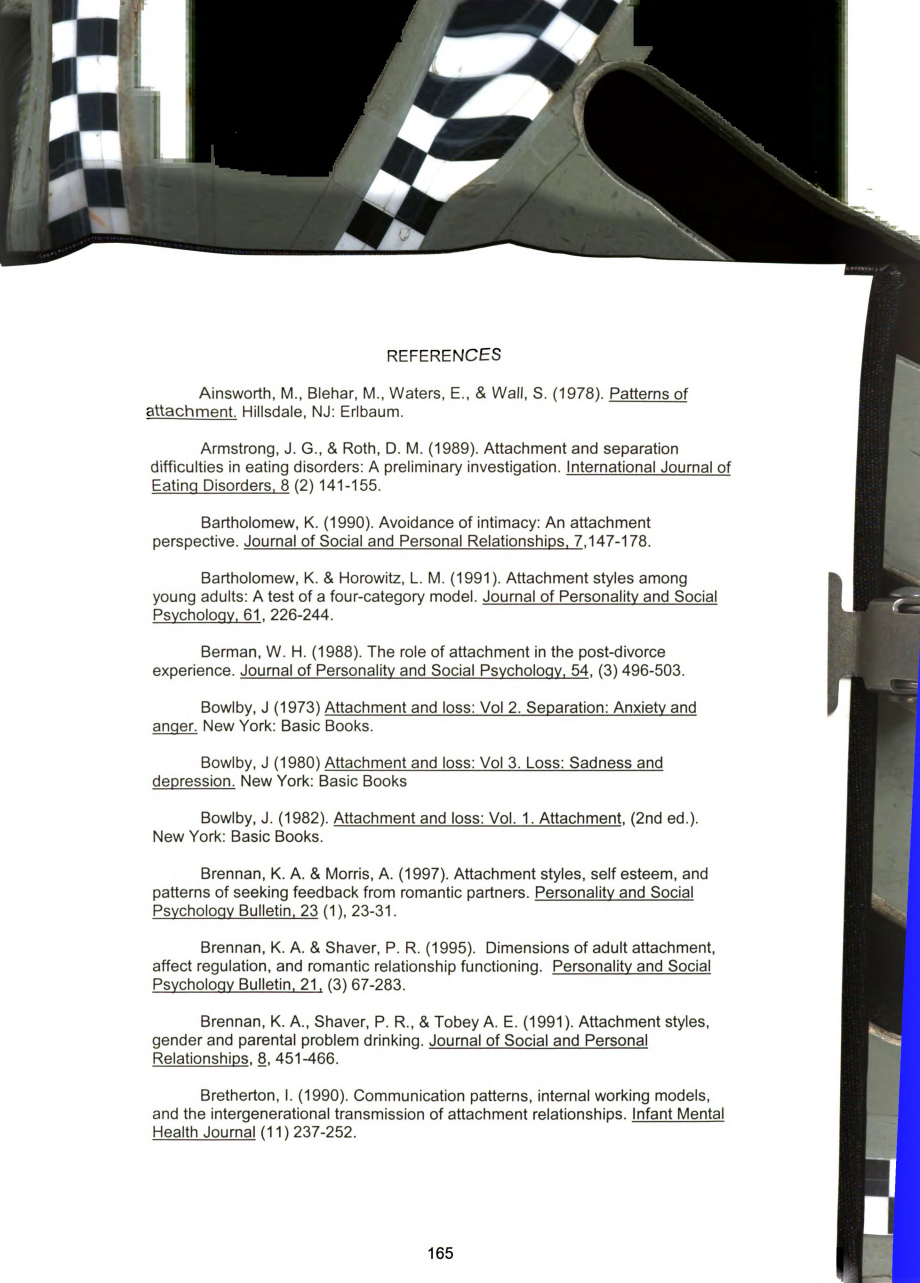


Scatterplots Showing Fearful Attachment by Conditional Negative Statements in Vignettes 1 and 2.





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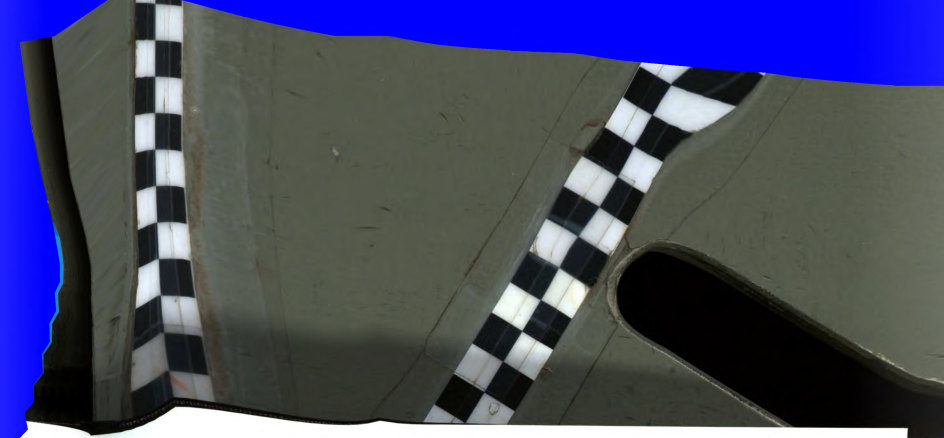
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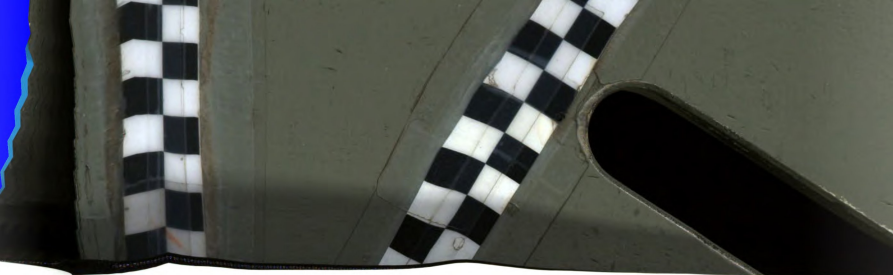
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