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## EARLY RELATIONSHIPS AND THE DEVELOPMENT OF CHILDREN

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Freud had hit upon a great truth about the human mind: It is from start to finish incapable of separating itself from its own experience and can only build upon that (Rosen, 1989).

One of the central issues in the field of infant mental health concerns the emergence of the self, in both robust and distorted forms. Various perspectives on when and how the self emerges have been proposed, with different investigators proposing a range of time tables and varying roles for innate capacities. Yet, all have agreed that, although a self cannot be proposed in the newborn, it somehow emerges as an organized structure in the early months or years of life. Moreover, there is agreement concerning a critical role for the caregiving matrix.

Sander (e.g., 1975; 2000) proposed a most profound and compelling resolution of this paradoxical developmental emergent; namely, that the self is an outgrowth of the dyadic organization that preceded it. Sander allows a role for early emerging infant characteristics, which in dynamic systems terminology he describes as part of the “initiating conditions” of development. At the same time, he moves the spotlight to the nature and organization of early primary relationships; that is, the broader “system of which that individual is but a part” (Sander, 2000, p. 3). The organized self is a derivative of the organized complexity in which the infant participates, setting forth “enduring themes of organization” for personality development. Sander traces the process of this normative phenomenon and points the way to an understanding of early disturbance.

At the turn of the century Freud, of course, had also stressed the importance of early relationships. However, he began with disturbance and worked backwards to normal development. Partly because of this, and partly because of the science of his times, he argued that there was inherent conflict in parent-child relationships, and he emphasized the negative drives and urges of the child. Healthy development, he thought, entailed minimizing frustration and curbing the negative impulses of children. In the relationships framework proposed by Sander, in contrast, the starting point is an understanding of normal development. Disturbance is seen as deviation, a derailment from typical pathways to be expected given reasonable supports for

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development. Not the strength of the child's drives and negative urges, but the qualities of the infant-caregiver relationship are the critical features influencing the course of development.

### THE RELATIONSHIPS FRAMEWORK

Sander, along with Bowlby, Mahler, Winnicott, and others, argues that human infants can function properly only within a supportive caregiving relationship. The prolonged period of infant helplessness is, in fact, an adaptive advantage of humans. As Sander summarizes, it allows great flexibility in the development of our complex brains, which are functionally structured by environmental input.

At the same time, this extreme helplessness in the early months, and relative dependence throughout the juvenile period, means that humans must rely heavily on the support of others. Within a supportive caregiving matrix, the adaptive capacities of young human infants are indeed impressive, but they are, in fact, not very able to regulate their own arousal or emotional states independent of this context. To be well regulated they require ample assistance from caregivers. To be sure they can express distress and contentment early on, and within a few months they can express a greater range of feelings and needs. By the end of the first year they can signal many wishes with intention (raising their arms to be picked up, calling for caregivers when frightened, offering a toy for inspection). But throughout this time they rely on caregivers to read these "signals," whether intended or not. Infants are equipped to play a primitive role in their own regulation, but they cannot regulate themselves. They are not capable of self-regulation, but only "co-regulation" (Fogel, 1993) or "mutual regulation" (Tronick, 1989). To be well-regulated, to be competent as infants, they require sensitive, responsive caregivers (Ainsworth & Bell, 1974).

Thus, what will become functional self-regulation, or various forms of dysregulation, begins as caregiver-infant regulation. Researchers have now described this initial dyadic (two person) regulation process in great detail, including its changing form over time, as well as variations between particular infant-caregiver pairs (e.g., Brazelton, Koslowski, & Main, 1974; Fogel, 1993; Stern, 1985). At first, caregivers are almost solely responsible for maintaining smooth regulation. They attend to the infant's changes in alertness or discomfort and signs of need, imbuing primitive infant behaviors with meaning. In the typical course of events, caregivers quickly learn to "read" the infant and to provide care that keeps distress and arousal within reasonable limits (Sander, 1975). And they do more. By effectively engaging the infant and leading him or her to ever longer bouts of emotionally charged, but organized behavior, they provide the infant with critical training in regulation. Within the secure, "holding" framework of the relationship, infants learn something vital about holding themselves, about containing behavior and focusing attention (Brazelton et al., 1974).

In time, routine patterns of interchange are established into which the infant is fitted. As the infant's capacities for engagement and repertoire of behaviors increase, a semblance of partnership, of back and forth communication, emerges. This period of development, roughly 3–6 months, has been particularly well described. Sander (1975) refers to this time as the period of "reciprocal exchange," because it marks the very beginnings of coordination with regard to the regulation process. Caregiver and infant may, for example, engage in a series of mutual exchanges, characterized by increasingly positive emotion expressed by both partners and a waxing and waning of engagement that helps the infant stay organized. Daniel Stern (1985) describes a scenario in which the caregiver, having attracted the infant's attention with voice and face, now talks with widened eyes, drawing forth smiling and circling movements of the arms. In response to this, the caregiver shimmies her own body, amplifying the infant's

emotion and leading to an exuberant gurgling. While such “attunement,” to use Stern’s word, marks the origins of reciprocity and mutual regulation (Tronick, 1989), such exchanges are best seen as “pseudo-dialogues” at this phase (Fogel, 1993). In the early months it is the caregiver that is adjusting behavior purposefully, always fitting to the infant and creating space for the infant to fit in as well (Hayes, 1984). But such patterns of caregiver-orchestrated regulation set the stage for more truly dyadic regulation as the infant’s capacities for intentional participation emerge in the second half year.

By the second half year, the infant exhibits more purposeful, goal-directed behavior. Infants at this age do behave in order to elicit a particular response from the caregiver (a process Sander refers to as “initiative”), for example calling to the parent and raising their arms to indicate that they want to be picked up. They now actively participate in the regulation process. We know this because if the caregiver misreads a signal, this older infant will adjust its behavior, often until the desired response is received (for example, crawling to the parent if they don’t come to them). Thus, dyadic regulation follows inevitably upon the heels of caregiver-orchestrated regulation. It requires only the growth of intentional capacity, which occurs in all normal infants during this age period. The form and structure of dyadic regulation was already in place from the preceding period; it represents an “enduring theme of organization” for later behavior. What changes is the role of the infant, from reflexive or automatic signalling to active, intentional signalling, but the patterning is based on what was established previously. In time, this patterning will be carried forward, becoming the core of self-regulation.

### *From Early Regulation to Attachment*

This research on the origins of dyadic regulation proposed by Sander harmonizes well with the framework provided by Bowlby’s (1969/1982) attachment theory. Indeed, attachment has been described in terms of the dyadic regulation of infant emotion (Kobak & Sceery, 1988; Sroufe, 1979,1996), and Bowlby’s stages of attachment involve the progressively more active role of the infant. Attachment refers to the special relationship between infant and caregiver that emerges over the first year of life. Based on their history of interaction, by the time they are 10 or 12 months old virtually all infants form a specific, “preferential” relationship with one or a small number of caregivers. This means that in certain circumstances (for example, when they are distressed) they specifically require contact with this person in order to be readily settled. Likewise, they are more comfortable in novel situations and play more freely when these caregivers are present and attentive, and they reserve their most exuberant greetings for them. They are eager to share positive affective experiences with their caregiver, and they draw support and reassurance from them when they are threatened or stressed. In short, their attachment figure is central in their regulation of emotions.

Bowlby argued that the tendency to become attached is strongly built into human biology, as essential to human survival as honey making for bees, nest building for birds, or thick fur for polar bears. In ancient times, humans lived to adulthood only because they were disposed to stay close to a protective adult who was also disposed to protect them. Because of this biological foundation, all human infants are attached if there is someone there who interacts with them, even if treatment is harsh or intrusive. But not all attachments are the same. In the usual case, Bowlby’s starting point, infants develop what he called a “secure attachment.” Because their caregivers have been routinely available to them, sensitive to their signals, and responsive with some degree of reliability (though by no means is perfect care required), these infants develop a confidence that supportive care is available to them. They expect that when a need arises, help will be available. If they do become threatened or distressed, the caregiver

will help them regain equilibrium. Such confident expectations are precisely what is meant by attachment security. They are secure in their attachment. It is this security that supports confident exploration of the environment and ease of settling when distressed.

### *Anxious Attachment Relationships*

In other cases, where care is chaotic, notably inconsistent, neglectful, or rejecting, or where the caregiver behaves in frightening or incoherent ways toward the infant, an anxious attachment relationship will evolve. Infants facing inadequate care have few options (Main & Hesse, 1990). In the face of inconsistency, they may maximize the expression of attachment behaviors, hovering near the caregiver, emitting high intensity signals, “punishing” the caregiver for non-responsiveness. Such a pattern is known as anxious/resistant attachment, because these infants often mix strong seeking of contact with pushing away from the caregiver, squirming, or angrily pouting when they are distressed. Alternatively, in the face of chronic rebuff, infants may learn to minimize or cut off the expression of attachment behaviors. This “strategy” characterizes anxious/avoidant attachment, so called because these infants turn away from, rather than go to, caregivers in the face of moderate stress (such as following a separation of a few minutes in an unfamiliar setting). Such avoidance may help to not alienate further an already rejecting caregiver, but, of course, it may initiate a pattern of rigid over-control in which real needs cannot be met. Finally, according to Main and Hesse (1990), when caregivers are themselves the source of threat or fear, infants are placed in an irresolvable approach-avoidance conflict. Infants are strongly disposed to approach attachment figures when threatened, but if the attachment figure is the source of threat they are simultaneously disposed to stay away from them. If routine, such conflict leads to what Main & Hesse (1990) call disorganized/disoriented attachment. Each of these patterns of anxious attachment has been well described, with consequences for later dysregulation and emotional disturbance confirmed by long-term longitudinal research. This is consistent with Sander’s theme of the enduring impact of early experience.

## THE INTERNALIZATION OF RELATIONSHIP EXPERIENCES

Early relationship experiences are important because they are the first models or prototypes for patterns of self-regulation. Sander’s arguments make clear that this cannot be otherwise. The caregiving system plays a “powerful role in defining the context to which each infant must adapt . . . (Sander, 200, p. 4).” The process of internalization or appropriation of experience is an inevitable outgrowth of the infant’s continuous participation in the caregiving relationship—from the outset but with an ever expanding and ever more active role. Infants cannot help but incorporate their experience and generalize from it. If they have experienced within their caregiving relationships that distress is routinely followed by recovery, that behavior can stay organized in the face of even strong emotion, that positive experiences are shared, and that the caregiver is central to all of this, they will come to expect that this is the way things work. One can turn to others when in need, and they will respond. At the same time, in a complementary manner, they will come to believe in their own effectiveness in maintaining regulation and, because their needs are routinely met, in their own self worth. The infant can’t know that needs are met only at the pleasure of the caregiver; it can only know that it signaled to the caregiver, it expressed a need, it sought contact, and these actions were effective. A sense of personal effectiveness follows automatically from routinely having one’s actions achieve their purpose. So positive expectations toward others and a sense of connectedness

with them, as well as self-confidence and a sense of self-worth all are logical outcomes of experiencing routinely responsive care. This provides an important motivational and attitudinal base for later self-regulation. Believing your actions will be effective inspires strong, persistent, and flexible actions. Confidently seeking support allows you to meet challenges that exceed your own abilities. Together, such attitudes enable the child to maintain behavioral organization even in the face of difficulty.

Sander describes all of this as a kind of behavioral or emotional understanding of “fitting together” with others, a “procedural knowledge” that is available long before the child achieves a conscious understanding of relationship goals. Early “recognition” of emotional connection with others comes simply from experiences of emotional sharing. In short, the infant is able to maintain a “coherent state of organization” within the relationship.

A history of responsive care and secure attachment does more than promote positive attitudes with regard to coping. In a well-regulated dyadic system, stimulation is appropriate to the capacities of the infant, disorganizing arousal is infrequent, and episodes of distress are short-lived. Within such a system the infant is entrained into a pattern of modulated, flexible emotional responding, at both the behavioral and the physiological levels (Sroufe, 1996). Recent research suggests that such experiences are vital for the tuning and balancing of excitatory and inhibitory systems in the brain itself (e.g., Schore, 1994). Thus, neither the nervous systems nor the behavioral capacities of children experiencing responsive care are easily over-stimulated but, rather, remain flexibly responsive to environmental challenge. Coherent state organization, enabled by responsive care, provides the foundation for flexible self-organization.

As outlined by Sander (e.g., 1975), the movement toward self-regulation continues throughout the childhood years, as does a vital, though changing, role for caregivers. During the toddler period, the child acquires beginning capacities for self-control, tolerance of moderate frustration, and a widening range of emotional reactions, including shame and, ultimately, pride and guilt. Practicing self-regulation in a supportive context is crucial. Emerging capacities are easily overwhelmed. The caregiver must both allow the child to master those circumstances within their capacity and yet anticipate circumstances beyond the child’s ability, and help to restore equilibrium when the child is over-taxed. Such “guided self-regulation” (Sroufe, 1996) is the foundation for the genuine self-regulation that will follow. As the growing child’s capacities for self-regulation gradually emerge, parental tasks move toward providing optimal contexts for mastery, establishing guidelines for expected behavior, and monitoring the child’s regulation efforts. Each of these tasks is important. The child’s capacity for self-regulation can be compromised or enhanced at any point in development. But the entire developmental process builds upon the foundation that was laid out in infancy. In Sander’s terms, the self-awareness and self-organization of the child reflects the experience of personal recognition in the resolution of the sequence of adaptive tasks that mother and infant negotiate over the first three years of life (Sander, 2000, p. 10).

### **LONGITUDINAL RESEARCH ON OUTCOMES OF EARLY RELATIONSHIP EXPERIENCES**

The validity of this relationship perspective lies in establishing predictive links between particular patterns of early dyadic regulation and later differences in self-regulation and dysregulation; that is, “the long term effects that each individual infant’s early experiencing has upon the unique configuration of his or her developmental course,” (Sander, 2000, p. 3). This requires extensive longitudinal studies, in which children are followed from early infancy throughout childhood and adolescence. Such studies have now been completed, with compelling results.

Research has confirmed that those with histories of effective dyadic regulation of arousal and emotion are indeed later characterized by more effective self-regulation. For example, as preschoolers, those with histories of responsive care and secure attachment are judged by teachers and observers to have higher self-esteem, to be more self-reliant, and to be more flexible in the management of their impulses and feelings (Sroufe, 1983). They can be exuberant when circumstances permit and controlled when circumstances require. They recover quickly following upset. They flexibly express the full range of emotions in context-appropriate ways. Moreover, they positively engage and respond to other children, are able to sustain interactions even in the face of conflict and challenge, and are notably empathic. Though not unduly dependent, they are effective in using adults as resources, relating to them in an age-appropriate manner. All of these ratings were made by independent sets of judges, having no knowledge of the child's early attachment history. Thus, they cannot be explained by such bias as occurs in retrospective interview studies. The findings also are supported by detailed behavioral data. For example, those with histories of effective dyadic regulation are observed to seek less frequent physical contact or reassurance from teachers in everyday situations and to respond more often with positive emotion to peer initiations than do children with histories of anxious attachment. Moreover, the findings distinguish among those with different kinds of anxious attachment history. For example, those with histories of anxious/resistant attachment, who have become chronically aroused in the face of inconsistent, chaotic care, persistently hover near teachers, are easily frustrated, fall to pieces in the face of stress, and are unable to sustain interactions with peers, at times becoming foil to those who are aggressive. Those with histories of avoidant attachment are disconnected from other children and/or show antipathy for them. They also are emotionally over-controlled and/or aggressive, and they fail to seek out teachers precisely when disappointed or distressed.

In middle childhood and adolescence, too, those with histories of secure attachment carry forward patterns of effective emotional regulation. Such patterns enable them to meet the challenges of autonomous functioning and successful participation in ever more complex peer groups. In middle childhood, they are able to form close relationships with friends, as well as to coordinate friendships with effective group functioning (Elicker, Englund, & Sroufe, 1992; Shulman, Elicker, & Sroufe, 1994). In adolescence, this evolves to the capacity for intimacy, self-disclosure, and successful functioning in the mixed-gender teenage peer group (Sroufe, Carlson, & Shulman, 1993; Sroufe, Egeland, & Carlson, 1999). They are peer leaders, noted for their interpersonal sensitivity.

Moreover, throughout childhood and adolescence, research has now established a firm relationship between established patterns of early dyadic regulation and later behavior problems and emotional disturbance (Carlson, 1998; Sroufe, 1997; Warren, Huston, Egeland, & Sroufe, 1997). At each age assessed, those with secure attachment histories have been found to have fewer emotional problems. Those with anxious attachment histories have been found with greater frequency to have problems of one kind or another. Again, these results often are quite specific. Anxiety disorders have been found in particular to be associated with histories of early dysregulation manifested in anxious/resistant attachment. Aggression, and conduct disturbances more generally, have been found to be related to chronic rejection, emotional unavailability, and anxious/avoidant attachment. Both resistant and avoidant attachment appear to be related to depression, probably for different reasons (passivity and helplessness on the one hand; alienation on the other). Finally, disorganized/disoriented attachment, a manifestation of an extreme form of dyadic dysregulation, shows the strongest overall relationship to disturbance (correlating .40 with a global index of pathology at age 17 1/2). The disorganized pattern also is related specifically to dissociative symptoms, that is, with disruptions in orientation to the environment and with failures to integrate various aspects of emotional and cognitive

experience (Carlson, 1998; Ogawa, Sroufe, Weinfield, Carlson, & Egeland, 1997). All of these findings strongly point to the formative influence of early patterns of dyadic regulation.

### EARLY EXPERIENCE AND LATER DEVELOPMENT

A modern developmental viewpoint emphasizes early experience as the foundation for later development. As Sander (this volume) has proposed, however, the strong relations between early relationship experiences and later self-organization are best thought of in dynamic systems terms as opposed to linear causality. Developmental trajectories may be altered at many points, at times by what seem (from an outside perspective) as minor perturbations. All of the childhood years are important for development. Research shows, for example, that changes in the life stress, social support, or level of depression of caregivers may have a profound influence on the functioning of the child (e.g., Sroufe, Carlson, Levy, & Egeland, 1999). When the life situation of parents improves notably, children have fewer behavior problems and better peer relationships than they had during earlier periods. This research also suggests, however, that for most problems, the earlier circumstances improve, the earlier problems are addressed, the more readily change in the child occurs. Some problems, such as aggressive behavior, become very difficult to change after the early elementary school years, which again testifies to the importance of very early experience.

The special role of early experience may be understood by considering the metaphor of constructing a house. Early experience is the foundation. Of course, all other aspects of the structure are also important. However solid the foundation, a house without supporting walls or without a roof soon will be destroyed. But all rests upon the foundation. It provides the basis for strong supporting structures and it frames the basic outlines of the house. So it is with early experience and early self organization. They do not determine in final form the emotional capacities of the child, but they can provide the basis for healthy development.

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