We wish to present here the main changes attachment research has brought into our clinical practice with parents of infants and toddlers. Our context of work is community mental health care centers in Paris: the Infancy Units provide free services to families with children under 5, in their allocated local districts. Infant psychiatrists are in charge of the assessment and the treatment planning, as well as the direct clinical work with parents and infants. Our general approach comes from the field of developmental psychopathology.

1. THINKING ABOUT THE SIGNIFICANCE OF THE REFERRED PARENTS’ HELP-SEEKING BEHAVIORS

Bowlby (1988) emphasized the universal meaning of the process of help-seeking and the well known equivalence between proximity-seeking and care eliciting. Seeking help shows the parent’s attachment Internal Working Models (IWMs) which govern his or her expectations in the context. In child mental health, parents are entering a care seeking process on behalf of their child (Fraiberg, 1980), although most of them would never have applied for it or even entertained the idea for themselves. They are seeking help for their child: whatever is said or whatever shows up should be considered also as an indicator for their care-giving IWMs. Seeking help will activate for each parent a complex picture of procedural, semantic, and episodic memories.

In child mental health as opposed to adult mental health, the working alliance has to be achieved with the parents as well as with the child. The first session is very often decisive in terms of the continuation of the evaluation (and eventually of the treatment). Parents need to feel from the very beginning that they will want to come again or at least that they will feel they can do so, without running any risk or feeling threatened. We can help the parent only if he or she has sufficient trust in the fact that this is possible, that he or she can trust us, that it is worth the effort, and that the cost to him or her will not be too high.

The insecurely attached parent therefore entails two risks while meeting the mental health clinician for the first time: the difficulty to make a relational “engagement”, and to explore painful affects, with a serious risk of rupture or breaking-off (Bowlby, 1977). In these cases, a conflict between the parent’s attachment and care-giving systems may arise and will be expressed through ambivalent help seeking behaviors towards the clinician.

Systematic exploration of parents’ help-seeking behaviors, and attitudes towards help is therefore a source of valuable information about the conflict between their willingness to help their child and their own fear of receiving help: Have they already had experience, direct or indirect, of obtaining help from professionals like us? (“The Bureaucratic Transference” as Seligman & Pawl wrote, 1984) Who was involved? How did it go? What did they think? Have they had experience with other professionals?

We then explore whether in general, help-seeking is viewed by them as a legitimate or illegitimate behavior (Bowlby, 1988). What do their family, social and individual cultures have to say? How do they construct their own personal general theory? Have there been changes linked to life events, or encounters, in the private sphere or among professionals? What specific memories do they have of asking for help? Any negative experience reported by the parents about help seeking...
with professionals as generalized is considered as a “warning” signal: the parent is probably not secure. The explicit utterances of the parent about the process of help seeking by itself are particularly relevant (Bracconier et al, 2006): “The parent runs down the process”, “The parent has come but only because he/she was asked to do it”, “He/she expresses fear of dependency if he/she begins to work with us”, “For the parent, asking for help means vulnerability or weakness”, “he / she expresses mistrust about the professional’s willingness or ability to help and to protect or comfort”.

2. PARENTS MEETING A PROFESSIONAL IN CHILD MENTAL HEALTH FOR THE FIRST TIME

This context, –meeting a professional within the context of care eliciting, -is a paradigm of an attachment-activating situation: a distressed or vulnerable subject, who is unable to cope on his or her own, encounters a professional, i.e. a person “who is stronger, wiser and willing to help” (Bowlby, 1988). This leads us to the unique meaning of this first meeting for the parents’ own attachment system (Crowell, 2003). Once again, we can help the parent only if he or she has sufficient trust in the fact that this is possible, that he or she can trust us, that it is worth the effort, and that the cost to him or her will not be too high.

The reactions of parents to this context provide valuable indicators on any insecurity in the parents from the outset, without more detailed information being required on their history of attachment. This new type of semiology includes the following: The concrete manifestations of the parental perception of help seeking often start to appear before the first encounter, such as during the phone call for scheduling the appointment, technical difficulties to get to the clinic, criticisms about the quality of reception by staff (Brisch, 2002) and so on. We pay special attention to the parent’s reactions at times of “reunions and separations”, such as at the beginning of the meeting and at its impending termination. Also, are there “unexpected” attitudes, such as the parent giving a boring wealth of factual details about the child, or the parents threatening to leave the child alone in the waiting room or in the consultation room if he/she does not obey them. Are there clues as to what the parent views as the most important thing, such as fulfilling their own expectations as he/she imagines them, or rather meeting their child’s needs? The observed contrast between the parent’s apparent willingness to collaborate with and to please the professional while not comforting the child’s distress is often an indicator of a “Parentified” child (Liotti, 2004). Generally speaking, our attention is drawn as much by what we see as by what we do not, but should, see; as much by what we are told as by the way it is told (Crowell, 2003).

3. ASSESSING THE INFANT IN THE LIGHT OF ATTACHMENT AND CAREGIVING-RELATED ISSUES

a. When evaluating the infant, one has first to explore whether there is any attachment-related problem. Are the child’s symptoms directly linked to a threat concerning accessibility to the attachment figure (Kobak & Esposito, 2004)?

Research has widened our palette of observation, with a new semiology that makes it possible to re-visit numerous symptoms, in particular out-of-control anger (tantrums), provocation and auto-aggressiveness, vicious circles in behavioral disorders, oppositional disorders, dysregulation of negative emotions, difficulty on the part of parents to set limits and cope with assertive behaviors (Lyons-Ruth & Spielman, 2004). We also pay a special attention to the history of the infant’s attachment. We look for any early separation or loss and conditions in which they occur or for repeated affective ruptures with attachment figures (Boris, Fueyo & Zeanah, 1997)

The parameters of the security base phenomenon and its developmental history are systematically explored: before 6 months, the patterns and behaviors of the pre-attachment period; around 8 to 10 months, the balance attachment/exploration with attachment figures; after the age of 2 years, autonomy and capacity for seeking help during exploration; from the age of 3 to 4 years, ability to negotiate, collaborate and to accept set limits. Finally signs of attachment disorganization, and for toddlers, controlling-punitive or controlling-caregiving behaviors are systematically looked for (Main & Solomon, 1990, Solomon & George, 1999).

Our attachment-informed assessment pays particular attention during the session (or in the waiting room and on the way to the consultation room) to the handling of distances and interpersonal orientation, to the child’s reaction to reunion with caregivers after a mini-separation, to the child’s reaction to stress when the caregiver is present, and to attention-seeking behaviors towards the caregiver. We also assess the resources that parents have available to respond to the attachment needs of their child, and how they can be used. The assessment is focused on the care-giving alliance with the partner, the existence of interpersonal demands that monopolise the attention of the parent, the presence of contextual stress which undermines the caregiver’s security, and finally the appearance of “ghosts in the nursery” coming between parent and child. Does the child elicit in the parents’ what Marvin called “their shark music” (2002), that means their own specific emotional interpretation of child’s signals. The care-giving function is systematically assessed according to the level of stress (George & Solomon, 1999). The stress can be elicited by the clinical setting: for instance; evolution from the first encounter through the following ones, stress of the consultation by itself (limited time, contradictory demands). The caregiving function is also assessed according to the presence or absence of the other parent, when the child is present or not, according to the emotional register of the child (negative or positive emotion) (Kobak & Mandelbaum, 2003). This systematic assessment of attachment and caregiving-related issues at the individual, dyad, family and contextual levels makes it possible to identify possible focuses for an attachment-informed intervention (Belsky, 1999).

We emphasize that what we observe is informative only in relation to the context in which the observation is obtained. For instance, one has to define the level of contextual stress in which the observations are made, such as facing the unfamiliar first encounter, any separation or threat of separation, or the end of the consultation with the cleaning up phase. The expression and regulation mechanisms of positive emotions at low levels of stress can be observed, and likewise for negative emotions at higher levels of stress, as can needs for attachment or for exploration and self-assertion, according to the level of stress (Kobak & Esposito, 2004). Also, the observed behaviors are interpreted according to the interpersonal context, are they directed toward the attachment figure(s)?, or towards the clinician who is still a stranger for the infant? Who has brought the child? When there is only one parent, it is usually, the main attachment figure (Kobak & Esposito, 2004). As wrote Crowell (2003): “What are the child’s behaviors? With whom? What behaviors are absent, and with whom?” (Crowell, 2003)

c. Assessing the parent’s representations of attachment leads on to the semiology of trans-generational issues.

Parental discourse when talking about any situation linked with the system of attachment during their childhood, is analysed with the semiology derived from the Adult Attachment Interview (AAI) (for instance coherence, quality of access to memories, discords observed between experiences linked to episodic memory and those linked to semantic memory, emotional expression, realistic evaluation of the past (Slade, 1999). Current parental attitudes towards attachment-relevant issues are systematically noticed: “How important is attachment for the parents? How important are relationships? How important are negative emotions (anger, sadness, fear)?

We also pay attention to behavioral or emotional indices (we call them “infra verbal indices”) each time there is an attachment relevant situation: parent’s behavior toward the child, the clinician, the spouse; emotion expressiveness, tone of the voice (Slade, 2004). The reactions of the parents when the process of the consultation itself activates the system of attachment, (for instance the beginning and the end of the encounter, clinician’s errors, delays, and interruptions in the session) also reveal their usual protective strategies (Holmes, 2001). The parents’ history of attachment is cautiously and gently explored when possible. Is there any history of early separation or loss, repeated affective ruptures, maltreatment, sexual abuse, negligence (Slade, 1999)?

The quality of their present network of interpersonal support is systematically explored (Collins & Feeney, 2002).

d. The assessment of parents’ caregiving systems: another cornerstone of our evaluation.

What does attachment-informed assessment show about the parents’ interactions with their child?

The reasons for the parents’ complaint or their visit, for instance doubts about their parental abilities or the presentation of the child’s problem, can provide valuable information (Crowell, 2003). Parents of young children seeking help concerning their parenting difficulties may say some typical sentences which are really “warning” clues of transgenerational issues about attachment and caregiving (Gudéney N. cited in Bracconier et al., 2006). Here are several examples: Parents who do not feel the need to respond to vital needs of protection, closeness and security: “Why is my baby crying? Why does my baby cling to me?”; Parent who interprets the signals of
the baby in a surprising manner: “He only does it to annoy me! It’s all an act! It’s capricious!” Parent who gives the response that seems the most appropriate, based on his or her own theory on what helps babies to grow up: “You shouldn’t be weak! You shouldn’t get attached to people! You should be able to manage on your own! I never had anything and that didn’t stop me from getting on!” Parent who lacks an “instruction manual” about parenthood or does not know how to prevent destiny when exposed to vulnerability: “I would like you to have more than I had! Why aren’t you well-behaved, docile or grateful like I was, even though I had nothing? Who’s looking after me, a nostalgic and wounded child? I explode. I can’t cope! How does a child think or feel?”

The evaluation of the parental caregiving system also provides a new semiology for systemized observation (Fonagy et al., 2002, Cassidy et al., 2005, Slade, Sadler & Mayes, 2005, Koren-Karie, Oppenheim & Goldsmith, 2007):

1. Consistent and contingent response to the infant’s attachment and exploration needs.

2. Identification of her/his distorted perception the child entertains of him/her as being non-responsive.

3. Mirroring, reflective functioning and insightfulness capacities. In the case of parents of toddlers, we assess the quality of their goal-corrected partnership, their level of flexibility and quality of communication (Marvin & Britner, 1999).

4. Detection of parents’ disorganizing behaviors, by using the paradigm of frightening/frightened behaviors from (Main & Hesse 1990, Lyons-Ruth & Spielman, 2004) and the abdicating behaviors from George & Solomon’s work (1999). The observation of trans-generational transmission of disorganized attachment is striking while a coercive vicious circle starts up between the parent and the child, when the infant becomes more and more demanding, anger increasingly becomes mixed up with demands for comfort and the mother feels increasingly helpless, and angry (Lyons-Ruth & Spielman, 2004).


“Caring for the caregiver” (Kobak & Mandelbaum, 2003). We must allow caregivers to retrieve their abilities to support and protect their child, or to use such abilities, where they do exist, in an efficient and “consistent” manner, while at the same time meeting their own unsatisfied needs for comfort and support. This can only occur on the basis of a therapeutic relationship which in itself is a vehicle for change.

The integration of an experience that is unlike the pattern that the parent has learned to expect from the world and from him/herself in a situation of stress gives that parent a chance to reassess all his or her previously working models through assimilation/accommodation processes (Mallinckrodt, 2000). Thus, focusing first on the caregivers’ distress gives the therapist an opportunity to provide a corrective relational experience (Marvin et al., 2002) This new experience can give them the willingness for the process and to engage themselves because “they are worth it”

All the studies on the qualities of caregiving (Speltz, 1990, Fonagy et al., 2002, Kobak & Esposito, 2003, Lyons-Ruth & Spielman, 2004, Slade et al., 2005, Koren-Karie et al., 2007, in particular) give us a better understanding of how we can provide this secure base which also helps parents to explore the unknown.

The clinician has to use his or her mentalization abilities: the clinician can indeed simultaneously integrate the perspective of each member of the dyad/family, address both members of the dyad/family with the same attention, and communicate very quickly with each protagonist, in presence of both, on how they see this dual/trial perspective, all the while remaining emotionally involved. He/She has seen a behavior, has imagined the complexity of the motives underlying it, has contextualized the behavior, accepts what is shown without any negative judgment because he or she can imagine what each partner is feeling and has the conviction they are moving towards a solution.

The clinician gently and firmly assumes that it is he or she who is in a position to “lead the dance” of open communication in an emergent partnership, and in doing so, imagines what each partner is feeling and creates the conditions for a goal-corrected partnership (Marvin & Britner, 1999).

Emphasis put on the importance of open communication on the parent’s negative emotions, whatever their object (healthcare setting, previous experience of assistance, professional’s actions, or the child itself and parenthood) validates Fraiberg’s intuition on the priority of working on what he termed the negative transference. Seeing the importance and the value that the clinician attaches to open communication about negative emotions is generally a very new experience for parents (Cooper et al., 2005).

This empathy towards the parent suffering as a parent is close to mirroring, because the clinician communicates at the same time the fact that he or she is confident that the parent will in the end be able to understand the child’s behavior sufficiently for a positive relationship to develop, and that the clinician is there for that purpose. The recognition by the professional of any “technical” error from the reaction of the parent initiates the experience of a process of mismatch repair, unfamiliar to the insecure parent, but which contributes to developing trust and the feeling of worth for the Other.

Attachment informed intervention has the general goals of interrupting the symptomatic cycle in family relationships and of increasing the parent’s acceptance of the child and the child’s confidence in parent’s availability. Restoring the parent's
sense of efficiency as a caregiver becomes essential.

Research on attachment has enriched our palette of interventions designed to improve parenting skills. Various applications can be used:

1. Sharing present-day knowledge on attachment and caregiving with the parents has become an essential step. Secure parents already have basic skills, but they may be inadequate for children with special needs; however for insecure parents these skills have been lost and for disorganized parents, these skills are not functional.

Five pieces of information have a particularly strong impact on parents. The human species is the only species that usually respond to a behavior according to the interpretation given to it and not only according to an automatic way. This notion introduces the idea that parents need to interpret the meaning of their infant’s behaviors, and hence the idea of representations underlying behaviors. Reassuring parents that the need for attachment, i.e. seeking for proximity and comfort, is not only necessary, but the only possible means to provide the child with freedom to explore while still being connected with his/her caregiver. These same needs can underpin an openly rejecting, provocative, or distancing behavior on the part of the child and is often a very moving discovery for parents with a traumatic history of attachment or for parents with children with special needs. Helping the parents to conceptualize the attachment domain separately from the domain of limits setting, that has more to do with respecting the rights of others can contribute to separating the “strands of the knot” (Lyons-Ruth & Spielman, 2004) and to understand the “terrible twos”. Explaining that negative emotions are a source of information and communication with others, and particularly sadness, fear and anger, is a very new information for non secure parents. Explaining in particular that anger is the strongest signal to remind the other of one’s own importance, and what is expected of him or her, or to express disappointment at not having received what solely this other person could give, generally has a powerful impact on parents (Bowlby, 1988, Marvin et al., 2002). Anger and distress may be expressed or even exaggerated to signal to the parent that his/her attention and care are needed. Parental care is divided up into different dimensions: parents may love their child but be unable or lack the skill to respond to the child’s needs for protection, comfort and security. Explaining the role of interpersonal regulation, showing the caregivers that their child, like all children, needs the caregiver to regulate and organise his or her negative experiences, is often very new information, especially if the child has special needs (Marvin et al., 2002). What can be traumatic for a child is not the negative emotion, it is to be suffering alone. Parents, accompanied by the professional, can more easily gain access to and reassess their IWMs of self and others, in attachment and in caregiving, in the light of this new information (Kobak & Mandelbaum, 2003).

The first issue is to draw the attention of the parent to the behaviors of the child and to the impact of the parent’s own behaviors on the child, in a positive way. For the parent in interaction with his/her child, attention to current infant’s behaviors is now well known as buffering factor against an unwanted surge of unresolved parental affects (Schuengel et al., 1999). This is a particular sort of attention, which the parent has rarely experienced in this form, since it is underpinned by the idea that a behavior always means something, but not necessarily what one thinks in the first instance.

2. Improving observation skills. Video techniques play an essential part, since they provide images that are different from those in the parent’s mind (George Downing, personal communication); they operate at bodily and sensory levels, which probably have more impact on automatic parental functioning, thus facilitating re-evaluation of the IWMs. Discussion with the parent on his or her actions and the immediate impact on the child gives the opportunity for exchanges, and possible changes: showing that the impact of the parent’s sensitive behavior on the child can reinforce the parent in responding appropriately and quickly to the child’s signals (Marvin et al., 2002).

3. Developing parents’ reflective skills. Work on representations is a way to come to understand what gets in the way of a parent’s ability to form a secure base or a partnership with their child: this is not solving the parent’s relevant attachment issues but making them improve their caregiving by giving meaning to what has seemed, up to then, to carry nothing but failure, incomprehension, anger and helplessness (Lyons-Ruth & Spielman, 2004). Three levels can be elicited. Firstly we can explore parent’s own theory about caregiving: how does each parent think that one should respond to the child’s needs for protection and exploration? (George & Solomon, 1999). Secondly we can explore the conscious representations of past memories, which can influence present behavior as a parent: what are the memories of situations involving aloneness, vulnerability, sadness, anger, authority or comfort, with their own parents? (Lieberman & Zeanah, 1999). Thirdly, we can go after the “ghosts” with new implements. For instance the reframing technique can capture unconscious representations that surge automatically in a parent and adversely affect their caregiving (Mallinckrodt, 2000, Marvin et al., 2002, Kobak & Esposito, 2004). Exploration of these representations can contribute to breaking the automatic pattern of procedures, and facilitate the parental reflective function (by intervening on exchanges that are “miseduced”, or that lead to a more defensive attitude). The clinician can use all these steps to improve the parent’s ability to use his or her reflexive function to monitor, reassess and repair problematic communication with the child (Cooper et al., 2005).

4. Use of problem-solving techniques. Whatever the level of reflective processing, we wish to help parents to emerge from dilemmas by finding a “third way” (Lyons-Ruth & Spielman, 2004). The use of clinical vignettes from the day routine or use of video clips, heightens a parent’s ability
to monitor his/her communication with his/her child, to consider other alternatives, and to find opportunities for problem solving. This can improve the parents’ sense of their own competence and trust in the child and in themselves. Negotiation, collaboration can contribute to developing new models for balancing the parent’s own needs and those of the child and to reducing the antagonism between the parent’s own attachment and caregiving systems (Lyons-Ruth & Spielman, 2004).

Clinical practice routine is different from protocol-based intervention studies. In clinical practice what matters is not “the group effect”, but the individual family’s commitment to treatment. We, as clinicians, use the research data as guidelines for our attachment-focused intervention, whenever this is relevant. Hence, we have learned to ask ourselves “attachment-based” questions whenever the family comes to us, such as the following ones: Is the situation one in which there is a risk of trans-generational transmission and non-security of the attachment (O’Connor & Zeanah, 2003)? Do we have to focus on disorganized attachment or to the lack of attachment relationships? Are the difficulties recent or long-standing? Or is it one in which the child has special needs (Juffer et al., 2007)? What motivational dilemmas are being played out for each protagonist? What is the level of distress in the relationship, from an overview of the strengths and vulnerabilities of the family (Greenberg, 2005)?

A working alliance (Bordin, 1979) is co constructed with each family. On what goals and on what tasks will they agree? Which problem is viewed by the parent as being the most urgent to solve? What is the key issue that would be the focus of the therapeutic work (the Linchpin, Marvin et al., 2002)? For instance, difficulties in limit setting associated with child’s anger and defiance are indeed difficult to tolerate for parents. But for a parent with a traumatic attachment problem, that at least means that the repetition of his/her own past is stopped: the child is resisting and there will not be a further victim. Parents will accept to collaborate to change only if they are sure that to make their child able to accept boundaries will not mean for their child blackmail or submission.

To co construct the tasks to reach our common objectives takes account of three essential dimensions: 1. The parents’ state of mind with respect to attachment gives us information about the risks of disclosure to each parent (Steele & Steele, 2003). 2. The parents’ feed-back to our interventions about representations (Slade, 2004) allows us “to approach parents the way they would want the parents to approach their children” (Lyons-Ruth & Spielman, 2004). 3. Duration of treatment: in our system of care, there is no a priori time limit, and therefore the question is open for every single family (Cassidy et al., 2005). How long do we need to hold the newly acquired but still fragile parental caregiving quality? According to the attachment theory, parents would be those who indicate when they want to stop the process while being sure that the clinician will still be available in any case (Byng-Hall, 1991, Brisch, 2002). Indeed, based on our clinical experience, we need to be there for the first “relapse” that often comes after the initial improvement, in order to make the parents discover their real own competences.

CONCLUSION

We have described here how our clinical practice with families and toddlers in a Parisian community is informed by attachment theory, trying to show how basic research and intervention studies conducted all over the world can be integrated in each clinicians practice, wherever we work. If Fraiberg’s work has shown us the ways we can help families, attachment theory gives us the one of the underlying theoretical frameworks which is necessary to allow us to develop our creativity on behalf of each individual family.

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Smell, Taste and Flavor

By Peter J. Scheer, M.D. and Julie A. Mennella, Ph.D.

The chemical senses of taste and smell are crucial for survival since all animals depend on the consumption of nutrients. These senses evolved to reject that which is harmful and to seek out that which is beneficial and pleasurable. They are among the oldest, the most primitive and the least analytic of the senses. But perhaps their most significant contribution comes when the combine to form the flavor of the foods and beverages we ingest. As will be discussed, infants are born with the ability to taste and to smell and they rely on these senses to search for comfort and food. For infant mental health clinicians, the knowledge of the capabilities of infants and the frontiers of research on their development is important. As we learn about the sensory world of human infants, it will enhance our understanding and in turn, we will be able to advise parents correctly.

Although there are only a small number of primary taste qualities (e.g., sweet, salty, bitter, sour and savory tastes) which can be perceived in all areas of the tongue, olfactory sensations result from the activation of a thousand or more distinct types of chemical receptor proteins located on millions of receptor cells lining the upper recesses of the nose (Buck and Axel, 1991). The receptors for the olfactory system are stimulated when we inhale through our nose (retronasal route) as well as when molecules reach the receptors by passing from the oral cavity through the nasal pharynx (retronasal route) when foods or liquids are in the mouth. This latter route, often referred to as retronasal olfaction, contributes more significantly than does taste to the complexity of flavor (Rozin, 1982). To demonstrate this, if you pinch your nostrils closed while eating you will interrupt retronasal olfaction and thereby eliminate many of the subtleties of food, leaving the taste components remaining. This is clearly noted by head cold sufferers who lose the ability to discriminate common foods when their olfactory receptors are blocked by a head cold. Similarly, foods often ‘taste’ better after a person quits smoking perhaps because their sense of smell has improved, allowing them to detect more subtleties of flavor.

The senses of taste and smell are quite developed before birth (see Ganchrow and Mennella, 2003 for review). That is, by the last trimester of pregnancy, the taste and olfactory...
receptors, the machinery which detects tastes, smells and flavors, is capable of conveying information to the central nervous system, and this information is available to systems organizing changes in sucking, facial expressions, and other affective behaviors. At birth, infants are sensitive to a wide range of odors, especially those emanating from their mothers (see Schaal, 1988; Ganchrow and Mennella, 2003 for review). Within hours after birth, mothers and infants can recognize each other through the sense of smell alone. Newborns will prefer their mothers’ breast unwashed as compared to when it had been thoroughly washed and thereby less odorous. Like that observed in other mammalian young, this recognition of and preference for maternal odors may play a role in guiding the infant to the nipple area and facilitating early nipple attachment and breastfeeding. Whereas odors emanating from mothers cue feeding and digestive functioning and calm infants, those emanating from infants affect maternal responses such as regulation of empathy and influence on the lactational process.

Similarly, infants are sensitive to the odor and taste component of flavors and can detect sweet, sour, and bitter tasting foods as well as a wide variety of flavors. However, sensitivity to salt and other flavors don’t emerge until infants are approximately four months of age. In other words, infants are not merely miniature adults since their sense of taste continues to develop during infancy and childhood. The large olfactory component of flavor may shed light as to why flavors experienced early in life remain preferred, and to some extent, provide “comfort”. That is, memories evoked by odors and flavors are more emotionally charged than those evoked by other sensory stimuli because of the olfactory system’s intense and immediate access to the neurological substrates underlying emotion. The emotional potency of odor- and flavor-evoked memories, and the reward systems that encourage us to seek out pleasurable sensations together play a role in the strong emotional component of food habits – an integral part of all cultures that has its beginnings during pregnancy and breastfeeding.

One of the earliest sources of flavor experiences is amniotic fluid and mothers’ milk since these first foods directly reflect the flavors of the foods and beverages ingested or substances inhaled (e.g., tobacco) by the mother.

During the past few decades, scientific research revealed that not only learning about flavors is occurring during pre-natal life but these early experiences contribute to long-term food preferences. In other words, sensory experiences provide continuity between the fetal and postnatal environments. The European rabbit provides an elegant example of such learning. Researchers found that when they fed the mother rabbit juniper berries during either pregnancy or lactation, young rabbit pups ate more of this food at weaning. This learning was quite robust and the preference lasted for several months (Bilko et al., 1994).

A similar phenomenon was reported in human infants. Psychophysical research studies conducted at the Monell Chemical Senses Center in Philadelphia, USA, revealed that like other animals, a variety of flavors such as garlic and carrot are transmitted to and flavor human amniotic fluid and mothers’ milk. Human infants can not only detect the flavors but experiences lead to increased enjoyment and preference for the flavor later in life (Mennella et al., 2001). That amniotic fluid and breast milk share a commonality in flavor profiles with the foods eaten by the mother suggests that breast milk may ‘bridge’ the experiences with flavors in utero to those in solid foods. Moreover, the sweetness and textural properties of human milk vary from mother to mother, thus suggesting that breast feeding, unlike formula feeding, provides the infant with the potential for a rich source of varying chemosensory experiences. In this way, culture-specific flavor preferences are likely initiated early in life and early experiences in a sense, educate the young child to appreciate the flavors typical of the culture into which she or he was born. Significant traces of this may remain as children become adults and pass on their food habits to the next generation. Of interest are recent findings infants during from an intra-cultural study of women living in several regions of Mexico (Mennella et al., 2005a). Despite the differences in cuisine, there were striking similarities in the types of foods fed to weaning and eaten more of by mothers during pregnancy. In a sense, the foods eaten by the mother (e.g., fruits) formed the basis of their children’s weaning patterns.

Perhaps the most striking taste difference between children and adults is the strong liking for sweet-tasting foods and beverages, and the dislike of bitter-tasting vegetables during childhood. Is the strong preference that children have for sweets solely a product of modern marketing, technology (e.g., sugar refining) and availability or does it reflect some aspect of their basic biology? Research suggests that these likes and dislikes reflect the latter. From an evolutionary perspective, these responses serve important biological functions. Preference for sweet tasting foods may have evolved to solve a basic nutritional problem of attracting children to sources of high energy during periods of maximal growth since foods (e.g., mother’s milk, fruits) that are rich in energy often taste sweet. The rejection of bitter tastes may have evolved to protect from poisoning since many toxic substances are, by their nature, bitter and often distasteful (Mennella et al., 2005b).

Because the senses of taste and smell are the major determinants of whether young children will accept a food (e.g., they eat only what they like), they take on greater significance in understanding the biological basis for children’s food choices. Although we are beginning to learn how the chemical senses develop during infancy and its impact on food choice and other behaviors, there are many gaps in our knowledge. In particular, we know little about the contingencies for early learning and how the absence of chemosensory experience, disruptions in mother-infant attachment, or the negative associations with early feeding interferes with the acquisition of feeding skills. The increasing importance of infant dysphagia makes it imperative to determine the extent to which restoration of normal oral motor
and sensory experience impact upon the feeding skills and nutrition. We present here some examples of gaps in knowledge:

The necessity of tube-feeding presents a paradox in the care of infants because it precludes sensori-motor experience that could be expected to promote feeding skills. Tube-fed infants have a relatively constrained olfactory and flavor experience in the context of feeding that is not fully understood.

A common feature of dysphagia is discomfort and interruption of the continuity of feeding behavior. Over time, negative feeding experiences lead to aversive feeding behaviors that create a self-perpetuating cycle. Such negative feeding experiences and aversive feeding behavior are evident in a wide variety of medical contexts of infant dysphagia such as infants with gastroesophageal reflux, chronic respiratory disease, neuromuscular disease, and cerebral palsy. That learning plays a role in the pathogenesis of feeding difficulty is therefore fundamental to the clinical practice of infant dysphagia specialists.

In the NICU or even normal infants wards in hospitals, infants often do not experience the smell of ‘adult food’ or have others eat in their presence. Instead, infants are exposed to specific smells of NICUs which can be described as “hospital smell” consisting of detergents, antibacterial fluids and other cleaning items. The long-term consequences remain unknown.

Clearly, more research is needed to develop evidence-based practices aimed at infant feeding difficulty (dysphagia) which constitutes a medically and economically important complication for some neonatal diseases. Applying the knowledge gleaned from such research and clinical practice which takes into account the developing sensory world of the child could have long-term consequently in preventing eating disorders in early infancy. Moreover, understanding the development and functioning of these senses may assist in the development of evidence-base strategies to improve their diets since many of the illnesses that plague modern society (e.g., obesity, diabetes and hypertension) are the consequence of poor food choices.

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Selected References


BY THE RED CEDAR

Transition, Growth, and Democratic Process

By
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Hopefully all WAIMH members are fully aware that WAIMH is in transition as it moves its central offices from the United States of America to Finland. Many meetings and a steady stream of emails is facilitating the process of transition and we anticipate a smooth and error free move immediately after the Yokohama World Congress in 2008. A second planned transition was put into place this past summer when the WAIMH board met in Ahvenanmaa and adopted a series of bylaw changes designed to both streamline the association and to increase the role of Affiliate Associations in WAIMH’s governance. This transition and democratization of WAIMH is directly related to the extraordinary growth in the association, growth that has doubled the number of Affiliates over the past decade. We have received an application for Affiliate status from the Gauteng Association for Infant Mental Health in South Africa and in November, colleagues in Ireland will hold their organizing meeting and soon thereafter we expect to receive yet another application for Affiliate status.

Our original organizational structure served us well. We blended the best organizational components of the World Association for Infant Psychiatry and Allied Disciplines and the International Association for Infant Mental Health and forged an association with a world-wide mission but a locally focused organizational structure. The marriage has given birth to Affiliates on five continents spanning slightly more than 50 countries. Clearly there is a need for broader involvement in the management of WAIMH’s organization. More voices must be contributing to policy recommendations, expanded training programs need to be developed, greater sensitivity to cultural diversity is required, and diversity of early prevention programs must be examined. To meet these needs, the WAIMH restructured its board by reducing the number of members, while simultaneously allocating two board positions for individuals from Affiliates. To accomplish this it will be necessary to create an Affiliate Council, consisting of all of the Affiliate presidents. The Council chairperson will serve on the WAIMH board of directors along with one other individual elected by the members of affiliate associations. The newly organized seven member board will meet annually to review progress made on WAIMH’s action agenda. On biennial years, the seven will be joined by WAIMH’s past president, the editors of the Infant Mental Health Journal and The Signal, the current and past chairpersons of the world congress program committee in order to act on any policy or program issues developed by the Affiliate Council or by the WAIMH board itself. We anticipate that the Affiliate Council will emerge as a major influence on WAIMH policy.

BUT, WAIMH members hold the key to all of these changes. The key is a vote! Soon every WAIMH member will be receiving a document that will illustrate all of the proposed changes in the by-laws along with justifications for each change. You will also receive a ballot. It is critical that all members of WAIMH vote and return their vote by regular mail, by fax, or by email within the specific time (all is explained in the documents you will receive). If the bylaws are approved, we will begin to implement them immediately. In anticipation, as chair of the Yokohama world congress, I have given time at the congress for the initial meeting of the Affiliate Council.

We are extremely excited about the proposed changes in WAIMH’s organizational structure. Since there are currently 46 Affiliates and all will be members of the Council, we will have an extraordinarily diverse set of opinions contributing to the formulation and implementation of WAIMH business and association practices. Our transition was fueled by growth, our growth has led to democratization in governance, and we expect our new structure will fuel even greater growth and world-wide impact for infant mental health.
WAIMH members and representatives and especially members of affiliates have been motivated for some time to develop WAIMH as an organization. The joint wish has been to make WAIMH an ever more democratic, transparent and efficient world organization with active members around the world. As stated in our bylaws, the aims of WAIMH are strong and clearly articulated and because they are based on science and humanistic values; there is no need to change them. But the organizational structure of WAIMH is unique and challenging; WAIMH is not an hierarchical association, it is more like a modern network of people who want to have international collaborations and impacts.

WAIMH, as all democratic associations, is owned by its members and the members have the strongest power in the association’s decision making. Voting in elections for WAIMH officers and representatives is naturally the way by which all members can use their power. But WAIMH also has affiliate associations, which in turn are owned by their members. Collectively, there are more members of Affiliate associations than there are members of WAIMH. This reality often creates confusion and misunderstanding.

WAIMH’s Board of Directors has worked quite intensively to develop a plan for structural changes. The Board has a joint vision in which affiliates will have more power and a clearer status or position in the organization. This vision will be reached step by step if WAIMH members agree with the Board of Directors recommendations. Of course, if the number of affiliate members who become members of WAIMH increases, the transition towards the proposed reorganization will proceed much more quickly.

One of WAIMH’s most important strengths is the fact that we are a multi-professional, multidisciplinary and multicultural association. Among the WAIMH members there are high-quality researchers and senior clinicians as well as trainers and trainees, there are professionals from different kinds of organizations and sectors and different professions from different cultures. We all are needed in promoting infant mental health across the world.

The spectrum of memberships is even richer and broader in affiliates than in WAIMH. However, the number of members in WAIMH has been quite steady over the last years although the number of affiliates and affiliate members has increased dramatically. In order to have a more diverse affiliate voice in WAIMH discussions we need more active people who want to work at both national affiliate and international WAIMH levels. Still we all need to remember that only those who are WAIMH members have and will have real power in WAIMH. This is how democratic associations are build up and how they operate.

And so, I urge you to use your power and in order to proceed to support the proposed changes in the bylaws. Each current WAIMH member will be receiving a copy of the proposed restructured bylaws in November. Please vote.
models. Observation of attachment behaviors include not only the SSP, but also Alan Sroufe’s AMBIANCE tool for assessing problem-solving toddlerhood. She emphasized the main attachment-based interventions, including the Circle of Security, STEP, Attachment-based intervention for foster and adoptive parents, and the Early Bucarest intervention.

Jay Belsky (Birbeck Univ. of London, UK) then presented surprising data from his Early Child Care Study: he found that family factors and processes were more consistent in predicting socio-emotional development than child day care factors...for the good and for the bad. The effects – positive as negative – of the day care on infants, were modest, if not small. Low sensitive maternal care was the variable that made the difference between the children who had more than 10 weeks of daycare per week versus those who had more than 30 hours of daycare per week. Belsky concluded with two very important messages: (1) Small effects that impact many individuals may be more dangerous for society than large effects that impact few individuals. (2) The common clinical practice to send infants from multi-risk families to daycare in order to decrease the infants' exposure to inadequate maternal behaviors, is probably less efficacious than we would like to think.

Thomas O’Connor’s (Univ. of Rochester, USA) lecture was extremely interesting and provocative: “The early care experience case in humans is not yet proven” he claimed, meaning that we need a more evidence-based assessment of what we call attachment disorders. For instance, do post-institutionalized adopted children who still show a disinhibited pattern (meaning a tendency to go to strangers) at age 11 still meet the diagnosis of attachment disorder, in spite of their being clearly differentially attached to their adoptive parents? By the way, this pattern was seen in 255 of the children who had been adopted after the age of 6 months, as compared to 10% in those adopted before 6 months of age. How to explain the finding that some of the institutionalized children do show a secure attachment pattern? In animals, it was shown that maternal insensitivity did matter when it was associated with a certain genetic pattern. It seems that neuroendocrine factors are also at play. O’Connor concluded with the need to formulate a “more nuanced model of the impact on early deprivation in humans”, to refine our assessment process of attachment disorders, so that we can make a better differentiation between relationships disorders and attachment disorders, and consequently, to better define the treatment goals when we face very deprived infants before and after adoption.

The second day of the conference addressed intervention issues.

Mary Dozier’s colleague (Univ. of Delaware, USA) presented recent research and intervention findings related to foster parents and attachment. Again the notion of critical age of adoption/placement, was raised: infants placed before the age of one year (not six months, as reported by O’Connor) showed secure behaviors within two weeks if placed with a secure caregiver, as opposed to those who were placed after one year of age and showed insecure patterns across the first two months after placement. Their additional finding that foster-care infants often become disorganized when the foster parent is insecure and not necessarily disorganized (as opposed to the usual pattern of transmission U to D in biological dyads, stresses the importance of having secure foster parents, or at least providing them attachment-focused interventions. An additional very interesting finding, this time related to biology and behavior, was about the abnormal cortisol levels in half of their foster children, and its potential significance in terms of vulnerability for later psychopathology. Their most recent study is the comparison between their 10-sessions attachment intervention and cognitive intervention with foster parents, while one of their outcome measures that is the foster infant’s cortisol level.

Miriam Steele (New School, NY, USA) presented her astonishing data about changes in attachment representations in adoptive children (4-8 year olds) who were previously maltreated, comparing early and late adoption. Her main findings stress again the importance of the adoptive parent’s own security of attachment, and the father’s role in buffering the mother’s insecurity: regardless of the parents’ attachment classification, all the children showed an increasing amount of secure elements, but themes of aggression, disorganization, and defensive avoidance of maltreated children did not change when the adoptive parents were insecure. It seems that, as Bowlby had already predicted, that insecure parents find the child’s negative emotions too hard to deal with, and therefore cannot make reparation of “interactive errors” (Edward Tronick’s term). By the way, contrary to our intuitive thinking, the number of previous caregivers before adoption did not correlate with the children’s prognosis.

Robert Marvin, (Univ. of Virginia, USA) with his usual enthusiasm, presented a further elaboration of the “Circle of Security” intervention, named “Circle of Repair”, that specifically defines what the difficult young child needs from the parent in times of frustration and temper tantrums (Take charge of me, Be kind with me, Soothe me, Stay with me, Help me to return to what I was doing, with a new option...); He also developed the “Circle of Limited Security” for the miscuing child, which is actually tailored for high risk foster/adopted children: “I need you to welcome my coming to your home, but that makes us uncomfortable because I come from a “rejection dance circle” and you may have a difficult history of your own. Therefore I send you a false signal, being an “as if” exploratory behavior or an “as if” distant behavior”. Cues and miscues are the main target of intervention for these dyads (as Mary Dozier has concretized in her manualized attachment intervention).

Martha Erickson (Univ of Minnesota, USA) presented her well-known STEEP model of intervention. This model, is, I think, an example of the creativity and flexibility that make the infant mental health work a special art, as a parallel process to what makes a good-enough parenting. Prenatal home visits, video use, parent-infant groups, family nights with fathers’...
involvement, they are all there, and their positive impact on outcomes of 154 high risk parents and infants, has been proven. Martha emphasized the ongoing need to “train the trainer”, while “the biggest challenge lies in the space between what we know and what we do”.

Robert Pianta (Univ. of Virginia, USA) presented approaches aimed at improving the quality of relationships between teachers and children, and stressed the important role that schools may/should have in enhancing children’s social outcomes.

Rogier Cobak (Univ. of Delaware, USA) addressed the topic of adolescent attachment, while asking the very pertinent question of the link between the adolescent’s state of mind as reflected in the AAI, and the adolescent’s attachment status, as reflected in conflict discussion and negotiation tasks. He reported his study of 225 caregivers and adolescents, and shared with us the following findings that support his concept of the “Dual model”: Caregiver’s insecurity plus unresolved loss is the combination that impact on the adolescent. Caregiver’s insecurity plus unresolved abuse have a much stronger impact on the adolescent’s chance to have dissociative and depressive symptoms. Security of attachment at age 13 predicted increased level of empathy and decreased level of externalizing problems; Role reversed attachment predicted increased behavior problems at age 15 in boys only, and disorganized attachment at 13 predicted increased internalizing behavioral problems at 15 years. Roger addressed also the issue of the teacher’s role for the adolescent, and suggested to enhance the teachers’ reflective functioning with videotape-based training.

Elisabeth Carlson (Univ of Minnesota, USA) presented her research on attachment disorganization and disorder, that supports her notion that the difference between the two is mainly a matter of degree.

Howard Steele (New School University, NY, USA) presented the London Parent-Child project that looked at intergenerational patterns of attachment from pregnancy in one generation in the next. Here are some of their interesting findings: the 11 year old child’s ability to coherently acknowledge distress and elaborate a resolution, was correlated with secure mother’s attachment (The Friends and Family Interview, Steele and Steele, 2004 in Attachment in Middle Childhood). They found a relatively low stability from infancy to adolescence, high understanding of mixed emotions at the Affect Task at six years of age, predicted whom children would be secure at adolescence and showed good mental health. Mental health at 16 years was correlated with mother’s secure AAI during pregnancy. I thought it interesting to note that fathers’ view of the marriage when the child was six years old, was correlated with the adolescent’s AAI.

Carole George (Mills College, USA) described her Adult Attachment Projective (AAP) tool for assessing traumatic attachment dysregulation in adults. In her experience, this tool is much easier to administer and to code than the AAI. The stimuli used to trigger attachment representations are picture drawings of attachment events put on a range of intensity (ball, child at window, departure of adult from adult, bench, bed, ambulance, cemetery, child in corner…). The adult is asked to tell a story about the pictures, through which agency of self, relationships with others, and defensive processes are assessed. The themes that appear in traumatic dysregulation, include violence in relationships, in the environment, abandonment, murder, suicide, wish to become invisible/to disappear, and characters in fetal position. An astonishing link has been shown between these themes, especially the item of being alone as being the most terrifying situation, and activation of the hippocampus, the amygdala and the prefrontal cortex in functional MRI. Carol mentioned the work of Hobson et al. (2005) that provide insight into the dynamics of Borderline personality disordered mothers’ interactive and emotional breakdown with their infants, and have significant clinical applications. The AAP analysis is similar to AAI coding system, can be used in individual and couple therapies, but also with parents of teens for understanding better their “tough teen”.

Karen Lyons-Ruth (Harvard Medical School, USA) continued the topic of borderline adult personality disorder, as she found it linked with disorganized and controlling forms of attachment in late adolescence. Severity of abuse, genetic vulnerability to stress (presence of the short form of serotonin transporter promoter polymorphism 5-HTTLPR), and early (meaning during infancy) referral to mental health services were the three predictors of borderline personality disorders among the children she followed from infancy to young adulthood. Borderline personality disorder was especially linked with maternal withdrawal relational pattern (this finding may remind some of us about the classical psychoanalytical concept of the Dead mother, introduced by Andre Green in France many years ago…).

I must confess I did not attend the last two lectures, presented by Jude Cassidy and Nicole Guedeney respectively, because my exploratory system pulled me out of Minho University to Porto, before going back to Israel!

To conclude, this conference, in my eyes, was special in the way it integrated very updated data of various top researchers in the field of attachment, each one of them bringing up different aspects of attachment, ranging from biological to psychological, from infancy to adulthood, in community as well as in clinic, and at home as well as at school.
BOOK REVIEW


Reading this book has been a special experience for me, as a child and adolescent as well as an adult psychiatrist, because the author brilliantly puts “under one roof” the knowledge that has accumulated from the 1990s from basic neurology sciences as well as from developmental psychopathology research. This very concise, clear, and scientific integrative book enables each of us, regardless of our professional background, to understand how the brain is a social organ built through interpersonal experience, and to make new formulations of the clinical cases we encounter in our daily practice. Concepts of neural plasticity, mirror neurons and the biology of attachment, are very clearly explicated, with in-depth description of the links between cognitive and emotional development with specific brain areas. The mediating effect of good-enough parenting on the infant’s brain becoming a social organ is clearly defined. Here is just one example the author’s virtuosity at integrating knowledge from different domains, while explaining the biochemical cascade activated by infant-mother interaction: “What impact does the sight of a mother’s face have on the baby’s social brain? For one, it triggers high levels of endogenous opiates, which are responsible for the pleasurable aspects of social interactions and act directly on the subcortical reward centers. Positive and exciting stimulation by the mother also triggers the production of CRF in the infant’s hypothalamus, thereby activating the sympathetic nervous system. CRF, which controls endorphins and ACTH production in the anterior pituitary, also stimulates production of dopamine.”

Cozolino clusters under the category of “disorders of the social brain”, the clinical entities of social phobia, borderline personality disorder, psychopathy, and autism, and brilliantly shows the impact of prolonged stress child abuse and neglect stress on the developing brain.

He ends with a chapter entitled “Social neural plasticity”, and through vignettes of his own clinical cases, he shows the benefit for the therapist to think the cases in terms of Loving brain, Fearful brain. In short, I strongly recommend this captivating and well-written book. It is not an everyday experience to find an easy-to-read real scientific book!