Affect Integration and Attachment in Children and Youth: Conceptual Issues -Implications for Practice and Research

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ABSTRACT

The essential role of affect and emotion in human behavior, motivation, cognition, and interpersonal interaction is emphasized in various efforts to understand how children develop. However, various theoretical traditions have focused on different features. In this article we focus on the views in attachment theory and the affect consciousness (AC) model/related affect integration perspectives. The attachment theory and the AC perspective/related affect integration perspectives are widely recognized approaches that explicitly focus on the role of affect, cognition, and behavior in the context of others as the main areas in both children’s developmental processes and psychotherapeutic processes. However, these traditions represent both overlapping and contrasting views. On this background we discuss the following questions: 1. How does attachment theory describe the view on affect/emotion, motivation, cognition, and interpersonal interaction, and how do the AC perspective/related affect integration perspectives describe the view on the same subjects? What central theoretical similarities and differences do we find when we compare AC and attachment theory? 2. What role does AC play in attachment, and what role does attachment play in AC? 3. Can the AC perspective/related affect integration perspectives expand and provide nuance to our understanding of the role of affect and emotion in attachment theory, including an understanding of typical and nontypical emotional learning processes? We identified six central AC aspects that can expand our understanding of the function and role of affect and emotion in attachment theory. This understanding is considered central to both practice and research.

Key words: affect integration, attachment, affect consciousness, children/youth.

How to cite this paper: Taarvig E & Solbakken OL (2018). Affect Integration and Attachment in Children and Youth: Conceptual Issues -Implications for Practice and Research. International Journal of Psychology & Psychological Therapy, 18, 65-82.

Novelty and Significance

What is already known about the topic?
• The role of affect in human behavior, motivation, cognition, and relationships is emphasized in the understanding of how children and youth develop.
• Attachment theory and the affect consciousness (AC) perspective describe overlapping and contrasting views on this topic.

What this paper adds?
• AC, seeing affect as the most important motivator of behavior and consciousness illuminates the importance of focusing on affect in attachment.
• Personal significant situations often activate more than one affect, leading to affect couplings that influence on affect experience, formation of affect patterns and anxiety patterns.
• AC suggests that more affects are activated in attachment behavior/ anxiety patterns than attachment theory proposes.

The essential role of affect and emotion in human behavior, motivation, cognition and interpersonal interaction is emphasized in various efforts to understand how children and youth develop (Cicchetti, Ackerman, & Izard, 1995; Fonagy, Gergely, Jurist, & Target, 2002; Fonagy & Target, 2006; Izard, Youngstrom, Fine, Mostow, & Trentacosta, 2006; Kendall, 1993, 2012; Linehan, 1993). However, various theoretical traditions have

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focused on different features. One central theoretical tradition is Bowlby’s (1969, 1973, 1980) attachment theory. This perspective focuses on the emotional communication, the development of affectively laden internal working models, and the child’s behavior in the context of the child-caregiver relationships. Another central theoretical tradition is the affect integration perspective, focusing specifically on the functional integration of affect in motivation, cognition, and behavior (Monsen et alii, 1996; Solbakken et alii, 2011b). The affect integration perspective stresses the role of specific affective states and emotions (Izard & Ackerman, 2000; Izard, 2007; Monsen et alii, 1996; Monsen & Monsen, 1999; Tomkins, 1962, 1963). In this context, we define affect integration through the Affect Consciousness (AC) construct, referring to the ability to adequately perceive, tolerate, reflect on, and express discrete affects (Monsen, Odegard, & Melgard, 1989; Monsen et alii, 1996; Monsen & Monsen, 1999).

Attachment theory and the affect integration perspectives are widely recognized approaches that explicitly focus on the role of affect, cognition, and behavior in the context of others as the main areas in both children’s developmental processes and psychotherapeutic processes. In recent years there has been a growing body of research both within attachment theory and the various theoretical perspectives on affect integration. Research has provided a more nuanced understanding of the essential role of affect and emotion in human behavior, motivation, cognition, and interpersonal interaction. However, it remains unclear exactly which affects are triggered by and associated with the activation of attachment behaviors. The function and role of discrete affects associated with the child’s relationships with important others also appear to be more constrained in the perspective of attachment theory than in the various affect integration perspectives. A more restricted view on the role of affect and emotion may influence the understanding of how children learn to experience and cope with their affects and emotions. Against this background, we address the following questions: (1) How does attachment theory describe the view on affect/emotion, motivation, cognition, and interpersonal interaction, and how do the AC perspective/related affect integration perspectives describe motivation, affect/emotion, cognition, and interpersonal interaction? What central theoretical similarities and differences do we find when we compare AC and attachment theory?; (2) What role does AC play in attachment, and what role does attachment play in AC?; and (3) Can the AC perspective/related affect integration perspectives expand and provide nuance to our understanding of the function and role of affect and emotion in attachment theory, including an understanding of typical and non-typical emotional learning processes?

To answer question 1, we present the basic concepts and views of affect/emotion, motivation, and cognition, from the perspective of attachment theory. Then, we present the same subjects from the perspective of AC and related theoretical perspectives. The presentation includes views on human behavior and interpersonal relationships. In this presentation, we compare the two perspectives and discuss the contrasting and overlapping points of the central aspects. The subjects presented are considered central to the understanding of the function and role of discrete affects in the context of attachment, including children’s emotional learning processes. In a separate section, we present the AC model, focusing on the operationalization of concepts and measurement. The presentation provides a further explanation of how children are thought to learn knowing and coping with their affect experiences according to the AC perspective. Additionally, the presentation of clearly defined concepts and the corresponding procedures for measurement enable us to answer question 2. To account for question 2, we describe studies examining the relationship between attachment and the different affect-integrating facets, which we in turn relate to the various affect-integrating components presented from the AC perspective. We believe that the answer to question 2 will contribute
to illuminating the relationship between the AC perspective/related affect integration perspectives and attachment. This question can also help clarify overlapping or contrasting views, presented by attachment theory and the AC perspective on the role of affect and emotion in the context of important others. This same focus that is being emphasized throughout the article, contributes to answering question 3. We answer question 3 in a separate section at the end of the article, which presents the most salient aspects of the AC perspective/affect integration perspectives. We believe the account of these main aspects can expand our understanding of the role of affect and emotion in attachment behaviors/relationships and what affects can be triggered in the activation of attachment behaviors. In this section, we include an understanding of both typical and non-typical emotional learning processes that are thought to occur in psychotherapeutic processes. For clarity of presentation, when the AC construct/perspective and the related theoretical frameworks are referred to or named collectively, we use the term “affect integration perspective(s).”

**Attachment Theory: Basic Concepts, the View on Affect/Emotion, Motivation and Cognition**

*Basic Concepts*

In Bowlby’s biologically based attachment theory (Bowlby, 1969), the focus is on the capacity to form emotional bonds with other individuals and this is regarded as a principal feature of attachment as well as of the child’s development and mental health. Attachment is defined as the enduring emotional bond that individuals form with another person, especially in the course of their infancy but also throughout their whole life span. According to Bowlby, certain basic prerequisites must be present to characterize the child’s emotional tie to the caregiver in terms of attachment and attachment behaviors, i.e., proximity-seeking behavior; use of the caregiver as a “safe haven” to obtain support, comfort, and protection in times of distress and fear; and the ability to use the caregiver as a secure base from which to explore and learn about the world. The interplay between attachment behavior and exploration was first described by Ainsworth (1967). This consideration of the interplay between attachment behavior, fear behavior, and exploration provided a better understanding of children’s changing signals and behaviors (Ainsworth, 1967; Bowlby, 1982, 1988; Kobak *et alii*, 2016). Bowlby (1969, 1988) suggested organizing the different types of attachment behaviors, along with fear and exploratory behaviors, into separate “behavior systems” with the attachment behaviors structure as the core. This approach implies an organizational perspective on development, considering the systems as organized by control mechanisms within the central nervous system and structured hierarchically (Bowlby, 1969, 1988; Schore, 2001). The child’s experience and behavior are thought to be organized through attachment to important others and shaped through the quality of the relationship to them (Bowlby, 1969). Additionally, the child’s experience and behavior presumably involve monitoring the caregivers’ responsiveness and availability in a continuous fashion.

*Affect, Emotion, Feeling*

Bowlby (1969) followed the traditional definitions of affect, feeling, and emotions. In this perspective the term “affect” denotes a wide area of feeling experience, e.g., feeling happy, distressed, fearful, or angry. The word “feeling” is often used in a correspondingly broad way, however, the term denotes those aspects of an appraisal process in which the
individual becomes or is aware of the experience and what is felt. The term “emotion” is used in a more restricted way and refers to affects or feelings of, for example being frightened or distressed, that are inherently associated with a specific action.

Bowlby (1969, 1973) considered emotions to be strongly involved in and related to attachment behaviors/relationships. He also underscored the communicative role of the child’s emotions in attachment relationships. The emphasis on emotional communication in the child-caregiver dyad is adopted and developed in the work of Ainsworth (Ainsworth et alii, 1978) and later attachment researchers (Kerns et alii, 2007; Kobak et alii, 2016; Parrigon et alii, 2015), because they consider the child’s emotional communications with the caregiver a way to understand the attachment system. Therefore, a number of studies have included observing the caregiver’s responsiveness to the child’s emotional signals and behaviors.

For example, studies on emotionally attuned interactions have been assessed through observing face-to-face transactions (Tronick, 2003). In such attuned interactions, the caregiver and the child create a context that allows the child to express the affective states. Conversely, in not-attuned interactions, such as situations of momentary lack of caregiver availability, often require that the child directly signal stress and indicate a desire for contact to restore confidence in the relationship. These reparative processes are well documented in micro-analytic studies on nonverbal mother-infant interactions (Beebe & Lachmann, 2014; Tronick, 2007). After a period of caregiver unavailability and a dysregulated emotional state, the synchronous interaction between the child and the caregiver restores the child’s confidence in the relationship. Ainsworth’s Strange Situation procedure illustrates the corresponding reparation processes (Ainsworth et alii, 1978). In these procedures, with a period of threat to caregiver availability, securely attached children actively seek contact and comfort and restore their confidence in the relationship with the caregiver (Ainsworth et alii, 1978). The vital emotional communication in the child-caregiver dyad may balance the interplay between attachment behaviors and exploration behaviors (Kobak et alii, 2016). Accordingly, the emotional communication presumably provides the necessary protection, that in turn allows for exploration behaviors, providing the child with opportunities for learning. This, again, may enable the child to develop and learn at an appropriate distance from the caregiver and to use the caregiver actively as a resource to address new challenges.

An important contribution to the understanding of how children learn to experience and cope with their feelings and emotions is Bowlby’s (1969) view on the impact of feelings on behavior and appraisal processes (see Motivation). He believed that whether appraisal processes are felt or not, they have considerable consequences as modifying and reassessing an individual’s perceptions and representations/models of the self, others, and the environment is only possible when a person becomes aware of how he or she feels. This view underscores the importance of emotional communication between child and caregiver or child and therapist, which may promote the child’s ability to know what is felt.

Another central aspect of the nature and role of emotion is described in terms of the interactive nature of discrete emotions, i.e., the simultaneous or sequential activation of combinations of affects. Bowlby suggested that caregiver unavailability usually activates fear/anxiety or distress/sorrow, and both fear and sorrow may easily trigger anger. This theoretical position deviates from the perspective of affect integration, arguing that combinations of affects are typically activated in personally significant situations (Izard & Ackerman, 2000; Izard, 1977; Monsen & Monsen, 1999; Solbakken et alii, 2011b; Tomkins, 1991; Tomkins, 1995).
Motivation

Bowlby (1969) regarded the child’s attachment relationship with the caregiver as the core element, with all other experiences or components structured around it, regardless of the impact of these other experiences. He believed that the execution of the attachment or secure-base behaviors become goal-directed early in development. According to Bowlby motivation concerns the execution of the attachment and secure base behaviors that are supposed to be initiated, guided, and terminated by the continuous response to certain information (from internal and/or external sources), which are derived from the sense organs and include feeling (Bowlby, 1969). Bowlby explicitly discussed whether affect, feeling, or emotion might cause behavior in some way. He proposed that emotions (e.g., fear, anger, or sadness/distress) serve to signal needs to others, bringing the child to the attachment figure through goal-directed behavior, and to maintain or terminate proximity to the caregiver. Additionally, he suggested that feeling and attention may play a causal (or motivational) role in appraisal processes and actions. The feeling, if not too intense, may contribute to alerting attention, improving perceptual discrimination, and be a part of what impacts appraisal processes. In line with Bowlby’s view, later attachment researchers (Kerns et alii, 2007; Kobak et alii, 2016; Parrigon et alii, 2015) clearly attribute affect and emotion motivational and regulatory properties. This is a view that emphasizes the importance of focusing on affect and emotion in psychotherapeutic processes. However, the view of the motivating mechanisms of affect, feeling, and emotion presented by attachment theory does not represent the strong version of the principle advocated by the theoretical perspectives of affect integration. These perspectives consider the affect system as the most important motivational system for the goals of human behavior (Izard & Ackerman, 2000; Izard, 1977; Monsen & Monsen, 1999; Tomkins, 1962; Tomkins, 1995).

Cognition

Based on cognitive information theory, Bowlby (1969) suggested that cognitive information processing elements provide the child with the equipment to enable him or her to organize information into mental representations. Bowlby referred to these mental representation as internal working models (IWMs) that represent a cognitive framework for understanding the world, self, and others (Bretherton & Munholland, 1999). He proposed that the internal working models comprise adopted and internalized interactional patterns of attachment experiences, including cognitive and emotional components (Bowlby, 1969). IWMs are suggested to gradually become stable structures that assist the child in predicting what behavior can be expected from caregivers or important others, possible interactions with them, and what attachment behavior or plan should be used in specific situations to attain a goal (Bowlby, 1969, 1973; Bretherton & Munholland, 2008). Bowlby (1969, 1988) believed that IWMs are updated and reconsidered as children develop and achieve increased emotional, cognitive, and social competencies or as their life circumstances change.

Bowlby (1969) described different levels of IWMs, namely “the declarative-evaluative level” and “the implicit-procedural level”, to illuminate individual differences in coping cognitively with affective experiences. The implicit-procedural level of working models consists of automated and unconscious cognitive and affective processes (Bowlby, 1980; Zimmermann, 2015). This level differs from the declarative-evaluative level, which involves the child’s ability to describe, in non-stressful situations, the experience and strategies he or she used in earlier distressing situations. This level of functioning accords with the more sophisticated working models attained in typically developing
Individual Differences in Patterns of Attachment Behaviors

Bowlby (1973, 1988) presented universal aspects of the attachment behavioral system and described principal individual differences in patterns of attachment behaviors. According to Bowlby (1973), a prolonged lack of caregiver availability amplifies normal fear/anxiety responses, referred to as “attachment disruptions.” Unrepaired, these disruptions in attachment relationships elicit pathological levels of fear/anxiety and defensive behavior. With respect to the formation of the typical categorical patterns of attachment, theorists and researchers agree that secure attachment behaviors (categorized as type B) are associated with a sense of comfort with closeness; age-appropriate trust; constructive coping strategies in response to stress and disturbing emotions, including support seeking when needed; and positive expectations about others and the self in general (Bowlby, 1973). What is termed the anxious ambivalent style (categorized as type C) refers to tendencies, such as worry about relationships, fear of rejection, heightened emotional intensity, a sense of helplessness, and a low threshold for distress without confidence in support from others (Cassidy & Berlin, 1994). The avoidant attachment style (categorized as type A) involves behavior that diverts attention from unpleasant emotions and cognitions (Cassidy, 1994), a reliance on deactivating strategies that lead to reduced awareness of emotion, and a distancing from attachment relationships in situations that activate unpleasant affect and emotion (Mikulincer et alii, 2003). Finally, disorganized attachment (categorized as type D) is associated with an experience of overwhelming unpleasant affects and emotions and an inability to regulate and monitor those affects/emotions with the support of the attachment figure. The central characteristics associated with the secure attachment style, the anxious ambivalent style, and the avoidant attachment style accord with the criteria in the scoring scales for assessing AC based on responses to the questions in the AC interview.

AC and Related Perspectives: Basic Concepts, the View on Affect/emotion, Motivation and Cognition

Basic Concepts

To describe different aspects of affect integration associated with attachment behaviors and the child’s relation to the caregiver and others, we rely on the AC construct and the AC model (Monsen et alii, 1989; Monsen et alii, 1996; Monsen & Monsen, 1999; Monsen & Solbakken, 2013). The AC construct is operationalized as degrees of awareness, tolerance, emotional (nonverbal) expressivity, and conceptual (verbal) expressivity for discrete affects related to specific situations (Monsen et alii, 1989; Monsen et alii, 1996; Monsen & Monsen, 1999). It was developed on the basis of several theoretical perspectives on affect and emotion, especially Tomkins’ affect and script theory (Tomkins, 1962, 1963, 1991, 1995) and the differential emotions theory (Izard, 1977, 1991, 2007; Izard & Ackerman, 2000). Other theorists within the self-psychological tradition, as described by Stolorow and Atwood (1992), Stolorow, Brandchaft, and Atwood (1995), and Stern (1985), have also been central. In accordance with Bowlby’s theoretical stance, these affect integration perspectives emphasize an organizational view on development (Bowlby, 1969, 1973, 1988; Cassidy, 2008). The affect integration perspectives are also consistent with attachment theory, highlighting that the ongoing processes of the organization of the affect experiences and their outcomes
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depend on the quality of the child-caregiver relationship. The different theoretical perspectives of affect integration presented here are adopted in the AC perspective and the AC model. When the term “affect integration perspective(s)” is used here, it includes Tomkins’ affect and script theory, the differential emotions theory presented by Izard, and the AC perspective/model.

Affect, Emotion, Feeling

The literature does not agree on the use of the terms affect, emotion, and feeling; there are differences in the definitions of the terms in attachment theory and in the affect integration perspective. In accordance with Tomkins (Solbakken, 2011c; Tomkins, 1962, 1963) we use the term “affect” to conceptualize the basic biological responses that are considered universal to all humans. No learning is needed for their activation and they are characterized by evolutionary based responses with inherently adaptive functions. The term “emotion” is defined as a complex phenomenon of affective experience including a conscious feeling associated with memories of previous experiences with a given affect, expectations, and appraisals. Therefore, emotions can be considered specific patterns shaped by the experience of a given affect in line with the term “script”. The script concept is defined in the section “Cognition”. The term “feeling” refers to the conscious process of affective experience of bodily felt sense and/or the associated mental content. In this paper we use the terms affect, emotion, and feeling as defined here.

The AC model has, at its core, the organization and integration of the prototypical affect processes. It attempts to describe how each of the discrete affects, when activated, is followed by responses involving the other major systems, including attachment. Whereas, attachment theory has its main focus on the attachment systems (where cognitive and affective processes are closely related).

The AC model describes a central aspect of affect processes in terms of interacting affects and emotions. The model emphasizes that personally significant situations are thought to activate two or more affects or emotions that are linked and operate in a coherent interacting pattern. For example, fear may activate surprise and/or interest (as discussed below). A specific pattern of affects that is experienced frequently may become a stable response to particular situations or be generalized to similar situations (Hyson & Izard, 1985). The affect integration perspective suggests that combinations of emotions or emotion patterns may vary with situation, experience, and the child’s genetic/biological traits (Izard, 1977, 1991; Izard & Ackerman, 2000).

In the formation of specific affect patterns, it is proposed that affect combinations in fearful affect states tend to consist of fear as the key affect and interest, surprise, and distress as probable combinations with fear activation (Izard, 1977; Bartlett & Izard, 1972). Anxiety, on the other hand, is a more complex combination of emotions and affective-cognitive structures. A study that investigated a nonclinical sample of children assessed emotions using regression analyses; and the results supported the hypothesis that anxiety consists of fear as the central affect, followed by interest, guilt, sadness, shame, anger, disgust, contempt, and shyness as the other main affects (Blumberg & Izard, 1986). Support for this hypothesis is also provided by a study by Taarvig, Solbakken, Grova, and Monsen (2016) with a clinical sample of 11-year-old children with an anxiety diagnosis. They found that the anxious children had problems with fear, shame, guilt, and anger; some of the children also had problems with other affects (interest, sadness, disgust, and envy/jealousy). Moreover, the affects in the study by Taarvig and colleagues and the first six affects in the pattern in the Blumberg and Izard study correspond to those identified as central for anxiety in studies of adults (Bartlett & Izard, 1972; Sønderland, 2010).
However, anxiety is experienced by typically and non-typically developing children. This is emphasized both in the affect integration perspective and in attachment theory. In contrast to the affect integration perspective, Bowlby (1973) suggested that fear and anxiety may share common manifestations (Izard, 1977). Bowlby described “anxious attachment” in terms of specific types of behaviors and expectations associated with fear (anxiety) or fear-anger interactions. Therefore, his notion of anxious attachment may describe a fear-anger interaction rather than anxiety, according to the affect integration perspective (Izard, 1977).

Motivation

The AC model follows the views of Tomkins (1962, 1963) and Izard (1977, 1978) who consider the basic affects to be the most central motivational forces for human behavior. The motivational mechanisms consist of two central components: affect as amplification (Tomkins, 1962, 1963) and affect as a signal function with inherent information value (Tomkins, 1962, 1963; Izard, 1977, 1978). The theoretical views of Tomkins and Izard are explained more in detail below.

Based on Tomkins’ affect and script theory (Tomkins, 1962, 1963, 1978), the AC model proposes that along with pain, homeostatic life support processes, and cyclical drives, the basic affects are the primary motivating forces for human behavior. However, of these motivational forces, the affect system is seen as the most important. The main explanation for this resides in the notion of affect as an amplifying mechanism. Tomkins suggested that affect amplifies and extends the duration of the impact of what triggers the affects. That is to say, the source that activates them and the subsequent responses such as motor and physiological responses, activated memory, and thinking. Tomkins (1978) proposed that affect and emotion constitute the primary motivational system, because their amplification can make anything matter or become urgent, whereas nothing really matters without their amplification. Moreover, the affect system is considered the core of directions for the other major systems, in that it is hypothesized to interact and transact with the other major systems, namely the drive, motor, perceptual, sensory, memory and the cognitive system, and persistently shapes the qualia of consciousness and behavior (Izard & Ackerman, 2000; Tomkins, 1978, 1995; Solbakken et alii, 2011b). Additionally, it is proposed that activation of one affect may lead to the activation of one or more of the other affects, and that each of these may serve to amplify or dampen the intensity of the other activated affect(s) (Izard, 1972; Izard & Ackerman, 2000; Tomkins, 1963).

A reason for considering affect and emotion primary motivational forces also lies in the notion that they constitute a signaling function with inherent information value (Izard & Ackerman, 2000; Monsen & Solbakken, 2013). This information, inherent in the activated affects, may evoke a form of awareness of different affective states and an action tendency related to specific goal-directed behaviors. Affects and emotions may, therefore, be considered intentional ways of relating to the world, self, and others (Solbakken et alii, 2011b). This theoretical view of affect and emotion as the most central motivating forces contrasts with the theoretical stance of Bowlby, who considered the attachment behaviors/relationships as the core element around which all other experiences are structured. However, the work of Bowlby (1973, 1982, 1982/1969), Ainsworth (1967), Ainsworth et alii (1978), and other researchers (Schore, 2000, 2001; Tronick, 2007) have accounted for the motivational properties of affects and emotions related to the child’s attachment behaviors/relationships (e.g., anger reflects frustration, sadness reflects loss, fear is associated with danger, and anxiety is associated with insecurity about the attachment figure’s emotional and physical availability).
However, the information of the motivational properties of each of the discrete affects, proposed by the AC model can expand the understanding of the motivational property of each affect given in attachment theory. The model follows the hypothesis that each affect category has its own phenomenology. This means that each is associated with a demarcated number of related scenes including attachment scenes, and have a specific signal value that motivates for specific types of behavior and cognitive processes (Izard, 1978; Izard & Ackerman, 2000; Solbakken et alii, 2011b). Accordingly, a lack of integration of specific affects may provide information about what kind of problems a person is struggling with. For example, the lack of integration of anger is associated with non-assertiveness, and the lack of integration of tenderness/care/devotion is associated with detachment or withdrawal in interpersonal contexts (Solbakken, Hansen, Havik, & Monsen, 2011a). The theoretical hypothesis concerning the motivational properties of affects has a fair amount of empirical support (Izard & Ackerman, 2000; Solbakken et alii 2011a), indicating that knowledge of the phenomenology of discrete affects is important.

Additionally, the affect integration perspective suggests, in contrast to what is claimed in attachment theory, that one affect may cause activation of one or more of the other affects and each of them may serve to amplify or dampen the intensity of the other activated affect(s) (Izard, 1972; Izard & Ackerman, 2000; Tomkins, 1963). Moreover, the AC model proposes that two or more affects activated and coupled together, for example, fear and shame, may create problems in differentiating affects that in turn may amplify the intensity of affect experiences. At high intensity levels, this amplification may, in turn, engender impaired feelings of control (low emotional self-efficacy), disrupted affect experiences, and subsequent problems with integrating affect in behavior and consciousness (Tomkins, 1963).

Cognition

Tomkins (1992) viewed the cognitive system with respect to the integration of affect and cognition as a part of the cognitive system as a whole, consisting of mechanisms such as perception, motor skills, and memory. In this context we focus on the organization and integration of the cognitive and the affective components defined in terms of scripts. The concept of scripts corresponds to internal working models (IWMs) that represent a cognitive framework in attachment theory.

Scripts refer to the individual’s rules for predicting, interpreting, responding to, and controlling a set of scenes (Tomkins, 1991, p. 83). The affect scripts consist of the child’s internalized interactional affect experiences with the environment, which become structured as characteristics of the child’s way of experiencing the world (Tomkins, 1978, 1995). These scripted affect experiences can operate on different levels of consciousness. This means that affect experiences may be transformed into mental representations that are available to conscious reflection (conforming with the declarative-evaluative level; Bowlby, 1980), may operate in the form of bodily sensed and presymbolized mental states representing the level of phenomenal consciousness, or may operate on unconscious levels outside the individual’s awareness (which is consistent with the implicit-procedural level, Bowlby, 1980; Izard, 1977, 2007). The AC model assesses the organization of affect experiences on these three levels of consciousness.

The model suggests that scenes and affect scripts (what the individual does with different types of affect activations in specific situations) that are available to conscious experience, increase the ability to use and reflect on the information inherent in the affect activation in appropriate ways and in relation to others (Monsen & Monsen, 1999; Monsen & Solbakken, 2013). This theoretical position is in line with the view
in attachment theory proposing that felt affect, if not too intense, is a prerequisite for the modification and change of thoughts and behavior strategies (Bowlby, 1969).

**Assessment of AC: Individual Differences in Affect Integration**

In this section, we present the operationalization of concepts and measurement in the AC model. First, the operationalization and measurement illustrate the focus on affect and the way children are thought to learn to experience and cope with their affects and emotions in the context of important others according to the AC perspective. Next, we relate the affect-integrating subdomains and the number of affects explored in the AC perspective to the affect-integrating components and types of affects investigated in studies on attachment-affect integration interactions. Such a review of these relationships enables us to answer question 2 (What role does AC play in attachment and vice versa?). We believe that answering question 2 may contribute to illuminating the relationship between the AC perspective/related affect integration perspectives and attachment.

To assess AC in children and youth in psychotherapeutic work, a semi-structured interview for use with adults -the Affect Consciousness Interview (ACI)- and separate observer-based AC scales (ACSs; Monsen *et alii*, 1996) were adapted for use with children 11 years of age or older (ACI-C; Taarvig, Solbakken, Grova, & Monsen, 2015). The ACSs comprises four scales, one for each of the integrating aspects (awareness, tolerance, emotional expressivity, and conceptual expressivity) across various affects. The ACI-C, like the ACI for adults, includes scales that measure 11 affect constructs: interest/excitement, enjoyment/joy, fear/panic, anger/rage, shame/humiliation, sadness/despair, envy/jealousy, contempt/condescension, disgust/revulsion, guilt/remorse, and tenderness/care/devotion. In the measurement of AC, the separate observer-based scales range from a score of 1 to a score of 9. A score of 9 is the highest attainable, and 1 the lowest. At low levels of the AC scales, the scores indicate poor awareness and recognition of affects, a tendency to be overwhelmed by the activated affect(s) or to attempt to avoid the impact, and inability to cope with and decode meaningful information from affect activation along with a lack of acknowledgement of bodily expressive acts, and an inability to articulate and express semantic descriptions of affective experience. At intermediate levels, affects are stably recognized and accepted, and both bodily expressive acts and semantic articulation of experience are generally acknowledged (Solbakken *et alii*, 2011b). For this article, we report the original scale names of the 11 affect categories as used in the ACI for adults. However, in the ACI-C, we changed the labels of the discrete affect categories to make it easier for the children to understand the concepts (anger/rage was altered to irritation/anger, shame/humiliation to shyness/shame, fear/panic to fear/anxiety, and tenderness/care to being fond of. Contempt/condescension and disgust/revulsion became one affect category). The age-adapted ACI-C and ACSs showed satisfactory inter-rater reliability and criterion-referenced validity in a sample of children referred for problems with anxiety and/or depression (see Taarvig *et alii*, 2015). The estimates of inter-rater reliability and criterion-referenced validity were in line with previous findings in studies of adults with mental disorders (Gude, Monsen, & Hoffart, 2001; Monsen *et alii*, 1996; Monsen & Monsen, 2000; Solbakken *et alii*, 2011a).

The ACI-C assesses the five integrating aspects (scripts) for each of the specific affects: scenes, awareness, tolerance, emotional (nonverbal) expressivity, and conceptual (verbal) expressivity. The integrating aspects are defined as follows: **Scenes** refer to internal or external eliciting stimuli or contexts associated with the activation of the affect in question (Tomkins, 1991); **Awareness** refers to attention to and recognition of bodily and mental cues associated with affects; **Tolerance** refers to (a) affect impact (i.e., the effects of affect activation on the individual), (b) affect coping (i.e., voluntary and
involuntary strategies for dealing with and managing affect), and (c) signaling function (i.e., the capacity to use affect signals on phenomenological, intentional, and semantic levels as conveyors of meaningful information about the world, self, and others); Emotional (nonverbal) expressivity refers to the capacity for (a) acknowledgement (avowal) and (b) display of clear and nuanced expressions via bodily posture, tone and pitch of voice, and facial expressions in relation to others or when alone; Conceptual (verbal) expressivity refers to the capacity for (a) acknowledgment (avowal) and (b) articulation of a clear and nuanced semantic description of affect in relation to others or when alone (Monsen et alii, 1996; Solbakken et alii, 2011b, p. 488).

The assessment of these five AC aspects for each of the 11 discrete affects using the ACI-C and the ACSs accounts for individual differences in affect integration. Accordingly, the ACI-C assesses a large number of affects and addresses couplings of affects because it identifies them explicitly. Additionally, the ACI-C and the ACI examine both close and more peripheral relationships in relation to the affect in question.

The examination of a large number of affects and their couplings is in accordance with the interactive nature of affects and emotions (couplings) and the formation of affect patterns, including different constellations of anxiety patterns, described by previous theories and research (Bartlett & Izard, 1972; Blumberg & Izard, 1986; Izard, 1977; Sønderland, 2010; Taarvig et alii, 2016). The assessment of affect couplings and the formation of affect patterns is of importance in clinical settings to provide information about what affects and emotions may be involved in the child’s attachment behaviors and in the different types of categorical patterns of attachment (secure attachment, anxious/ambivalent attachment, avoidant attachment, disorganized attachment). Thus, regarding the assessment of affect integration with the ACI or the ACI-C with reference to the attachment behaviors system, we propose to assess all of the 11 affect categories included in the ACI-C. Such a model expands on the range of affects that should be assessed when examining affect integration in children and youth related to the attachment behaviors system.

THE ROLE OF AC IN ATTACHMENT AND THE ROLE OF ATTACHMENT IN AC

Previous attachment studies with children and youth are consistent with the hypothesis that differences in emotional competencies -such as the ability to differentiate, be aware of or monitor, cope with, regulate, and communicate about specific emotions- are associated with differences in attachment behavior patterns. The above-described emotional competencies associated with attachment behaviors/representations correspond to the components of affect integration that are assessed through the ACI-C. Thus, both attachment theory and the AC perspective emphasize the central role of affect in affect-integrating components, such as the capacity to appropriately perceive, monitor, and reflect on, and express affect experiences. However, the limited number of affects explored in previous attachment studies does not cover number of affect categories that would be examined from the affect integration perspective. Thus, the answer to question 2, accounted for in this section, may contribute to clarify overlapping and contrasting views, presented by attachment theory and the AC perspective on which affects are activated in attachment and the role of affect and emotion in the context of others.

In an example of research that has examined the relations between attachment and the ability to discriminate and be aware of emotions, Brumariu, Kerns, and Seibert (2012) found that 10 to 12-year-old securely attached children reported a better ability to be aware of and monitor their unpleasant emotions in general than anxious children. In a study of 7-year-olds, Colle and Del Giudice (2011) found support for the hypothesis that disorganized children are less likely to be able to recognize and discriminate between
unpleasant emotions (sadness, fear, anger, anxiety, and shame).

Similarly, studies on the relationship between attachment and coping strategies (or the ability to tolerate and reflect on, per the AC-I-C) in securely and insecurely attached children indicated differences between the two groups. Kerns and colleagues (Kerns et alii, 2007) found that 9 to 11-year-old securely attached children used more constructive coping strategies than insecurely attached children in dealing with frustration. This finding is supported by two other studies with children and adolescents (Bauminger & Kimhi-Kind, 2008; Bender et alii, 2015). Support for this hypothesis is also found in studies with children and youth exploring the association between attachment and the coping strategies with focus on coping with specific affects (sadness, anger, and fear; Brenning & Braet, 2013; Schwarz, Stutz, & Ledermann, 2012).

Regarding the relationship between attachment and the ability to express and converse about emotional experiences (conceptual expression in the AC-I-C), Bowlby’s portrayal of the open emotional dialogue in secure attachment relationships has been examined in a study by Raikes and Thompson (2008). They found a positive association between securely attached children and frequent talk with their caregivers about emotions. Their finding supports the notion that the emotionally open communication in secure relationships permits the child to talk about and share emotions, especially unpleasant ones, which the child may experience as troubling and confusing.

Thus, the research reviewed above lends support to the notion that emotional competencies corresponding with those in the AC-I model, such as the ability to be aware of, tolerate, reflect on, and express specific affects, are related to differences in secure and insecure attachment representations in school-aged children and youth. These relationships between AC and attachment are supported by a study by Lech (2012). He examined the relationship between AC and self-reported attachment style (ASQ) in a clinical sample of adults with emotional disorders and in nonclinical control groups. The results showed robust correlations between all scores of AC and scores of attachment style, with the exception of guilt.

CAN AC EXPAND OUR UNDERSTANDING OF ATTACHMENT?
IMPLICATIONS FOR PRACTICE AND RESEARCH

As stated, there is essential overlap in the attachment perspective and the AC perspective regarding the integration of affect, motivation, cognition, and behavior. Both perspectives underscore the importance of affect in self-experience in that both frameworks emphasize how affects continually guide and influence perception, interpretation, appraisal processes, and behavior. Both perspectives also emphasize the central role of affect in the capacity to appropriately perceive, monitor, reflect on, and express affect experiences. However, there are important differences. We present a summary of the areas of the AC perspective/related perspectives that we believe can answer our question: “Can the AC perspective/related affect integration perspectives expand and provide nuance to our understanding of the function and role of affect and emotions in attachment theory, including a more detailed understanding of children’s emotional learning processes and the development of pathological levels of emotional functioning?”

First, the AC model considers affect and emotion the central motivating force for human behavior (Izard, 1977; Izard & Ackerman, 2000; Monsen & Monsen, 1999; Tomkins, 1963, 1991). More specifically, the model sees the affect system (affect as amplification and the signal value of affect) as the primary motivator and regulator of behavior and consciousness, including attachment behavior, attachment relationships, and the caregiver’s responsiveness and availability. The affect system is therefore hypothesized to be the core of direction of the other major systems (Tomkins, 1962,
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1963), continually influencing the qualia of consciousness and behavior (Izard, 2007). This theoretical position emphasizes the importance of focusing on affect and emotion in attachment behavior/relationships and psychotherapeutic processes. On the other hand, attachment theory views attachment as the core element in development, while at the same time attributing some degree of motivational properties to affect and emotion.

Second, the AC model suggests that the motivational function and role of affect and emotion are also inherent in affect processes involving activation of two or more affects and the interactions between them. The model claims that activation of one discrete affect may trigger activation of one or more of the other discrete affects (Izard, & Ackerman, 2000; Monsen & Monsen, 1999; Sønderland, 2010; Taarvig et alii, 2016). Each of these may serve to amplify or dampen the intensity of the other activated affect(s) and create a specific motivational state and action tendency. Additionally, coupled affects may be difficult to differentiate and this, in turn, may amplify the intensity of affect experiences. High levels of affect intensity are thought to cause diminished feelings of control and a disruption in affect experiences, including attachment experiences, leading to the acquisition of inadequate coping strategies. Thus, the AC model’s emphasis on the motivational and regulative role of affect and emotion illuminates the importance of this focus in processes reflecting the capacity to perceive, monitor, reflect on and express affect experiences. These same aspects are assessed through the AC model and are relevant to explaining both typical and non-typical developmental processes.

Of the AC elements, the scenic aspect concerns the individual’s ability to perceive information about specific affects and affect experiences related to different interpersonal settings (Monsen & Monsen, 1999). Awareness of activated affects is about the individual’s ability to learn to pay attention to emotional responses within the self. While affect tolerance includes the individual’s ability to learn being (motivated) impacted by, decode, and think about the affect experience, the capacity for expression is about learning to communicate with others. Both awareness and tolerance of affect are seen as prerequisites for the ability to think about and express the affect experience to others clearly. Accordingly, these affect processes can operate at different levels, i.e., as affect signals outside the individual’s conscious awareness, as bodily sensed signals, or as more nuanced qualia of affect signals or states (Solbakken et alii, 2011b). The consequences of unintegrated affect are further explained below.

Third, the AC model postulates (based on the knowledge of the phenomenology of each of the discrete affects) that each affect category has distinct motivational characteristics that motivate for specific types of behavior and cognitive processes (Izard, 1977, 1991; Monsen & Monsen, 1999; Monsen & Solbakken, 2013; Solbakken et alii, 2011a). The model suggests that the motivational characteristics of the different affect categories are reflected in the way the individual attends to, reflects on, and expresses affect experiences that may occur on different levels of consciousness, i.e., at reflective conscious, phenomenological conscious, or unconscious levels. According to the AC model, unintegrated affects may cause a variety of problems for the individual or the developing child (Izard, 1977, 1991; Monsen & Monsen, 1999; Monsen & Solbakken, 2013; Solbakken et alii, 2011a). It is proposed that the kind of problems the child is struggling with, both intrapersonal and interpersonal, are reflected in the lack of integration of specific affects. One example is findings from an AC construct-validation study (Solbakken et alii, 2011a). The study found that unintegrated anger was associated with unassertiveness. This knowledge of the phenomenology of each affect provides information about the motivational property of each affect beyond what is given in attachment theory. Thus, the AC model, that has affect and emotion as motivational and regulative components in affect processes at its core, can expand the understanding of the children’s emotional learning processes and the development
of pathological levels of emotional functioning in the context of attachment. This can also expand the understanding of learning processes that are expected to occur in psychotherapeutic processes.

Fourth, according to the AC model, the formation of affect patterns is based on the understanding that the activation of a discrete affect in personally significant situations often leads to the activation of one or more of the other discrete affects. The repeated and frequent experiences of couplings of the specific affects/emotions are thought to shape stable patterns of interacting affects and emotions (Izard, 1977; Izard & Ackerman, 2000; Monsen & Monsen, 1999; Tomkins, 1963, 1991). These assumptions are supported by several studies (Blumberg & Izard, 1986; Sønderland, 2010; Taarvig et alii, 2016). The coupling of affects may be a function of inherent difficulties in differentiating the basic affects; this, in turn, creates problems in the capacity to experience, tolerate, reflect on, and express the experience clearly to others (Sønderland, 2010; Taarvig et alii, 2016). In line with these assumptions, significant correlations have been found between affect-integrating components (awareness, coping, and expression) and various aspects of mental health and functioning (depression, anxiety, and social competence) in studies with children with internalizing problems (Bohlin & Hagekull, 2009; Penza-Clyve & Zeman, 2002; Taarvig et alii, 2015).

Fifth, the view on affect couplings and the formation of affect patterns also impacts considerations of the formation of fear and anxiety patterns according to the affect integrating perspectives (Izard, 1991; Izard & Ackerman, 2000). The model describes the anxiety pattern as a more complex combination of affects and emotions than that in the fear activation or fearful states. On the other hand, attachment theory suggests that fear and anxiety may share common manifestations in the form of fear-anger interactions. Consistent with the AC model, an assessment of affect couplings is suggested to be important to detect and understand what affects may be involved in secure/insecure attachment patterns or categorical patterns of attachment.

Sixth, the AC model assesses a large number of affects in line with the view on affect couplings and the formation of affect patterns described in theory and research (Blumberg & Izard, 1986; Izard, 1977; Izard & Ackerman, 2000; Sønderland, 2010; Taarvig et alii, 2016). Accordingly, the model enables consideration of a large number of affects that can be associated with the activation of attachment behaviors/representations and attachment relationships. The specific affects are examined for each of the affect-integrating components (scene, awareness, tolerance, emotional expression, and conceptual expression), and these aspects are clearly defined through the AC construct with procedures for measurement. The affect-integrating components in the AC model correspond to the emotional competency elements that are associated with differences in attachment patterns according to findings in attachment studies. Thus, the AC model offers a systematic way to assess and describe affect integration that is relevant to attachment for use in both research and psychotherapy. This systematic assessment of AC can expand our understanding of the role of affect and emotion in the context of attachment, including emotional learning processes that reflect typical and non-typical emotional functioning.

**Further Research and Future Directions**

The arguments described above, proposing that AC and related theoretical perspectives can expand our understanding of the role of affect and emotion in attachment relationships and attachment theory, imply consequences for both clinical and research psychotherapy. Generally, tools that provide differentiated measures of the capacity to cope with affect adaptively are important to both therapeutic work and
Arguments regarding psychotherapy research highlight generally differentiated assessment methods as appropriate tools for examining various phenomena independent of the theoretical approach. More specifically, we propose studies based on differentiated measures, such as those in the AC model, to examine the relationship between affect integration and attachment (behavior/representations) should be conducted. In line with this, attachment theorists have expressed a need to expand the understanding of how attachment and other aspects operate together (Kerns & Brumariu, 2016). As mentioned in an earlier section, a number of attachment studies have investigated the role of affect integration in attachment. However, we suggest that future studies should include differentiated affect integration measures, such as those in the AC model, to investigate issues such as the following questions: What affects are activated in children 11 years of age or older when availability to an attachment figure is needed? Do couplings or combinations of affects lead to high intensity and disruptions in affect experiences and attachment relationships? What affects and emotions constitute anxiety patterns in different categorical patterns of attachment identified as secure, anxious, avoidant, and disorganized? How can the phenomenology of specific affects and emotions involved in a specific pattern help us expand our understanding of the nature and function of attachment behaviors/relationships? Such questions should be examined in large samples of normally developing children from the age of 11 and in clinical samples of children with different types of mental disorders in the same age groups. Such studies may contribute to improvements of AC measures and attachment measures, which may enhance the assessment of both AC and attachment behaviors in typically and non-typically developing children.

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Received, September 17, 2017
Final Acceptance, January 9, 2018