Human Emotional Development

William H. Jackson
bjackson@plata.com
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Human Development (EdPsy 503),
Educational Psychology, College of Education,
University of New Mexico, Albuquerque, New Mexico, USA

Abstract

This paper explores the development of emotion from birth to adulthood. Relationships regarding the emergence of emotional responses & behaviors are compared to other aspects of cognitive development, and finally, some speculations of application and further investigation are considered.

"Charles knew the plan had gone terribly wrong the moment he walked into the room. Carolyn was sitting on the window seat, her knees cradled tightly in her arms, as she looked out towards the broad streaks of crimson and pink of the autumn sunset. He saw the slackness of her face and knew at once that she recognized none of the beauty. Steeling himself to what he must do, he straightened his shoulders, forced a smile, and moved forward – knowing all too well his eyes would betray the deception . . . . . "

Human beings have an incredibly rich and complex emotional life that provides value to our experiences, motivation to our actions, and a dimension of communication beyond spoken words. In the narrative above, we do not yet know what has happened or why the individuals are responding this way, but we can already detect some of the emotions and motivations of each character. We can also infer that the individuals are mature enough to experience complex emotions and able to recognize those emotions in others. This capacity of emotion, as with other aspects of human development, emerges as an immature quality in infancy, expands through childhood and adolescence, where it blossoms in adulthood, full of subtlety and abundance. Researchers have identified a number of events regarding emotion as a person develops which are based on a variety of approaches, theories and philosophies.

Categorizing and Describing Emotions

There seems to be no limit to the number of possible ways researchers describe and organize emotions. Their use of labels and classifications of emotions may range in number from as few as two (Schlacter, Singer, Jampolski) to as many as 40 or more. (Solomon, Hevner) They may represent emotions as a tree structure (Shaver) or a wheel (Hevner, Thompkins, Plutchik, Larson). They may describe emotions in traditional terms of affect, (love, fear, anger) or in terms of behavior, (aggression, flight, laughter) or in terms of physiological sensations (goose bumps, shivers down the spine, stomach sensations). Some researchers view the emergence of emotions as the result of cognitive abilities, and where processes such as object permanence, self-recognition, short-term memory are required in order to experience emotion (Campos, Campos & Barrett, 1989). Others prefer to view the experience of emotions as triggers that make the development of cognitive abilities possible (Abe & Izard, 1999). Fox and Calkins (2003) describe the nature of emotion as a psychological state of specific duration accompanied by behavior, and which is the result of cognitive appraisal or evaluation regarding a change in the environment.

Infancy

Self regulation & Emotion Regulation

In the very young, assumptions concerning the state of emotional maturity are limited due to the infant's communicative ability. Newborn expressions consist mainly of distress and relaxed interest (Craig & Baucum, 2002, p.205). They are driven by the desire to seek a balance between over-stimulation and under-stimulation (Craig & Baucum, 2002, p.206) and they learn very quickly that they can control their environment by influencing their caregivers. Ways that infants manipulate and regulate their environment are typically characterized by vocal and facial indices that are presumed to reflect emotions and the ways parents respond provides a history and basis for emotion control (Fox & Calkins, 2003; Campos, Campos & Barrett, 1989).

Facial Imitation

Neonates have a seemingly remarkable ability to imitate facial expressions (Craig & Baucum, 2002, p.177) however, the breadth of these expressions is somewhat limited. Interest, joy, sadness and anger account for more than 95% of an infant's facial expressions (Abe & Izard, 1999) and even though the expressions emerge early, they are only reliably coded towards the end of the first year (Fox, 1991). Reliable observation is also confounded in that coding is associated with a defining event (Fox, 1991). When an infant smiles in conjunction within a typically happy situation, it is assumed that the child is happy, but not if the child smiles while sleeping. Whether the very young infant actually feels the emotions they are displaying, or the behavior is strictly a physiological reflex, the phenomenon is shaped by the caregiver and is instrumental in developing and sustaining early attachment between infant and parents (Craig & Baucum, 2002, p.178). The mother uses the infant's expressions to regulate interactions, continuing the interaction when expressions of joy or interest are present, and altering her behavior when negative expressions are displayed (Abe & Izard, 1999).

Attachment

At around two to seven months, infants are able to recognize different faces and display behaviors indicating discrimination toward primary caregivers and away from strangers (Craig & Baucum, 2002, p.206). In what Abe and Izard (1999) call the second developmental milestone in infant development, attachments between the infant and the caregivers are formed through synchronized, "one-on-one" interactions, which are facilitated by the "social smile."

Not surprisingly, along with the emergence of this caregiver attachment, they are now showing signs of stranger anxiety and separation anxiety. (Craig & Baucum, 2002, p.210) According to the discrepancy hypothesis, they experience anxiety when they become capable of detecting departures from the known or expected. (Craig & Baucum, 2002, p.210) Coincidentally, expressions of fear, anxiety and anger at separation serves the adaptive function of deterring those actions by the care giver and keeping the caregiver ever-present (Abe & Izard, 1999). Thus, the emotions associated with attachment lay the foundations for the establishment of mutual cooperation, and other social and cognitive competencies later in development.

Emotion Communication

At around three to ten months, we begin to see the emergence of playful, intentional, non-verbal communication. Looking at each other, playing short games, taking rests (Craig & Baucum, 2002, p.206) become part of the infant's social activity. By the end of the first year, infants are able to receive important information regarding their environment and behavior (Abe & Izard, 1999). This can be quite handy now that the child is becoming much more mobile. They are cruising at nine months, standing at twelve months and walking without support at thirteen months (Craig & Baucum, 2002, p.170) and by recognizing expressions on their mother's face, they can more confidently indulge a curiosity or avoid a painful experience. These social referencing behaviors show that infants are able to recognize the emotional state of another person and know that the emotion is directed at a person, object or behavior (Abe & Izard, 1999). In addition, where experimental "failures" in social referencing are reported, this could be the result of the child's ability to detect differences between authentic and role-played displays of expression (Campos, Campos & Barrett, 1989) thereby, indicating a truly remarkable sense of observation, discrimination and interpretation.

Early Childhood

Sense of Self & Empathy

During the toddler and preschool period, children develop a clear sense of self and respond emotionally to the actions of others (Craig & Baucum, 2002, p.228). Socially oriented emotions such as pride, shame, embarrassment, guilt, and empathy emerge. (Craig & Baucum, 2002, p.205) and children begin to display friendship, caring and empathy (Craig & Baucum, 2002, p.289) indicating that they are able to recognize some of the behaviors normally associated with emotion in others. Although behaviors associated with empathy have been observed in newborns that cry in response to the cry of another infant, true empathy emerges gradually as children are able to distinguish the self from others. (Abe & Izard, 1999) It is also during this time that the development of memory improves, probably through better encoding abilities and new symbolically represented concepts can be recalled and applied to new situations (Craig & Baucum, 2002, p.259). Perhaps this

ability enables the child to more easily associate situations and behaviors of others with previous personal experiences and emotions.

Autonomic Communication

Humans naturally display indicators of embarrassment through blushing, anger through flushing, intense sadness through tears, fear through vocal tension, and surprise through pupil dilation (Campos, Campos & Barrett, 1989). The ability to recognize when these emotions are present can be very helpful when dealing with other people. In the ages between two and four, children become able to discern what caregivers want from them and modify behavior to meet expectations (Craig & Baucum, 2002, p.206). Cognitively, they are moving away from centration and egocentrism, which gives them a greater ability to see things from another person's perspective and also grasp more than one quality simultaneously (Craig & Baucum, 2002, p.252). They begin to display a sense of humor and are now able to understand that one event, like a race, can cause one person to feel happy and another to feel sad at the same time.

Middle Childhood Years

Self-evaluation & Self-esteem

Self-evaluative emotions become more important in the middle and late childhood years (Abe & Izard, 1999) as social interactions and relationships shape the emergence of self-concept. Self-concept in turn provides a filter for their own behavior and the behavior of others (Craig & Baucum, 2002, p.254). Younger children have a tendency to inflate their self-perceived characteristics and abilities, whereas children in middle childhood tend to be more modest and realistic which is attributed to an increased ability to make social comparisons, relate concepts and include the perspectives of others (Abe & Izard, 1999). Accurate and realistic assessments of their performance and abilities are now essential because they are quickly forming groups, and developing shared norms and values (Craig & Baucum, 2002, p.371).

Metacognition

Memory and metacognition show considerable development during middle childhood (Craig & Baucum, 2002, p.237) and children are beginning to perceive themselves in "trait-like" concepts. They are moving away from describing themselves in terms of isolated and concrete characteristics and possessions, and towards terms involving higher order generalizations of abilities, interpersonal characteristics and qualities (Abe & Izard, 1999). They are also beginning to associate their understanding of causal relationships to "attribution-dependant" emotions rather than "outcome-dependant" emotions (Thompson, 1987). For example, second graders will attribute the emotion of "happy" to a story character if something good happened to the character (outcome-dependant). Fifth graders on the other hand, will attribute the emotion of "pride," "grateful" or "surprised," depending on whether the good outcome was attributable to personal effort, the actions of another, or luck (attribution-dependant).

Children towards the end of middle childhood are moving away from moral-realism into what Piaget describes as moral-relativism (Craig & Baucum, 2002, p.357). They have the ability to conceptualize self-evaluative emotions such as shame, guilt and pride (Abe & Izard, 1999). This, along with their other-person-perspective abilities, allows them to speculate on how they would feel in hypothetical situations as an individual within a social group (Abe & Izard, 1999).

Adolescence

Adolescence is a time of dramatic change in a person's physical body, cognitive abilities, and emotional perspective. This is the time when sexual love emerges, with all the joy, exhilaration, pain and anguish that go along with it. It is also when most people choose an identity for themselves.

New Ways of Thinking

Cognitively, adolescents are moving into formal operational thinking, which is Piaget's final stage of cognitive development, which includes abstraction, speculation, and possibilities independent of the immediate environment or situation (Craig & Baucum, 2002, p.397). This heightened self-consciousness manifests itself in imaginary audiences, foundling fantasy, and personal fables (Craig & Baucum, 2002, p.400) and leads to more penetrating self-examinations, which in turn can activate negative emotions such as fear, sadness, and disgust (Abe & Izard, 1999). Experiencing these negative emotions may not necessarily be a bad thing. Links have been found between low levels of negative emotions and contracted self-structures (similar to foreclosure), advanced self-structures and both positive and negative emotions, and positive emotions in adolescents functioning at more mature levels of ego development (Abe & Izard, 1999).

Adulthood

In young adulthood, individuals have most of the cognitive and emotional skills and abilities to assume their full place in society. There are, however, some emotional tasks yet to deal with. They must come to terms with their multiple identities as worker, family member, and individual. They must complete their emotional, attitudinal, functional and conflictual separation from their birth family, and they must learn how to form close adult relationships (Craig & Baucum, 2002, p.479). All of the skills and abilities described in the sections above are now in place and we are now able to cope, although at varying degrees, with the challenges, joys and tragedies that lay ahead.

Summary and Discussion

A clear and concise picture of just what emotions are, and how they work, continues to be debated and perhaps consensus will never be achieved as long as researchers view them through the lenses of cognitive, behavioral and other seemingly incompatible paradigms. That has never stopped the poets and it will certainly not stop researchers, but it does make things confusing.

Establishing causality from correlational observation is always difficult and trying to determine whether emotion triggers cognition or cognition is required to enable emotion is no exception. The case can be, and is, made both ways and much more research using multiple methods and coming from different philosophical perspectives will be necessary in order to approach understanding in this area.

Emotion is a fundamental part of the human experience, which appears to be tightly linked to cognition and seems to follow interrelated developmental paths of regulation, communication and behavior. As the child grows from infancy, the emotional repertoire expands in scope and quality so that by the time a person reaches adulthood, a complete symphony of emotional sensations and expressions is fully in place.

I believe that just as cognition and communication are connected to a person's learning readiness, emergent emotional capacity may also be employed to more wisely present material in an effective and appropriate sequence. For example, many students struggle unsuccessfully with concepts of advanced algebra and perceive themselves as dumb when perhaps the true limitation is that they have not developed some of the abstract cognitive abilities necessary for the concepts. Similarly, introducing emotionally complex material, like the diaries of Ann Frank, to primary school student might be unwise because those children do not possess the emotional sophistication to grasp the instructor's lesson. On the other hand, Izard might suggest that specific emotions could be targeted and developed in order to trigger the cognitive capabilities necessary for students to grasp abstract ideas, such as algebra, earlier.

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