

How Emotions Develop In Different Ways

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Cognitive processes are the many activities through which the brain receives, selects, interprets, stores, and uses information from the surrounding environment. Attention, perception, memory, language, reasoning, and decision-making do not operate in isolation; they interact continuously and allow people to understand situations and adapt their behavior. The original essay emphasizes that these cognitive processes are strongly influenced by emotion. That idea should remain central because emotions are not separate disturbances added to otherwise rational thought. They influence what people notice, how they interpret events, what they remember, which actions seem urgent, and how they evaluate possible outcomes. An emotional response may include subjective feeling, physiological arousal, facial and bodily expression, action tendencies, and changes in attention. Regulation of emotion refers to the intrinsic and extrinsic attempts to influence which emotions occur, when they occur, and how they are experienced or expressed. Some regulation is deliberate, such as reinterpreting an insult, while other regulation occurs automatically through learned habits, attentional biases, or environmental cues. (Gross, 1998, 2015; Pessoa, 2008)

The original discussion also distinguishes biological or non-cognitive explanations from appraisal-based explanations. This distinction is valuable, although contemporary emotion science usually treats the two as interacting rather than mutually exclusive. Some emotional reactions can begin rapidly through sensory and physiological systems before a person forms a detailed conscious interpretation. A sudden noise may produce startle, increased heart rate, and muscular tension before the source is identified. At the same time, the meaning assigned to the event shapes whether the resulting state becomes fear, irritation, relief, or amusement. Emotions therefore develop through the coordination of bodily states, neural processing, past learning, social context, and appraisal. The same event can produce different emotions in different people because they evaluate its relevance, controllability, fairness, familiarity, and likely consequences differently. (Lazarus, 1991; Scherer, 2001)

Emotional Responses and Appraisal

Emotional responses are reactions to situations that matter to a person's goals, needs, values, or relationships. The situation may arise from the physical environment, another person, a remembered event, an imagined future, or an internal bodily change. Appraisal theories argue that emotions develop through evaluations of what an event means for well-being. These evaluations may be conscious and verbal, but they can also be rapid and partly automatic. A student who sees an examination paper may appraise it as a threat because failure seems likely, as a challenge because preparation has created confidence, or as irrelevant because the result carries little personal importance. The external event is similar, yet the appraisal produces different emotional tendencies.

The original essay correctly notes that the intensity of an emotion does not depend only on the event itself. It depends on the individual's interpretation along appraisal dimensions. Common dimensions include novelty, pleasantness, goal relevance, certainty, responsibility, fairness, coping potential, and compatibility with social norms. Anger is more likely when harm is judged unfair and caused by another person, whereas guilt may develop when the individual accepts responsibility for violating a personal standard. Fear often involves uncertainty and low perceived control, while relief occurs when a threatened outcome no longer appears likely. These patterns help explain why emotional development cannot be reduced to physiological arousal alone. A racing heart may accompany fear, excitement, anger, exercise, or illness. The experienced emotion depends partly on how the person understands the bodily state and the situation in which it occurs.

The Process Model and the Structural Approach

The original essay identifies two approaches for explaining appraisal and emotional development: the process model and the structural approach. A process approach asks how an emotional episode unfolds across time. An event is encountered, attention is directed toward particular features, the person interprets their meaning, and coordinated changes emerge in experience, physiology, expression, and action. Emotion regulation can enter at different points in this sequence. A person may choose or avoid a situation, modify it, redirect attention, reinterpret its meaning, or alter the outward response after the emotion has developed. Gross's process model of emotion regulation describes these different points of intervention and helps explain why some strategies have different consequences. Reappraisal occurs relatively early by changing meaning, while suppression occurs later by attempting to hide expression after the emotional response is active.

A structural approach focuses less on the chronological sequence and more on the components or appraisal dimensions that distinguish one emotional state from another. It asks which pattern of evaluations is associated with anger, sadness, shame, fear, pride, or joy. These dimensions form a structure through which different emotions can be compared. The two approaches are compatible. The process model explains when and how evaluation and regulation occur, while the structural approach describes the content of the evaluations that organize the final emotional pattern. Together, they preserve the original essay's argument that people may interpret a situation before deciding how to feel, but they also correct the suggestion that this always happens as a slow, conscious decision. Much appraisal is immediate, learned, and outside full awareness.

Conscious Cognitive Control

Many forms of cognitive control that influence emotion are conscious or at least available to conscious guidance. People can notice that anger is interfering with a conversation, pause before responding, and choose words that reduce conflict. They can shift attention away from a threatening image, reconsider whether another person intended harm, or remind themselves that one poor result does

not define their ability. These actions involve executive functions associated with goal maintenance, inhibition, task switching, error monitoring, and flexible adjustment. The original essay lists conflict resolution, response inhibition, correction mechanisms, and task switching as activities connected with conscious control. That remains a useful description because emotional regulation often depends on keeping a longer-term goal active while resisting an immediate impulse.

Conscious regulation is not effortless. It requires attention and working-memory resources, which may be weakened by fatigue, stress, intoxication, illness, or competing demands. A person may know that reappraisal would be helpful yet be unable to generate an alternative interpretation during intense distress. Development also matters. Children gradually acquire language, inhibitory control, perspective-taking, and knowledge of social expectations, allowing more complex regulation. Adults and caregivers initially provide external regulation by soothing, labeling feelings, setting limits, and modeling responses. Over time, these interactions contribute to internal strategies. Emotional development is therefore cognitive and social as well as biological.

Unconscious and Automatic Emotional Processing

The original essay also emphasizes that some cognitive processes and emotional reactions are activated by stimuli outside conscious awareness. Research on automaticity shows that environmental cues can influence attention, evaluation, and behavior without a person being able to describe every intermediate step. Familiar facial expressions may be processed rapidly; previously learned associations can bias interpretation; and a word or image presented briefly may facilitate a related response. Bargh and Morsella argue that unconscious processes can be sophisticated, although conscious thought has distinctive capacities for planning, integration, and deliberate control. The important point is not that an unconscious system makes complete decisions independently of the person. It is that conscious awareness receives information after substantial processing has already occurred.

Automatic emotion regulation can also develop through repetition. Someone who has repeatedly practiced slow breathing, attention shifting, or compassionate interpretation may begin to use the strategy with less deliberate effort. Conversely, repeated avoidance can become automatic and maintain anxiety. A person may leave a social setting before consciously recognizing fear because previous relief has reinforced escape. These examples show why learning changes the relationship between cognition and emotion. Practice can make useful control more efficient, but it can also strengthen unhelpful habits. The original claim that unconscious information processing becomes stronger with learning should therefore be understood as increasing automaticity: frequently practiced associations and task sets can be activated quickly with less conscious supervision.

Task-Set Preparation and Priming

Task-set preparation refers to the mental configuration that prepares a person to perform a particular kind of judgment or action. Before reading a word, for example, a participant may prepare to judge its meaning, sound, emotional tone, or spelling. Cues can activate these task sets consciously, while some experimental primes may influence readiness without full awareness. The original essay uses phonological and semantic judgment as examples. This is relevant to emotional development because the task a person is prepared to perform changes what becomes salient. Someone prepared to detect threat will notice ambiguous danger cues more readily, whereas someone prepared to identify cooperation may interpret the same interaction differently.

Priming effects should not be exaggerated. They are generally sensitive to experimental design, awareness, expectations, and context. An unconscious cue does not remove agency or compel complex behavior. It may alter the speed or probability of a response under particular conditions. Emotional life is shaped by many such small biases interacting with deliberate goals and environmental constraints. A defensible account therefore avoids the claim that unconscious priming makes a person feel the exact opposite emotion in a predictable way. It is more accurate to say that prior activation can facilitate or interfere with task performance and can shift the processing of emotional information.

Physiology and the Brain

Emotions involve coordinated activity across distributed neural and bodily systems rather than one isolated “emotion center.” Structures including the amygdala, insula, hippocampus, hypothalamus, striatum, anterior cingulate cortex, and prefrontal regions contribute differently according to the task and emotional state. The autonomic nervous system changes heart rate, respiration, sweating, and digestion, while endocrine responses influence energy and arousal. These bodily changes provide information that can intensify or shape subjective experience. However, similar physiological patterns can occur across several emotions, and brain regions participate in multiple functions. It is therefore misleading to identify one region as the sole location of fear, anger, or love.

Cognitive control and emotional processing are also not housed in completely separate systems. Prefrontal networks can alter the interpretation and expression of emotion, while emotional significance influences memory, attention, and decision-making. Ochsner and Gross describe regulation as interactions between systems that represent emotional value and systems supporting control. Pessoa similarly argues that emotion and cognition are deeply integrated. This supports the original essay’s observation that task-irrelevant emotional processing can impair cognitive control. A distressing image, worry, or conflict can compete for limited attention, slowing task performance even when the emotional information is unrelated to the person’s immediate goal.

How Emotions Develop Across Childhood

Emotional development begins before children can describe feelings in language. Infants show basic patterns of distress, interest, pleasure, and arousal and depend heavily on caregivers for regulation. Through repeated interaction, they learn whether signals receive comfort, whether the environment is predictable, and how adults respond to frustration. Language later allows children to name emotions, distinguish causes, discuss mixed feelings, and use verbal strategies. Cognitive growth supports understanding that another person can feel differently about the same event and that outward expression may differ from internal experience.

Social rules influence which emotions are encouraged, hidden, or redirected. Families and cultures differ in how they interpret independence, restraint, pride, anger, and public sadness. These differences do not mean that emotions are entirely learned or culturally arbitrary. Human beings share biological capacities, but social experience organizes when and how those capacities are expressed. A child repeatedly punished for showing fear may learn concealment without losing the underlying feeling. Another child may learn to discuss fear and seek support. Emotional development thus reflects temperament, caregiver responsiveness, language, peer experience, cultural expectations, and opportunities to practice regulation.

Learning to Regulate Emotional Responses

The original essay concludes that human emotions can be controlled and altered through constant learning and practice. This conclusion should be qualified. People can influence emotional responses, but control does not mean choosing every feeling at will. Attempting to eliminate unwanted emotions can sometimes increase distress or encourage avoidance. Effective regulation involves understanding the emotion's information, deciding whether it fits the situation, and selecting a strategy that supports important goals. Fear may signal danger, guilt may encourage repair, and anger may identify perceived injustice. Regulation becomes necessary when the intensity, duration, expression, or action tendency is unhelpful.

Strategies include situation selection, problem solving, attention deployment, reappraisal, acceptance, social support, and response modulation. Reappraisal can reduce emotional intensity by changing interpretation, while suppression may reduce visible expression without reducing internal arousal and can interfere with communication when used habitually. No strategy is universally best. Distraction may be useful during an uncontrollable medical procedure, whereas problem solving is more appropriate when the stressor can be changed. Emotional flexibility—the ability to select and revise a strategy according to context—is more valuable than rigid dependence on one technique.

Conclusion

Emotions develop in different ways because biological reactions, physiological arousal, cognitive appraisal, unconscious processing, conscious control, learning, and social context interact. The original essay's distinction between process and structural approaches remains useful: one explains how an emotional episode unfolds and can be regulated, while the other identifies the appraisal patterns that differentiate emotional states. Conscious cognitive control supports inhibition, correction, conflict resolution, and flexible behavior, but emotional information can also influence performance automatically through attention, priming, and learned task sets.

Emotion and cognition should not be treated as opposing forces. Emotional relevance guides thought, and cognitive interpretation shapes emotion. Through development and practice, people can become more skilled at recognizing feelings, reconsidering appraisals, managing expression, and choosing actions consistent with long-term goals. They cannot prevent every emotional response, nor should they try. The more realistic aim is to understand how a response developed and regulate it in a manner appropriate to the situation.

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