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Emotion, Detection of

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The *detection of emotion* is the act of perceiving emotional states in other people and oneself. For example, when Kate listens to a friend's apology, she wants to know, "Is he really genuine? Does he feel guilt or sadness or something else?" To figure out what her friend is feeling, Kate could attend to the look in his eyes, his body posture, his tone of voice, or the words he chooses. Kate could also draw on situational knowledge to help her interpret his feelings, as well as on her past experiences and cultural knowledge about emotion in general.

By relying on these various cues or *signals*, and the context in which they occur, Kate—or anyone—is able to detect what another person is feeling with some degree of accuracy. This entry describes what emotion detection is, from both a classic and a contemporary perspective, and explains how people come to detect emotions in others and themselves.

The term *detection* harks back to signal detection theory, which was first developed by the military for reading radar screens and later applied to psychology. In this classic framework, the information being conveyed is the *signal*, the person receiving the signal is the *observer*, and the person projecting the signal is the *sender.* Applied to emotion detection, signals can be nonverbal (e.g., facial expressions, posture, gestures, or actions) or verbal (e.g., tone of voice or word choice). Successful emotion detection occurs when the emotion felt by the sender produces strong, clear signals and the observer successfully separates the emotion signal from nonrelated signals or *noise.* According to this classic interpretation of emotion detection, emotion signals are unambiguous, and most observers can successfully identify the sender's emotion.

Contemporary Views

Several shifts in scientists' thinking about emotion detection have occurred over the last half-century. First, scientists today talk about *emotion perception* rather than emotion detection. Evidence from psychology and neuroscience suggests that much of what an individual sees, hears, and feels is actually an imperfect representation of reality filtered through the lens of prior experience, motivation, attention, and cultural knowledge. Just as tinted lenses in eyeglasses transform one's subjective experience of colors, so, too, do previous experiences, motivation, attention, and cultural knowledge transform how people perceive and experience others' facial, vocal, and bodily changes as specific emotions.

The implication is that the observer brings as much to bear on the perception of emotion as does the sender. Indeed, research demonstrates that a person's schemas for categorizing emotions—whether derived from prior experience, linguistic categories, or cultural values—shapes what emotions he or she perceives in others.

Second, scientists today recognize that emotion signals themselves are inherently "noisy." Sometimes when a person is angry she scowls, but at other times she could smile, cry, or do nothing. Thus, an emotion does not necessarily map onto specific signals in a perfect 1:1 manner. This variability of signals means that observers need to rely more on context in interpreting emotion signals than classic detection theory assumes. For instance, a frown in one context might mean a person is sad, but in another context, that the person is pensive. For this reason, the situations in which emotions occur are as influential in signaling what someone is feeling as are changes in his face, body, or voice.

Finally, researchers today acknowledge that emotion perception does not occur just between two people. It also occurs when individuals try to understand what emotion they feel in their

own bodies. For example, Dan might realize that he is nervous when observing his sweaty hands and clenched stomach on the way to a blind date. Although the focus of this emotion perception is internal rather than external, research suggests that the same psychological mechanisms apply: An observer detects and makes meaning of somewhat ambiguous signals in light of the situational context and his or her emotion schemas.

The process by which an observer detects his or her own bodily signals is known as *interoception.* Whereas some people are highly sensitive interoceptors, others are not. For instance, some people are good at detecting their own heartbeats, whereas others are unable to do this. As in emotion perception in others, individuals can rely on social knowledge and the situation to clue them in about the meaning of body states. In one context, a quickly beating heart might be experienced as fear, in others, excitement, and in still others, merely evidence of ingesting too much caffeine.

Just as detecting emotion in others, emotion detection in oneself can resemble probabilistic guesswork. For example, people whose hearts beat quickly after walking over an unsteady suspension bridge are likely to find a person at the end of the bridge attractive—in this case, individuals misinterpret a racing heart as attraction toward another person rather than fear at crossing the bridge.

Emotion perception is a nuanced process with sweeping implications for individual and social functioning. Without the ability to perceive emotions, people would be limited in their ability to know their feelings and to relate to others. Indeed, some mental disorders are characterized by an inability to understand one's own or others' emotions. On the other hand, individuals with greater ability to perceive emotions generally have better mental, physical, and social outcomes. Fortunately, research shows that emotion perception—whether in oneself or others—can be learned, providing all individuals with the ability to understand the emotional world within and around them.

See alsoEmotion, Expression of; Emotional Intelligence; Perception and Cognition; Signal Detection Theory; Social Cognition

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Further Readings

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