

## Moods, Emotions, and Traits

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In response to Question 1 (Are there basic emotions?), I described a number of characteristics that distinguish emotions from other affective states (see also, Ekman, 1992). Here I will focus on how moods differ from emotions, describing a number of features that distinguish one from the other.

Moods can be distinguished from emotions in terms of their time course and therefore presumably also in terms of what should be found in the neural circuitry that directs and maintains each of these affective states. What we call moods last much longer than emotions. While there is no agreement about how long an emotion typically lasts, most of those who distinguish emotions from moods recognize that moods last longer. I have maintained (Ekman, 1984) that emotions can be very brief, typically lasting a matter of seconds or at most minutes. When we speak of an emotion lasting for hours, we probably are summing the recurrent emotion episodes within that time period. Moods last for hours, sometimes for days. If the state endures for weeks or months, however, it is not a mood but more properly identified as an affective disorder.

Those who rely solely on lexical distinctions to conceptualize the domain of emotion may be confused about this distinction (Ortony & Turner, 1990) since laypeople do not always use language precisely. While the term "irritable" may refer to a long-lasting mood as distinct from the related but briefer emotion of anger, it is not always used in that fashion. Irritable may also be used to refer to low-intensity anger or to the beginning of an anger episode. What people say, particularly what they say on questionnaires or interviews when they are not having the emotion they are describing, is interesting but should not be the only or the definitive data source for distinguishing among affective states. If we closely examine expression and physiology during emotion episodes, I believe we will find it possible to distinguish single emotion episodes and multiple emotion episodes from sustained moods. I think also that if we were to talk to a person when a person is experiencing a mood or in the midst of an emotion episode we would find that people can then make the distinctions I am proposing.

Although it is the most obvious difference, duration is not the sole criterion for distinguishing moods from emotions. Moods seem to lower the threshold for arousing the emotions, which occur most frequently during a particular mood. When a person is in an irritable mood, for example, that person becomes angry more readily than usual. Events that might ordinarily not be as likely to bring forth anger now do so easily. In an irritable mood people construe the world around them in a way that permits, if not calls for, an angry response. It is as if the person is seeking an opportunity to indulge the emotion relevant to the mood. The research has not been done to determine whether the person in an irritable mood is in a continuous low level of anger, which readily is provoked to more intense outbursts, or if instead it is a difference in threshold and related cognitive appraisals that characterizes the mood. Perhaps all of this occurs during a mood.

Another feature that distinguishes moods from emotions is the apparent difficulty in modulating an emotion if it occurs during a mood. Presumably, a person in an irritable mood will not be as able to modulate an episode of anger as that person would be if not in an irritable mood. Not only should the anger during an irritable mood be more intense and less controlled, it should decay more slowly.

Another feature distinguishing moods from emotions is that moods do not own their own unique facial expression while many of the emotions do. One infers an irritable mood by seeing many facial expressions of anger, but there is no distinctive facial expression of irritability itself, nor is there for any other mood, or for that matter for emotional traits, or affective disorders. Perhaps there is a distinctive unique vocal signal for each mood, but no one has yet identified one. More likely, there might be a particular pattern of facial tonus measurable with electromyography that could distinguish one mood from another, but this would not be an observable signal.

While it seems evident that a mood potentiates a particular emotion (anger for irritability, positive emotions when in a euphoric mood, sadness when in a blue mood, fear when in an apprehensive mood), I do not know of research that has actually examined this possibility using expressive or physiological measures. Nor has there been any exploration of whether a mood inhibits the likelihood of eliciting a nonrelevant emotion. Is the irritable person less able to experience disgust, contempt, sadness, or fear? Or just sadness and fear? Or just positive emotions that are harder to arouse?

Another feature differentiating moods from emotions is what calls them forth. Although I know of no direct evidence to support my claim, I propose that people usually can specify the event that called forth an emotion, and often cannot do so for a mood. The event that calls forth an emotion may be in the environment, a memory, or imagined. To say that a person can specify what called forth their emotional reaction is not to suggest that people typically are aware of the event provoking the emotion as it is called forth. Sometimes they are, particularly when the event unfolds slowly, but often the awareness of the source of the emotional reaction occurs afterward, or during the emotional episode. Moods are more opaque in this regard.

I suggest two different ways in which moods are brought forth. First, and most obviously, moods can be brought forth by changes in one's neurohormonal, biochemical state. It is beyond my expertise to specify just what those internal chemical

changes are, beyond proposing that they involve phenomena that have a longer life than the internal changes that sustain emotions. Lack of sleep and lack of food are two obvious physiological changes that would in turn change one's internal chemistry, but this may occur also on a cyclical basis, more obviously for premenopausal women, but presumably for males as well, and at other ages for both sexes. It is common in children and adults for a lack of sleep to lead to an irritable mood. Parents call it crankiness when it is manifest in their children. I have seen instances, however, when a lack of sleep can instead cause hilarity, if a pleasing event occurs before irritability becomes manifest.

There may be a second, quite different route for arousing a mood. I propose that moods can be generated by a *dense* emotional experience. By "dense" I mean an occasion in which a specific emotion is called forth at very high intensity, again and again, with little time between each evocation. Suppose someone insults you and you become very, very angry, but before the anger completely subsides the person insults you again, and again, and then again. You experience intense anger repeatedly with only a few seconds in between bursts of anger. In such a dense emotional occasion, I presume a threshold is crossed that produces a biochemical change that then sustains a mood. In my example, the subsequent mood after a series of insults would be irritability that could last for hours. I suspect that if the expression of the emotion is inhibited, for one reason or another, then the likelihood of generating a mood is enhanced. Observation suggests that this is so for negative but not for positive emotions. Again in my example, if you were not able to express your anger, if the person insulting you had power over you so that you had to inhibit your angry expressions, that would increase the likelihood that you would be in an irritable mood afterwards.

Space does not allow me to do more than raise the question of how moods are related to emotional traits, such as hostility, euphoria, shyness, melancholia. While everyone has an irritable mood from time to time, not every one is a hostile character. We do not know how or when these emotional traits arise, or whether they endure over the entire life span. Nor do we know if people with a particular emotional trait can be characterized as having a very high incidence of the related mood.