

## CHAPTER 12

# *Emotions*

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*Man is said to be a reasoning animal. I do not know why he has not been defined as an affective or feeling animal. Perhaps that which differentiates him from other animals is feeling rather than reason. More often I have seen a cat reason than laugh or weep. —de Unamuno*

These words, from the Spanish philosopher Miguel de Unamuno (1864–1936), are shots fired in a long-standing cultural battle over the importance of the emotions.

On one hand, Western culture is steeped in a *sentimentalist* tradition that takes emotions to be of utmost importance to human flourishing. We often are told that a life stripped of emotion would be a life stripped of meaning. One way to see just how central to humanity we take emotions to be is to consider how science-fiction writers portray *inhumanity*. Think of famous fictional robots such as Lieutenant Commander Data, the Terminator, or the robots in Steven Spielberg's *A.I.* They're all presented as emotionless. Emotional robots, like the *Star Wars* droids, seem less like computers and more like humans with metal bodies. It's not easy to write a story about a bizarrely incomprehensible alien with a rich emotional life. The more we can empathize with a creature, the less incomprehensible and less inhuman it becomes. At least in science fiction, emotions are what distinguish us from mere objects.

In counterpoint to this sentimentalist cultural tradition is a *rationalist* tradition that treats emotions as irrational and bestial. For the rationalist, negative emotions such as fear, anger, jealousy, and sadness are the root of much pain and strife. They must be overcome. Plato (427–347 BCE) depicts the passions as a wild horse that must be reined in by a charioteer. Even positive emotions can be bad. Love, hope, satisfaction, and excitement feel good, and can even be virtuous in many cases, but they also can blind us to seeing the world as it is. Emotions get in the way of reason. As Oscar Wilde (1854–1900) writes in *The Picture of Dorian Gray*, “the advantage of the emotions is that they lead us astray, and the advantage of science is that it is not emotional” ([1890] 2015, 27). Worse still is that emotions produce bad behavior and so are used to excuse bad behavior. We lose control of ourselves when enraged, so laws give exemption to those inflamed by passion. For the responsible adult, emotions are animal impulses to be tamped down. “Civilized people don't *feel*,” writes British author Mervyn Peake (1911–1968) in “Synopsis: Over the Border, or The Adventures of Foot-Fruit” (2011, 209).

This cultural ambivalence, whipsawing between valorization and vilification, calls for investigation into the emotions. What are emotions exactly, and what do they do for us? Why have they evolved? What would a creature without emotions be like? What's the

difference between emotions and other mental states? How many kinds of emotions are there? Unfortunately, the cultural inconsistency that calls for investigation also has forestalled investigation. Scientists choose what to study according to perceived importance, so a divided attitude toward the importance of emotions means that scholarly attention has also been divided. The histories of philosophy and science have been occasionally streaked with rich analyses of emotion, but on the whole, academic attention has focused on “cold” rather than “hot” cognition.

Happily, we are in the midst of a boom period. The philosophy and psychology of the emotions are now robust fields of study. This chapter considers some of the major discoveries that have been made and some of the debates that still characterize the field.

The first section of this chapter examines different sorts of affective phenomena, including emotions, moods, and sentiments. The second section considers the evaluative nature of the emotions. How do emotions differ from nonemotional mental states, such as belief and perception and imagination? And how are various sorts of emotions, such as envy and happiness and embarrassment, individuated from one another? The third section considers nature and nurture. Do people in different cultures experience different emotions? Some theorists say yes: emotions are socially constructed. Others hold that emotions are universal, each the product of a particular neural system that has developed in response to evolutionary pressures. Finally, the fourth section looks at various psychological components of emotions.

## TYPES OF AFFECTIVE PHENOMENA

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Try to give a definition of *emotion*. You won’t do a good job. As the cognitive psychologists Beverly Fehr (1958–) and James Russell (1947–) write, “everyone knows what an emotion is until asked to give a definition. Then, it seems, no one knows” (1984, 484).

This difficulty is partly due to the fact that it’s hard to give a definition of any term. But this isn’t the whole story. It’s not easy to even pick out what counts as an emotion. Some cases are clear enough: anger, fear, sadness, joy. But what about contempt or relief? What about hope or desire? Is curiosity an emotion? Or courage? Or boredom? Or pain, or nausea, or the feeling of achievement? Or angst, or religious awe, or the feeling of being watched? Different theorists have had different opinions about what qualify as real emotions. As of the writing of this chapter, Wikipedia lists eighty-one different pages under the category “emotion.” Should all of them count? It’s not obvious.

According to Thomas Dixon in *From Passions to Emotions* (2003), the word *emotion* is actually of fairly recent invention. For most of English-speaking history, terms such as *passion* or *sentiment* were used instead, and these terms were used in slightly different ways and to denote slightly different mental phenomena. For instance, the word *passion* typically referred to mental phenomena that included desire, pleasure, and pain. These are no longer usually considered emotions. (The word *passion* emphasizes the passive nature of these mental states. They are things that happen to us, not actions that we perform.) Many other languages have no perfect translation for the word *emotion*.

Because our ordinary conceptions of emotion are a bit of a mess, our investigation must begin with some janitorial duties. The first step to clean up our understanding of the

affective domain is to distinguish among three sorts of affective phenomena: *emotions*, *moods*, and *affective dispositions*.

Let's start with emotions and moods. They are both affective episodes with a conscious, phenomenal character. What's the difference between the two? What's the difference between sadness (an emotion) and depression (a mood), or between anger (an emotion) and grumpiness (a mood)?

A standard answer is that emotions have *targets* or *intentional objects*. Emotions are *of* things or *about* things. This means that they exhibit what philosophers call *intentionality*. The intentional object of an emotion is what that emotion is about. (Don't confuse this sense of the word *intentional* with the sense that means "on purpose" or "by choice." This is a different meaning of the word.)

Here's an example. If an angry dog is bearing down on you, you might become scared *of* the dog. In this case, the dog is the intentional object of your fear. You can be angry at your professor, or envious of your friend's new car, or disgusted by the smell of rancid milk in the back of your fridge. Emotions can even be about other emotions. You can be ashamed of your fear, for example. Emotions about other emotions are *meta-emotions*.

Emotions appear to vary in the types of entity that they can take as permissible targets. Some emotions take material things in the world (such as dogs or professors) as their intentional objects. But only some emotions seem to work this way. We can admire or hate or fear a person; but we cannot *regret* a person. Instead, we can regret *actions* (or inactions). Alternately, we can regret *that* we were unkind to a friend. Emotions that can be described using *that*-clauses can have propositions as their targets.

There is some debate over whether all emotions should be construed as having propositional targets. Perhaps saying that you're scared of the dog coming at you is shorthand for saying you're scared *that* the dog is coming at you or *that* the dog might attack you. Yet, there seems to be no principled reason to think that all emotions must be propositional, and some emotions such as admiration are difficult to interpret as taking propositional objects.

Importantly, emotions exhibit one of the primary features of intentionality: intentional inexistence. A child can be scared of ghosts even though ghosts do not exist. Cases of intentional inexistence illustrate in dramatic form that a distinction can be made between the cause of an emotion and the object of an emotion. The child's fear of ghosts is obviously not caused by ghosts, as ghosts do not exist and so have no causal powers. This distinction holds even in cases in which the target of an emotion does exist. My fear of global war might be the result of a newspaper article I read about nuclear stockpiles. But I am not scared of newspapers. The article is the cause but not the object of my fear.

How about moods? Moods typically are thought to differ from emotions in that they lack intentional objects. If you are grumpy or depressed or elated, you need not be grumpy or depressed or elated about anything in particular. Moods have causes, of course: social stressors such as unemployment can cause depression. But as we've seen, causes aren't intentional objects. To say that an episode of depression is caused by unemployment is not to say that the depression is *about* unemployment.

We also should be careful to distinguish moods from associated emotions. Moods sometimes appear to be world-directed and have intentional objects when they *lead* to

emotions. If I am grumpy, I might become angry at slow drivers on the road ahead of me. Anger, but not the grumpiness itself, is directed at the drivers.

Some philosophers dispute this: they think that moods do have intentional objects. But even if they are right, the intentional objects of moods would be quite different from the intentional objects of emotions: they would be general or vague. If the mood of depression always has an intentional object, then it often will have something to do with the world or existence at large.

Moods and emotions are mental episodes (or synonymously, mental events). They have a duration, they have an onset, they wax and wane, and they come to a conclusion after a duration. Moods are usually longer lived than emotional episodes, which are brief. Both are typically thought to have qualitative or phenomenal character: this means that there is something that it feels like to have them. Not all mental episodes have phenomenal character. Judging something to be the case is a mental episode, but it is not obvious that there is anything that it is like to make a mathematical judgment.

These emotional episodes are to be contrasted with emotional *dispositions*. Suppose that I tell you that I am scared of spiders. I'm probably not undergoing an episode of fear right at that moment. My heart isn't racing; my pupils aren't dilating; I'm not running around shouting, "Get them off! They're in my eyes!" Rather, I'm communicating something to you about how I *would* feel when confronted with spiders. I'm telling you that I'm *disposed* to experience an episode of fear when I'm presented with a spider.

Other emotions also have dispositional versions. If I tell you that Liam is angry at his bandmates, he needn't be occurrently experiencing anger. He might be thinking about something else, he might be concentrating on a video game he's playing, or he might even be asleep. Most adjectives used to attribute emotions (such as "scared" or "angry") are ambiguous between episodic and dispositional readings.

These sorts of emotional dispositions are structurally simple, but other types of affective dispositions are more complex. *Sentiments* are dispositions to feel many different kinds of emotion in many different kinds of circumstances.

Take love. Is love an emotion? There are certainly such things as loving feelings: feelings of closeness and tenderness. Perhaps even nonhuman animals have these sorts of experiences: mother cats are protective of kittens in their litter and will cuddle them. But usually, when we speak of love, we mean something more than just feelings of tenderness. If you truly love your wife, you'll be disposed to worry if she is in danger, feel proud if she succeeds, feel grief if she suffers, feel hurt if she betrays you, and so on. If you lack all of these dispositions and simply have the disposition to feel tenderness when your wife is around, it's awkward to say that you really love her. Mother cats are protective of their kittens, but they will eat them if they become sickly. Can we truly be said to love someone if we're disposed to eat them when they fall ill?

It seems like we have at least two notions of love. There's a notion that is captured by an emotional episode of tenderness, but there is also a much more robust sentiment of love that requires us to feel many different sorts of emotions toward the object of our love. Sentiments such as love are what Gilbert Ryle (1900–1976) called *multitrack dispositions*: dispositions that manifest themselves in many different ways. The philosopher Ronald de Sousa (1940–) notes that for nearly any emotion you can think of—rage, grief, hope, amazement—it is fairly simple to come up with a story in which that emotion is a manifestation of love. He thus calls love a *syndrome* (clearly delighting in the medical connotation).

*Character traits* or *personality traits* are also multitrack dispositions, and many character traits, such as courage or honesty, are affective dispositions. Not all of their manifestations are affective. If I say that Abe is honest, I imply (among other things) that Abe is disposed to tell the truth when questioned. That's just a disposition to behave in a certain way. It's not a disposition to feel an emotion. But true honesty also entails certain emotional manifestations on top of those behavioral manifestations. For example, in situations when honest Abe is forced to lie or hide the truth from others, he will feel ashamed or guilty.

Let's sum up: the affective domain can be carved up into affective episodes and affective dispositions. Among affective episodes are emotions and moods. Emotions always have specific intentional objects; moods often do not. Among affective dispositions are emotional dispositions, sentiments, and character traits. The former two have intentional objects, but character traits do not.

Emotion words in ordinary language are usually ambiguous between these different phenomena. We must be careful not to confuse them.

## EMOTIONS AS EVALUATIONS

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Now that we've considered what makes various kinds of affective states different from one another, let's move on to two related questions. What makes various types of emotion different from one another? And what makes affective states different from nonaffective states?

Two different emotions can share the same intentional object. I can be amused by the clown that frightens you. What makes my emotion amusement and yours fear? The obvious answer has to do with the fact that the emotions affect us in different ways. I'll laugh and lean in for a better view; you'll sweat and search for an exit. Later in the chapter, we'll take a closer look at the physiological and motivational effects of emotion. For now, there is a more general way of describing the difference between our two emotions—a way that explains *why* we have different behavioral responses.

Fear and amusement differ in *how they present* the clown to us. When I am amused by the clown, my emotion presents the clown to me as humorous and a source of jollity. When you are scared of the clown, your emotion presents the clown to you as sinister and as a threat. Our different reactions make sense as responses to different presentations of the clown. That's why we behave differently. Your affectively taking the clown to be a threat explains why you search for escape: it makes your behavior intelligible. Escape is a solution to the problem that is given to you by your emotion.

Different emotions attribute different properties to their intentional objects. The property that a specific type of emotion attributes is known in philosophy as the *formal object* of the emotion. (In psychology, it is sometimes called the emotion's *core relational theme*.) Each emotion presents its intentional object as exemplifying, or instantiating, its formal object. The term comes from the philosopher of emotion Anthony Kenny (1932–), who traces the lineage of the idea back to Franz Brentano (1838–1917). (Brentano is also the philosopher who introduced the term *intentional object*.)

Emotions are not the only mental states to have formal objects. For example, the formal object of belief is *truth*. To believe a proposition (rather than, say, to imagine it or to hope it) is to take it as true.

By taking a close look at the sorts of formal objects that emotions have, we can get a good sense of what distinguishes affective states from nonaffective mental states such as belief. Let's run through some emotions and their formal objects. (There is room for some disagreement about the precise characterizations of these formal objects, but these are relatively standard.)

1. Fear presents its object as a threat.
2. Amusement presents its object as comical.
3. Shame presents its object as degrading to oneself.
4. Disgust presents its object as repugnant or as toxic.
5. Anger presents its object as offensive or as obstructive.

Interestingly, the formal objects of emotions are all *evaluative* (or *axiological*) properties. That is to say, emotions always evaluate their intentional objects as being positive or negative: good or bad in a particular sort of way.

This is not true of nonaffective mental states. Beliefs present propositions as true, but truth is not an evaluative property. We now have answers to the two questions that opened this section. Emotions differ from nonaffective states in virtue of having evaluative formal objects. And emotion types can be individuated from other emotion types by their having different types of evaluative properties as their formal objects. Different kinds of emotions are different kinds of evaluations.

## VALENCE

The evaluative nature of emotions helps to explain the psychological notion of *valence*. Emotions have long been classified as being either positive or negative. Positive emotions include joy, amusement, admiration, pride, and wonder. Negative emotions (more numerous by far) include anger, envy, disgust, guilt, and fear. Positive emotions are said to have positive valence and negative emotions are said to have negative valence.

Debates persist about how to best understand valence. A common way—perhaps the most intuitive way—has to do with whether emotions feel good or bad. The pleasure or displeasure that accompanies an emotion is often called the emotion's *hedonic tone*. (The word *hedonic* comes from the ancient Greek word *hēdonikos*, meaning “pleasure.”) Pleasant emotions have positive hedonic tone, and unpleasant emotions have negative hedonic tone.

In plenty of cases, however, the hedonic tone of an emotional episode does not match its intuitive valence. Many people delight in being scared. That's why horror movies exist. What do we want to say about the hedonic tone of these instances of fright? To make things more confusing, many emotions seem to have mixed hedonic tones. Nostalgia is a clear case: it combines pleasant memories with an unpleasant recognition that you can't go back again. Even an emotion as straightforward as anger was described by Aristotle (384–322 BCE) as having both a pleasurable and painful component. The pain of being offended is balanced by the pleasure of the prospect of revenge.

These challenges make the hedonic tone analysis of valence difficult to maintain. So, valence is sometimes explained in a different way: by reference to the sorts of actions that the emotion prompts. On this theory, emotions are positive when they encourage approach; emotions are negative when they encourage avoidance. This, however, is not a great solution either. Emotions generate a huge variety of behaviors that can't reasonably be thought of as sorts of approach or avoidance. Moreover, sometimes negative emotions lead to approach

and vice versa. Rage often prompts confrontation; it can lead you to wade into a fight with fists flying. Is that not a sort of approach?

No, the best way to explain positive valence and negative valence is by appeal to the way in which the emotions evaluate their objects. Positive emotions with positive valence evaluate their intentional objects positively, and negative emotions with negative valence evaluate their intentional objects negatively. That is to say, positive emotions present their objects as exemplifying positive values; negative emotions present their objects as exemplifying negative disvalues. An episode of anger might feel good and it might lead to approach, but it represents its object as offensive, and being offensive is a particular way of being bad. That's why anger is a negative emotion.

Before moving on, a note should be made about surprise. Surprise is classically thought to be an emotion. It doesn't seem to have valence, however. Some surprises are positive, others are negative, and others are neutral. It's sometimes said to be the unvalenced emotion. This also seems to be the verdict that we get if we look at the formal object of surprise: surprise presents its intentional object as novel or unexpected. But being unexpected is not, on the face of it, an evaluative property. Different theorists have different responses to this conundrum. Some think that surprise is an exception to the otherwise general rule that emotions are valenced. Others think that surprise really does have either a positive or negative valence, and they try to construct an argument to this effect.

### EVALUATIVE JUDGMENTS AND EVALUATIVE PERCEPTIONS

The idea that emotions are evaluations of the world around us is not new. Aristotle defined anger as a reaction to offensive slights, for instance. However, there are a number of ways of understanding the claim. Let's consider three broad classes of theory about what it means for an emotion to be an evaluation.

The first of these theories are known as *judgment theories of emotion*. Judgment theories hold that emotions are evaluative judgments. So, for example, my anger at you is simply my judgment that you have offended me in some way. The ancient Stoics thought of emotions in this way.

This account faces some problems. Judgments seem to have more cognitive sophistication than emotions and less motivational force. Judgments also seem to have a different phenomenological feel than emotions do: the judgment that you have offended me need not feel anything like a bout of anger, and perhaps not like anything at all. Emotions have various physiological and behavioral effects that other judgments do not have. And most important, it is possible to feel an emotion even though you judge things to be otherwise. I can know full well that it's extremely unlikely that my plane will crash, and rationally judge that I'm as safe as safe can be up in the air, and yet still be terrified. Judgment says one thing; emotion says another.

This example suggests an analogy with perceptual illusions. If you show me an optical illusion such as the Müller-Lyer illusion in Figure 12.1 (developed by

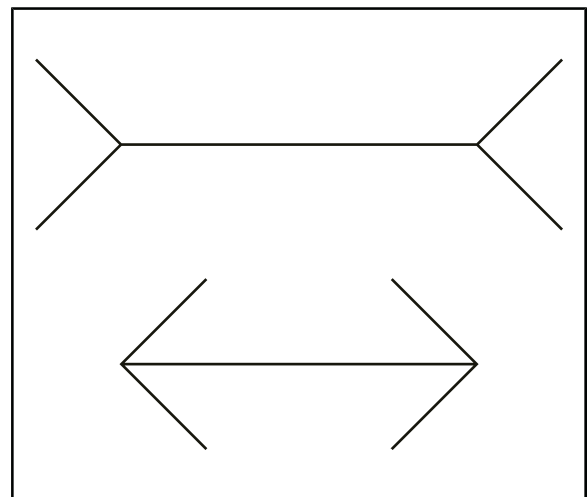


Figure 12.1. Müller-Lyer illusion.



German sociologist Franz Carl Müller-Lyer [1857–1916]), I can know full well that the lines in the illusion are the same length even though they look different. Judgment says one thing; perception says another.

This leads to the second type of theory: *perceptual theories of emotion*. Perceptual theories hold that emotions are evaluative perceptions, or perceptions of value. My anger at you is my perception that you have offended me. In the same way that a rose can visually appear red, a tiger can emotionally appear dangerous, and the similarities run deep enough that it makes sense to talk about emotion as being a sort of perception.

Perceptual theories don't face the same problems as judgment theories. For instance, following these theories, it makes sense to talk about being scared of something that you know is not dangerous. The theory would claim that this is literally a perceptual illusion. They do face other challenges, however. For instance, it is possible to be angry about things far away or far into the future, and this suggests a disanalogy with standard perception, which demands a causal link. And as we will see in the next section, it seems to make sense to speak of emotions being rational or irrational, as they are responsive to evidence; it does not make sense to speak of typical perceptions as rational or irrational.

Perhaps the biggest problem for both judgment and perceptual theories is that they require fairly weighty conceptual and representational capacities. To judge that something is offensive or to perceive something as offensive requires representing offensiveness. Babies, cats, and rats can all be angry. Do we want to say that they all have the concept of offensiveness or can represent offensiveness? This may be too cognitively sophisticated for them.

Thus, a third alternative is to say that emotions are not a type of judgment or perception, but rather that they belong to a category all their own. They are *sui generis*.

This option gets around the problem of cognitive sophistication. On *sui generis* theories, formal objects need not be conceptualized or represented. Remember that the formal object of belief is truth. Most cognitive scientists are happy to ascribe beliefs to nonhuman animals such as cats. We needn't say that this means that cats have a concept of truth or a representation of truth. Rather, it simply means that when cats believe things, they are taking those things to be true. Similarly, we needn't say that an angry cat has a concept of offensiveness or a representation of offensiveness (as both the judgment and perceptual theories would require). Rather, we simply can say that the cat takes the object of its anger to be offensive. Offensiveness is to anger as truth is to belief.

## EMOTIONS AND EPISTEMOLOGY

Talking about the formal objects of emotions gives us the power to talk about various ways in which emotions can go wrong. When we experience an emotion and its intentional object does not exemplify its formal object, then the emotion is deficient in some way.

Here's an example. The formal object of fear is dangerousness. What if I experience fear in response to something that is not actually dangerous? What if I'm scared of a cute little mouse who poses no threat to me at all? This is a case in which something has gone wrong. My fear is presenting the world to me inaccurately, and so I'll become behaviorally primed to respond to a problem that does not actually exist. I'll jump on a chair and yell "Eek!" That does me no good. It'll just be embarrassing.

When an emotion is directed at an intentional object that exemplifies the formal object of that emotion, the emotional episode is said to be *correct* or *veridical*. When I am scared of



a tiger that actually poses a threat to me, my fear is correct. Otherwise, as in the case of my fear of a cute little mouse, the emotion is incorrect. Formal objects provide us with the *correctness conditions* of our mental states.

Once again, an analogy can be drawn with belief. A belief also goes wrong when its intentional object (a proposition) does not exemplify its formal object (truth). When I believe a false proposition, I have a false belief. Beliefs, however, can go wrong another way. Beliefs can also be *unjustified* or *irrational*. Some beliefs are true though unjustified: if I capriciously believe that an even number of planets in the universe exist, my belief might well be true even though it's not justified by any evidence. Other beliefs are justified though false: if I bought a sandwich yesterday and placed it in the fridge, I'm justified in believing it's still in there today even if a burglar sneaked in and ate it last night without my knowledge.

The study of justification and rationality is known as *epistemology*. What does epistemology have to say about the emotions? There is a long-standing tradition that takes emotions to be mere feelings or appetites, insensitive to will and reason, and not potential items of justification. In his 1738 opus *A Treatise of Human Nature*, the philosopher David Hume (1711–1776) famously wrote, “’Tis not contrary to reason to prefer the destruction of the whole world to the scratching of my finger” (1975, 416). He was expressing the opinion that although his beliefs were subject to norms of rationality and justification, “the passions” lie outside that realm altogether.

In ordinary life, however, it is normal and natural to speak of irrational emotions. Irrational fear, irrational hatred, irrational envy, even irrational happiness: we speak of these sorts of things often, and we usually aim to quash them when we find them in ourselves.

Most twenty-first-century philosophers of emotion agree: emotions can be rational or irrational, justified or unjustified. An emotion that is justified is said to be *fitting* or *appropriate*. Note that appropriate emotions aren't necessarily ones that are socially best, morally best, or in your own best interests. If your boss insults you and his comments are offensive, anger might be entirely rational and fitting. However, it might be in everyone's best interests for you to calm yourself down, just so you don't blow up at him and get yourself fired. Sometimes, the practical thing to do—or even the moral thing to do—is to have irrational emotions.

So, what does it take for an emotion to be appropriate and rational? An emotion is correct (or veridical) if its intentional object in fact exemplifies its formal object. An emotion is appropriate (or fitting) if it is *supported by evidence* that its intentional object exemplifies its formal object.

Here's an example. Suppose that I recently read that mice in my area are infected with a hantavirus (a particularly nasty virus that mice can transmit to humans with devastating results). I now have good reason to think that mice in my region are dangerous. So, when I next see a cute little mouse and it inspires an episode of fear in me, my fear is justified and appropriate. If that particular mouse does not carry a hantavirus, the fear is not correct, but it is appropriate. My fear is akin to a false but justified belief.

## NATURE AND NURTURE

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Let's now turn from questions about the general structure of emotions to questions about the particular types of emotion that exist.

How many emotions are there? We have so far focused on a few stereotypical emotions: fear, anger, disgust. But perhaps this is clumsy and brutish. Some people think that this sort of language does not respect the subtleties of emotional experience. Consider this paragraph, from the novel *Middlesex*, by Jeffrey Eugenides (1960–):

Emotions, in my experience, aren't covered by single words. I don't believe in "sadness," "joy," or "regret." Maybe the best proof that the language is patriarchal is that it oversimplifies feeling. I'd like to have at my disposal complicated hybrid emotions, Germanic train-car constructions like, say, "the happiness that attends disaster." Or: "the disappointment of sleeping with one's fantasy." I'd like to show how "intimations of mortality brought on by aging family members" connects with "the hatred of mirrors that begins in middle age." I'd like to have a word for "the sadness inspired by failing restaurants" as well as for "the excitement of getting a room with a minibar." (2002, 217)

The online site The Dictionary of Obscure Sorrows is dedicated to inventing new words for perceived holes in our emotion vocabulary. "Adronitis" is frustration with how long it takes to get to know someone. "Vemöдалen" is the fear that everything has already been done. "Sonder" is the realization that each random passerby is living a life as vivid and complex as your own.

Are there only a few emotions, or is there an evolving tapestry? This debate is closely related to the nature-nurture debate. The view that there are only a few basic emotions often is held by those who think that nature has bequeathed us with just a few innate, dedicated emotion systems, forged through evolution. The view that an enormous, ever-shifting multiplicity of emotions often is championed by those who think that emotions are human-made and culture-bound. Social constructionists about emotion hold that different cultures and different societies experience completely different sorts of emotions. We'll tackle these theories in turn.

### BASIC EMOTION THEORIES

In the summer of 2015, Pixar released its fifteenth cinematic animated film: *Inside Out*. The movie takes place largely in the head of Riley, an 11-year-old girl whose family has just moved to San Francisco. Five personified emotions—Joy, Sadness, Anger, Fear, and Disgust—must help her cope with the trauma of leaving her Minnesota home.

The film was a return to form for Pixar, garnering lot of critical praise and media attention. Among the accolades, many reviewers commented on how scientifically accurate the movie was, and how many things about emotion it got right. These critics didn't mean that we literally have colorful little homunculi voiced by Amy Poehler (1971–) and Mindy Kaling (1979–) bopping around in our heads. What they meant is that the psychological structures and functions represented in the movie were scientifically well informed, such as Sadness's function in processing pain and strengthening relationships. Pixar's selection of the particular emotions was often mentioned. The five emotions chosen reflected the *basic emotion theory* of Paul Ekman (1934–), an influential psychologist in the affective sciences who also served as a consultant on the film.

The idea behind basic emotion theories is that we each have faculties for a small collection of simple emotions, and these simple emotions can be used to construct more complex emotions. Basic emotions are like chemical elements out of which molecules can be built, or toy building bricks, which can be used to assemble skyscrapers. Sometimes the metaphor of "blending" is used instead: basic emotions are like primary colors, and nonbasic emotions are like secondary colors.

There is something intuitive about this idea. Emotions such as guilt or awe or nostalgia feel more complex than emotions such as fear or disgust or surprise, and we are less willing to attribute them to more psychologically primitive creatures. Basic emotion theories have been around for a long time in psychology and philosophy. Theorists of the past have been keen to declare lists of basic passions, although they rarely agreed on the particular inventories. René Descartes (1596–1650) counted six: love, joy, hate, sadness, desire, and admiration. He thought that other emotions could then be derived: fear, for instance, is the belief that it is unlikely one will attain what one desires. The Stoics counted four basic emotions: delight, distress, desire, and fear. Hume counted around ten; John Locke (1632–1704), eleven.

Ekman counted six basic emotions at first: the five represented in *Inside Out*, and surprise. (The makers of *Inside Out* didn't include Surprise because they thought it played too similar a role to Fear in the narrative.) He settled on these six after conducting a series of studies on facial expressions among the Fore, a preliterate people living in New Guinea.

Ekman's investigations were inspired by a work of Charles Darwin's (1809–1882) from 1872, *The Expression of the Emotions in Man and Animals*. Darwin asked Englishmen living abroad to report whether people in remote corners of the world, relatively untouched by Western society, made facial expressions that were readily identifiable as expressions of emotion. The reports he received were affirmative, suggesting that the facial expressions were innate, not learned. This was an innovative piece of cross-cultural research.

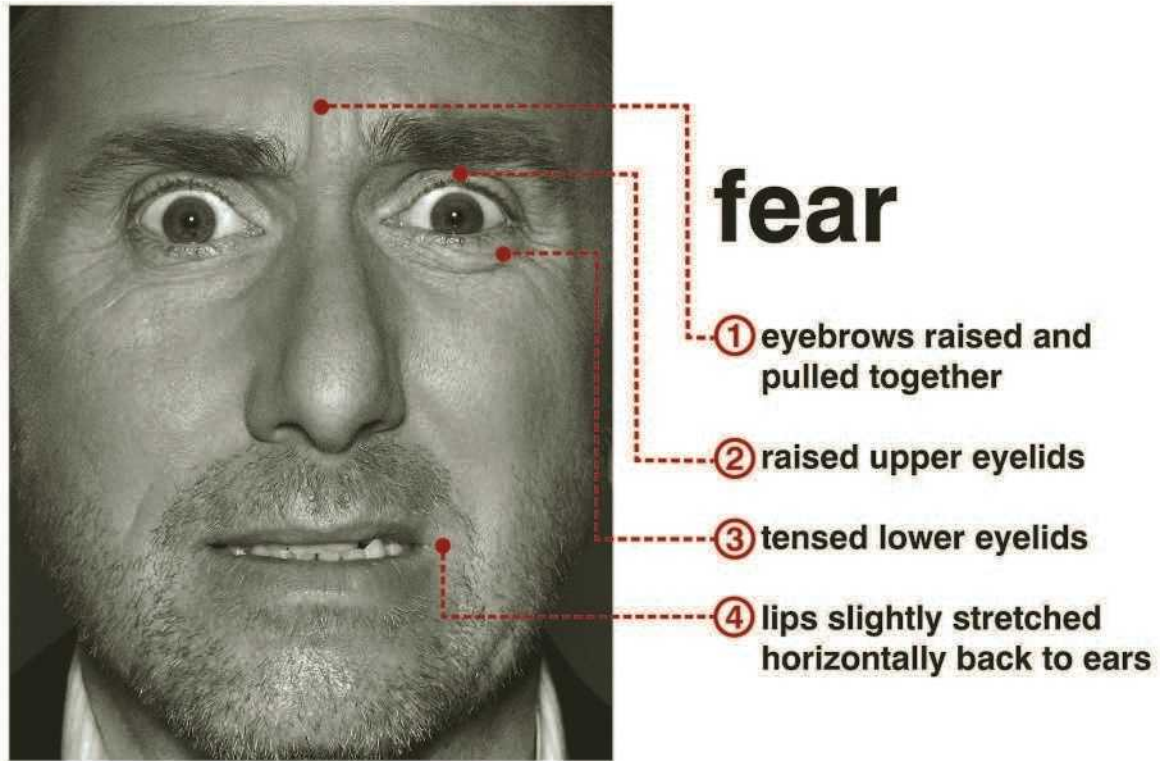
Of course, Darwin had to rely on imperfect testimony. Ekman wanted to more conclusively prove the universality of emotional expression. In the early 1970s, Ekman found that the Fore displayed the faces we associate with familiar emotions, even though they could not have learned these expressions from Western media. Fear resulted in raised eyebrows and open mouth and eyes, just as elsewhere.

This was evidence that these emotional expressions were universal. Ekman took the argument one step further: the expressions must be universal because the emotions that cause them must be universal. He proposed that the emotions he identified were *basic*. Although Ekman identified only six dedicated emotional expressions at first, he later added contempt; his list has since expanded to fifteen emotions. The popular understanding of Ekman among nonspecialists, however, is that he discovered that there are only six basic emotions from which all others could be derived.

Ekman's method of measurement places a lot of emphasis on facial expression. (Ekman later went on to study the "microexpressions" that can reveal hidden emotions. He is the inspiration for the protagonist of the crime drama *Lie to Me*, in which a psychologist solves crimes by studying subtle facial expressions.) For Ekman, emotions are the executions of "affect programs": innate and universal programs that cause a pattern of bodily changes to take place. These include changes in facial expression, muscle changes, hormonal changes, and physiological changes.

The idea of universal affect programs has been popular. Many have argued that each emotion has *neurological specificity*: that is, dedicated neural circuitry responsible for that emotion. Fear is closely associated with activation in the amygdala; disgust is associated with activation in the insula; sadness is associated with the subcallosal anterior cingulate cortex.

These areas are hypothesized to contain innate neural structures that have evolved specifically to deal with specific environmental challenges. When dangerous things are around, it makes sense to lock into a fight-or-flight-or-freeze response, so animals have evolved a brain structure specially tuned to detect danger and to prepare the organism to deal with it.



**Lie to Me.** Promotional image from the Fox television show *Lie to Me*, illustrating facial clues that indicate feelings of fear. WENN LTD/ALAMY STOCK PHOTO.

Emotions, on this sort of theory, bear the features of *modularity*. They're automatic and can't be controlled by the will, they're quick, they're restricted to a certain function, and they work independently from other systems. Thus, basic emotion theories tend to posit that emotions are implemented by *mental modules*: psychological structures that are dedicated to processing a specific sort of information.

Many basic emotion theorists maintain that this sort of theory vindicates the idea that emotions are *natural kinds*. Exactly what it means for a category to be a natural kind is a subject of hot philosophical disagreement, but the general idea is that natural kinds are groupings that reflect the structure of the natural world, not the interests of human beings. Natural kinds, it is said, carve nature at the joints.

What we've now seen is that basic emotion theorists attribute a number of different features to emotions. Let's collect these features in a list. Basic emotion theories tend to hold that—

- A small number of basic emotions exists.
- Basic emotions are the executions of affect programs with fixed behavioral and physiological outputs.

- Basic emotions are universal and cross-cultural (and often cross-species).
- Basic emotions have dedicated neural structures or circuits.
- Basic emotions are innate and hard-wired.
- Basic emotions are modular.
- Basic emotions are adaptations, selected to solve specific evolutionary challenges.
- Basic emotions are natural kinds.

It's worth pointing out that although all of these features tend to be grouped together, they don't imply one another and they don't have to go together. One can think that emotions are adaptations without thinking they are modular. Or, one can think that some emotions are basic without thinking that they are innate. Still, the aforementioned features are compatible and often held together. In the psychological literature, the term *basic emotion theory* often is used to refer to whatever sort of theory holds that many or most of the listed features are true.

### CHALLENGES TO BASIC EMOTION THEORIES

The main argument against basic emotion theories is an argument from *variability*. Basic emotion theories predict a lot of uniformity and universality in emotions. According to a number of studies and researchers, however, there is much more variability among expressions and effects of emotion than standard theories would let on. Russell (2009) argues that there have been systematic failures to find evidence that would vindicate basic emotion theories.

For instance, although we often smile when happy and frown when sad, there are plenty of times in which we don't. According to Russell, we tend to *notice* the expressions and effects that fit our intuitive concepts of emotions, but reality is not nearly so neat. Happiness causes smiling more often in social situations than when alone; it seems we use smiles as a form of targeted social communication. So, there can't be anything nearly as simple as a program that simply says, "If the happiness module is activated, then smile." The picture must be much more complicated than one involving a module with a simple input-output mechanism, and these complications cause problems for a lot of basic emotion theories.

Even neurological regularities are suspect. In a meta-analysis of neurological studies, Kristen Lindquist and coauthors (2012) found little evidence that discrete emotion categories could be reliably associated with activity in distinct brain regions. Every alleged "emotion area" of the brain also showed increased activity without there being a nonemotional episode. This problematizes the claim that these brain areas are dedicated circuits for the processing of emotion.

Such studies challenge the idea that any particular brain region is either necessary or sufficient for emotion. The existence of universal basic emotions generated by dedicated neural circuits often is taken by the media and by pop journalism to be established fact, but in reality, it's an open question whether the brain implements modules for basic emotions.

### SOCIAL CONSTRUCTION AND SOCIAL CATEGORIES

Diametrically opposed to basic emotion theories are *social construction theories*. These theories reject the thesis that emotions are innate and universal. Rather, they hold that there is great variation in emotion, and this variation is explained by cultural variation. Different

cultures have different emotions, and this is because emotions are learned (or, at least, culturally induced).

Do other cultures experience emotions that people in Western cultures don't experience? It's certainly true that some emotion words are hard to translate. But we must be careful. Cultures might have different words for emotions, but this doesn't mean members of that culture have different emotional experiences. A number of online sites list non-English emotion words that are allegedly untranslatable—which they then proceed to translate into English.

Earlier, we encountered people who coin new words for concepts such as “the fear that everything has already been done.” These aren't really new types of emotion. They're just emotions with specific intentional objects. Someone might want to coin a word for the sadness inspired by failing restaurants, but that's just sadness directed at a certain sort of thing, not a new emotion kind. Similarly, *schadenfreude* is a German word that means “satisfaction in another's pain,” but this just describes satisfaction with a particular target.

Thus, it can sometimes appear that different cultures experience unfamiliar emotions, when what they really experience is a familiar emotion directed toward something we consider an unusual target for that emotion.

Nonetheless, some cultures have emotions that are difficult to understand in this way. The Japanese word *amae* refers to something like a feeling of dependence and an affective presumption of another's benevolence. (Some Americans say they experience this emotion once it is brought to their attention.) *Malu* is a term used in areas of Malaysia that overlaps with embarrassment and shame but also can be elicited simply by being around a person with higher social status. These are candidates for culturally specific emotions.

And even when there is a conventional translation between two emotion terms in two different languages, the experience and the expression of the emotions can vary dramatically. Modern readers of Greek tragedies often find the characters' grief to be bizarre. There are frequent references to people rending their garments, pulling out their hair, rolling around on the ground, and going for days without eating. This might seem theatrical to us, but such intense performances might have been unthinking and automatic to people of the time. Perhaps calling this a display of grief is actually a subtle mistranslation. It's an emotion similar to grief, but it's not grief (*Griekf*, perhaps).

James R. Averill, one of the more prominent social constructionists about emotion, holds that emotions are *transitory social roles* and that social constructionism about emotion rests upon three claims:

1. Emotions are complex syndromes of diverse, semiautonomous components.
2. No one component is essential to the whole.
3. Social beliefs and rules are the main organizing principles by which the various components are organized into wholes.

The idea is this: we contain all sorts of componential processes from which emotions can be built: physiological responses, motivational prompts, facial expressions, stimulus sensitivities, and so on. These get packaged together into emotional episodes, but what determines which components get packaged together in a person are that person's emotion concepts and beliefs about emotion.



So, for instance, if my cheeks flush and I interpret this as part of an episode of anger, then I'll start behaving in ways that adhere to the culturally specific anger script. Someone belonging to a culture with different emotion concepts might interpret the cheek-flushing differently and then behave differently.

Some evidence suggests that self-interpretation can influence the course of an emotional episode. In a famous experiment by Stanley Schachter (1922–1997) and Jerome Singer (1934–2010) titled “Cognitive, Social, and Physiological Determinants of Emotional State” (1962), participants were injected with a drug. They were told that it was called “Suproxin” and that the experiment would test their eyesight. In reality, the participants were injected with epinephrine, which increases arousal. The subjects' faces flushed and their hearts pounded.

Soon after, the participant was asked to answer a questionnaire. Another “test subject” in the room (actually an actor) would display emotion. In some of the cases, the actor would express anger and frustration with the questionnaire; in other cases, the actor would goof around and make paper airplanes. In cases in which the participant was injected with epinephrine, he or she was more likely to adopt the emotion expressed by the actor. Schachter and Singer interpreted this as evidence that arousal needs to be *interpreted* and *labeled* for the emotion to occur.

It's not obvious that this is the proper lesson to be learned from this classic experiment. It has been the subject of much controversy. Still, social constructionists have appealed to the experiment in arguing that self-interpretation is a necessary feature of emotional experience, and self-interpretation is sensitive to social pressures and cultural scripts.

## CHALLENGES FOR SOCIAL CONSTRUCTION THEORIES

Whereas the biggest challenge for basic emotion theories is apparent variability, the biggest challenge for social construction theories is apparent universality. Maybe emotions are not expressed in exactly the same way by absolutely everyone, but a lot of similarity is apparent. This is what Darwin and Ekman sought to establish in their experiments. Social constructionists have a hard time explaining how apparently learned emotions can be encountered consistently across wide cultural divides.

Emotions in nonhuman animals are especially problematic for social constructionists about emotion. Clearly, dogs and mice do not learn their fear responses from television commercials, and they do not engage in self-interpretation. Social constructionist theories veer toward human exceptionalism.

Moreover, the fact that self-interpretation can influence emotion is not necessarily evidence for social construction. Even basic emotion theorists can allow that self-interpretation affects emotional experience. If I think I'm getting angry, I might divert my attention to make myself less angry. Or, my self-interpretation might cause me to fixate on the offensive properties of an object, which will make me even more fed up. In these cases, self-attribution isn't *necessary* for the existence of a type of emotion in the first instance: it doesn't change how the component processes are packaged. Rather, self-interpretation simply influences which emotions will subsequently develop.

Finally, social constructionists may also err in linking emotions too tightly to how they are expressed. Maybe I will start behaving angrily if I take myself to be angry, but that just determines how I behave, not what emotion I undergo. The psychic pain that the ancient Greeks felt when a loved one died wasn't expressed quite like modern grief,



but that does not necessarily mean they didn't feel grief. They just let it out in a different way. The next section touches on whether emotion expression is essential to emotion individuation.

Basic emotion theories and social construction theories represent extreme end points on a spectrum. Basic emotion theories are threatened by apparent variability in the features of an emotion type; social construction theories are threatened by apparent universality in emotion features. Of course, the truth might lie somewhere in the middle. It might be that no emotion is implemented by a dedicated module, nor is any emotion determined by social rules and culturally specific concepts of emotion. It also might be that some simple emotions such as disgust have dedicated emotion modules, and other more sophisticated emotions such as shame or wonder are uniquely human and depend on social beliefs and rules.

## EMOTION COMPONENTS

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Affective scientists tend to agree that emotional episodes are multicomponent processes: they involve a lot of different mental events. Emotions involve conscious feelings, thoughts, changes in motivation and action readiness, changes in arousal, changes in the autonomic nervous system, processes of appraisal, and so on. If you fail an exam and you dread telling your parents, your heart will feel as if it's in your throat and you might become nauseated, you'll be motivated to put off the conversation, and you might imagine running away and joining the circus. These are all parts of your emotional episode.

But which of these features are *essential* to the emotion? The philosopher Jesse Prinz calls this the "Problem of Parts" (2004, 4). Suppose that you undergo all the bodily effects that usually accompany fear, but it doesn't cause you to *consciously feel* anything in particular. Someone else has to point out to you that you're sweating and shaking. Is this really fear? Or, suppose that you experience an episode that feels a lot like anger from the inside, and it causes you to scowl at the object of your experience, but it doesn't motivate you in any way or influence any of your thoughts. It doesn't inspire you to get revenge or show the other person up, nor does it cause you to imagine harming the other person. Is this really anger?

Different philosophers and psychologists have given different answers to this question. A related question concerns how these various components get packaged together and cohere. Basic emotion theories and social construction theories can be thought of as ways of giving an answer to this question. Basic emotion theories hold that for each basic emotion, a single module implements or initiates all of the relevant component processes. Social construction theories hold that component processes are activated according to social rules and concepts. The remainder of this section considers three kinds of emotion components: appraisals, feelings, and action tendencies.

### APPRAISALS

How are emotions elicited? Any theory about emotion elicitation must deal with the fact that pretty much anything can cause any emotion, depending on what the person believes and what the person cares about. If I'm watching a band play, I might feel envy if I'm a less successful musician, pride if the lead singer is my daughter, or frustration if I wrote the song and they're doing a terrible job at it.

Occasionally, emotions act like reflex responses to simple stimuli. Maybe when I'm hiking, a slithering snakelike movement out of the corner of my eye will freak me out even before I really know what I'm looking at. But these are rare exceptions. Most emotional episodes are not brute responses to stimuli as simple as redness or slitheriness. Stimuli must be cognized or represented in a certain sort of way before they can generate an emotional response.

The notion that cognition goes into the production of emotions has been the source of controversy. For a long time, emotion and cognition were considered opposites. One of the more important events in the recent history of the affective sciences was on this subject. At a conference held in 1980, Richard Lazarus (1922–2002) and Robert Zajonc (1923–2008) each gave opposing presentations. The ensuing discussions have become known as the Lazarus-Zajonc debates.

At issue was whether emotion elicitation requires cognition and inference. Zajonc believed that emotional processing and cognitive processing are wholly distinct and that emotions are not subordinate to any sort of cognitive control. On his view, emotions are responses to *pure* and *untransformed* sensory information. Lazarus, on the other hand, maintained that cognition is a necessary component of emotion elicitation. Both of the camps found plenty of defenders.

What became apparent in later years is that all of the players had different understandings of what counts as *cognition* or a *cognitive process*. When we look out into the world, light hits our retina and the information is processed. At what point does this information processing become cognitive rather than sensory? Zajonc wanted to say that the processes were sensory and not cognitive, even though the processes admittedly had to be extremely complicated and sophisticated. Emotional responses can, after all, distinguish between the threat of a letter from an academic probation officer and the tenderness of a letter from a lover. (Is language comprehension a cognitive process, or not?) Whether or not to call these processes “cognitive” was largely a semantic issue, and few today would balk at calling such processes cognitive.

In the twenty-first century, the predominant psychological theory of emotion elicitation is *appraisal theory*. (Lazarus was one of the early developers of appraisal theory.) According to appraisal theory, emotions are caused by a series of subpersonal judgments or evaluations known as *appraisal checks*. Different appraisal theories propose different sorts of appraisals, but common sorts include goal relevance, pleasantness, motive consistency, ability to be influenced, cause, whether it can be coped with, and others.

Consider the following example of how an appraisal theory might work (although there are many proposals and many variants). Stimuli around us, as well as imagined stimuli, are constantly being checked for *goal relevance*. When we are confronted with a stimulus, a primary appraisal check evaluates whether it is relevant to our goals and needs. If it is, then it is subjected to a battery of secondary questions: Is this expected or unexpected? Is it consistent or inconsistent with my motives? Do I have the potential for control over this? What is my ability to cope with this? Is its relevance certain or uncertain? Am I responsible for it, or is someone else, or is no one? The pattern of responses to these questions influences (or perhaps even fully determines) the emotion that will be experienced.

Because many of the appraisal checks are evaluative, a clear link can be made between appraisal theory and the idea that emotions are evaluative in their nature. Lazarus introduced a distinction between *molecular appraisals* and *molar appraisals*. (You might

remember from chemistry class that molar properties are properties of a mass of matter, as opposed to properties of the molecules that are parts of the mass.) For Lazarus, small individual appraisal checks are molecular appraisals. The molar appraisal is the evaluation that makes up the emotion as a whole (i.e., the evaluation that the intentional object exemplifies the emotion's formal object-core relational theme).

One subject of debate concerns whether appraisals are essential to emotion. A related debate concerns whether appraisals should be considered causes of emotion or components of emotion. Many appraisal theorists think that appraisal is the most essential part of emotion and that bodily responses are inessential aftereffects. Others think that appraisals are mere causes that don't determine what emotions are and that some emotional episodes might not be caused by appraisals at all.

Before moving on, one more note should be made about emotion and cognition. Twenty-first-century emotion theorists still sometimes talk about *cognitive theories of emotion*. It's not always clear what this means. Sometimes it is used to describe appraisal theories. At other times, it is used to describe the judgment theories of emotion, as discussed in the section "Emotions as Evaluations." (Judgment theories of emotion, remember, claim that emotions are evaluative judgments.)

Appraisal theories and judgment theories are not identical. First, judgment theories are theories about what emotions are, whereas many appraisal theories are theories about how emotions get elicited. Second, but more important, judgment theories hold that emotions are evaluative judgments at the level of the person. Appraisals typically are taken to be *subpersonal* evaluations. That is, I can't say that you, as a whole person, are making an evaluation; it is a psychological mechanism that is part of you that is making an evaluation.

## FEELINGS

Emotions have *phenomenal character*: it feels like something to undergo them. They are present in consciousness. But are *all* emotional episodes conscious? This is a matter of some dispute.

We often talk about unconscious emotions. Much of the time, however, such talk is about emotional dispositions, not episodic emotions (see the section "Types of Affective Phenomena"). When you're dispositionally angry at your roommate, you needn't be undergoing a conscious emotional experience. You needn't even be conscious at all: you can be asleep. That's not contentious. What is at issue is whether all emotional episodes are experienced consciously.

Consider another thing that we can mean when we talk about unconscious emotions. We often experience an emotion without being aware what sort of emotion we're experiencing. I might find you shouting and raging at your roommate even though you deny that you're angry with her. It might be half an hour later that you come to realize that you were angry. Therapists often help people identify and process their emotions when their emotions are not clear to them. For instance, a person can come to discover that their lack of motivation is actually the manifestation of grief. Or a therapist can help a person discover that the object of his or her anger is not what they thought it was.

There's a sense in which these sorts of unidentified emotions are unconscious: the person is not aware of his or her grief *as grief*. There's also a sense, however, in which the emotions are nonetheless conscious. Grief or anger can have phenomenal character even if you are unaware of the emotion as an emotion. Grief can impinge on consciousness and feel

a certain way even though the griever is unclear exactly what to make of this feeling and is unable to categorize it.

Some scholars think that all allegedly unconscious emotions can be explained in this way and that there are no unfelt emotional episodes. Others maintain that not all emotional episodes register in consciousness.

The particular form that the phenomenology takes also is disputed. Some philosophers have emphasized that emotions have an evaluative phenomenology. It feels to you as if you are valuing or disvaluing the world in a certain sort of way. Others have emphasized the *bodily feelings* (also known as *somatic feelings*) that accompany emotions. It's common to describe what emotions feel like by making reference to bodily states. When you are sad, your body feels heavy and leaden. When you are touched, you feel a lump in your throat and warmth in your chest. When you are dreading something, you feel queasy.

The idea that emotions *are identical* to bodily feelings is an intuitive and popular notion. It's often called the James-Lange theory, after the nineteenth-century scholars William James (1842–1910; a philosopher) and Carl Lange (1834–1900; a physician). The theory holds that stimuli cause various physiological reactions, and emotion is the feeling caused by those physiological reactions. A pithy slogan for the theory: We don't cry because we feel sad; we feel sad because we cry.

James is eloquent on the subject:

If we fancy some strong emotion, and then try to abstract from our consciousness of it all the feelings of its characteristic bodily symptoms, we find we have nothing left behind, no "mind-stuff" out of which the emotion can be constituted, and that a cold and neutral state of intellectual perception is all that remains.... Can one fancy the state of rage and picture no ebullition of it in the chest, no flushing of the face, no dilatation of the nostrils, no clenching of the teeth, no impulse to vigorous action, but in their stead limp muscles, calm breathing, and a placid face? The present writer, for one, certainly cannot. The rage is as completely evaporated as the sensation of its so-called manifestations. (1883, 173–174)

James thought that both the physiological changes and the feeling of those changes were necessary for an emotion to be experienced. Modern "neo-Jamesians," such as the neuroscientist Antonio Damasio (1944–), tend to think that the physiological changes themselves are not necessary. If it feels *as if* we are scowling and our body is flushed, that is enough for us to be considered angry. We needn't actually be scowling and flushed.

## ACTION TENDENCIES AND MOTIVATION

Other theorists link emotions closely with the actions that they inspire. In a response to James, fellow pragmatist philosopher John Dewey (1859–1952) wrote that "anger means a tendency to explode in a sudden attack, not a mere state of feeling" (1895, 17). Emotions, Dewey thought, imply a readiness to act in certain ways.

This emphasis has found modern expression in the work of Nico Frijda (1927–2015), an influential psychologist of emotion who developed the notion of an *action tendency*. Anger not only readies you for action by getting your blood pumping; it also moves you to do things that make use of that pumping blood. Emotions *motivate*. From the perspective of someone who thinks that action tendencies are crucial to emotion, an emotion with no motivational force is no emotion at all.

Not all emotions prompt physical actions. Some actions such as imagining, planning, examining, or judging are mental actions. Emotions such as envy, contempt, or admiration are more apt to inspire thoughts than they are to inspire physical behaviors. (The affective sciences traditionally have paid more attention to emotions with clear behavioral outputs. Recall that Ekman emphasized facial expression as a marker of emotion.)

Avoid buying into the popular idea that emotions cause fixed patterns of action. If I have a fear of flying and I start freaking out when on an airplane, there's no one guaranteed way in which I'll act. I'll have an extremely pressing motivation to be back on the ground, but this goal can manifest itself in my behavior in a whole bunch of different ways depending on other beliefs I have. I know that yelling at the pilot and telling her to land the plane won't work, and it'll run counter to a bunch of my other desires (including not looking like an idiot). So, I might just grin and bear it, or I might take drugs to knock myself out (a brute force way of decommissioning that unwelcome motivation). Extremely intense fear can cause me to act irrationally in a number of ways (by tunneling my attention, for instance), but it doesn't do so simply by locking me into a fixed action pattern.

Appraisals, feelings, and action tendencies are only a few of a huge number of affective processes at play in emotional episodes. Different emotion theories have made different claims about which is or are essential to emotional episodes. Perhaps none is essential, and emotions are *stereotypes*. An emotional episode is an episode of anger if it shares most of the components and features of a paradigmatic instance of anger.

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## Summary

This chapter has focused on general theories of emotion. The first two sections concerned the general intentional structure of emotions: we first distinguished emotions from related affective phenomena, such as moods, and then established that emotions are evaluative in nature. The latter two sections concerned the psychological processes that give rise to mental states with this general intentional structure.

An introductory piece such as this must by necessity ignore huge swathes of philosophical and psychological work on the emotions. Topics that haven't been addressed include the influence of emotion on moral reasoning and moral psychology, the ability of fiction and music to arouse the emotions, theories of empathy and emotion simulation, theories of emotion recognition, emotion regulation, affective neurology, affective pathologies, the role of emotions in law and politics, emotional expression in language, and epistemic emotions (such as the feeling of knowing). In addition, nearly any particular emotion, such as shame or disgust, has an enormous literature on it and it alone. The reader is encouraged to explore these issues further.

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start. *What Emotions Really Are: The Problem of Psychological Categories* by Paul Griffiths is an important philosophical work defending a modular account. For analyses of particular emotions, Robert C. Roberts's *Emotions: An Essay in Aid of Moral Psychology* is an interesting and provocative

- read. (As an example of his thoroughness, he describes the difference between seven types of fear: anxiety, dread, fright, terror, panic, horror, and being spooked.) For a more empirical perspective, *The Cambridge Handbook of Human Affective Neuroscience*, edited by Jorge Armony and Patrik Vuilleumier, and *The Oxford Companion to Emotion and the Affective Sciences*, edited by David Sander and Klaus R. Scherer, are excellent resources.
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## FILM AND TELEVISION

*A.I. Artificial Intelligence*. Dir. Steven Spielberg. 2001. A film that portrays robots without emotion (or perhaps capable of stunted emotions, depending on how one philosophically understands them).

*Inside Out*. Dir. Pete Docter and Ronnie del Carmen. 2015. An animated movie in which anthropomorphic emotions have adventures in a young girl's head. Influenced by Ekman's basic emotion program.

*Lie to Me*. Created by Samuel Baum. 2009–2011. A Fox TV crime show in which the character is loosely based upon emotion researcher Paul Ekman.

*Star Trek: The Next Generation*. Created by Gene Roddenberry. 1987–1994. A syndicated TV series in which one of the protagonists, Data, is an android who is said to not have emotions. It's interesting to watch the show while keeping an eye on whether he really is free of any affective phenomena.

*Star Wars*. Dir. George Lucas. 1977.

*The Terminator*. Dir. James Cameron. 1984.