

Jesse Prinz

## *Are Emotions Feelings?*

*The majority of emotion researchers reject the feeling theory of emotions; they deny that emotions are feelings. Some of these researchers admit that emotions have feelings as components, but they insist that emotions contain other components as well, such as cognitions. I argue for a qualified version of the feeling theory. I present evidence in support William James's conjecture that emotions are perceptions of patterned changes in the body. When such perceptions are conscious, they qualify as feelings. But the bodily perceptions constituting emotions can occur unconsciously. When that occurs, emotions are unfelt. Thus, emotions are feelings when conscious, and they are not feelings when unconscious. In the end of the paper, I briefly sketch a theory of how emotions and other perceptual states become conscious.*

According to one strand in folk psychology, emotions are feelings; they are phenomenally conscious mental episodes. This little morsel of commonsense is a whipping post in philosophy. From the very first philosophical musings about the emotions to the present day it has been popular to insist that emotions are not feelings. This position is so enshrined that it might be regarded as the Fundamental Axiom of emotion research. Despite widespread disagreement about what emotions are, almost everyone seems to agree about what emotions aren't. The Fundamental Axiom is consistent with the view that emotions are felt. Even philosophers are willing to respect commonsense to some degree. Of course, we feel sad, happy, and furious. But, the Fundamental Axiom says we should not identify emotions with such feelings. On one approach, feelings are merely necessary, but not sufficient components of emotions. On another approach, feelings are contingent components. On a third approach, feelings aren't components at all; they are just ways of detecting emotions. I feel sad is like saying I feel the wind. Neither locution entails that the thing felt is a feeling.

I think the Fundamental Axiom is both right and wrong. It is a mistake to say that all emotions are feelings; emotions can be unconscious. But, when an emotion is felt, the feeling literally is the emotion, and there are no other components. I will defend this view. To do that, I will have to defend a theory of what

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emotions are. I will summarize and extend the evidence for an account that I have defended elsewhere (Prinz, 2004). I will also offer a theory of how emotions become felt. That theory is an instance of a more general theory of phenomenal consciousness called the AIR theory (e.g., Prinz, 2005b).

### **1: Standard Attitudes Towards the Feeling Theory**

In attacking the view that emotions are feelings, philosophers often find themselves in the embarrassing position of attacking a straw man. It's very hard to find any defender of the feeling view in the history of philosophy. Some philosophers have said that emotions contain feelings, but few have said that emotions are feelings. Aristotle says emotions are judgments. Spinoza says emotions are judgments plus feelings of pain or pleasure. Descartes says they are judgments brought on by felt changes in the animal spirits. In the 20<sup>th</sup> century, critics of the feeling theory included Errol Bedford (1957), George Pitcher (1965), Robert Solomon (1976), Patricia Greenspan (1988), and Martha Nussbaum (2001). All of these authors take time to argue that the feeling theory is false, but all of them have difficulty identifying philosophers who take the feeling view seriously. Aristotle seems to have set the standard. Few people since him have had the courage to suppose that emotions are feelings.

There is a common thread running through most philosophical accounts. Philosophers usually presume that emotions are cognitive. A cognitive theory of the emotions is one according to which emotions essentially involve cognitions. Cognitions are usually regarded as propositional attitudes, such as beliefs or judgments, but they can also be mere conceptualizations. According to some cognitive theorists, fear involves the thought that I am in danger, and according to others it merely involves deployment of the concept *danger* without necessarily having a fully formed thought. Some cognitive philosophers, such as Descartes, admit that emotions are not merely cognitions; cognitions are just one component. But this is sufficient reason for rejecting the feeling theory. If emotions have a cognitive component, either an attitude or a concept, then they cannot be merely feelings. Concepts and attitudes are not feelings. There is a raging controversy about whether tokenings of concepts and attitudes can even be conscious, and many emotion theorists assume that emotional cognitions are generally unconscious. But suppose that concepts and feelings can be conscious. It does not follow that these mental episodes are feelings. The term feeling is usually reserved for a special class of nonconceptual mental states. If feelings are nonconceptual, and emotions have essential cognitive components, then emotions are not feelings, though they may have feelings as parts. The Fundamental Axiom is confirmed.

One might think that there is a trivial proof of the claim that emotions are feelings based on conceptual analysis. Concepts are grounded in paradigm cases, and, in ordinary language, emotions are paradigm cases of feelings. We can often use the term 'emotion' and 'feeling' interchangeably. While some languages lack a word for 'emotion,' all languages have a word for 'feeling' (Wierzbicka,

1999). In languages with no word for ‘emotion,’ there are still words for particular emotions, and speakers of such languages call those emotions feelings. The main semantic difference between ‘feeling’ and ‘emotion’ seems to be that the former term is broader. Some feelings are not emotions. We have some purely somatic feelings, for example: queasiness, chilliness, itchiness, and so on. But, in ordinary parlance, all emotions are feelings. Doesn’t this show that the Fundamental Axiom is false?

Defenders of cognitive theories have a reply. They claim that ordinary language is not committed to the view that emotions are feelings, but merely to the view that emotions can be felt. (One might also defend the Fundamental Axiom by insisting that ordinary language is not a good guide to ontology!) When we say, ‘I feel angry’ we don’t mean to imply that anger is a feeling. We mean rather to imply that we have a feeling of the kind that we have when we are angry. ‘I feel X’ does not entail ‘X is a feeling’. This is confirmed by ‘I feel the wind’, mentioned above, or ‘I feel a cold coming on’, or even ‘I feel uncertain about the proof’.

Cognitive theorists can block the ordinary language argument against the Fundamental Axiom, but they do need to explain the fact that we use the term ‘feeling’ so frequently when talking about emotions. Here there are three popular strategies. First, cognitive theorists can admit that emotions have feelings as indispensable components of emotions. Call this the Essential Part View. Spinoza and Greenspan have views like this. An emotion is a judgment plus a feeling of pleasure and pain. Stanley Schachter is associated with a related theory in psychology. For him, an emotion involves a conceptualization plus a general state of arousal. All these authors seem to underestimate the range of emotional feelings that we have. There are emotional feelings other than pleasure, pain, arousal. Disgust and sadness feel different, even though they are both forms of psychological pain. To account for the range of emotional feelings, a cognitive theorist who adopts the Essential Part View should concede that emotions have a range of different feelings as parts.

A second strategy for explaining talk of emotional feelings while maintaining the Fundamental Axiom is to argue that emotions can have feelings as parts, but these parts are optional. Call this the Contingent Part View. The contingent part view makes sense of judgments such as ‘I feel sad’, but they also allow us to say things like ‘I am sad, but I don’t feel sad’. Defenders of the Contingent Part View usually suppose that cognitions are both necessary and sufficient for emotions.

The third strategy for explaining talk of emotional feelings pushes the cognitive view even farther. This is the Non-Part View. On this strategy, feelings aren’t parts of emotions at all. It just so happens that emotions often cause characteristic feelings, and these feelings can be used, with variable reliability, to determine what emotion we are currently having. One might say that feelings are symptoms of emotion. Here, ‘I feel sad’ is like ‘I feel a cold coming on’ or ‘I feel sick’.

I think that defenders of the Non-Part View and Contingent Part View are right to suppose that there can be emotions without feelings. I think emotions can

be unconscious. I don't think they are right, however, to suppose that feelings are merely parts of emotion when emotions are conscious. I think emotions are feelings whenever emotions are felt. To defend these views, I will defend a non-cognitive theory of the emotions. For a more complete defence of that view, see Prinz (2004).

## 2: Emotions As Perceptions of the Body

Within the history of philosophy, there is perhaps only one prominent defender of the view that emotions are feelings. That person is none other than William James. James did not claim that emotions are a *sui generis* class of feelings. Rather, he tried to reduce emotions to a class of feelings that everyone is already committed to: feelings of changes in the body. When emotions occur, our bodies undergo various perturbations. These changes include alterations in our circulatory, respiratory, and musculoskeletal systems. Our hearts race or slow. Our breathing relaxes or becomes strained, blood vessels constrict or dilate, our facial expressions transform, and so on. Most people assume that these changes are the effects of our emotions, but James argues that this is backwards. Our bodies change, and an emotion 'just is' the feeling of that change.

This thesis has recently been resuscitated by Antonio Damasio (1994) and others (Prinz, 2004), but it is not especially popular in philosophical circles. Everyone would agree that many emotions ordinarily co-occur with bodily changes. When frightened, our muscles tense and our hair follicles stand erect. These changes prepare us for coping with dangers. When enraged, our fists clench, our extremities flush, and we lurch forward aggressively, in preparation for combat. But why identify emotions with the feelings of such changes? Why not say instead that such feelings are, at best, component parts of our emotions?

In defence of his view, James (1884) offers the following thought experiment:

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, and the only thing that can possibly be supposed to take its place is some cold-blooded and dispassionate judicial sentence...

Introspection suggests that, when we subtract the perceived bodily concomitants from an emotion, there is no emotion left. This gives us reason to conclude that emotions register bodily changes.

I think James's argument is compelling, but some critics are uncomfortable with arguments that depend on introspection. Therefore, we should look for convergent lines of support. Fortunately, I think the Jamesian theory explains a

number of observations that are more difficult to explain on other accounts. I will focus on three bodies of evidence.

First, there is evidence that emotions co-occur with bodily changes. Every neuroimaging study of emotions shows excitation in areas of the brain associated with bodily response (e.g., Damasio *et al.*, 2000). Cingulate cortex, the insular, and even somatosensory cortex are strongly correlated with emotional states. These structures have been independently associated with interoception (Critchley *et al.* 2004).

Opponents of the Jamesian view sometimes argue that only certain emotions co-occur with bodily changes (Harré, 1986; Solomon, 1976; Griffiths, 1997). They suggest that our more phylogenetically advanced emotions, such as guilt, love, loneliness, and jealousy do not have concomitant bodily states. Weakening his own theory, James (1884: 201) entertained the suggestion that moral and aesthetic emotions are not mediated by the body. All of these alleged counter-examples are tendentious. I think that careful introspection would actually reveal that these emotions have a basis in the body. That hunch is consistent with the empirical evidence. To date, every neuroimaging study of a more advanced emotion has shown activation in exactly the same brain regions that are implicated in our more ancient emotions and, as remarked, these regions have been antecedently associated with the registration and regulation of bodily response. Shin *et al.* (2000) showed cingulate and insula activation during guilt episodes, Bartels & Zeki (2000) found the same structures come on line when subjects were viewing pictures of people they love. Jealousy is known to cause galvanic skin responses (Buss *et al.*, 1992), and loneliness is associated with heightened cortisol levels (Kiecolt-Glaser *et al.*, 1984). Aesthetic response (finding something beautiful rather than neutral) correlated with activity in anterior cingulate and orbitofrontal cortex (Kawabata & Zeki, 2004), and moral judgments engage posterior cingulate and medial frontal cortex (Greene *et al.*, 2001). I am aware of no evidence for an emotion that does not normally co-occur with bodily changes. This is predicted by the Jamesian view, and not by any theory that fails to draw a connection between emotions and the body.

The fact that emotions co-occur with bodily changes does not prove that the Jamesian view is right, however. After all, bodily responses might accompany emotions most of the time without being necessary for emotions. The correlation might be high but contingent. To establish necessity one has to show that disruption of interoceptive responses leads to diminution of emotion. The second body of evidence I will consider supports this necessity thesis. Evidence on this issue is not yet conclusive, but it is suggestive. For one thing, individuals who suffer from spinal injuries, reducing feedback from the body, sometimes report diminished emotional response (Hohmann, 1966). This is a striking finding, but it also controversial. Some researchers have noted that spinal patients generally continue to have rich, and sometimes normal, emotional lives (Chwalisz *et al.*, 1988; Cobos *et al.*, 2004). Clearly spinal cord damage does not eliminate emotions. Still, even these critics found some evidence in support of the Jamesian view. Patients with injuries very high on the cord were more likely to report a loss of

emotional intensity, suggesting that the level of emotional response covaries with the amount or ease of feedback. In any case, spinal injuries may not be the best test case for the Jamesian view, because there is good evidence that the brain has other ways of gaining access to the body. For example, Montoya & Schandry (1994) have shown that spinal patients can perceive their heartbeats, and Menter *et al.* (1997) report that 35% of spinal patients suffer from gastrointestinal pain. Visceral information in spinal patients may be traveling through the vagus nerve. The vagus is implicated in heart rate, gastrointestinal function, perspiration, musculoskeletal response, and other bodily functions. If the vagus is intact in spinal patients, feedback from the body would be sufficient to support embodied emotions. To explore this possibility, Bechara (2004) investigated individuals with pathologies affecting the vagus nerve, and they found evidence for a corresponding emotional impairment. In particular, preliminary findings suggest that such individuals have impaired performance on gambling tasks that require emotionally-based decisions. In other patient populations, poor performance on such tasks has been correlated with a flat skin conductance response, suggesting that failure to engage bodily correlates of emotion leads to failures in emotional decision-making. More anecdotally, there is evidence that damage to cingulate cortex (a centre for interoception) can lead to akinetic mutism, which has been characterized as a profound deficit in emotional response (Damasio & Van Hoesen, 1983).

These findings support the conclusion that registration of bodily change does not only reliably co-occur with emotions; it is actually necessary. At this point, opponents of the registration thesis might offer a partial concession. They might admit that interoceptive states are necessary, while denying that they are sufficient. Defenders of cognitive theories, for example, might argue that emotions require judgments in addition to interoceptive states. Hybrid views of this kind are common in the literature, and the evidence presented so far does nothing to rule them out. To show that emotions are nothing but interoceptive states, the defender of the Jamesian view needs to show that judgments are only contingently associated with emotions. They need to show that interoceptive states are sufficient on their own. Several different findings support this thesis. First, drugs (such as adrenalin) that enervate the autonomic nervous system have emotional effects (Marañón, 1924). Second, false bodily feedback can influence your emotional state and affect-laden judgments (Valins, 1966; Crucian *et al.*, 2000). Valins (1966) showed that subjects were more likely to make a positive emotional assessment of erotic pictures when he told them (falsely) that their hearts were racing (see also Crucian, *et al.*, 2000); he thought this showed that real bodily feedback is not necessary for emotion, but, in fact, it seems to show that we make judgments about our emotional states by perceiving our bodies, even when, as in this case, those perceptions are erroneous. Third, stroke can lead to pathological laughter and crying by creating random activity in laughter and crying nuclei in the upper brainstem; when this occurs, patients report feeling happy or sad (Parvizi *et al.* 2001). Fourth, changing facial expressions and respiration influences self-reported emotions (Laird, 1984; Zajonc *et al.*, 1989; Levenson *et*

*al.*, 1990; Philippot *et al.*, 2002), and this occurs even when subjects are not aware that they are making emotional expressions, which suggests that the process is not mediated by cognitive labeling (Strack *et al.*, 1988). Fifth, seeing another individual express an emotion can cause the corresponding emotion in us (Hatfield *et al.*, 1994). Sixth, nonvocal music can have predictable emotional effects, which seem to work by eliciting patterned bodily responses (Blood & Zatorre, 2001).

Together, these findings suggest that induction of bodily change results in the subjective experience of emotions. It is conceivable that whenever emotions are elicited by direct manipulation of the body, evaluative judgments are also generated, but there is no reason to think that is the case. To presume that subjects in these various conditions are all making evaluative judgments would be *ad hoc*. Moreover, we often find ourselves in cases where our explicit judgments are actually at odds with the judgments alleged by cognitive theorists to underlie emotions. For example, a blood-curdling scream in a horror film can induce fear despite the fact that audiences know they are not in any danger.

I have, so far, presented three bodies of evidence that favour the Jamesian view. None of this evidence counts as conclusive evidence, but they provide a circumstantial case. Emotions co-occur with bodily changes, changes in the body are sufficient to induce emotions, and reduction in bodily response reduces emotional experience, suggesting that bodily registration is necessary for emotion. All these findings are predicted and explained by the Jamesian view, and none are predicted by accounts that do not strongly implicate the body in emotional response. I think this leaves us with very good empirical reasons for supposing that emotions are states of interoceptive systems (for objections and replies, see Prinz, 2004).

### 3. Are Emotions Feelings?

On the Jamesian view that I have been defending, an emotion is an inner state that registers a pattern of change in the body. Emotions are perceptions of bodily change. For James, this is equivalent to saying that emotions are feelings of bodily change. He rejects the Fundamental Axiom when he says that emotions are bodily feelings. But James moves a bit too quickly here. He seems to confound the claim that emotions are perceptions with the claim that emotions are feelings. Perceptions are not necessarily felt. There is such a thing as unconscious perception. The evidence that I have been describing shows that emotions are interoceptive states, but I have not argued that emotions are necessarily felt. Imagine the conscious perception of a bodily change that we call fear. What if that same perception could occur unconsciously? Should we call it unconscious fear? If so, where does this leave the Fundamental Axiom?

The issue of unconscious emotions puts us back into the arena of ordinary language. We do not seem to have a habit of referring to unconscious emotional states. Even Freud didn't think emotions could be unconscious. He thought we were often unconscious of the cause of an emotion, but the emotion itself has to

be conscious. In this respect, emotion talk is like pain talk. In ordinary discourse, we rarely talk about unconscious pains. It sounds funny to say, 'That really hurt, but I didn't feel it' or 'I have a pounding headache, but fortunately it's unconscious.' That has led some people to assume that we have no unconscious pains. The term 'pain,' they say, refers to a conscious feeling. But that conclusion can be resisted. It must be recalled that commonsense does not recognize the existence of unconscious thoughts or perceptions. Unconscious states are, by definition, inaccessible to us. As a result, folk psychology does not automatically recognize their existence. Even very sophisticated philosophers had been reluctant, historically, to admit that unconscious mental states exist. Attitudes changed decisively under the pressure of evidence. Postulating unconscious mental states explains behaviour.

The most obvious demonstration of this is subliminal perception. If a stimulus is displayed briefly, followed by a mask, we have no conscious experience of it. Nevertheless, the stimulus can affect subsequent behaviour. Obviously something is going on unconsciously and, moreover, whatever is going on is the result of the fact that the stimulus was presented to our senses. Stimulus detection through a sense organ is, in essence, what perception is all about. The fact that perception is often conscious is interesting, and important, but it is not essential. What makes perceptual states qualify as perceptual is their etiology: the role of sensory transduction from the world outside the mind. So, even if we began thinking that all mentality is conscious, the case of subliminal perception is easy to digest. It is easy to get comfortable with the idea that something very much like conscious perception occurs without consciousness. When subliminal perception was discovered, we *could have* made a terminological stipulation that it is not a form of perception. We could have reserved the word 'perception' for conscious sensing, and coined a new term for the subliminal case. But we didn't go that route, because we recognized that the similarities between subliminal and conscious perception were so great that it would be useful to categorize both under the same term. The discovery of subliminal perception may have forced us to change the concept of perception by adopting a policy about whether it should be used to encompass unconscious states. Concepts co-evolve with theories in this way. But the conceptual revision was not arbitrary. For example, it is useful for science to group subliminal and superluminal cases of perception together. There is a natural psychological boundary that encompasses both. The term 'unconscious perception' sounded contradictory to many at first, but it now sounds perfectly natural (see Tallis, 2002).

Likewise, I think we should welcome talk of unconscious pains. If there are mental states the function just like pains but lack consciousness, it is useful to group them together with conscious pains. Pain carries information from nociceptors and leads to withdrawal and soothing behaviours. If there are mental episodes that play that role without awareness, we should call them unconscious pains. And the very same goes for emotions. If there are inner states that registered patterned bodily change under conditions that cause conscious emotions in

us, and those inner states lead to characteristic coping behaviors, such as approach and avoidance, we should call those states unconscious emotions.

Do such states exist? Almost certainly. First of all, perceptual systems in general seem to allow unconscious perception. We can have unconscious visual states, unconscious auditory states, unconscious tactile states, and so on. It seems overwhelmingly likely, then, that we can have unconscious perceptions of the patterned bodily changes that constitute our emotions. If emotions are interoceptive states, as I argued in the last section, it seems likely that emotions can be unconscious.

Second, there is anecdotal evidence for unconscious emotions. For example, imagine being woken up by the sound of glass shattering in your living room. You might assume that burglars are breaking in and attend intensely to the sound. At the very same time, your body will undoubtedly enter into a fear pattern, but you might not experience the fear consciously because attention is consumed elsewhere. After waiting to hear if there is any more noise, you hear your cat scurrying about and you realize she must have knocked over a vase. You then notice, and only then, that your heart is racing, and your breathing is strained, and your entire body is tensed in fear. You were afraid, but you didn't realize it. Now you breathe a sigh of relief.

Third, there is some experimental evidence for unconscious emotions. In a representative study, Winkielman *et al.* (2005) subliminally presented subjects with photographs of emotional facial expressions. Subjects saw faces that were either neutral, angry, or happy, but the faces were presented too rapidly to be consciously experienced. Subjects were then given a fruity beverage and asked to pour a glass, and take a sip. They were also asked some questions about the beverage and about their feelings. Subjects who had seen the angry face and the happy face reported being in the same mood and the same level of arousal. On measures of conscious emotional feeling, they were statistically indistinguishable. But, the faces did affect their behaviour. Subjects who had seen the angry face poured less of the beverage, drank less of it, and gave it less positive ratings than subjects who had seen the smiling face. This suggests that an emotion had been induced. Emotions are known to impact behaviour in this way. So this is plausibly a case of unconscious emotions.

In sum, there are good theoretical, anecdotal, and experimental reasons for believing that emotions can be unconscious. This suggests that emotions are not always felt. When emotions are felt, the feeling is the emotion: the emotion is a conscious perception of a patterned change in the body. But emotions can go unfelt: they can be unconscious perceptions of patterned changes in the body.

The Fundamental Axiom in the philosophy of emotions says that emotions are not feelings. There is an important sense in which this Axiom is false. When emotions are felt, those feelings are the emotions. But the Axiom also has a grain of truth. Emotions can be unfelt. So there are some emotions — the unconscious ones — that are not feelings. Only some emotions are feelings. But, I would add, all emotions are feelings potentially. All emotions are perceptions of bodily

states, and those perceptions can be conscious. So, there is no example of an emotion that could not, under the right conditions, be a feeling.

#### 4: Three Objections

I have been defending the thesis that emotions are feelings, when they are consciously felt. This thesis can be challenged in various ways. Here I will briefly consider three objections. Most of these objections derive from cognitive theories of the emotions. Defenders of cognitive theories will resist the Jamesian view upon which my thesis depends.

The first objection is that we can have conscious emotions that are not feelings. I have said that, when emotions are conscious, they are feelings. The implicit argument for this conclusion goes as follows. Emotions are perceptions of bodily states; a conscious perception of a bodily state is a paradigm instance of what we call a 'feeling'; therefore, conscious emotions are feelings. Defenders of cognitive theories like to argue that we can have conscious emotions that do not qualify as feelings in this sense. Solomon (1976), for example, argues that we can have an emotion that lasts for hours across a wide range of fluctuations in our bodily states. We can be angry all afternoon, and that anger can be remain conscious, but, when this occurs, our body does not remain in any fixed state of perturbation. Therefore, we cannot identify the conscious experience of the anger with a conscious experience of a particular bodily pattern.

I have three responses. First of all, this strikes me as an empirical issue. If we are conscious of anger for an entire afternoon, then it is possible that there is a sustained bodily state throughout that temporal interval. Our body may change in many respects over the afternoon, but the pattern of, say, autonomic response may remain fixed. One can huff and scowl four hours on end. Second, it is not essential to the Jamesian view that each emotion be identified with a single bodily pattern. There may be a family of bodily states underlying anger, and we may cycle through these. Third, Solomon would need to show that there can be a conscious experience of anger without any bodily symptoms. He would have to show, for example, that one can be consciously angry in a state where one's body feels completely calm and relaxed. It is not obvious to me that we would call such a state conscious anger. Suppose that Mr. Spock, in a state of total bodily placidity, says: 'I know that you have insulted me.' I don't think we would attribute any anger to Mr. Spock, much less a conscious experience of anger. An unconscious robot could register insults, but that is not a sufficient condition for being angry. A person who claims to be angry without being in a bodily state characteristic of anger might be accused of being confused or dishonest. Try to tell someone you are furious with a calm pleasant voice. It will come across as a joke.

The second objection is that there are not enough bodily feelings to go around. If conscious emotions are conscious feelings of bodily changes, then, for every emotion that can be consciously distinguished, there must be a distinctive bodily feeling. There are an infinite number of bodily feelings, because the body is a continuous system, but there is not a distinctive bodily feeling for every emotion.

Consider guilt. Arguably, there is no set of bodily responses that distinguish guilt from other emotions. We feel pangs of guilt. When we reflect on a subject of guilt, a lump forms in our throats, and our heads hang low. All of these bodily symptoms are shared with other emotions. Most obviously, they are shared with sadness. I think the phenomenology of guilt is often just like the phenomenology of sadness. In some cases, guilt may also share its phenomenology with anxiety, or other more basic emotions. The point is that certain emotions have similar or identical phenomenology. There are many other plausible examples: indignation feels like anger, disappointment feels like sadness, awe has an element of surprise, contempt has an element of disgust, pride feels like a kind of joy, exhilaration feels like a blend of fear and joy, and jealousy feels like a blend of anger, disgust, and fear. I use the case of guilt and sadness to illustrate, but if you don't buy the intuition that these two emotions are phenomenologically alike, then pick another case. Even a single example of phenomenological overlap would seem to raise a problem for the Jamesian. If emotions are feelings, how can two distinct emotions feel alike?

I think this objection actually contains an important insight. I readily concede that there is a distinctive bodily response corresponding to every emotion. Some emotions have the same bodily realization, and therefore feel alike. I think guilt and sadness are a case of this. If so, how can they be distinguished? The answer has to do with their causal history. Sadness is a bodily state caused by a loss. Guilt is a bodily state caused by transgressing a norm. The body state may be the same, but they are occasioned by different eliciting conditions. Alternatively, one might even see guilt as a special case of sadness. When a person violates a norm, she threatens her relationships with other people; she risks being condemned by members of her community. That would be a great loss. So there is a sense in which guilt is a response to loss. As such, it is like typical cases of sadness. We might describe guilt as an emotion of transgression-loss, i.e., the loss potentially incurred by violating a norm. I am not suggesting that guilt includes a cognitive component. Guilt is not a somatic feeling of sadness *plus* a belief that the feeling is caused by a transgression. Rather, I am suggesting that guilt is a case of sadness that happens to be caused by acts of transgression, whether or not one realized the transgression is the cause. The belief that 'I have transgressed' is not a component of the emotion; it is a cause. Gordon (1988) draws a helpful analogy to sunburns and wind burns: these are physiologically alike, but we distinguish them by their causes. Guilt does not contain any judgment or perception about transgression any more than a sunburn contains the sun.

In sum, I think that guilt and sadness have different causes, but they register the same bodily states, and they share the same phenomenology. If the conscious experience of an emotion is exhausted by bodily feelings, then emotions that are somatically alike must be phenomenally alike. When we recognize that a particular feeling is guilt rather than sadness, it is not in virtue of any phenomenal difference. Rather, it is in virtue of recalling the eliciting condition. If I feel a lump in my throat after learning that my pet weasel died, I assume that the feeling is the result of that loss, and I realize that it is sadness. If I feel a lump in my throat after

cheating on my wife, I assume that feeling is the result of bringing harmed to a loved-one, and I realize that the feeling is guilt. In some cases, we don't know where our feelings come from. I might have these chronic throat lumps and seek therapy. After asking me some very personal questions about my life, my therapist might conclude that the lump is a feeling of sadness or that it is a feeling of guilt. Of course, after an emotion has been identified, we may become consciously aware of the appropriate emotion label, and we may have conscious awareness of the eliciting event, but neither of these things is part of the emotion. We can have emotions without labels without any awareness of what they are called or what called them. We should not mistake an emotion for its causes and effects. The cause of an emotion determines the identity of the emotion, but those causes do not constitute the emotion, and neither do they constitute the conscious experience of the emotion. Emotions are feelings, but, like sunburns, they are individuated by their causes.

The third objection that cognitive theorists might be tempted to level against the view that I have been defending is that emotions can have intentional objects. They can be directed at things. For example, I can be angry at the government, or I can be angry that the train isn't running. Cognitive theorists like to point out that feelings cannot have intentional objects (e.g., Pitcher, 1965). Pangs, twinges, or tickles are not about anything. It doesn't make sense, in English, to say that I am panged about the government. Therefore, emotions cannot be feelings.

To reply, let me draw a distinction between an emotion, on the one hand, and an emotional attitude, on the other. I will define an emotional attitude as a propositional attitude that established a causal link between an emotion and the representation of an object or a state of affairs. In the mind, there are many causal links between representations of objects or states of affairs and mental episodes that, under many other circumstances, lack intentional objects. Consider tiredness. Being tired usually lacks an intentional object, but it can have an intentional object. I can be tired of the novel I am reading, for example. When not used metaphorically, that means there is a causal relationship between reading the novel and states of tiredness in me; the novel literally puts me to sleep. Likewise, I can be sickened by the state of the world; reading the news makes me feel ill. I can also be dazzled by the beauty of a flower; it literally takes my breath away. Things are exactly the same with the emotions. There can be causal links between emotions and mental representations of objects or states of affairs, and when certain causal links are in place, we say that the emotion has the content of those representations as its intentional object. If the right causal tie exists between thinking about the government and a feeling of anger, we say, I am angry at the government. If the right causal connections bind a feeling of anger to the news that the trains aren't running, we say I am angry that the trains aren't running. This is not merely a *façon de parler*. Like feelings of fatigue, illness, or bedazzlement, emotions can acquire intentional objects by being causally linked to mental representations. That doesn't mean emotions are anything other than bodily feelings. It's just a feature of human psychology that, *pace* Pitcher,

feelings can have intentional objects. Emotions do not have particular objects intrinsically; they are not propositional attitudes. But we do have a class of attitudes — what I called emotion attitudes — that are constituted by causal links between emotions and mental representations of things.

Obviously, defenders of cognitive theories will not be fully satisfied. The debate between them and the Jamesians is old and enduring. But the burden is now on their side. I have presented a body of evidence in favour of the Jamesian view, and I argued that the evidence supports a qualified version of the feeling theory: emotions are feelings when they are conscious. I have defended this qualified feeling theory against the most obvious objections that the cognitive theorist might devise. If they are dissatisfied, the ball is in their court.

I could rest my case here, but I want to embellish the story a bit. It is one thing to argue that conscious emotions are feelings and quite another to explain how these conscious feelings arise. I have not given any explanation of how our bodily perceptions become conscious. Before closing, I want to sketch a theory of consciousness and describe how it applies to the emotions.

### **5: A Theory of Emotional Consciousness**

Emotions have a bodily phenomenology. When we are afraid, we feel our hearts racing, our muscles tensing, our hairs standing on end, and our breath becoming more strained. Indeed, it was the bodily character of emotional experience that led William James to propose his bodily theory of the emotions in the first place. Any account of emotional consciousness should be an account of how we come to have conscious experiences of bodily changes. On this view emotions are perceptions of the body, and conscious emotions are conscious perceptions. I think that all forms of perception become conscious in exactly the same way. There is a unified theory of perceptual consciousness. I think this theory applies equally to vision, audition, olfaction, and emotion. I have made this case more fully elsewhere (Prinz, 2000; 2005a,b); here I offer only a sketch.

To keep things simple, I will restrict my comparison to vision and emotion. There are two components to a theory of phenomenal consciousness. First, there must be a theory of phenomenal qualities — the qualitative character of experience. Second, there must be a theory of how those qualities become conscious. In the case of vision, I am persuaded that the best available story goes like this. The first part was originally defended by Ray Jackendoff (1987). Vision is organized hierarchically. Low-level vision registers local edges and colour patches; each edge is represented discretely rather than being integrated into a unified whole. Intermediate-level vision binds these bits together into coherent contours, and represents whole objects from a particular vantage point. High-level vision abstracts away features of the visual signal that are not useful to recognition; it extracts invariants and represents objects in a way that is not specific to any point of view. Jackendoff's insight was that the intermediate level corresponds best to what conscious visual experiences are like. He suggested that consciousness is located there on the hierarchy. Visual qualities register objects as coherent

wholes from a point of view. But mere intermediate-level activity is not sufficient for consciousness. We can see things unconsciously. So Jackendoff's theory is incomplete on its own; he needs an account of how intermediate-level visual states become conscious. I think the missing ingredient is attention. We become visually conscious when intermediate-level visual representations are modulated by attention. There is extensive evidence that withdrawal of attention leads to the elimination of consciousness (Bisiach, 1992; Mack & Rock, 1998). Attention works by allowing information to flow forward from perception centres to working memory centres. So consciousness arises when intermediate-level representations become available to working memory through working memory modulation. I call this the AIR theory for 'attended intermediate-level representations.'

The AIR theory works for vision and, I have elsewhere argued, it can also be applied to perception in the other senses. Since emotions are episodes in our interoceptive sensory system, the AIR theory can plausibly be applied to emotion as well. Here, the story is entirely speculative. I propose that the systems responsible for registering bodily change are organized hierarchically, just like vision. Low-level interoceptive systems register local changes in the body. We have nerve receptors distributed throughout our organs, for example, and low-level interoceptive systems register local changes in these receptors. These low-level systems are presumably limited in several respects. They may not integrate a group of spatially contiguous receptors into a representation of an entire organ. They may not integrate a sequence of temporally contiguous receptor responses into the rhythm of the heart or the pace of breathing. These local systems, we can presume, also lack another kind of integration: they register specific changes in the circulatory, respiratory, digestive, musculoskeletal, and other bodily systems without registering how these go together. Intermediate-level interoception provides integration. Adjacent receptors give rise to a representation of the heart as an entire organ, and consecutive heartbeats become a rhythm. More importantly, the intermediate-level that I am postulating registers patterns of bodily response; it registers the coincident behaviour of heart, intestines, and diaphragm. High-level interoception abstracts away from very specific patterns of bodily change and registers patterns of patterns. It tells us that two slightly distinct body patterns can be co-classified. This is the level of emotion recognition. Different bodily patterns are treated as alike. High-level vision abstracts across viewpoint specific visual images and co-classifies a thousand perspectives on a particular object so that we can recognize that object across viewing perspectives. High-level body perception abstracts away from the details of a specific bodily response (e.g., the number of heartbeats per minute), and allows us to recognize that two different patterns both qualify as states of anger, sadness, or joy. In some cases, the high-level that I am postulating co-classifies bodily patterns that are quite different. Two different episodes of fear can have somewhat different bodily concomitants. Sometimes we flee in fear, and sometimes we freeze, but we recognize both responses as the same emotion. The postulated high-level treats both of these bodily states as instances of fear.

Intuitively, the level of emotional consciousness lies in the middle. Consider an episode of fear. The low-level is too local. Fear doesn't feel like a disconnected assortment of bodily symptoms. The bodily components are bound together into a distinctive pattern. It is difficult to focus on them in isolation, just as it is difficult to see a local edge in a contour when looking at an object. The high-level is too abstract. The phenomenal character of a freezing episode is qualitatively different from the phenomenal character of a fleeing episode. These differences are captured at the intermediate level.

Conscious experiences of emotion also require attention. Ordinarily emotions grab our attention and are consequently conscious. But, consider a case in which attention is distracted away from our emotional state. As it happens, we have already seen a case just like this. Recall the burglar. You are in bed, and you hear a window breaking in another room. Your attention is completely consumed by trying to hear if there is a burglar in the house. As a result you don't notice the fact that your heart is racing a mile a minute. You are having an intense emotion, but you don't feel it because attention is focused on listening for an intruder. This case is anecdotal of course, but it supports the hypothesis that experience of emotions depends on attention. If such cases hold up to empirical scrutiny, the AIR theory will have been confirmed for emotion.

If emotions become conscious in just the same way that visual episodes become conscious, then we have a further reason for thinking that emotion is a form of perception. Paradigm cases of perception can be consciously experienced, and, if the AIR theory is right, they come to consciousness in the same way. The thesis that emotions can be feelings does not depend in any way on this theory of consciousness, but the two fit together nicely. When an emotion is consciously felt, the feeling is not separate from the emotion. The feeling is the emotion modulated by attention.

## 6. Conclusions

I have argued for a qualified version of the thesis that emotions are feelings. Emotions are perceptions of bodily changes, and when those perceptions are conscious, emotions are feelings. Unconscious emotions are also possible, so not all emotions are feelings. Some emotions aren't felt. If some emotions are feelings, then the Fundamental Axiom endorsed by most philosophers who have thought about the emotions is false. Most philosophers endorse cognitive theories of the emotions, and they resist the idea that emotions are feelings. They think that, at best, emotions have feelings as parts. I considered some objections that cognitive theorists might level against the feeling thesis, and I argued that the objections can be answered. Finally, I sketched a general theory of perceptual consciousness and I indicated how it might apply to emotions. If I am right, emotions become conscious in just the way other perceptual states become conscious. Emotions are unconscious when we do not attend to the changes in our bodies. Otherwise, emotions are consciously felt.

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