



Breath by Pippa Skotnes

WEEK 3 CONSCIOUSNESS
STEP 3.4 WHAT IS EMOTION?

WHAT IS EMOTION?

What is Emotion? There are two aspects to the question of emotion: what is it?; and how many kinds of emotion are there? Let's start with what it is.

Emotion is actually a sensory modality, akin to vision, hearing, smell and so on. It is surprising how few people recognise this. If you could subtract all the classical sensory modalities from consciousness, there would still be something left – this something is emotion. The most fundamental difference between emotion and the other sensory modalities is that they register states of the external world – of objects – whereas emotions register the state of the internal world – the subject. Your emotions register the state of you. Emotions may be triggered by external events, but they do not register the events themselves, they register your reaction to them. That is why the same event may be exhilarating to one person and terrifying to another.

But emotions are not only felt, they are also expressed. This (motor) aspect of emotion is what enables us to recognise the emotional states of others, and to empathise with them. But not all the motor aspects of emotion are expressed outwardly. Some of them, such as vasomotor changes, are directed to the interior of the body. These changes too can sometimes be perceived externally (e.g., blushing) and sometimes internally (e.g., racing heartbeat) -- but it is important not to confuse these somatic concomitants with the affective feelings themselves. Anxiety, for example, is first and foremost a trepidatious state of the mind. Conflation of this subjective keynote of emotion with the bodily symptoms that are associated with it misled whole generations of psychologists.

Before we consider how many kinds of emotion there are, let's briefly reflect on what emotions are for. What is the biological function of emotion?

At its most elementary level, the biological function of emotion is identical with that of consciousness itself. In fact, the dominant view among neurobiologists today is that consciousness evolved only so that we could feel emotions. At this elementary level, emotion is registered on a rudimentary scale of feelings -- from pleasurable to unpleasurable. Things that feel pleasurable, by and large, are biologically good for you, and vice-versa. (Biologically 'good for you' means they enhance your chances of surviving

WHAT IS A MIND?

and reproducing.) Furthermore, the more pleasurable something feels, the more you want to do it. And this is what emotional feeling -- consciousness -- is ultimately for: it motivates you to do things that are biologically good for you and to avoid things that are biologically bad. That is why it evolved.

But the world is more complex than just 'good' versus 'bad', and it requires more subtle responses than just 'approach' or 'withdraw'. For this reason more complex and subtle forms of emotion evolved. This brings us to the question of classification.

Affective neuroscientists distinguish three broad classes of emotion: (1) sensory affects, closely tied to motor reflexes like surprise or disgust; (2) homeostatic affects, closely tied to the bodily economy, like hunger or the urge to pee; and (3) emotions proper, which are situated between the sensory-motor periphery and the bodily economy, within the mind itself. In fact there is good reason to think of the emotions proper as the evolutionary foundations of the mind. For this reason affective neuroscientists tend to focus on the primary 'natural kinds' of emotion, as opposed to the secondary affective/cognitive compounds that play so large a role in human mental life. Social emotions like guilt and shame, for example, are considered to be such hybrids -- they are not basic emotions.

There appears to be seven blue-ribbon basic emotions, and they are all over 200 million years old, because we humans share them with all the other mammals -- and in fact some are even older, such as PANIC, which we share with birds. (Affective neuroscientists capitalise the names of basic emotion systems to differentiate the systems from the feelings themselves.) When I say we share them, I am referring not only to the behaviours and feelings but also to the underlying brain anatomy and chemistries associated with them.

The defining feature of the basic emotions is that they are inborn responses to situations of universal biological significance. They are, in a sense, inherited memories of how to respond in such situations, crucial for survival and reproductive success. Those of our ancestors who did not possess the genetic sequences that pre-programme these responses therefore tended not to survive and reproduce -- which is why we do not resemble them.

Take FEAR, for example, one of the seven basic emotions. If we had to learn what happens when we walk off cliffs, that would be the only thing that we ever learnt. Instead we are born with an instinctual aversion to heights, and several other such things (which reappear in most of the well-known phobias, which are over-sensitivities of this system). Rats, for this reason, freeze when exposed to a single cat hair, even on the first day of life. The FEAR system, though, like all basic emotion systems, is also open to learning. That is how things that evolution had no knowledge of, like electric sockets, come to be associated with fear.

The other six basic emotions are ANGER, PANIC, SEEKING, LUST, CARE and PLAY. (There are significant sex differences between some of these. ANGER, for example, is pre-potent in males, CARE in females.) I have space to discuss only two of them.

PANIC is the name given to the emotional system that makes us form attachments. The mother-infant bond is the prime example. It is opioid mediated and therefore highly addictive. (Love is surely the primal addiction.) When young mammals are separated from their caregiver they display separation distress, they cry, feel panicky and look for her. This is the 'protest' phase of the separation response. Then they give up. This is the 'despair' phase. If reunion follows, opioid levels rise and they feel better;

WHAT IS A MIND?

if it does not, then they have to engage in the long, painful process called mourning. The same applies to us all.

PLAY is the name given to the emotion system that makes juvenile mammals indulge in rough and tumble turn-taking. As they mature, their games become more imaginative and more competitive. This seems to have everything to do with finding social limits and establishing social roles, including – like it or not – the pecking order. Once the limit is overstepped the game is not fun anymore, then it is no longer play. This defines the rules, and establishes social hierarchies. This too applies to us all.

These ancient systems of value, encoded in our very genes, provide the keys to many great mysteries about the human condition, including the whole field of psychiatry. We will therefore have many occasions to return to it.



Mark Solms 2015

Unless otherwise stated, this material is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/). This means you are free to copy, distribute, display, adapt and perform the work as long as you: attribute the authors of the work and do not use the work for commercial purposes.